



Shelton City Council
Meeting Agenda
November 21, 2023 at 6:00 p.m.
Civic Center & Virtual Platform

A. Call to Order

- Pledge of Allegiance
- Roll Call
- Late Changes to the Agenda

B. Council Reports

C. Consent Agenda (Action)

1. Vouchers numbered 109434 through 109465 and EFT payment numbers 8 through 15 in the total amount of \$157,833.45
2. Vouchers numbered 109484 through 109523 and EFT payment numbers 16 through 28 in the total amount of \$119,004.46
3. Minutes:
 - Business Meeting of October 17, 2023
 - Study Session of October 24, 2023

D. Presentations

1. Swearing-in of Police Chief Kostad & Police Captain Patton
2. School House Rocks LTAC Report - Presented by Leanne Gunter
3. Christmastown Marketing & Events LTAC Report – Presented by Rachel Hansen
4. Overlook Park Mural Installation LTAC Report - Presented by Rachel Hansen
5. September Financial Status Report - Presented by Finance Director Mike Githens

E. Business Agenda (Study/No Action/Public Comment Taken)

1. Public Defense Contract – Presented by City Manager Mark Ziegler
2. Resolution No. 1300-1123 2024 Legislative Agenda – Presented by City Manager Mark Ziegler

F. Action Agenda (Action/Public Comment Taken)

1. Resolution No. 1294-0923 Master Fee Schedule Update – Presented by Finance Director Mike Githens
2. Ordinance No. 2016-1023 Amending SMC Related to B & O Taxes – Presented by Finance Director Mike Githens
3. Public Hearing Ordinance No. 2013-0923 2024 Budget – Presented by Finance Director Mike Githens
4. Public Hearing Ordinance No. 2014-0923 2024 Regular & EMS Ad Valorem Taxes – Presented by Finance Director Mike Githens
5. Resolution No. 1295-1023 Well #1 Pipeline Pressurization Contract Award – Presented by Capital Projects Manager Aaron Nix
6. Resolution No. 1298-1023 SCADA Services Contract Amendment – Presented by Sewer & Stormwater Superintendent Brent Armstrong
7. Resolution No. 1299-1023 2023 Mason County Multi-jurisdictional Multi-hazard Mitigation Plan – Presented by Community & Economic Development Director Jae Hill
8. Designated Crisis Responder Contract – Presented by City Manager Mark Ziegler

G. Administration Reports

1. City Manager Report

H. General Public Comment (3-minute time limit)

*The City Council invites members of the public to provide comment on any topic at this time. To make comments in person, please sign in on the public comment sheet and keep an instruction card. If you would like to comment on a Business or Action item, please list the agenda item number on the list. To comment virtually using Zoom, please use the "Raise Hand" feature to alert the City Clerk. If you have joined Zoom on your telephone, dial *9 to use the "Raise Hand" feature. City Councilmembers and City Staff will not enter into a dialogue during public comment. If the Council feels an issue requires follow up, Staff will be directed to respond at an appropriate time.*

I. New Items for Discussion

J. Announcement of Next Meeting – December 5, 2023 at 6:00 p.m.

K. Adjourn

Special Note for Virtual Public Participation

The meeting can be viewed at: <https://www.youtube.com/user/cityofshelton>

The public can provide comments virtually by:

Email: donna.nault@sheltonwa.gov (before 5:00pm the day of the meeting)

Telephone: (360) 432-5103 (before 5:00pm the day of the meeting)

Join the Zoom meeting by clicking on the link posted on the City Council's webpage

Your comments will be relayed directly to the Council.



2023/24 Looking Ahead

(Items and dates are subject to change)

Tues. 11/28 6:00 p.m.	Study Session	Study Agenda •	Packet Items Due: 11/22 @ noon
Tues. 12/5 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentation • Business Agenda • Ordinance No. 2015-1023 2023 Budget Supplemental • Stormwater Capacity Grant Acceptance • Public Hearing Ordinance No. 2017-1123 Amending SMC related to Stormwater Utility • City Prosecutor Contract • Office of Public Defense Grant Acceptance • Resolution No. 1301-1123 Construction Management Services for Well #1 Project (Amendment 4) Action Agenda • Public Defense Contract • Resolution No. 1300-1123 2024 Legislative Agenda Administration Report •	Packet Items Due: 11/22 @ 5:00 p.m.
Tues. 12/12 6:00 p.m.	Study Session	Study Agenda • Property Maintenance Code • Height Limit Discussion	Packet Items Due: 12/8 @ noon
Tues. 12/19 5:45 p.m.	SMPD Meeting	Consent Agenda • Vouchers/Meeting Minutes Business Agenda • Action Agenda • Administration Report •	Packet Items Due: 12/8 @ 5:00 p.m.
Tues. 12/19 6:00 p.m.	Regular Meeting	Consent Agenda • Vouchers/Payroll Warrants/Meeting Minutes Presentation • October Financial Status Report Business Agenda • Natalie Heights Development Agreement	Packet Items Due: 12/8 @ 5:00 p.m.

		<ul style="list-style-type: none"> Resolution No. 1296-1023 Safe Routes to School Contract Award Advanced Meter Infrastructure (AMI) Meter Installation Project (Overview) <p>Action Agenda</p> <ul style="list-style-type: none"> Ordinance No. 2015-1023 2023 Budget Supplemental Stormwater Capacity Grant Acceptance Ordinance No. 2017-1123 Amending SMC related to Stormwater Utility Resolution No. 1301-1123 Construction Management Services for Well #1 Project (Amendment 4) City Prosecutor Contract Office of Public Defense Grant Acceptance <p>Executive Session</p> <ul style="list-style-type: none"> Review Performance of a Public Employee Administration Report 	
Tues. 12/26 6:00 p.m.	Study Session	Study Agenda	Packet Items Due: 12/22 @ noon
Tues. 1/2/24 6:00 p.m.	Regular Meeting	<p>Consent Agenda</p> <ul style="list-style-type: none"> Vouchers/Payroll Warrants/Meeting Minutes Presentation <p>Business Agenda</p> <ul style="list-style-type: none"> <p>Action Agenda</p> <ul style="list-style-type: none"> Resolution No. 1296-1023 Safe Routes to School Contract Award <p>Administration Report</p> <ul style="list-style-type: none"> 	Packet Items Due: 12/22 @ 5:00 p.m.
Tues. 1/9/24	Study Session	Study Agenda	Packet Items Due: 1/5/24 @ noon

Other – TBD

- Public Hearing Ordinance No. 1990-0522 Amending SMC 17.12
- Project and Funding Authorization for Wallace/Shelton Springs Intersection Improvements
- Property Maintenance Code

VOUCHER APPROVAL

I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered, or the labor performed as described herein vouchers number 109434 through number 109465 and EFT payment numbers 8 through 15 in the total amount of \$157,833.45 that the claims are just, due and unpaid obligations against the City of Shelton, and that I am authorized to authenticate and certify said claims.

Signed this 3rd of November, 2023.


Finance Director

We, the undersigned members of the City Council of Shelton, Washington, do hereby certify that the vouchers contained herein are approved for payment.

Signed this _____ of _____, 2023.

Mayor Eric Onisko

Deputy Mayor Joe Schmit

Councilmember James Boad

Councilmember Miguel Gutierrez

Councilmember Kathy McDowell

Councilmember Deidre Peterson

Councilmember Sharon Schirman



Shelton, WA

Check Register

Packet: APPKT02913 - NOVEMBER 3, 2023 AP PAYMENTS

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: APBNK-Main-APBNK-Main						
005900	CAPITAL BUSINESS MACHINES	11/03/2023	EFT	0.00	167.85	8
008450	COMMUNITY ACTION COUNCIL	11/03/2023	EFT	0.00	10.00	9
023078	FASTENAL COMPANY	11/03/2023	EFT	0.00	157.36	10
VEN02276	JAMES N DOCTER	11/03/2023	EFT	0.00	131.01	11
VEN01230	L.N. CURTIS & SONS	11/03/2023	EFT	0.00	1,563.46	12
132235	MOUNTAIN MIST WATER	11/03/2023	EFT	0.00	72.83	13
151000	P. U. D. # 3	11/03/2023	EFT	0.00	13,427.91	14
201520	TRAFFIC SAFETY SUPPLY CO.	11/03/2023	EFT	0.00	75.21	15
903627	ADMINISTRATIVE OFFICE OF THE CC	11/03/2023	Regular	0.00	17,882.46	109434
002520	ARAMARK	11/03/2023	Regular	0.00	278.53	109435
VEN02103	ASHLEY ALCANTARA	11/03/2023	Regular	0.00	300.00	109436
VEN02340	BLT SHELTON PONY, LLC	11/03/2023	Regular	0.00	1,110.04	109437
098000	BUILDERS FIRSTSOURCE	11/03/2023	Regular	0.00	127.20	109438
VEN01281	CITY OF SHELTON - UTILITY BILLS/PE	11/03/2023	Regular	0.00	215.64	109439
VEN02290	CLARY LONGVIEW LLC	11/03/2023	Regular	0.00	81,574.64	109440
VEN01309	CORINA WOOD	11/03/2023	Regular	0.00	93.02	109441
009351	DELAGE LANDEN FINANCIAL SVCS	11/03/2023	Regular	0.00	170.23	109442
VEN01092	EMPOWER RETIREMENT	11/03/2023	Regular	0.00	1,474.80	109443
044700	GUARDIAN SECURITY SYSTEM	11/03/2023	Regular	0.00	62.24	109444
045000	H.D. FOWLER COMPANY	11/03/2023	Regular	0.00	2,856.81	109445
053992	HOOD CANAL COMMUNICATIONS	11/03/2023	Regular	0.00	5,527.57	109446
079581	KCDA PURCHASING COOPERATIVE	11/03/2023	Regular	0.00	564.62	109447
114489	MATT DEEMER	11/03/2023	Regular	0.00	150.00	109448
142952	NORTH CENTRAL LABORATORIES	11/03/2023	Regular	0.00	815.30	109449
158295	PLATT	11/03/2023	Regular	0.00	1,960.28	109450
VEN02051	POINT EMBLEMS, LLC	11/03/2023	Regular	0.00	264.36	109451
159300	POLYDYNE, INC.	11/03/2023	Regular	0.00	12,711.87	109452
163450	PURCHASE POWER	11/03/2023	Regular	0.00	1,421.09	109453
VEN02470	SIMPLY CONTROLS	11/03/2023	Regular	0.00	1,088.00	109454
VEN01624	STEPHEN GREER	11/03/2023	Regular	0.00	93.02	109455
196341	STEVEN R. BUZZARD	11/03/2023	Regular	0.00	75.00	109456
VEN02484	TARA LEIGH MILLER	11/03/2023	Regular	0.00	5,100.00	109457
VEN02199	TERMINIX PROCESSING CENTER	11/03/2023	Regular	0.00	1,319.72	109458
201300	TOZIER BROS INC.	11/03/2023	Regular	0.00	223.20	109459
145325	VALVOLINE LLC	11/03/2023	Regular	0.00	151.62	109460
202392	VERIZON WIRELESS	11/03/2023	Regular	0.00	3,349.86	109461
202900	WASH. ASSOC. OF SHERIFFS & POLI	11/03/2023	Regular	0.00	75.00	109462
203780	WATER MGMNT LABORATORIES INC	11/03/2023	Regular	0.00	927.00	109463
053987	WESTBAY NAPA AUTO PARTS	11/03/2023	Regular	0.00	245.13	109464
VEN02139	ZEPELIN SHIPPING & TECHNOLOGY	11/03/2023	Regular	0.00	19.57	109465

Bank Code APBNK-Main Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	72	32	0.00	142,227.82
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	19	8	0.00	15,605.63
Virtual Payments	0	0	0.00	0.00
	91	40	0.00	157,833.45



Shelton, WA

Check Register

Packet: APPKT02913 - NOVEMBER 3, 2023 AP PAYMENTS

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: APBNK-Main-APBNK-Main						
005900	CAPITAL BUSINESS MACHINES	11/03/2023	EFT	0.00	167.85	8
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>INV175579</u>	Invoice	10/09/2023	CONTRACT#CN2621-01	0.00	129.35	
<u>001-118-000-52122-4500</u>		Operating Rentals		CONTRACT#CN2621-01	129.35	
<u>INV175580</u>	Invoice	10/09/2023	CONTRACT#CN2736-01	0.00	38.50	
<u>001-118-000-52122-4500</u>		Operating Rentals		CONTRACT#CN2736-01	38.50	
008450	COMMUNITY ACTION COUNCIL	11/03/2023	EFT	0.00	10.00	9
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>231031</u>	Invoice	10/31/2023	OCT 2023 APPLICATION	0.00	10.00	
<u>001-111-000-51421-4100</u>		Professional Services/Adv		OCT 2023 APPLICATION	10.00	
023078	FASTENAL COMPANY	11/03/2023	EFT	0.00	157.36	10
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>WATUM218564</u>	Invoice	10/26/2023	CUST#WATUM1962 MISC SUPPLIES	0.00	157.36	
<u>402-400-000-53580-3100</u>		Office and Operating		CUST#WATUM1962 MISC	157.36	
VEN02276	JAMES N DOCTER	11/03/2023	EFT	0.00	131.01	11
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>WACDPCONF202</u>	Invoice	10/30/2023	WACDPCONF2023	0.00	131.01	
<u>001-112-000-51251-4307</u>		Travel-Training		WACDPCONF2023	131.01	
VEN01230	L.N. CURTIS & SONS	11/03/2023	EFT	0.00	1,563.46	12
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>INV752831</u>	Invoice	10/05/2023	SGT CALVIN MORAN ARMOR	0.00	1,563.46	
<u>001-118-000-52122-3102</u>		Uniforms-Vests/Grants		SGT CALVIN MORAN ARM	1,563.46	
132235	MOUNTAIN MIST WATER	11/03/2023	EFT	0.00	72.83	13
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>005648002</u>	Invoice	10/16/2023	ACCT#088436 POLICE DEPT	0.00	34.15	
<u>001-118-000-52122-3100</u>		Office and Operating		ACCT#088436 POLICE DEP	34.15	
<u>005670830</u>	Invoice	10/30/2023	ACCT#088436 PW SHOP	0.00	38.68	
<u>401-000-000-53480-3100</u>		Office and Operating		ACCT#088436 PW SHOP	38.68	
151000	P. U. D. # 3	11/03/2023	EFT	0.00	13,427.91	14
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>101002OCT23</u>	Invoice	10/23/2023	101002OCT23	0.00	91.49	
<u>101-000-000-54264-4700</u>		Utility Services		101002OCT23	91.49	
<u>101097001OCT2</u>	Invoice	10/18/2023	101097001OCT23	0.00	87.69	
<u>101-000-000-54264-4700</u>		Utility Services		101097001OCT23	87.69	
<u>101149001OCT2</u>	Invoice	10/23/2023	101149001OCT23	0.00	86.14	
<u>401-000-000-53480-4700</u>		Utility Services-Water		101149001OCT23	86.14	
<u>101155001OCT2</u>	Invoice	10/18/2023	101155001OCT23	0.00	5,665.89	
<u>401-000-000-53480-4700</u>		Utility Services-Water		101155001OCT23	5,665.89	
<u>109397001OCT2</u>	Invoice	10/18/2023	109397001OCT23	0.00	88.37	

Check Register

Packet: APPKT02913-NOVEMBER 3, 2023 AP PAYMENTS

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
<u>101-000-000-54264-4700</u>	Utility Services		109397001OCT23		88.37	
<u>109413001OCT2</u> Invoice	10/18/2023	109413001OCT23		0.00	63.47	
<u>101-000-000-54264-4700</u>	Utility Services		109413001OCT23		63.47	
<u>252689001OCT2</u> Invoice	10/23/2023	252689001OCT23		0.00	4,901.96	
<u>402-640-000-53580-4700</u>	Utility Services-Sewer Sat		252689001OCT23		4,901.96	
<u>25911001OCT23</u> Invoice	10/18/2023	25911001OCT23		0.00	2,272.76	
<u>401-000-000-53480-4700</u>	Utility Services-Water		25911001OCT23		2,272.76	
<u>25913001OCT23</u> Invoice	10/18/2023	25913001OCT23		0.00	86.62	
<u>401-000-000-53480-4700</u>	Utility Services-Water		25913001OCT23		86.62	
<u>26197001OCT23</u> Invoice	10/18/2023	26197001OCT23		0.00	83.52	
<u>101-000-000-54264-4700</u>	Utility Services		26197001OCT23		83.52	
201520	TRAFFIC SAFETY SUPPLY CO.	11/03/2023	EFT	0.00	75.21	15
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>INV064552</u> Invoice		10/25/2023	CUST#C000981 STREET NAME SIGN	0.00	75.21	
<u>101-000-000-54264-3100</u>	Office and Operating		CUST#C000981 STREET NA		75.21	
903627	ADMINISTRATIVE OFFICE OF THE CC	11/03/2023	Regular	0.00	17,882.46	109434
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>ITCGRANTUNUSE</u> Invoice		10/30/2023	ITCGRANTUNUSEDFUNDS23	0.00	17,882.46	
<u>001-112-000-58500-0000</u>	AOC Grant Return of Uns		ITCGRANTUNUSEDFUNDS2		17,882.46	
002520	ARAMARK	11/03/2023	Regular	0.00	278.53	109435
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>5120338548</u> Invoice		10/18/2023	ACCT#792105972 COVERALLS,MATS,TOW	0.00	70.94	
<u>401-000-000-53480-4901</u>	Miscellaneous - Shop		ACCT#792105972 COVERA		70.94	
<u>5120338550</u> Invoice		10/18/2023	ACCT#792105973 COVERALLS,MATS,TOW	0.00	65.71	
<u>402-400-000-53580-4900</u>	Miscellaneous		ACCT#792105973 COVERA		65.71	
<u>5120342367</u> Invoice		10/25/2023	ACCT#792105972 COVERALLS,MATS,TOW	0.00	70.94	
<u>401-000-000-53480-4901</u>	Miscellaneous - Shop		ACCT#792105972 COVERA		70.94	
<u>5120347339</u> Invoice		11/01/2023	ACCT#792105972 COVERALLS,MATS,TOW	0.00	70.94	
<u>401-000-000-53480-4901</u>	Miscellaneous - Shop		ACCT#792105972 COVERA		70.94	
VEN02103	ASHLEY ALCANTARA	11/03/2023	Regular	0.00	300.00	109436
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>AJI 1062001</u> Invoice		11/06/2020	BEASON-PRE-EMPLOYMENT POLYGRAPH	0.00	300.00	
<u>001-130-000-51810-4100</u>	Professional Services/Adv		BEASON-PRE-EMPLOYMEN		300.00	
VEN02340	BLT SHELTON PONY, LLC	11/03/2023	Regular	0.00	1,110.04	109437
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>647184</u> Invoice		10/17/2023	VIN#3914 MAINTENANCE	0.00	1,110.04	
<u>001-118-000-52122-4805</u>	Repairs and Maintenance		VIN#3914 MAINTENANCE		1,110.04	
098000	BUILDERS FIRSTSOURCE	11/03/2023	Regular	0.00	127.20	109438
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>88073997</u> Invoice		10/04/2023	ACCT#671668 LUMBER	0.00	9.11	
<u>404-000-000-53180-3100</u>	Office and Operating		ACCT#671668 LUMBER		9.11	
<u>88140440</u> Invoice		10/17/2023	ACCT#671668 SWITCH, WIRE, CONDUIT	0.00	117.01	
<u>401-000-000-53480-3100</u>	Office and Operating		ACCT#671668 SWITCH, WI		117.01	
<u>88147780</u> Invoice		10/18/2023	ACCT#671668 TOGGLE SWITCH	0.00	1.08	

Check Register

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
401-000-000-53480-3100	Office and Operating		ACCT#671668 TOGGLE SW		1.08	
VEN01281	CITY OF SHELTON - UTILITY BILLS/PE	11/03/2023	Regular	0.00	215.64	109439
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
INV-00000858	Invoice	10/25/2023	1000 W PINE ST	0.00	215.64	
401-000-000-53480-4701	Utility Services - Shop		1000 W PINE ST		215.64	
VEN02290	CLARY LONGVIEW LLC	11/03/2023	Regular	0.00	81,574.64	109440
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
3PS859	Invoice	10/27/2023	VIN#9739 2023 FORD 4x4	0.00	43,413.02	
302-000-000-59476-6000	Parks Capital Projects		22-NEWEQUIPPARKS		43,413.02	
3PV586	Invoice	10/24/2023	VIN#9272 2023 FORD 4x2	0.00	38,161.62	
302-000-000-59476-6000	Parks Capital Projects		21-NEWEQUIP		38,161.62	
VEN01309	CORINA WOOD	11/03/2023	Regular	0.00	93.02	109441
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
WACDPCONF202	Invoice	10/30/2023	WACDPCONF2023	0.00	93.02	
001-112-000-51251-4307	Travel-Training		23-ITC		93.02	
009351	DELAGÉ LANDEN FINANCIAL SVCS	11/03/2023	Regular	0.00	170.23	109442
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
81236548	Invoice	10/21/2023	CONTRACT#500-50493254	0.00	170.23	
401-250-000-59134-7001	Long Term Lease - Water		CONTRACT#500-50493254		170.23	
VEN01092	EMPOWER RETIREMENT	11/03/2023	Regular	0.00	1,474.80	109443
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
INV0005358	Invoice	11/10/2021	Deferred Comp	0.00	531.32	
699-000-000-21100-0000	Warrants Payable		Deferred Comp		531.32	
INV0005378	Invoice	11/10/2021	Deferred Comp	0.00	943.48	
699-000-000-21100-0000	Warrants Payable		Deferred Comp		943.48	
044700	GUARDIAN SECURITY SYSTEM	11/03/2023	Regular	0.00	62.24	109444
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
1416651	Invoice	11/01/2023	CUST#313901 FIRE ALARM DEC 2023	0.00	62.24	
001-142-000-57250-4100	Professional Services/Adv		CUST#313901 FIRE ALARM		62.24	
045000	H.D. FOWLER COMPANY	11/03/2023	Regular	0.00	2,856.81	109445
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
16551457	Invoice	10/24/2023	ACCT#194680 POWDER COAT	0.00	2,856.81	
401-000-000-53480-4800	Repairs and Maintenance		ACCT#194680 POWDER C		2,856.81	
053992	HOOD CANAL COMMUNICATIONS	11/03/2023	Regular	0.00	5,527.57	109446
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
10871658	Invoice	11/01/2023	ACCT#00003840-2	0.00	1,259.27	
001-119-000-52250-4200	Communication		ACCT#00003840-2		103.71	
001-120-000-51310-4200	Communication		ACCT#00003840-2		0.12	
001-130-000-51810-4200	Communication		ACCT#00003840-2		41.64	
001-140-000-55430-4200	Communication - Animal		ACCT#00003840-2		32.96	
001-142-000-51890-4215	Communication-Civic Cen		ACCT#00003840-2		976.89	
401-000-000-53480-4201	Communication - Shop		ACCT#00003840-2		103.83	
402-400-000-53580-4200	Communication		ACCT#00003840-2		0.12	
10874075	Invoice	11/01/2023	ACCT#00017664-7	0.00	4,268.30	

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
001-112-000-51251-4200	Communication		ACCT#00017664-7		180.00	
001-132-000-51888-4200	Communication		ACCT#00017664-7		252.80	
001-132-000-51888-4801	Repairs and Maintenance		ACCT#00017664-7		405.50	
401-000-000-53480-4200	Communication		ACCT#00017664-7		1,260.00	
401-000-000-53480-4201	Communication - Shop		ACCT#00017664-7		315.00	
402-400-000-53580-4200	Communication		ACCT#00017664-7		1,855.00	
079581	KCDA PURCHASING COOPERATIVE	11/03/2023	Regular	0.00	564.62	109447
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
300749021	Invoice	10/16/2023	CUST#101367 MISC OFFICE SUPPLIES		564.62	
001-115-000-51895-3100	Office and Operating		CUST#101367 MISC OFFIC		124.22	
001-115-000-51896-3100	Office and Operating		CUST#101367 MISC OFFIC		118.57	
001-140-000-55860-3100	Office and Operating		CUST#101367 MISC OFFIC		191.97	
001-141-000-57120-3100	Office and Operating		CUST#101367 MISC OFFIC		22.58	
001-142-000-51830-3100	Office and Operating		CUST#101367 MISC OFFIC		84.69	
001-143-000-57550-3100	Office and Operating		CUST#101367 MISC OFFIC		22.59	
114489	MATT DEEMER	11/03/2023	Regular	0.00	150.00	109448
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
CDLREIMBOCT23	Invoice	10/25/2023	CDLREIMBOCT23		150.00	
401-000-000-53480-4900	Miscellaneous		CDLREIMBOCT23		150.00	
142952	NORTH CENTRAL LABORATORIES	11/03/2023	Regular	0.00	815.30	109449
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
494184	Invoice	10/12/2023	ACCT#42215 MISC		241.86	
402-400-000-53580-3100	Office and Operating		ACCT#42215 MISC		241.86	
494513	Invoice	10/19/2023	ACCT#42215 MISC SUPPLIES		573.44	
402-400-000-53580-3100	Office and Operating		ACCT#42215 MISC SUPPLI		573.44	
158295	PLATT	11/03/2023	Regular	0.00	1,960.28	109450
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
4167381	Invoice	10/10/2023	ACCT#135465		1,960.28	
401-000-000-53480-3100	Office and Operating		ACCT#135465		1,960.28	
VEN02051	POINT EMBLEMS, LLC	11/03/2023	Regular	0.00	264.36	109451
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
15506	Invoice	10/12/2023	CORPORAL PIN CLASP		264.36	
001-118-000-52122-3101	Uniforms		CORPORAL PIN CLASP		264.36	
159300	POLYDYNE, INC.	11/03/2023	Regular	0.00	12,711.87	109452
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
1775385	Invoice	09/29/2023	CUST#100860 CLARIFLOC		8,474.58	
402-400-000-53580-3100	Office and Operating		CUST#100860 CLARIFLOC		8,474.58	
1776202	Credit Memo	10/03/2023	CUST#100860 CLARIFLOC		-8,474.58	
402-400-000-53580-3100	Office and Operating		CUST#100860 CLARIFLOC		-8,474.58	
1779278	Invoice	10/12/2023	CUST#100860 CLARIFLOC		12,711.87	
402-400-000-53580-3100	Office and Operating		CUST#100860 CLARIFLOC		12,711.87	
163450	PURCHASE POWER	11/03/2023	Regular	0.00	1,421.09	109453

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>80009000113670</u>	Invoice	10/25/2023	8000900011367046OCT23		0.00	1,421.09
<u>001-111-000-51421-4200</u>		Communication		8000900011367046OCT23		442.00
<u>001-142-000-51890-4215</u>		Communication-Civic Cen		8000900011367046OCT23		979.09
VEN02470	SIMPLY CONTROLS	11/03/2023	Regular	0.00	1,088.00	109454
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>001951</u>	Invoice	10/27/2023	CUST#0001151 PUMP REPAIR		0.00	1,088.00
<u>402-400-000-53580-4800</u>		Repairs and Maintenance		CUST#0001151 PUMP REP		1,088.00
VEN01624	STEPHEN GREER	11/03/2023	Regular	0.00	93.02	109455
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>WACDPCONF202</u>	Invoice	10/30/2023	WACDPCONF2023		0.00	93.02
<u>001-112-000-51251-4307</u>		Travel-Training	23-ITC	WACDPCONF2023		93.02
196341	STEVEN R. BUZZARD	11/03/2023	Regular	0.00	75.00	109456
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>JUDGEPROTEM1</u>	Invoice	10/25/2023	JUDGEPROTEM10252023		0.00	75.00
<u>001-112-000-51251-4101</u>		Judge Pro-Tem		JUDGEPROTEM10252023		75.00
VEN02484	TARA LEIGH MILLER	11/03/2023	Regular	0.00	5,100.00	109457
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>BAILREFUNDOCT</u>	Invoice	11/02/2023	BAILREFUNDOCT23		0.00	5,100.00
<u>657-000-000-58600-0010</u>		Municipal Court Trust		BAILREFUNDOCT23		5,100.00
VEN02199	TERMINIX PROCESSING CENTER	11/03/2023	Regular	0.00	1,319.72	109458
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>439002849</u>	Invoice	10/10/2023	CUST#13638801 51 PUBLIC WORKS DR		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13638801 51 PUBLI		69.63
<u>439002897</u>	Invoice	10/10/2023	CUST#13634132 1437 W HARVARD ST		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13634132 1437 W		69.63
<u>439002919</u>	Invoice	10/10/2023	CUST#13634151 811 S 15TH ST		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13634151 811 S 15T		69.63
<u>439002944</u>	Invoice	10/10/2023	CUST#13638814 100 MUNCASTER DR		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13638814 100 MUN		69.63
<u>439002961</u>	Invoice	10/10/2023	CUST#13634265 2001 N 13TH ST		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13634265 2001 N 1		69.63
<u>439002995</u>	Invoice	10/10/2023	CUST#13634102 900 WALLACE KNEELAN		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13634102 900 WALL		69.63
<u>439003017</u>	Invoice	10/10/2023	CUST#13634026 2401 N SHELTON SPRING		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13634026 2401 N S		69.63
<u>439003040</u>	Invoice	10/10/2023	CUST#13632896 10891 N HWY 101		0.00	147.97
<u>402-640-000-53580-4100</u>		Professional Services/Adv		CUST#13632896 10891 N		147.97
<u>439003057</u>	Invoice	10/10/2023	CUST#13633877 1000 W PINE ST		0.00	104.45
<u>401-000-000-53480-4101</u>		Professional Services - Sh		CUST#13633877 1000 W P		104.45
<u>439003078</u>	Invoice	10/10/2023	CUST#13638825 907 W BIRCH ST		0.00	68.54
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13638825 907 W BI		68.54
<u>439003117</u>	Invoice	10/10/2023	CUST#13638789 553 BEAR ST		0.00	69.63
<u>401-000-000-53480-4100</u>		Professional Services/Adv		CUST#13638789 553 BEAR		69.63
<u>439005411</u>	Invoice	10/10/2023	CUST#13634000 311 S FRONT ST		0.00	69.63
<u>402-400-000-53580-4100</u>		Professional Services/Adv		CUST#13634000 311 S FR		69.63

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
439006224	Invoice	10/10/2023	CUST#13634073 100 TURNER AVE	0.00	69.63	
401-000-000-53480-4100	Professional Services/Adv		CUST#13634073 100 TUR		69.63	
439008126	Invoice	10/10/2023	CUST#13632853 1701 FAIRMOUNT AVE	0.00	233.92	
402-400-000-53580-4100	Professional Services/Adv		CUST#13632853 1701 FAIR		233.92	
439008900	Invoice	10/10/2023	CUST#13638768 626 MAGNOLIA AVE	0.00	68.54	
401-000-000-53480-4100	Professional Services/Adv		CUST#13638768 626 MAG		68.54	
201300	TOZIER BROS INC.	11/03/2023	Regular	0.00	223.20	109459
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
466494	Invoice	10/19/2023	CUST#20090 BROOM AND DUSTPAN	0.00	23.90	
402-640-000-53580-3100	Office and Operating		CUST#20090 BROOM AND		23.90	
466521	Invoice	10/20/2023	CUST#20090 BATTERY	0.00	25.03	
001-118-000-52122-3110	Office & Operating-Auto		CUST#20090 BATTERY		25.03	
466546	Invoice	10/23/2023	CUST#20090 WIRE BRUSH	0.00	4.07	
401-000-000-53480-3100	Office and Operating		CUST#20090 WIRE BRUSH		4.07	
466565	Invoice	10/24/2023	CUST#20090 5 GAL BUCKET	0.00	32.69	
401-000-000-53480-3100	Office and Operating		CUST#20090 5 GAL BUCKE		32.69	
466576	Invoice	10/25/2023	CUST#20090 NIFTY NABBER	0.00	46.76	
401-000-000-53480-3100	Office and Operating		CUST#20090 NIFTY NABBE		46.76	
466608	Invoice	10/26/2023	CUST#20090 VAC TRUCK PARTS	0.00	12.36	
404-000-000-53180-3100	Office and Operating		CUST#20090 VAC TRUCK P		12.36	
466675	Invoice	10/31/2023	CUST#20090 TRASH CAN, SPRAY BOTTLE	0.00	78.39	
001-141-000-57680-3100	Office and Operating		CUST#20090 TRASH CAN,		78.39	
145325	VALVOLINE LLC	11/03/2023	Regular	0.00	151.62	109460
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
294053	Invoice	10/13/2023	VIN#3775 OIL CHANGE	0.00	75.81	
001-118-000-52122-4805	Repairs and Maintenance		VIN#3775 OIL CHANGE		75.81	
294068	Invoice	10/13/2023	VIN#0210 OIL CHANGE	0.00	75.81	
001-118-000-52122-4805	Repairs and Maintenance		VIN#0210 OIL CHANGE		75.81	
202392	VERIZON WIRELESS	11/03/2023	Regular	0.00	3,349.86	109461
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
9947378402	Invoice	10/20/2023	ACCT#972465947-00001	0.00	3,349.86	
001-115-000-51895-4200	Communication		ACCT#972465947-00001		334.49	
001-118-000-52122-4200	Communication		ACCT#972465947-00001		1,893.23	
001-130-000-51810-4200	Communication		ACCT#972465947-00001		82.22	
001-132-000-51888-4200	Communication		ACCT#972465947-00001		82.22	
001-140-000-55850-4200	Communication		ACCT#972465947-00001		90.99	
001-140-000-55860-4200	Communication		ACCT#972465947-00001		48.78	
001-141-000-57680-4200	Communication		ACCT#972465947-00001		42.21	
101-000-000-54264-4200	Communications		ACCT#972465947-00001		42.21	
401-000-000-53480-4200	Communication		ACCT#972465947-00001		253.26	
402-400-000-53580-4200	Communication		ACCT#972465947-00001		295.47	
404-000-000-53180-4200	Communication		ACCT#972465947-00001		137.57	
503-000-000-54865-4200	Communication		ACCT#972465947-00001		47.21	
202900	WASH. ASSOC. OF SHERIFFS & POLI	11/03/2023	Regular	0.00	75.00	109462
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
DUES2023-00764	Invoice	10/01/2023	AFFILIATE DUES SAM GANO	0.00	75.00	
001-118-000-52122-4900	Miscellaneous		AFFILIATE DUES SAM GAN		75.00	
203780	WATER MGMNT LABORATORIES INC	11/03/2023	Regular	0.00	927.00	109463

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
<u>215621</u>	Invoice	10/21/2023	ACCT#AS201R TESTS	0.00	360.00	
<u>402-400-000-53580-4100</u>	Professional Services/Adv		ACCT#AS201R TESTS		360.00	
<u>215661</u>	Invoice	10/24/2023	ACCT#AS201R TESTS	0.00	567.00	
<u>402-400-000-53580-4100</u>	Professional Services/Adv		ACCT#AS201R TESTS		567.00	
053987	WESTBAY NAPA AUTO PARTS	11/03/2023	Regular	0.00	245.13	109464
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
<u>050479</u>	Invoice	08/31/2023	ACCT#4296 V BELTS	0.00	61.75	
<u>401-000-000-53480-3100</u>	Office and Operating		ACCT#4296 V BELTS		61.75	
<u>053332</u>	Invoice	09/21/2023	ACCT#4296 ADAPTER, CHUCK, BLOW GU	0.00	36.17	
<u>402-400-000-53580-3100</u>	Office and Operating		ACCT#4296 ADAPTER, CHU		36.17	
<u>056271</u>	Invoice	10/14/2023	ACCT#4296 BLISTER PACK CAPS	0.00	28.64	
<u>001-118-000-52122-3110</u>	Office & Operating-Auto		ACCT#4296 BLISTER PACK		28.64	
<u>056279</u>	Invoice	10/14/2023	ACCT#4296 GLASS CLEANER, TOWELS	0.00	43.85	
<u>001-118-000-52122-3110</u>	Office & Operating-Auto		ACCT#4296 GLASS CLEANER		43.85	
<u>057306</u>	Invoice	10/23/2023	ACCT#4296 DIELECTRIC TUNE UP	0.00	4.53	
<u>402-400-000-53580-3100</u>	Office and Operating		ACCT#4296 DIELECTRIC TU		4.53	
<u>057308</u>	Invoice	10/23/2023	ACCT#4296 RECEIVER TUBE	0.00	68.50	
<u>101-000-000-54230-3100</u>	Office and Operating		ACCT#4296 RECEIVER TUB		68.50	
<u>057334</u>	Invoice	10/23/2023	ACCT#4296 SCREWS	0.00	1.69	
<u>402-400-000-53580-3100</u>	Office and Operating		ACCT#4296 SCREWS		1.69	
VEN02139	ZEPELIN SHIPPING & TECHNOLOGY	11/03/2023	Regular	0.00	19.57	109465
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
<u>PACKAGEID#1102</u>	Invoice	10/17/2023	WSP CRIME LAB EVIDENCE	0.00	14.08	
<u>001-118-000-52122-4200</u>	Communication		WSP CRIME LAB EVIDENCE		14.08	
<u>PACKAGEID#1107</u>	Invoice	10/25/2023	WSP CRIME LAB EVIDENCE	0.00	5.49	
<u>001-118-000-52122-4200</u>	Communication		WSP CRIME LAB EVIDENCE		5.49	

Bank Code APBNK-Main Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	72	32	0.00	142,227.82
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	19	8	0.00	15,605.63
Virtual Payments	0	0	0.00	0.00
	91	40	0.00	157,833.45

Virtual Payments	0	0	0.00	0.00
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Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	11/2023	157,833.45
			<u>157,833.45</u>

VOUCHER APPROVAL

I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered, or the labor performed as described herein vouchers number 109484 through number 109523 and EFT payment numbers 16 through 28 in the total amount of \$119,004.46 that the claims are just, due and unpaid obligations against the City of Shelton, and that I am authorized to authenticate and certify said claims.

Signed this 9th of November, 2023.

Michael F. Hiltens
Finance Director

We, the undersigned members of the City Council of Shelton, Washington, do hereby certify that the vouchers contained herein are approved for payment.

Signed this _____ of _____, 2023.

Mayor Eric Onisko

Deputy Mayor Joe Schmit

Councilmember James Boad

Councilmember Miguel Gutierrez

Councilmember Kathy McDowell

Councilmember Deidre Peterson

Councilmember Sharon Schirman



Shelton, WA

Check Register

Packet: APPKT02922 - NOVEMBER 9, 2023 AP PAYMENTS

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: APBNK-Main-APBNK-Main						
005900	CAPITAL BUSINESS MACHINES	11/09/2023	EFT	0.00	861.64	16
	Void	11/09/2023	EFT	0.00	0.00	17
009231	DARREN PARSE	11/09/2023	EFT	0.00	300.00	18
023078	FASTENAL COMPANY	11/09/2023	EFT	0.00	124.41	19
045000	H.D. FOWLER COMPANY	11/09/2023	EFT	0.00	16,106.87	20
VEN02140	HAGGARD & GANSON LLP	11/09/2023	EFT	0.00	5,472.50	21
132235	MOUNTAIN MIST WATER	11/09/2023	EFT	0.00	99.45	22
151000	P. U. D. # 3	11/09/2023	EFT	0.00	17,059.91	23
168450	RH2 ENGINEERING INC	11/09/2023	EFT	0.00	12,900.65	24
VEN02470	SIMPLY CONTROLS	11/09/2023	EFT	0.00	680.00	25
VEN01877	TRANSPOGROUP	11/09/2023	EFT	0.00	998.75	26
202392	VERIZON WIRELESS	11/09/2023	EFT	0.00	452.12	27
VEN02437	WALTER E NELSON CO OF WESTERN	11/09/2023	EFT	0.00	604.44	28
000935	ADAMSON INDUSTRIES CORP.	11/09/2023	Regular	0.00	197.40	109484
VEN02440	ANNALIESA B. HARKSEN	11/09/2023	Regular	0.00	525.00	109485
002982	APP	11/09/2023	Regular	0.00	9,762.11	109486
004914	BRADY TRUCKING	11/09/2023	Regular	0.00	692.78	109487
098000	BUILDERS FIRSTSOURCE	11/09/2023	Regular	0.00	41.32	109488
VEN01281	CITY OF SHELTON - UTILITY BILLS/PE	11/09/2023	Regular	0.00	15.66	109489
008778	CUMMINS NORTHWEST, LLC.	11/09/2023	Regular	0.00	812.35	109490
009200	DAN RUBINO	11/09/2023	Regular	0.00	64.19	109491
VEN02319	DENALI WATER SOLUTIONS LLC	11/09/2023	Regular	0.00	6,504.52	109492
009595	DEPT. OF LICENSING	11/09/2023	Regular	0.00	36.00	109493
VEN01592	EDGAR JERONIMO PABLO	11/09/2023	Regular	0.00	980.00	109494
023108	FCS GROUP	11/09/2023	Regular	0.00	3,543.75	109495
023500	FERGUSON ENTERPRISES, INC.	11/09/2023	Regular	0.00	516.80	109496
VEN02460	FIRST CITIZENS BANK & TRUST CO	11/09/2023	Regular	0.00	548.37	109497
VEN01612	GENSCO, INC.	11/09/2023	Regular	0.00	942.04	109498
080980	GILLIARDI LOGGING & CONSTRUCTI	11/09/2023	Regular	0.00	1,603.51	109499
VEN02486	GORDON WEEKS	11/09/2023	Regular	0.00	53.23	109500
VEN02288	IRONCLAD COMPANY	11/09/2023	Regular	0.00	283.38	109501
085995	LANGUAGE LINE SERVICES	11/09/2023	Regular	0.00	89.90	109502
087799	LEMAY MOBILE SHREDDING	11/09/2023	Regular	0.00	31.68	109503
108850	MASON COUNTY GARBAGE CO.-A V	11/09/2023	Regular	0.00	4,141.99	109504
109200	MASON COUNTY HISTORICAL	11/09/2023	Regular	0.00	6,500.00	109505
114420	MASON TRANSIT AUTHORITY	11/09/2023	Regular	0.00	410.00	109506
VEN02241	MICHELLE PUGH	11/09/2023	Regular	0.00	440.00	109507
142952	NORTH CENTRAL LABORATORIES	11/09/2023	Regular	0.00	895.79	109508
VEN02312	ODP BUSINESS SOLUTIONS LLC	11/09/2023	Regular	0.00	249.53	109509
VEN01351	OSCAR MATIAS PABLO	11/09/2023	Regular	0.00	280.00	109510
153500	PACIFIC LAMP & SUPPLY CO	11/09/2023	Regular	0.00	1,813.30	109511
114040	PETTYJOHN ENTERPRISES, LLC	11/09/2023	Regular	0.00	315.00	109512
164899	QWEST DBA CENTURYLINK	11/09/2023	Regular	0.00	1,001.94	109513
187000	SHELTON-MASON COUNTY JOURNA	11/09/2023	Regular	0.00	434.00	109514
197259	SUNSET AIR, INC.	11/09/2023	Regular	0.00	151.68	109515
189670	THE SHOPPER	11/09/2023	Regular	0.00	463.62	109516
201300	TOZIER BROS INC.	11/09/2023	Regular	0.00	104.81	109517
VEN01220	TRIPLE C FABRICATORS LLC	11/09/2023	Regular	0.00	2,712.50	109518
202340	UTILITIES UNDERGROUND LOCATIO	11/09/2023	Regular	0.00	141.90	109519
145325	VALVOLINE LLC	11/09/2023	Regular	0.00	50.84	109520
203780	WATER MGMNT LABORATORIES INC	11/09/2023	Regular	0.00	756.00	109521
053987	WESTBAY NAPA AUTO PARTS	11/09/2023	Regular	0.00	905.83	109522

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
155563	YOUNGLOVE & COKER-PLLC	11/09/2023	Regular	0.00	14,331.00	109523

Bank Code APBNK-Main Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	96	40	0.00	63,343.72
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	27	13	0.00	55,660.74
Virtual Payments	0	0	0.00	0.00
	123	53	0.00	119,004.46



Virtual Payments	0	0	0.00	0.00
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Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	11/2023	119,004.46
			119,004.46



Shelton, WA

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By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: APBNK-Main-APBNK-Main						
005900	CAPITAL BUSINESS MACHINES	11/09/2023	EFT	0.00	861.64	16
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>INV179323</u>	Invoice	11/06/2023	CONTRACT#CN3230-01		0.00	184.26
001-111-000-51423-4500		Operating Rentals		CONTRACT#CN3230-01		110.56
001-130-000-51810-4500		Operating Rentals		CONTRACT#CN3230-01		73.70
<u>INV179324</u>	Invoice	11/06/2023	CONTRACT#CN3370-01		0.00	460.18
001-110-000-51160-4500		Operating Rentals		CONTRACT#CN3370-01		113.66
001-111-000-51421-4500		Operating Rentals		CONTRACT#CN3370-01		4.33
001-111-000-51423-4500		Operating Rentals		CONTRACT#CN3370-01		16.11
001-115-000-51896-4500		Operating Rentals		CONTRACT#CN3370-01		153.93
001-120-000-51310-4500		Operating Rentals		CONTRACT#CN3370-01		5.20
001-121-000-51430-4500		Operating Rentals		CONTRACT#CN3370-01		1.29
001-130-000-51810-4500		Operating Rentals		CONTRACT#CN3370-01		0.41
001-132-000-51888-4500		Operating Rentals		CONTRACT#CN3370-01		18.41
001-140-000-55860-4500		Operating Rentals		CONTRACT#CN3370-01		118.50
001-141-000-57680-4500		Operating Rentals		CONTRACT#CN3370-01		12.79
001-142-000-51830-4500		Operating Rental		CONTRACT#CN3370-01		15.00
001-143-000-57320-4500		Operating Rentals		CONTRACT#CN3370-01		0.55
<u>INV179325</u>	Invoice	11/06/2023	CONTRACT#CN3364-01		0.00	51.78
401-000-000-53480-4501		Operating Rentals - Shop		CONTRACT#CN3364-01		51.78
<u>INV179326</u>	Invoice	11/06/2023	CONTRACT#CN1866-01		0.00	68.28
402-400-000-53580-4500		Operating Rentals		CONTRACT#CN1866-01		68.28
<u>INV179345</u>	Invoice	11/06/2023	CONTRACT#CN1692-01		0.00	11.96
001-112-000-51251-4500		Operating Rentals		CONTRACT#CN1692-01		11.96
<u>INV179346</u>	Invoice	11/06/2023	CONTRACT#CN3143-01		0.00	38.08
001-112-000-51251-4500		Operating Rentals		CONTRACT#CN3143-01		38.08
<u>INV179347</u>	Invoice	11/06/2023	CONTRACT#CN3144-01		0.00	38.08
001-112-000-51251-4500		Operating Rentals		CONTRACT#CN3144-01		38.08
<u>INV179348</u>	Invoice	11/06/2023	CONTRACT#CN3588-01		0.00	9.02
001-112-000-51251-4500		Operating Rentals	23-ITC	CONTRACT#CN3588-01		9.02
	Void	11/09/2023	EFT	0.00	0.00	17
009231	DARREN PARSE	11/09/2023	EFT	0.00	300.00	18
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>INTERPRETATION</u>	Invoice	11/06/2023	INTERPRETATION11012023		0.00	300.00
001-112-000-51251-4106		Interpreter Expenses		INTERPRETATION1101202		300.00
023078	FASTENAL COMPANY	11/09/2023	EFT	0.00	124.41	19
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>WATUM218689</u>	Invoice	10/31/2023	CUST#WATUM1039 BIG ORANGE		0.00	58.47
402-400-000-53580-3100		Office and Operating		CUST#WATUM1039 BIG O		58.47
<u>WATUM218690</u>	Invoice	10/31/2023	CUST#WATUM1962 PINESOL		0.00	65.94
402-400-000-53580-3100		Office and Operating		CUST#WATUM1962 PINES		65.94
045000	H.D. FOWLER COMPANY	11/09/2023	EFT	0.00	16,106.87	20

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>16557485</u>	Invoice	10/31/2023	ACCT#671668 VALVE REPLACEMENTS	0.00	14,393.51	
<u>401-000-000-53480-3505</u>		Inventoried-Small Tools/E		ACCT#671668 VALVE REPL	14,393.51	
<u>16557487</u>	Invoice	10/31/2023	ACCT#194680 MISC PARTS	0.00	1,146.97	
<u>401-000-000-53480-3100</u>		Office and Operating		ACCT#194680 MISC PARTS	1,146.97	
<u>16558443</u>	Invoice	10/31/2023	ACCT#194680 CATCH BASIN - WASH BAY	0.00	566.39	
<u>401-000-000-53480-3100</u>		Office and Operating		ACCT#194680 CATCH BASI	283.20	
<u>404-000-000-53180-3100</u>		Office and Operating		ACCT#194680 CATCH BASI	283.19	
VEN02140	HAGGARD & GANSON LLP	11/09/2023	EFT	0.00	5,472.50	21
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>439</u>	Invoice	11/01/2023	GENERAL COUNSEL OCTOBER 2023	0.00	5,472.50	
<u>001-122-000-51541-4100</u>		Professional Services/Adv		GENERAL COUNSEL OCTO	5,472.50	
132235	MOUNTAIN MIST WATER	11/09/2023	EFT	0.00	99.45	22
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>005676833</u>	Invoice	11/01/2023	ACCT#088436 POLICE	0.00	38.50	
<u>001-118-000-52122-3100</u>		Office and Operating		ACCT#088436 POLICE	34.15	
<u>001-118-000-52122-4500</u>		Operating Rentals		ACCT#088436 POLICE	4.35	
<u>005676834</u>	Invoice	11/01/2023	ACCT#088436 ADMIN	0.00	42.85	
<u>001-130-000-51810-3100</u>		Office and Operating		ACCT#088436 ADMIN	34.15	
<u>001-130-000-51810-4500</u>		Operating Rentals		ACCT#088436 ADMIN	8.70	
<u>005676835</u>	Invoice	11/01/2023	ACCT#088436 MUNI COURT	0.00	18.10	
<u>001-112-000-51251-3100</u>		Office and Operating		ACCT#088436 MUNI COUR	13.75	
<u>001-112-000-51251-4500</u>		Operating Rentals		ACCT#088436 MUNI COUR	4.35	
151000	P. U. D. #3	11/09/2023	EFT	0.00	17,059.91	23
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>109441001OCT2</u>	Invoice	10/26/2023	109441001OCT23	0.00	76.57	
<u>101-000-000-54264-4700</u>		Utility Services		109441001OCT23	76.57	
<u>LATECOMERSAGR</u>	Invoice	11/07/2023	PARCEL#320071190140	0.00	16,983.34	
<u>401-000-000-58230-0000</u>		Latecomers Fee to PUD		PARCEL#320071190140	16,983.34	
168450	RH2 ENGINEERING INC	11/09/2023	EFT	0.00	12,900.65	24
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>93134</u>	Invoice	10/23/2023	BROCKDALE RD RESURFACE	0.00	799.67	
<u>302-000-000-59530-4101</u>		CAPITAL Streets/Road-Pro	22-BROCKDALE PAVIN	BROCKDALE RD RESURFAC	799.67	
<u>93136</u>	Invoice	10/23/2023	SRTS CROSSWALK IMPROVEMENTS	0.00	10,699.04	
<u>302-000-000-59561-4101</u>		CAPITAL Streets/Sidewalk	22-SAFERTE2SCHOOL	SRTS CROSSWALK IMPROV	10,699.04	
<u>93311</u>	Invoice	11/06/2023	DEVELOPMENT REVIEW ASSISTANCE	0.00	1,401.94	
<u>001-115-000-51896-4100</u>		Professional Services/Adv		DEVELOPMENT REVIEW AS	1,401.94	
VEN02470	SIMPLY CONTROLS	11/09/2023	EFT	0.00	680.00	25
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>001967</u>	Invoice	11/06/2023	CUST#0001151 LABOR	0.00	680.00	
<u>402-400-000-53580-4800</u>		Repairs and Maintenance		CUST#0001151 LABOR	680.00	
VEN01877	TRANSGROUP	11/09/2023	EFT	0.00	998.75	26

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
31425	Invoice	11/01/2023	COTA ST PARKING LOT	0.00	998.75	
302-000-000-59565-4100		PARKING FACILITIES-Profe	19-CITYPRKLOT		998.75	
202392	VERIZON WIRELESS	11/09/2023	EFT	0.00	452.12	27
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
9947566385	Invoice	10/23/2023	ACCT#342078219-00001		452.12	
001-115-000-51895-4200		Communication		ACCT#342078219-00001	230.48	
001-140-000-55850-4200		Communication		ACCT#342078219-00001	53.10	
401-000-000-53480-4200		Communication		ACCT#342078219-00001	88.52	
402-400-000-53580-4200		Communication		ACCT#342078219-00001	80.02	
VEN02437	WALTER E NELSON CO OF WESTERN	11/09/2023	EFT	0.00	604.44	28
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
953238	Invoice	11/02/2023	CUST#12400 MISC SUPPLIES	0.00	604.44	
001-140-000-55430-3100		Office and Operating - Ani		CUST#12400 MISC SUPPLI	47.45	
001-142-000-51830-3100		Office and Operating		CUST#12400 MISC SUPPLI	48.12	
001-142-000-51890-3115		Office and Operating-Civi		CUST#12400 MISC SUPPLI	135.81	
001-142-000-51890-3115		Office and Operating-Civi		CUST#12400 MISC SUPPLI	103.08	
001-142-000-57250-3100		Office and Operating		CUST#12400 MISC SUPPLI	47.45	
001-142-000-57250-3100		Office and Operating		CUST#12400 MISC SUPPLI	67.91	
001-142-000-57250-3100		Office and Operating		CUST#12400 MISC SUPPLI	103.08	
401-000-000-53480-3100		Office and Operating		CUST#12400 MISC SUPPLI	51.54	
000935	ADAMSON INDUSTRIES CORP.	11/09/2023	Regular	0.00	197.40	109484
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
150200	Invoice	09/08/2023	CUST#SHEWAPD FLARE HOLDERS	0.00	197.40	
001-118-000-52122-3507		Sm Tools/Minor Equip-Gr		CUST#SHEWAPD FLARE H	197.40	
VEN02440	ANNALIESA B. HARKSEN	11/09/2023	Regular	0.00	525.00	109485
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
JUDGEPROTEM1	Invoice	11/06/2023	JUDGEPROTEM11012023	0.00	525.00	
001-112-000-51251-4101		Judge Pro-Tem		JUDGEPROTEM11012023	525.00	
002982	APP	11/09/2023	Regular	0.00	9,762.11	109486
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
23-941559	Invoice	10/11/2023	ACCT#AP7500158 FUEL	0.00	3,878.51	
503-250-000-58900-0001		Inventory-Gas		ACCT#AP7500158 FUEL	3,878.51	
23-946077	Invoice	10/18/2023	ACCT#AP7500158 FUEL	0.00	3,834.72	
503-250-000-58900-0001		Inventory-Gas		ACCT#AP7500158 FUEL	3,834.72	
23-952077	Invoice	10/25/2023	ACCT#AP7500158 FUEL	0.00	2,048.88	
503-250-000-58900-0001		Inventory-Gas		ACCT#AP7500158 FUEL	2,048.88	
004914	BRADY TRUCKING	11/09/2023	Regular	0.00	692.78	109487
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
07232030	Invoice	07/25/2023	TOPSOIL	0.00	216.46	
404-000-000-53180-3100		Office and Operating		TOPSOIL	216.46	
08062027	Invoice	08/04/2023	TOPSOIL	0.00	216.46	
404-000-000-53180-3100		Office and Operating		TOPSOIL	216.46	
12244	Invoice	06/14/2023	PRO BLEND	0.00	259.86	
401-000-000-53480-3100		Office and Operating		PRO BLEND	259.86	

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
098000	BUILDERS FIRSTSOURCE	11/09/2023	Regular	0.00	41.32	109488
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
88224106	Invoice	11/02/2023	ACCT#671668 CEMENT	0.00	41.32	
101-000-000-54230-3100		Office and Operating		ACCT#671668 CEMENT	41.32	
VEN01281	CITY OF SHELTON - UTILITY BILLS/PE	11/09/2023	Regular	0.00	15.66	109489
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
04-11375-10FINA	Invoice	11/01/2023	NOVEMBER 2023 FINAL BILLS	0.00	5.54	
001-141-000-57680-4700		Utility Services-Park		NOVEMBER 2023 FINAL BI	5.54	
08-05050-12FINA	Invoice	11/01/2023	NOVEMBER 2023 FINAL BILLS	0.00	5.06	
001-141-000-57680-4700		Utility Services-Park		NOVEMBER 2023 FINAL BI	5.06	
26-14102-13FINA	Invoice	11/01/2023	NOVEMBER 2023 FINAL BILLS	0.00	5.06	
402-640-000-53580-4700		Utility Services-Sewer Sat		NOVEMBER 2023 FINAL BI	5.06	
008778	CUMMINS NORTHWEST, LLC.	11/09/2023	Regular	0.00	812.35	109490
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
01-3251	Invoice	11/03/2023	CUST#267561 ANNUAL SERVICE	0.00	812.35	
001-119-000-52250-4100		Professional Services/Adv		CUST#267561 ANNUAL SE	812.35	
009200	DAN RUBINO	11/09/2023	Regular	0.00	64.19	109491
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
94982	Invoice	11/06/2023	FUNCTION LOCK	0.00	64.19	
001-140-000-55430-3100		Office and Operating - Ani		FUNCTION LOCK	64.19	
VEN02319	DENALI WATER SOLUTIONS LLC	11/09/2023	Regular	0.00	6,504.52	109492
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
INV631096	Invoice	11/06/2023	CUST#599121378 TRANSPORTATION SERV	0.00	6,504.52	
402-400-000-53580-4100		Professional Services/Adv		CUST#599121378 TRANSP	6,504.52	
009595	DEPT. OF LICENSING	11/09/2023	Regular	0.00	36.00	109493
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
SHP230038	Invoice	10/31/2023	SHP230038	0.00	18.00	
657-000-000-58600-0007		Concealed Pistol Permits		SHP230038	18.00	
SHP230039	Invoice	10/31/2023	SHP230039	0.00	18.00	
657-000-000-58600-0007		Concealed Pistol Permits		SHP230039	18.00	
VEN01592	EDGAR JERONIMO PABLO	11/09/2023	Regular	0.00	980.00	109494
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
564	Invoice	10/31/2023	ITC SERVICES	0.00	560.00	
001-112-000-51251-4106		Interpreter Expenses	23-ITC	ITC SERVICES	560.00	
565	Invoice	10/31/2023	SERVICES	0.00	420.00	
001-122-000-51593-4101		LEGAL - OPD Grant Public		SERVICES	420.00	
023108	FCS GROUP	11/09/2023	Regular	0.00	3,543.75	109495
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
3737-22310068	Invoice	11/01/2023	WATER/SEWER RATE & GFC STUDY	0.00	3,543.75	
401-000-000-53480-4100		Professional Services/Adv		WATER/SEWER RATE & GF	1,771.88	
402-400-000-53580-4100		Professional Services/Adv		WATER/SEWER RATE & GF	1,771.87	
023500	FERGUSON ENTERPRISES, INC.	11/09/2023	Regular	0.00	516.80	109496

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
2000262	Invoice	11/01/2023	CUST#146629 WATER FOUNTAIN	0.00	516.80	
001-141-000-57680-3100	Office and Operating		CUST#146629 WATER FOU		516.80	
VEN02460	FIRST CITIZENS BANK & TRUST CO	11/09/2023	Regular	0.00	548.37	109497
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
43456176	Invoice	10/25/2023	CUST#2300086269 COPIER	0.00	401.48	
001-118-000-52122-4500	Operating Rentals		CUST#2300086269 COPIER		401.48	
43516869	Invoice	11/02/2023	CUST#2000176406 ITC PRINTER	0.00	146.89	
001-112-000-51251-4500	Operating Rentals	23-ITC	CUST#2000176406 ITC PRI		146.89	
VEN01612	GENSCO, INC.	11/09/2023	Regular	0.00	942.04	109498
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
857064513	Invoice	11/01/2023	ACCT#31310 PLEATED FILTERS	0.00	373.76	
001-142-000-51890-3115	Office and Operating-Civi		ACCT#31310 PLEATED FILT		373.76	
857064518	Invoice	11/01/2023	ACCT#31310 PLEATED FILTERS	0.00	43.33	
001-140-000-55430-3100	Office and Operating - Ani		ACCT#31310 PLEATED FILT		43.33	
857064522	Invoice	11/01/2023	ACCT#31310 PLEATED FILTERS	0.00	164.94	
402-400-000-53580-3100	Office and Operating		ACCT#31310 PLEATED FILT		164.94	
857064527	Invoice	11/01/2023	ACCT#31310 PLEATED FILTERS	0.00	53.41	
401-000-000-53480-3100	Office and Operating		ACCT#31310 PLEATED FILT		53.41	
857064531	Invoice	11/01/2023	ACCT#31310 PLEATED FILTERS	0.00	260.00	
001-142-000-57250-3100	Office and Operating		ACCT#31310 PLEATED FILT		260.00	
857074217	Invoice	11/03/2023	ACCT#31310 EXACT	0.00	46.60	
001-119-000-52250-3100	Office and Operating		ACCT#31310 EXACT		46.60	
080980	GILLIARDI LOGGING & CONSTRUCTI	11/09/2023	Regular	0.00	1,603.51	109499
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
19393	Invoice	10/03/2023	WET FILL RETAIL	0.00	71.12	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		71.12	
19445	Invoice	10/09/2023	WET FILL RETAIL	0.00	36.94	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		36.94	
19552	Invoice	10/23/2023	WET FILL RETAIL	0.00	129.55	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		129.55	
19566	Invoice	10/24/2023	DRY FILL RETAIL/ 3/4 MINUS RT	0.00	794.97	
101-000-000-54230-3100	Office and Operating		DRY FILL RETAIL/ 3/4 MIN		536.92	
404-000-000-53180-3100	Office and Operating		DRY FILL RETAIL/ 3/4 MIN		258.05	
19581	Invoice	10/25/2023	WET FILL RETAIL	0.00	58.43	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		58.43	
19597	Invoice	10/26/2023	WET FILL RETAIL	0.00	178.70	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		178.70	
19619	Invoice	10/30/2023	WET FILL RETAIL	0.00	164.87	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		164.87	
19632	Invoice	10/31/2023	WET FILL RETAIL	0.00	168.93	
404-000-000-53180-3100	Office and Operating		WET FILL RETAIL		168.93	
VEN02486	GORDON WEEKS	11/09/2023	Regular	0.00	53.23	109500
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
WITNESSFEE	Invoice	11/07/2023	WITNESSFEE	0.00	53.23	
001-112-000-51251-4104	Witness Expenses		WITNESSFEE		53.23	

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
VEN02288	IRONCLAD COMPANY	11/09/2023	Regular	0.00	283.38	109501
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>17394</u>	Invoice	11/06/2023	SWEEPER		283.38	
<u>101-000-000-54230-3100</u>		Office and Operating		SWEEPER	141.69	
<u>404-000-000-53180-3100</u>		Office and Operating		SWEEPER	141.69	
085995	LANGUAGE LINE SERVICES	11/09/2023	Regular	0.00	89.90	109502
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>11069281</u>	Invoice	07/31/2023	ACCT#9020943082 INTERPRETATION		45.27	
<u>001-118-000-52122-4100</u>		Patrol-Professional Serv		ACCT#9020943082 INTERP	45.27	
<u>11137604</u>	Invoice	10/31/2023	ACCT#9020535356 INTERPRETATION		41.63	
<u>001-122-000-51593-4101</u>		LEGAL - OPD Grant Public		ACCT#9020535356 INTERP	41.63	
<u>11148992</u>	Invoice	10/31/2023	ACCT#9020514029 INTERPRETATION		3.00	
<u>001-112-000-51251-4106</u>		Interpreter Expenses		ACCT#9020514029 INTERP	3.00	
087799	LEMAY MOBILE SHREDDING	11/09/2023	Regular	0.00	31.68	109503
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>48166135185</u>	Invoice	11/01/2023	ACCT#2185-952778-1166		31.68	
<u>001-112-000-51251-4109</u>		Other Professional Serv		ACCT#2185-952778-1166	31.68	
108850	MASON COUNTY GARBAGE CO.-A V	11/09/2023	Regular	0.00	4,141.99	109504
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
<u>78332465149</u>	Invoice	11/01/2023	ACCT#2149-30135		309.96	
<u>001-142-000-51890-4715</u>		Utility Services-Civic Ctr		ACCT#2149-30135	309.96	
<u>78333235149</u>	Invoice	11/01/2023	ACCT#2149-30714		119.70	
<u>001-142-000-57250-4700</u>		Utility Services-Library		ACCT#2149-30714	119.70	
<u>78334235149</u>	Invoice	11/01/2023	ACCT#2149-56141		39.90	
<u>001-142-000-51890-4715</u>		Utility Services-Civic Ctr		ACCT#2149-56141	39.90	
<u>78343315149</u>	Invoice	11/01/2023	ACCT#2149-204368		34.72	
<u>402-400-000-53580-4700</u>		Utility Services-Sewer Ma		ACCT#2149-204368	34.72	
<u>78343495149</u>	Invoice	11/01/2023	ACCT#2149-204402		160.84	
<u>402-640-000-53580-4700</u>		Utility Services-Sewer Sat		ACCT#2149-204402	160.84	
<u>78345365149</u>	Invoice	11/01/2023	ACCT#2149-204783		208.18	
<u>001-119-000-52250-4700</u>		Utility Services		ACCT#2149-204783	208.18	
<u>78348445149</u>	Invoice	11/01/2023	ACCT#2149-205337		1,294.06	
<u>402-400-000-53580-4700</u>		Utility Services-Sewer Ma		ACCT#2149-205337	1,294.06	
<u>78349945149</u>	Invoice	11/01/2023	ACCT#2149-205584		34.72	
<u>402-400-000-53580-4700</u>		Utility Services-Sewer Ma		ACCT#2149-205584	34.72	
<u>78355465149</u>	Invoice	11/01/2023	ACCT#2149-206560		52.05	
<u>001-142-000-57530-4700</u>		Utility Services-Museum		ACCT#2149-206560	52.05	
<u>78356695149</u>	Invoice	11/01/2023	ACCT#2149-206771		643.35	
<u>001-142-000-51890-4715</u>		Utility Services-Civic Ctr		ACCT#2149-206771	643.35	
<u>78358895149</u>	Invoice	11/01/2023	ACCT#2149-207155		321.68	
<u>001-142-000-57250-4700</u>		Utility Services-Library		ACCT#2149-207155	321.68	
<u>78360085149</u>	Invoice	11/01/2023	ACCT#2149-207351		70.59	
<u>001-140-000-55430-4700</u>		Utility Services-Animal Sh		ACCT#2149-207351	70.59	
<u>78360765149</u>	Invoice	11/01/2023	ACCT#2149-207565		709.18	
<u>001-141-000-57680-4700</u>		Utility Services-Park		ACCT#2149-207565	212.75	
<u>101-000-000-54230-4700</u>		Road & Street Maint - Util		ACCT#2149-207565	99.29	
<u>401-000-000-53480-4700</u>		Utility Services-Water		ACCT#2149-207565	99.29	
<u>402-300-000-53580-4700</u>		Utility Services-Sewer Ma		ACCT#2149-207565	99.29	
<u>404-000-000-53180-4700</u>		Utility Services		ACCT#2149-207565	99.29	

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
503-000-000-54865-4700		Equip Maint & Rental - U	ACCT#2149-207565		99.27	
78360775149	Invoice	11/01/2023	ACCT#2149-207568	0.00	90.54	
001-141-000-57680-4700		Utility Services-Park	ACCT#2149-207568		15.08	
101-000-000-54230-4700		Road & Street Maint - Util	ACCT#2149-207568		15.09	
401-000-000-53480-4700		Utility Services-Water	ACCT#2149-207568		15.09	
402-300-000-53580-4700		Utility Services-Sewer Ma	ACCT#2149-207568		15.08	
404-000-000-53180-4700		Utility Services	ACCT#2149-207568		15.09	
503-000-000-54865-4700		Equip Maint & Rental - U	ACCT#2149-207568		15.11	
78361455149	Invoice	11/01/2023	ACCT#2149-209143	0.00	52.52	
402-400-000-53580-4700		Utility Services-Sewer Ma	ACCT#2149-209143		52.52	
109200	MASON COUNTY HISTORICAL	11/09/2023	Regular	0.00	6,500.00	109505
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
LTACGRANT/2023	Invoice	11/08/2023	LTACGRANT/2023		2,000.00	
108-000-000-57390-4106		Prof Serv-Downtown Car		LTACGRANT/2023	2,000.00	
QTR3/2023LTAC	Invoice	11/08/2023	QTR3/2023LTAC	0.00	4,500.00	
108-000-000-57390-4108		Prof Serv-Mason Co Hist S		QTR3/2023LTAC	4,500.00	
114420	MASON TRANSIT AUTHORITY	11/09/2023	Regular	0.00	410.00	109506
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
11092	Invoice	10/31/2023	CUST#CIT100 OCTOBER GYM	0.00	410.00	
001-141-000-57120-4500		Operating Rentals		CUST#CIT100 OCTOBER GY	410.00	
VEN02241	MICHELLE PUGH	11/09/2023	Regular	0.00	440.00	109507
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
OCTOBER/2023Y	Invoice	11/02/2023	OCTOBER/2023YOGA	0.00	440.00	
001-141-000-57120-4100		Professional Services/Adv		OCTOBER/2023YOGA	440.00	
142952	NORTH CENTRAL LABORATORIES	11/09/2023	Regular	0.00	895.79	109508
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
494787	Invoice	10/26/2023	ACCT#42215 MISC SUPPLIES	0.00	895.79	
402-400-000-53580-3100		Office and Operating		ACCT#42215 MISC SUPPLI	895.79	
VEN02312	ODP BUSINESS SOLUTIONS LLC	11/09/2023	Regular	0.00	249.53	109509
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
338230699001	Invoice	10/24/2023	ACCT#28972108 PAPER, RIBBON	0.00	249.53	
001-111-000-51421-3100		Office and Operating		ACCT#28972108 PAPER, RI	119.33	
001-111-000-51423-3100		Office and Operating		ACCT#28972108 PAPER, RI	86.80	
001-130-000-51810-3100		Office and Operating		ACCT#28972108 PAPER, RI	43.40	
VEN01351	OSCAR MATIAS PABLO	11/09/2023	Regular	0.00	280.00	109510
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
INTERPRETATION	Invoice	11/01/2023	INTERPRETATION11012023	0.00	280.00	
001-112-000-51251-4106		Interpreter Expenses		INTERPRETATION1101202	280.00	
153500	PACIFIC LAMP & SUPPLY CO	11/09/2023	Regular	0.00	1,813.30	109511
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
872992	Invoice	09/11/2023	CUST#23733-1 MISC	0.00	1,136.46	
402-640-000-53580-3100		Office and Operating		CUST#23733-1 MISC	1,136.46	
874946	Invoice	10/09/2023	CUST#23733-1 MISC	0.00	331.02	
001-142-000-51890-3115		Office and Operating-Civi		CUST#23733-1 MISC	331.02	
877030	Invoice	11/06/2023	CUST#23733-1	0.00	345.82	

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
001-142-000-51890-3115	Office and Operating-Civi		CUST#23733-1		345.82	
114040	PETTYJOHN ENTERPRISES, LLC	11/09/2023	Regular	0.00	315.00	109512
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
3371	Invoice	11/01/2023	YARD WASTE	0.00	315.00	
001-141-000-57680-3100	Office and Operating		YARD WASTE		315.00	
164899	QWEST DBA CENTURYLINK	11/09/2023	Regular	0.00	1,001.94	109513
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
360Z260219722B	Invoice	10/26/2023	360Z260219722BOCT23	0.00	1,001.94	
401-000-000-53480-4201	Communication - Shop		360Z260219722BOCT23		146.50	
402-300-000-53580-4200	Communication		360Z260219722BOCT23		56.84	
402-400-000-53580-4200	Communication		360Z260219722BOCT23		349.94	
402-400-000-53580-4200	Communication		360Z260219722BOCT23		206.62	
402-640-000-53580-4200	Communication		360Z260219722BOCT23		242.04	
187000	SHELTON-MASON COUNTY JOURNA	11/09/2023	Regular	0.00	434.00	109514
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
121586	Invoice	10/19/2023	PARK BUDGET	0.00	186.00	
001-110-000-51160-4100	Professional Services/Adv		PARK BUDGET		186.00	
121587	Invoice	10/19/2023	CITY OF SHELTON BUDGET	0.00	186.00	
001-110-000-51160-4100	Professional Services/Adv		CITY OF SHELTON BUDGET		186.00	
121844	Invoice	11/02/2023	CIVIL SERVICE COMMISSION	0.00	62.00	
001-118-000-52122-4100	Patrol-Professional Servic		CIVIL SERVICE COMMISSIO		62.00	
197259	SUNSET AIR, INC.	11/09/2023	Regular	0.00	151.68	109515
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
103501	Invoice	11/02/2023	CUST#CIT245 BELT	0.00	151.68	
001-142-000-51890-3115	Office and Operating-Civi		CUST#CIT245 BELT		151.68	
189670	THE SHOPPER	11/09/2023	Regular	0.00	463.62	109516
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
59031	Invoice	11/03/2023	B&O ENVELOPES	0.00	463.62	
001-111-000-51423-3100	Office and Operating		B&O ENVELOPES		463.62	
201300	TOZIER BROS INC.	11/09/2023	Regular	0.00	104.81	109517
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
466703	Invoice	11/01/2023	CUST#20090 GAS CAN	0.00	30.87	
101-000-000-54230-3100	Office and Operating		CUST#20090 GAS CAN		30.87	
466726	Invoice	11/03/2023	CUST#20090 ENGINE OIL	0.00	43.51	
001-141-000-57680-3100	Office and Operating		CUST#20090 ENGINE OIL		43.51	
466775	Invoice	11/06/2023	CUST#20090 RAKE	0.00	17.40	
402-400-000-53580-3100	Office and Operating		CUST#20090 RAKE		17.40	
466802	Invoice	11/07/2023	CUST#20090 MISC PARTS	0.00	13.03	
402-400-000-53580-3100	Office and Operating		CUST#20090 MISC PARTS		13.03	
VEN01220	TRIPLE C FABRICATORS LLC	11/09/2023	Regular	0.00	2,712.50	109518
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number	Account Name	Project Account Key	Item Description	Dist Amount		
2804	Invoice	11/06/2023	WELDING LABOR	0.00	2,712.50	
402-640-000-53580-4800	Repairs and Maintenance		WELDING LABOR		2,712.50	
202340	UTILITIES UNDERGROUND LOCATIO	11/09/2023	Regular	0.00	141.90	109519

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Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
3100229	Invoice	10/31/2023	ACCT#100100 EXCAVATION	NOTICES OCT	0.00	141.90
401-000-000-53480-4100		Professional Services/Adv		ACCT#100100 EXCAVATIO	47.30	
402-400-000-53580-4100		Professional Services/Adv		ACCT#100100 EXCAVATIO	47.30	
404-000-000-53180-4105		Professional Services/Adv		ACCT#100100 EXCAVATIO	47.30	
145325	VALVOLINE LLC	11/09/2023	Regular	0.00	50.84	109520
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
295630	Invoice	10/30/2023	VIN#6761 OIL CHANGE		0.00	50.84
001-118-000-52122-4805		Repairs and Maintenance		VIN#6761 OIL CHANGE	50.84	
203780	WATER MGMNT LABORATORIES INC	11/09/2023	Regular	0.00	756.00	109521
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
215887	Invoice	10/30/2023	ACCT#AS201R TESTS		0.00	756.00
402-400-000-53580-4100		Professional Services/Adv		ACCT#AS201R TESTS	756.00	
053987	WESTBAY NAPA AUTO PARTS	11/09/2023	Regular	0.00	905.83	109522
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
050312	Invoice	08/30/2023	ACCT#4296 BATTERY 65850D		0.00	155.71
001-118-000-52122-3110		Office & Operating-Auto		ACCT#4296 BATTERY 6585	155.71	
051300	Credit Memo	09/07/2023	ACCT#4296 CORE DEPOSIT		0.00	-19.58
001-118-000-52122-3110		Office & Operating-Auto		ACCT#4296 CORE DEPOSIT	-19.58	
053551	Credit Memo	09/22/2023	ACCT#4296 CORE DEPOSIT		0.00	-19.58
001-118-000-52122-3110		Office & Operating-Auto		ACCT#4296 CORE DEPOSIT	-19.58	
054663	Invoice	10/02/2023	ACCT#4296 WIPER BLADES UNIT 19		0.00	19.52
001-118-000-52122-3110		Office & Operating-Auto		ACCT#4296 WIPER BLADES	19.52	
054665	Invoice	10/02/2023	ACCT#4296 WIPER BLADES UNIT 19		0.00	11.89
001-118-000-52122-3110		Office & Operating-Auto		ACCT#4296 WIPER BLADES	11.89	
055823	Invoice	10/11/2023	ACCT#4296 FUEL FILTER 69986D		0.00	72.20
503-000-000-54865-3104		Oper Supp-Parts-EM&R V		ACCT#4296 FUEL FILTER 69	72.20	
057750	Invoice	10/26/2023	ACCT#4296 19976D PARTS		0.00	133.40
503-000-000-54865-3104		Oper Supp-Parts-EM&R V		ACCT#4296 19976D PARTS	133.40	
057812	Invoice	10/26/2023	ACCT#4296 19976D PARTS		0.00	61.59
503-000-000-54865-3104		Oper Supp-Parts-EM&R V		ACCT#4296 19976D PARTS	61.59	
057921	Invoice	10/27/2023	ACCT#4296 CORE DEPOSIT		0.00	141.57
001-118-000-52122-3110		Office & Operating-Auto		ACCT#4296 CORE DEPOSIT	141.57	
058538	Invoice	11/01/2023	ACCT#4296 67805D PARTS		0.00	390.20
503-000-000-54865-3102		Oper Supplies-Parts		ACCT#4296 67805D PARTS	390.20	
058539	Credit Memo	11/01/2023	ACCT#4296 RETURN		0.00	-48.93
402-400-000-53580-3100		Office and Operating		ACCT#4296 RETURN	-48.93	
058540	Invoice	11/01/2023	ACCT#4296 GREASE		0.00	7.84
404-000-000-53180-3100		Office and Operating		ACCT#4296 GREASE	7.84	
155563	YOUNGLOVE & COKER-PLLC	11/09/2023	Regular	0.00	14,331.00	109523

Check Register

Packet: APPKT02922-NOVEMBER 9, 2023 AP PAYMENTS.

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Payable Date	Payable Description	Discount Amount	Payable Amount	
Account Number		Account Name	Project Account Key	Item Description	Dist Amount	
00474	Invoice	10/25/2023	20501-001 PROSECUTION SERVICES	0.00	14,331.00	
001-122-000-51545-4101		Prof Serv - Prosecutor		20501-001 PROSECUTION	14,331.00	

Bank Code APBNK-Main Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	96	40	0.00	63,343.72
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	27	13	0.00	55,660.74
Virtual Payments	0	0	0.00	0.00
	123	53	0.00	119,004.46

Virtual Payments	0	0	0.00	0.00
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Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	11/2023	119,004.46
			<u>119,004.46</u>



CITY OF SHELTON, WASHINGTON - CITY COUNCIL

City Council Meeting Minutes
October 17, 2023 – 6:00 p.m.
Civic Center & Virtual Platform

COUNCILMEMBERS AND PERSONNEL

Councilmembers:

Mayor Eric Onisko
Deputy Mayor Joe Schmit
James Boad (Zoom)
Miguel Gutierrez
Sharon Schirman

Personnel:

City Manager Mark Ziegler
City Clerk Donna Nault
Finance Director Mike Githens
Police Captain Chris Kostad

Guest: Amy Cooper – Shelton Downtown Merchants

CALL TO ORDER

Call to Order: 6:00 p.m.

Pledge of Allegiance: Mayor Onisko

Roll Call: City Clerk Nault – Absent Councilmember Kathy McDowell & Councilmember Deidre Peterson

A motion was made by Deputy Mayor Schmit and seconded by Councilmember Schirman to excuse the absence of Councilmember McDowell & Councilmember Peterson. Passed.

LATE CHANGES TO THE AGENDA

None

CITY COUNCIL REPORTS

None

CONSENT AGENDA

1. Vouchers numbered 109194 through 109232 in the total amount of \$111,709.78
2. Minutes:
 - Business Meeting of September 5, 2023
 - Study Session of September 12, 2023

A motion was made by Deputy Mayor Schmit and seconded by Councilmember Gutierrez to approve the consent agenda as published. Passed.

PRESENTATIONS

1. Shop Shelton First LTAC Report – Presented by Amy Cooper

Amy Cooper from Shelton Downtown Merchants presented LTAC information regarding the Shop Shelton First Campaign. No discussion.

2. August Financial Status Report – Presented by Finance Director Mike Githens

Finance Director Mike Githens provided an overview of the financial reports through the month of August. Discussion followed.

3. Shelton Police Department Annual Report – Presented by Captain Chris Kostad

Captain Chris Kostad provided an overview of the Shelton Police Department annual report. Discussion followed.

BUSINESS AGENDA

1. LTAC Tourism Grant Recommendations – Presented by City Manager Mark Ziegler

City Manager Mark Ziegler presented information regarding the Lodging Tax Advisory Committee's Tourism Grant Recommendations. Discussion followed. No public comment.

A motion was made by Councilmember Gutierrez and seconded by Councilmember Schirman to forward the Lodging Tax Advisory Committee's recommendations to the November 7, 2023 City Council action agenda for further consideration. Passed.

2. Designated Crisis Responder Contract – Presented by City Manager Mark Ziegler

City Manager Mark Ziegler presented information regarding the Designated Crisis Responder contract. Discussion followed. No public comment.

A motion was made by Councilmember Gutierrez and seconded by Councilmember Schirman to forward the contract with Thurston Mason Behavioral Health Administrative Services Organization and Olympic Health and Recovery Services for designated crisis responder services on the November 7, 2023 City Council Action Agenda for further consideration. Passed.

ACTION AGENDA

1. Resolution No. 1291-0823 Sale of Surplus Real Estate – Presented by Parks and Recreation Supervisor Jordanne Krumpols

Parks and Recreation Supervisor Jordanne Krumpols presented information regarding the sale of surplus real estate. No discussion. No public comment. City Clerk Nault provided a reading of Resolution No. 1291-0823.

A motion was made by Councilmember Gutierrez and seconded by Councilmember Schirman to approve Resolution No. 1291-0823 as presented. Passed.

ADMINISTRATION REPORT

1. City Manager Report

- October 16, 2023 – 35th District delegation visit and tour
- October 17, 2023 – Homelessness Sub Committee meeting
- October 17, 2023 – City Budget 101 was shared with the public

GENERAL PUBLIC COMMENT (3-minute time limit)

In-Person:

Clay Long

Michelle Marks

Dean Jewett

Zoom:

Colleen Carmichael

EXECUTIVE SESSION

1. To Discuss the Potential Purchase of Property – RCW 42.30.110(1)(b)

At 6:57 p.m., Mayor Onisko recessed from the regular meeting to meet in executive session for fifteen minutes to discuss the potential purchase of property as allowed by RCW 42.30.110(1)(b). At 7:13 p.m., Mayor Onisko

extended the executive session for 10 minutes. At 7:21 p.m., Mayor Onisko called the regular meeting back to order.

NEW ITEMS FOR DISCUSSION

None

ANNOUNCEMENT OF NEXT MEETING

Study Session – October 24, 2023 at 6:00 p.m.

City Council Meeting – November 7, 2023 at 6:00 p.m.

MEETING ADJOURN

Mayor Onisko adjourned the meeting at 7:21 p.m.

Mayor Eric Onisko

City Clerk Donna Nault



CITY OF SHELTON, WASHINGTON - CITY COUNCIL

Study Session Minutes
October 24, 2023 – 6:00 p.m.
Civic Center & Virtual Platform

COUNCILMEMBERS AND PERSONNEL

Councilmembers:

Mayor Eric Onisko
Deputy Mayor Joe Schmit
James Boad
Miguel Gutierrez
Kathy McDowell
Deidre Peterson
Sharon Schirman

Personnel:

City Manager Mark Ziegler
City Clerk Donna Nault
Public Works Director Jay Harris
Capital Projects Manager Aaron Nix

CALL TO ORDER

Call to Order: 6:00 p.m.
Roll Call: City Clerk Nault – All Present

STUDY AGENDA

1. Frontage Improvements & Transportation Impact Fees Code Modifications – Presented by Public Works Director Jay Harris

Public Works Director Jay Harris presented information regarding Frontage Improvements and Transportation Impact Fees Code Modifications. Discussion followed.

2. Well #1 Pipeline Pressurization Project – Presented by Capital Projects Manager Aaron Nix

Capital Projects Manager Aaron Nix presented information regarding the Well #1 Pipeline Pressurization project. Discussion followed.

3. Safe Routes to School Project Update – Presented by Capital Projects Manager Aaron Nix

Capital Projects Manager Aaron Nix presented information regarding the Safe Routes to School project update. Discussion followed.

NEW ITEMS FOR DISCUSSION

None

ADJOURN

Mayor Onisko adjourned the meeting at 6:58 p.m.

Mayor Eric Onisko

City Clerk Donna Nault





The Lowdown Drifters

Touring band



School House Rocks

- Give back to Shelton School District
- Bringing live music to downtown Shelton
- With 230+ attendees

	School House Rocks					
Sales (Event Bright)	\$1465.00					
Sales (Cash)	\$2167.00					
Square Sales	\$990.28					
Freedom Highway	\$300					
Builders first Source Sponsorship	\$500					
Shearer Brothers Trucking Sponsorship	\$500.00					
Lodging Grant	\$3,500.00					
TOTAL	\$9,422.28					
Security	\$750.00					
Tent Rental	\$2364.82					
Stage Rental	\$652.80					
KAYO Radio	\$765.00					
Journal Ads	\$515.00					
Music	\$2500.00					
Sound	\$1600.00					
TOTAL	\$9147.62					

THANK YOU FOR YOUR SUPPORT!

September 2023 Monthly Financial Report

City of Shelton, Washington

General Fund Overview

	2023 Revised Budget	2023 thru September	2023 Est Actual	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Revenues	14,513,102	10,706,462	14,570,272	57,170	0.4%
Expenditures	15,891,620	9,933,700	14,675,858	1,215,762	7.7%
Net Revenues Less Expenditures	(1,378,518)	772,761	(105,586)	1,272,932	
Beginning Fund Balance	5,047,716		5,047,716		
Ending Fund Balance	3,669,198 23.1%		4,942,130 31.1%		
<u>Ending Fund Balance Breakdown:</u>					
Reserved - 20% of Budget	3,178,324		3,178,324		
Unreserved Fund Balance	490,874		1,763,806		
Total Fund Balance	3,669,198		4,942,130		

Summary

2023 estimated actuals are based on historical data, YTD activity, known adjustments and are not year-end actuals.
2022 amounts included in this report are unaudited.

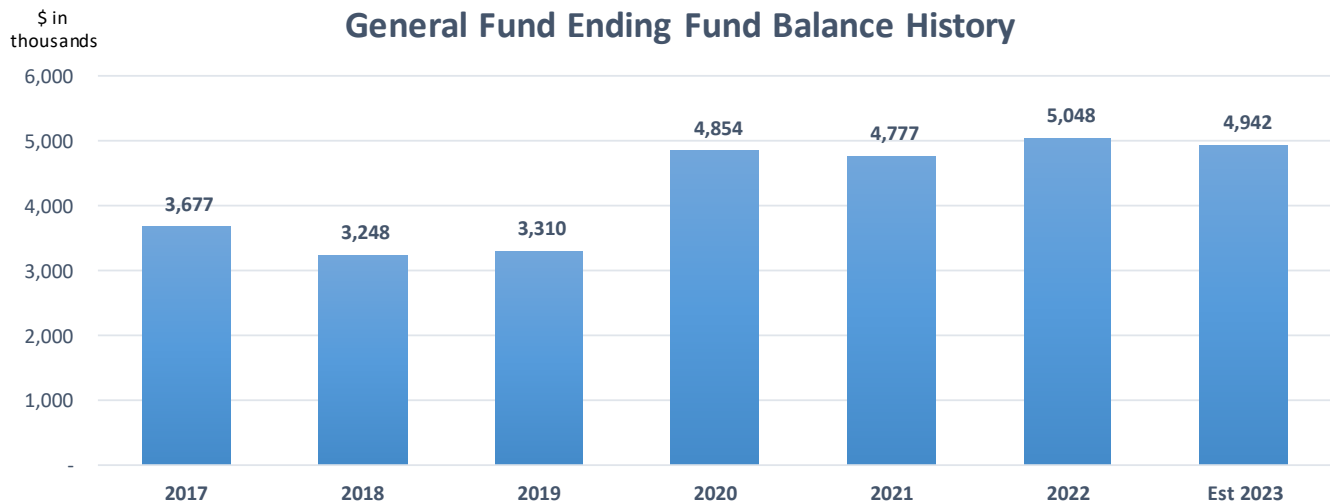
Analysis through September shows an overall Positive budget variance of \$1.3 million.
General Fund Reserves are estimated to end the year at \$4.9 million, or 31.1% of 2023 revised budgeted expenditures.

Revenue Overview

Revenues are currently estimated to end the year approximately \$57 thousand, or .4% higher than budgeted.

Expenditure Overview

Expenditures are currently estimated to end the year approximately \$1.2 million, or 7.7% less than budgeted.



September 2023 Monthly Financial Report

City of Shelton, Washington

General Fund Overview - Revenues

Revenue Categories	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Taxes:					
Property	2,846,399	1,559,589	2,846,399	-	0.0%
Sales & Use	3,515,360	2,675,163	3,454,780	(60,580)	-1.7%
City Utility	1,276,600	1,139,770	1,409,312	132,712	10.4%
Non-City Utility	1,301,400	1,004,176	1,269,850	(31,550)	-2.4%
Business & Occupation	1,007,475	631,363	807,475	(200,000)	-19.9%
Other	48,930	47,016	54,390	5,460	11.2%
Licenses & Permits	301,900	227,091	287,170	(14,730)	-4.9%
Intergovernmental Revenue	632,086	495,264	589,855	(42,231)	-6.7%
Charges for Goods/Services	3,159,306	2,597,402	3,374,982	215,676	6.8%
Fines and Penalties	92,550	38,416	49,720	(42,830)	-46.3%
Miscellaneous Revenue	153,096	281,445	310,573	157,477	102.9%
Transfers In	178,000	9,766	115,766	(62,234)	-35.0%
Total Revenues	14,513,102	10,706,462	14,570,272	57,170	0.4%

*2023 estimated actuals are based on historical data, YTD activity, known adjustments and are not year-end actuals.

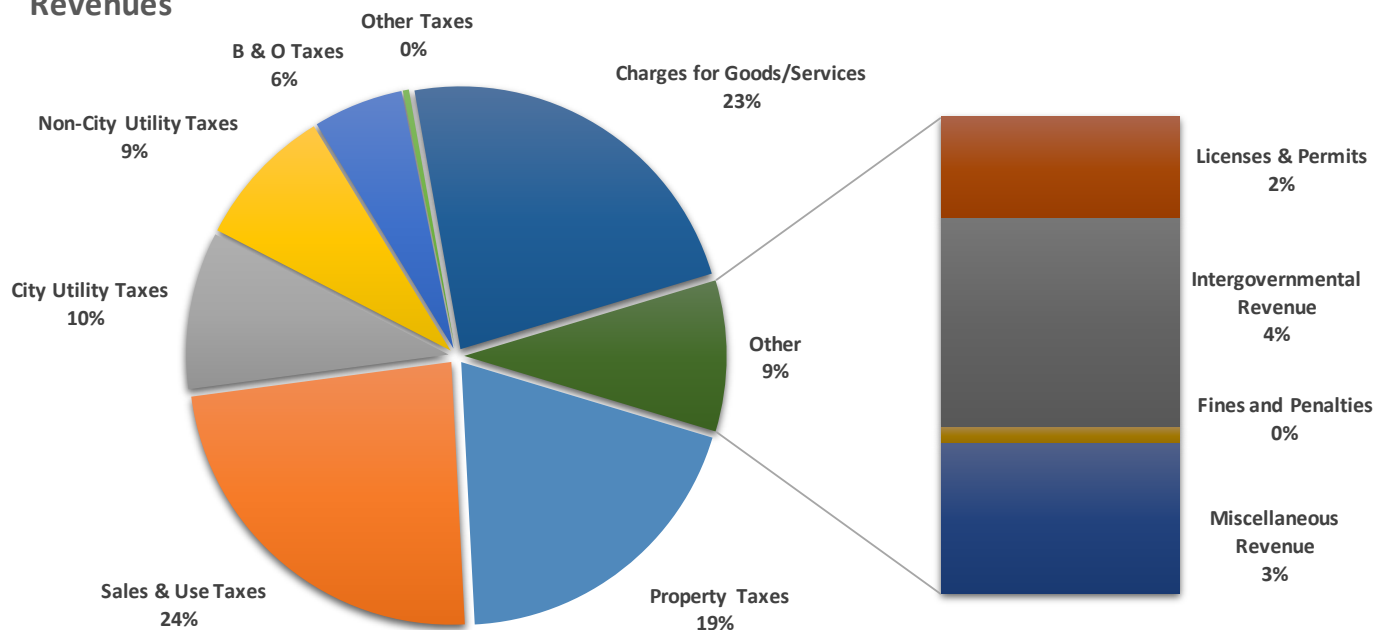
Variance analysis for revenues is provided for particular line items or those in which the estimated actual amount differs from the budgeted amount by at least 10% and \$75,000.

Variance Notes

B&O Taxes: Estimated to be under budget by \$200 thousand due to lower taxes received so far this year.

Miscellaneous: Over budget due to parks donations, investment interest & facility rentals.

2023 Estimated General Fund Revenues



September 2023 Monthly Financial Report

City of Shelton, Washington

General Fund Overview - Expenditures

Department	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Administrative Services					
Human Resources	324,148	240,590	322,740	1,408	0.4%
Information Technology	411,911	284,204	411,141	770	0.2%
Risk Management	141,556	124,465	149,680	(8,124)	-5.7%
City Clerk	273,030	177,733	244,440	28,590	10.5%
City Council	70,438	46,267	62,878	7,560	10.7%
City Manager					
City Manager	405,609	314,895	422,310	(16,701)	-4.1%
Legal	328,170	221,792	300,720	27,450	8.4%
Detentions/Corrections-Contract	1,137,280	122,442	300,000	837,280	73.6%
Community & Economic Development					
Animal Control	77,902	67,708	100,676	(22,774)	-29.2%
Code Enforcement	207,783	130,465	185,950	21,833	10.5%
Community Development	758,613	492,164	728,656	29,957	3.9%
Parks & Facilities					
Civic Center Activities	81,540	46,220	61,800	19,740	24.2%
Facility Services	923,360	491,006	786,006	137,354	14.9%
Parks & Recreation	720,339	488,242	680,140	40,199	5.6%
Finance	1,171,129	860,061	1,174,300	(3,171)	-0.3%
Fire & Emergency Services	2,195,161	1,862,071	2,485,952	(290,791)	-13.2%
Municipal Court	729,432	557,666	736,810	(7,378)	-1.0%
Non-Departmental	905,228	129,916	828,885	76,343	8.4%
Police	4,043,910	2,758,613	3,886,581	157,329	3.9%
Public Works	985,081	517,180	806,193	178,888	18.2%
Total Expenditures	15,891,620	9,933,700	14,675,858	1,215,762	7.7%

*2023 estimated actuals are based on historical data, YTD activity, known adjustments and are not year-end actuals.

Variance analysis for expenditures is provided for particular departments which have an estimated actual amount that

Variance Notes

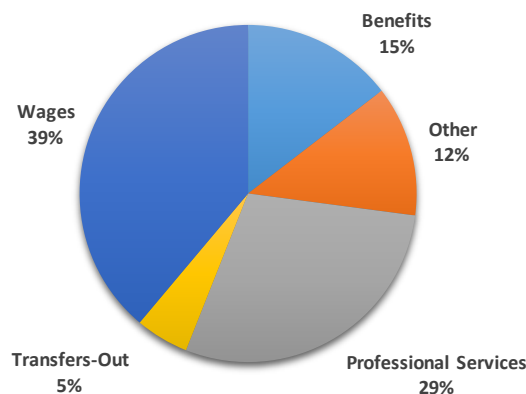
Detention/Corrections: Jail fees estimated to be below budget due to limited implementation of new jail contract.

Facility Services: Library deck repair delayed until 2024.

Fire & Emergency Services: Budgeted for a 33% estimated increase and final increase came in much higher.

Public Works: below budget due to open positions during 2023.

2023 Estimated General Fund Expenditures



September 2023 Monthly Financial Report

City of Shelton, Washington

General Fund Year-to-Year

	2021 Actual	2022 Actual	2023 Revised Budget	2023 thru September	2023 Est Actual
Beginning Fund Balance	4,853,628	4,777,608	5,047,716	5,047,716	5,047,716
Revenues					
Taxes:					
Property	2,502,891	2,546,998	2,846,399	1,559,589	2,846,399
Sales & Use	3,368,713	3,436,648	3,515,360	2,675,163	3,454,780
City Utility	1,241,561	1,474,584	1,276,600	1,139,770	1,409,312
Non-City Utility	1,165,125	1,205,659	1,301,400	1,004,176	1,269,850
Business & Occupation	980,007	985,461	1,007,475	631,363	807,475
Other	56,304	60,421	48,930	47,016	54,390
Licenses & Permits	281,260	306,329	301,900	227,091	287,170
Intergovernmental Revenue	2,240,637	2,147,469	632,086	495,264	589,855
Charges for Goods/Services	2,904,696	3,060,577	3,159,306	2,597,402	3,374,982
Fines and Penalties	78,453	51,581	92,550	38,416	49,720
Miscellaneous Revenue	141,622	260,291	153,096	281,445	310,573
Transfers In	-	128	178,000	9,766	115,766
Total Revenues	14,961,269	15,536,147	14,513,102	10,706,462	14,570,272
Expenditures					
Administrative Services					
Human Resources	259,811	327,848	324,148	240,590	322,740
Information Technology	279,243	374,562	411,911	284,204	411,141
Risk Management	115,849	136,360	141,556	124,465	149,680
City Clerk	198,328	238,028	273,030	177,733	244,440
City Council	100,744	77,768	70,438	46,267	62,878
City Manager					
City Manager	385,264	344,279	405,609	314,895	422,310
Legal	286,726	277,979	328,170	221,792	300,720
Detentions/Corrections-Contract	314,238	339,327	1,137,280	122,442	300,000
Community & Economic Development					
Animal Control	71,796	83,700	77,902	67,708	100,676
Code Enforcement	97,284	81,285	207,783	130,465	185,950
Community Development	450,660	563,250	758,613	492,164	728,656
Parks & Facilities					
Civic Center Activities	50,348	51,915	81,540	46,220	61,800
Facility Services	524,991	652,720	923,360	491,006	786,006
Parks & Recreation	521,872	575,245	720,339	488,242	680,140
Finance	928,469	1,079,083	1,171,129	860,061	1,174,300
Fire & Emergency Services	1,560,701	1,690,846	2,195,161	1,862,071	2,485,952
Municipal Court	528,267	666,977	729,432	557,666	736,810
Non-Departmental	4,252,020	3,220,764	905,228	129,916	828,885
Police	3,410,746	3,587,265	4,043,910	2,758,613	3,886,581
Public Works	699,932	896,836	985,081	517,180	806,193
Total Expenditures	15,037,288	15,266,038	15,891,620	9,933,700	14,675,858
Net Revenues less Expenditures	(76,020)	270,108	(1,378,518)	772,761	(105,586)
Ending Fund Balance	4,777,608	5,047,716	3,669,198	5,820,477	4,942,130
General Fund Reserves	4,777,608	5,047,716	3,669,198		4,942,130
based on same year actuals/budg	31.8%	33.1%	23.1%		33.7%

September 2023 Monthly Financial Report

City of Shelton, Washington

General Fund Month-to-Month

	2021 thru September	2022 thru September	2023 thru September	2023 - 2022 Variance		% of Budget
Revenues						
Taxes:						
Property	1,755,076	1,440,815	1,559,589	118,774	8.2%	54.8%
Sales & Use	2,529,038	2,525,939	2,675,163	149,225	5.9%	76.1%
City Utility	894,810	1,099,807	1,139,770	39,964	3.6%	89.3%
Non-City Utility	899,125	949,493	1,004,176	54,682	5.8%	77.2%
Business & Occupation	786,785	792,699	631,363	(161,337)	-20.4%	62.7%
Other	35,812	40,985	47,016	6,030	14.7%	96.1%
Licenses & Permits	206,675	244,306	227,091	(17,215)	-7.0%	75.2%
Intergovernmental Revenue	1,924,884	2,044,685	495,264	(1,549,421)	-75.8%	78.4%
Charges for Goods/Services	2,137,400	2,389,704	2,597,402	207,698	8.7%	82.2%
Fines and Penalties	56,987	40,746	38,416	(2,330)	-5.7%	41.5%
Miscellaneous Revenue	108,201	172,236	281,445	109,209	63.4%	183.8%
Transfers In	-	-	9,766	9,766		5.5%
Total Revenues	11,334,792	11,741,417	10,706,462	(1,034,955)	-8.8%	73.8%
Expenditures						
Administrative Services						
Human Resources	190,623	247,016	240,590	(6,426)	-2.6%	74.2%
Information Technology	202,361	260,129	284,204	24,075	9.3%	69.0%
Risk Management	94,242	111,576	124,465	12,889	11.6%	87.9%
City Clerk	141,888	178,774	177,733	(1,041)	-0.6%	65.1%
City Council	75,285	61,991	46,267	(15,724)	-25.4%	65.7%
City Manager						
City Manager	282,832	280,625	314,895	34,270	12.2%	77.6%
Legal	199,391	198,787	221,792	23,004	11.6%	67.6%
Detentions/Corrections-Contrac	233,561	256,975	122,442	(134,533)	-52.4%	10.8%
Community & Economic Development						
Animal Control	51,193	62,546	67,708	5,163	8.3%	86.9%
Code Enforcement	63,808	44,502	130,465	85,964	193.2%	62.8%
Community Development	334,427	396,373	492,164	95,791	24.2%	64.9%
Parks & Facilities						
Civic Center Activities	38,715	37,112	46,220	9,108	24.5%	56.7%
Facility Services	388,059	469,177	491,006	21,829	4.7%	53.2%
Parks & Recreation	386,706	402,652	488,242	85,590	21.3%	67.8%
Finance	765,257	742,776	860,061	117,285	15.8%	73.4%
Fire & Emergency Services	1,174,820	1,264,073	1,862,071	597,999	47.3%	84.8%
Municipal Court	395,837	504,839	557,666	52,828	10.5%	76.5%
Non-Departmental	2,579,766	2,220,062	129,916	(2,090,146)	-94.1%	14.4%
Police	2,587,698	2,717,246	2,758,613	41,367	1.5%	68.2%
Public Works	473,943	664,650	517,180	(147,469)	-22.2%	52.5%
Total Expenditures	10,660,410	11,121,878	9,933,700	(1,188,178)	-10.7%	62.5%

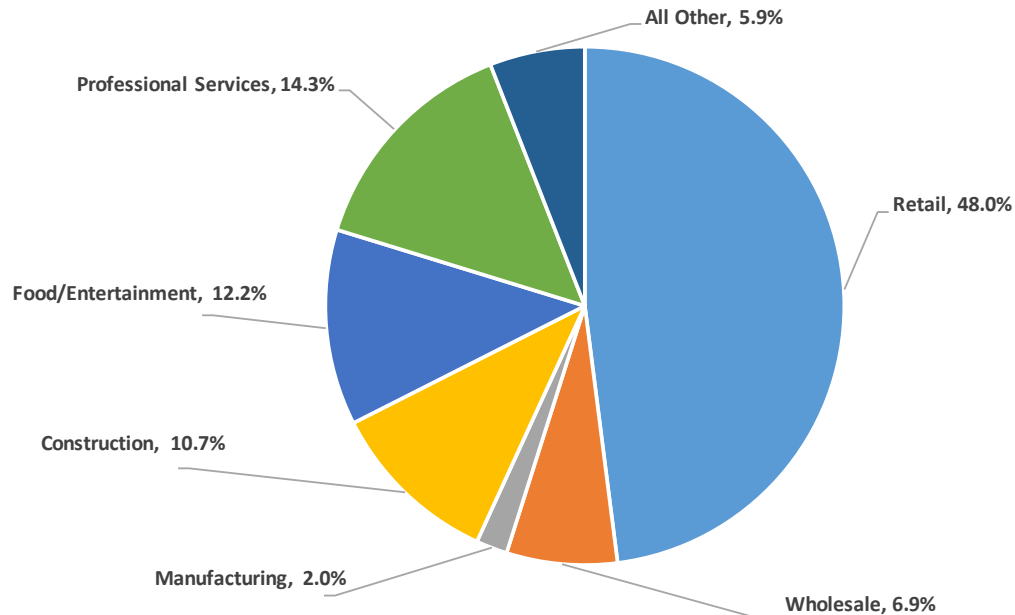
This Month-to-Month presentation does not include variance notes. Common variances are due to timing of receipts and expenditures. Totals reported are year-to-date through September which is 75.0% of the year.

September 2023 Monthly Financial Report

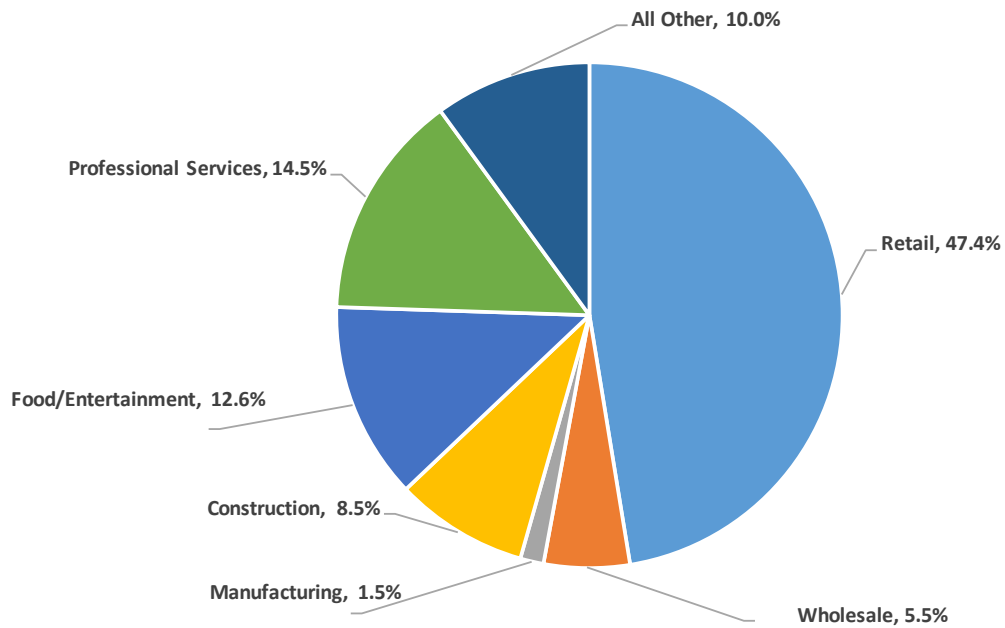
City of Shelton, Washington

Sales Tax Breakdown by Type

2023 thru September



September 2023



September 2023 Monthly Financial Report

City of Shelton, Washington

Fund Balances

Fund	2023 Beginning Fund Balance	2023 Estimated Revenue	2023 Estimated Expenditure	2023 Estimated Fund Balance	\$ Change	% Change
City-wide Fund Balances						
General Fund	5,047,716	14,570,272	14,675,858	4,942,130	(105,586)	-2.1%
Street Fund	432,336	2,083,996	1,999,755	516,577	84,241	19.5%
Capital Resource Funds						
Real Estate Excise Tax -1	505,896	186,500	128,574	563,822	57,926	11.5%
Real Estate Excise Tax -2	592,438	188,500	30,000	750,938	158,500	26.8%
Transport Benefit District	1,540,535	564,000	579,500	1,525,035	(15,500)	-1.0%
Traffic Impact Fees	706,764	76,000	100,000	682,764	(24,000)	-3.4%
General Resources	1,222,689	335,204	934,204	623,689	(599,000)	-49.0%
Tourism Fund	91,844	57,750	70,445	79,149	(12,695)	-13.8%
Bond Fund	7,592	183,900	183,900	7,592	-	0.0%
Capital Improvement Fund	860,451	1,674,358	2,204,910	329,899	(530,552)	-61.7%
Water Fund	2,003,551	3,789,159	3,485,707	2,307,003	303,452	15.1%
Water Capital Fund	1,042,911	580,000	934,390	688,521	(354,390)	-34.0%
Sewer Fund	4,162,000	6,733,239	7,075,261	3,819,978	(342,022)	-8.2%
Sewer Capital Fund	1,317,368	729,000	1,252,081	794,287	(523,081)	-39.7%
Solid Waste Fund	955,208	2,103,638	2,770,906	287,940	(667,268)	-69.9%
Storm Drainage Fund	612,365	1,618,896	1,371,520	859,741	247,376	40.4%
Storm Drainage Capital Fund	185,194	80,000	123,760	141,434	(43,760)	-23.6%
Payroll Benefits Fund	196,855	103,061	79,908	220,008	23,153	11.8%
Equipment Rental Fund	564,289	679,627	1,080,200	163,716	(400,573)	-71.0%
Firefighters Pension Fund	426,890	21,634	64,967	383,557	(43,333)	-10.2%
Library Endowment Fund	122,928	6,000	-	128,928	6,000	4.9%
City-wide Fund Totals	22,597,820	36,364,734	39,145,845	19,816,709	(2,781,111)	-12.3%

City-Wide FTE by Fund

General Fund	2023 Budget	2023 Revised	Sept 30 Vacancies
City Council	7.00	7.00	-
Municipal Court	4.50	4.50	-
City Clerk*	2.00	2.00	-
City Manager	2.00	2.00	-
Human Resources	2.85	2.85	1.00
Information Technology	1.15	1.15	-
Finance	9.00	7.00	-
Public Works	5.10	5.10	1.00
Police	21.00	21.00	1.00
Community Development	5.85	5.85	1.00
Parks, Rec & Facilities	9.00	8.00	2.00
Total General Fund	69.45	66.45	6.00

Other City Funds	2023 Budget	2023 Revised	Sept 30 Vacancies
Street Operating	4.65	4.65	1.00
Water Utility	8.80	8.80	1.50
Sewer Utility	11.70	11.70	0.50
Storm Drainage Utility	7.60	7.60	1.00
Equip. Maint. & Rental	1.30	1.30	-
Total Other Funds	34.05	34.05	4.00
Total City	103.50	100.50	10.00

September 2023 Monthly Financial Report

City of Shelton, Washington

City-Wide Overview - Revenues & Expenditures

Fund	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
General Fund					
Taxes	9,996,164	7,057,077	9,842,206	(153,958)	-1.5%
Licenses & Permits	301,900	227,091	287,170	(14,730)	-4.9%
Intergovernmental Revenue	632,086	495,264	589,855	(42,231)	-6.7%
Charges for Goods/Services	3,159,306	2,597,402	3,374,982	215,676	6.8%
Fines and Penalties	92,550	38,416	49,720	(42,830)	-46.3%
Miscellaneous Revenue	153,096	281,445	310,573	157,477	102.9%
Transfers In	178,000	9,766	115,766	(62,234)	-35.0%
Total Revenues	14,513,102	10,706,462	14,570,272	57,170	0.4%
Wages	5,952,128	4,154,443	5,705,537	246,591	4.1%
Benefits	2,415,223	1,603,047	2,137,720	277,503	11.5%
Professional Services	4,843,823	2,873,631	4,244,025	599,798	12.4%
Transfers-Out	872,022	52,085	751,058	120,964	13.9%
Other	1,808,424	1,250,495	1,837,518	(29,094)	-1.6%
Total Expenditures	15,891,620	9,933,700	14,675,858	1,215,762	7.7%
Net Revenues Less Expenditures	(1,378,518)	772,761	(105,586)	1,272,932	
Street Fund					
Taxes	675,000	544,622	675,000	-	0.0%
Licenses & Permits	10,000	8,520	11,360	1,360	13.6%
Intergovernmental Revenue	199,000	153,786	198,540	(460)	-0.2%
Charges for Goods/Services	56,120	48,298	64,400	8,280	14.8%
Miscellaneous Revenue	1,500	7,026	8,000	6,500	433.3%
Transfers In	1,126,696	-	1,126,696	-	0.0%
Total Revenues	2,068,316	762,252	2,083,996	15,680	0.8%
Wages	378,476	254,883	374,865	3,611	1.0%
Benefits	177,468	117,173	166,180	11,288	6.4%
Professional Services	107,440	7,350	92,120	15,320	14.3%
Transfers-Out	525,000	-	525,000	-	0.0%
Other	852,441	608,388	841,590	10,851	1.3%
Total Expenditures	2,040,825	987,794	1,999,755	41,070	2.0%
Net Revenues Less Expenditures	27,491	(225,542)	84,241	56,750	
Capital Resources - Real Estate Excise Tax - 1 (REET-1)					
Taxes	52,500	147,081	170,000	117,500	223.8%
Miscellaneous Revenue	-	13,999	16,500	16,500	
Total Revenues	52,500	161,080	186,500	134,000	255.2%
Transfers-Out	128,574	91,739	128,574	-	0.0%
Total Expenditures	128,574	91,739	128,574	-	0.0%
Net Revenues Less Expenditures	(76,074)	69,341	57,926	134,000	

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September 2023 Monthly Financial Report

City of Shelton, Washington

City-Wide Overview - Revenues & Expenditures

Fund	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Capital Resources - Real Estate Excise Tax - 2 (REET-2)					
Taxes	52,500	147,081	170,000	117,500	223.8%
Miscellaneous Revenue	-	17,583	18,500	18,500	
Total Revenues	52,500	164,665	188,500	136,000	259.0%
Transfers-Out	30,000	-	30,000	-	0.0%
Total Expenditures	30,000	-	30,000	-	0.0%
Net Revenues Less Expenditures	22,500	164,665	158,500	136,000	
Capital Resources -Transportation Benefit District (TBD)					
Miscellaneous Revenue	-	37,391	39,000	39,000	
Transfers In	525,000	-	525,000	-	0.0%
Total Revenues	525,000	37,391	564,000	39,000	7.4%
Transfers-Out	779,500	180,000	579,500	200,000	25.7%
Total Expenditures	779,500	180,000	579,500	200,000	25.7%
Net Revenues Less Expenditures	(254,500)	(142,609)	(15,500)	239,000	
Capital Resources - Traffic Impact Fees (TIF)					
Charges for Goods/Services	80,000	53,379	55,000	(25,000)	-31.3%
Miscellaneous Revenue	-	19,196	21,000	21,000	
Total Revenues	80,000	72,575	76,000	(4,000)	-5.0%
Transfers-Out	100,000	-	100,000	-	0.0%
Total Expenditures	100,000	-	100,000	-	0.0%
Net Revenues Less Expenditures	(20,000)	72,575	(24,000)	(4,000)	
Capital Resources - General					
Intergovernmental Revenue	303,204	302,944	303,204	-	0.0%
Miscellaneous Revenue	-	30,074	32,000	32,000	
Total Revenues	303,204	333,018	335,204	32,000	10.6%
Transfers-Out	654,000	-	631,000	23,000	3.5%
Other	303,204	302,944	303,204	-	0.0%
Total Expenditures	957,204	302,944	934,204	23,000	2.4%
Net Revenues Less Expenditures	(654,000)	30,074	(599,000)	55,000	
Tourism Fund					
Taxes	48,000	45,978	55,000	7,000	14.6%
Miscellaneous Revenue	100	2,664	2,750	2,650	2650.0%
Total Revenues	48,100	48,641	57,750	9,650	20.1%
Professional Services	68,000	39,695	70,445	(2,445)	-3.6%
Total Expenditures	68,000	39,695	70,445	(2,445)	-3.6%
Net Revenues Less Expenditures	(19,900)	8,946	(12,695)	7,205	

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September 2023 Monthly Financial Report

City of Shelton, Washington

City-Wide Overview - Revenues & Expenditures

Fund	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Bond Fund					
Taxes	-	-	-	-	
Transfers In	183,900	44,450	183,900	-	0.0%
Total Revenues	183,900	44,450	183,900	-	0.0%
Other	183,900	44,450	183,900	-	0.0%
Total Expenditures	183,900	44,450	183,900	-	0.0%
Net Revenues Less Expenditures	-	0	-	-	

Capital Improvement Fund					
Intergovernmental Revenue	1,845,085	789,463	894,858	(950,227)	-51.5%
Charges for Goods/Services	50,000	-	50,000	-	0.0%
Transfers In	929,500	260,000	729,500	(200,000)	-21.5%
Total Revenues	2,824,585	1,049,463	1,674,358	(1,150,227)	-40.7%
Professional Services	-	112,900	150,530	(150,530)	
Other	2,824,585	1,531,378	2,054,380	770,205	1.3%
Total Expenditures	2,824,585	1,644,278	2,204,910	619,675	21.9%
Net Revenues Less Expenditures	-	(594,815)	(530,552)	(530,552)	

Water Fund					
Charges for Goods/Services	2,916,210	2,242,680	2,872,634	(43,576)	-1.5%
Miscellaneous Revenue	46,100	892,721	916,525	870,425	1888.1%
Total Revenues	2,962,310	3,135,401	3,789,159	826,849	27.9%
Wages	679,386	511,092	681,460	(2,074)	-0.3%
Benefits	300,270	210,514	280,690	19,580	6.5%
Professional Services	290,070	283,808	378,410	(88,340)	-30.5%
Transfers-Out	390,000	59,387	390,000	-	0.0%
Other	1,846,225	1,174,780	1,755,147	91,078	4.9%
Total Expenditures	3,505,951	2,239,581	3,485,707	20,244	0.6%
Net Revenues Less Expenditures	(543,641)	895,820	303,452	847,093	

Water Fund

Revenues: Includes sale of land.

Water Capital Fund					
Intergovernmental Revenue	950,000	187,335	190,000	(760,000)	-80.0%
Transfers In	390,000	59,387	390,000	-	0.0%
Total Revenues	1,340,000	246,722	580,000	(760,000)	-56.7%
Other	1,340,000	391,678	934,390	405,610	30.3%
Total Expenditures	1,340,000	391,678	934,390	405,610	30.3%
Net Revenues Less Expenditures	-	(144,956)	(354,390)	(354,390)	

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September 2023 Monthly Financial Report

City of Shelton, Washington

City-Wide Overview - Revenues & Expenditures

Fund	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Sewer Fund					
Charges for Goods/Services	6,445,320	5,117,406	6,638,239	192,919	3.0%
Miscellaneous Revenue	18,000	73,682	95,000	77,000	427.8%
Total Revenues	6,463,320	5,191,088	6,733,239	269,919	4.2%
Wages	896,320	659,577	879,420	16,900	1.9%
Benefits	414,152	280,207	373,600	40,552	9.8%
Professional Services	476,760	357,639	476,850	(90)	0.0%
Transfers-Out	642,000	179,564	642,000	-	0.0%
Other	4,601,432	3,774,835	4,703,391	(101,959)	-2.2%
Total Expenditures	7,030,664	5,251,823	7,075,261	(44,597)	-0.6%
Net Revenues Less Expenditures	(567,344)	(60,735)	(342,022)	225,322	
Sewer Capital Fund					
Intergovernmental Revenue	400,000	70,805	87,000	(313,000)	-78.3%
Transfers In	642,000	179,564	642,000	-	0.0%
Total Revenues	1,042,000	250,369	729,000	-	0.0%
Other	1,042,000	930,477	1,252,081	(210,081)	-20.2%
Total Expenditures	1,042,000	930,477	1,252,081	(210,081)	-20.2%
Net Revenues Less Expenditures	-	(680,108)	(523,081)	(523,081)	
Solid Waste Fund					
Intergovernmental Revenue	1,392,918	2,067,723	2,090,000	697,082	50.0%
Miscellaneous Revenue	-	12,938	13,638	13,638	
Total Revenues	1,392,918	2,080,661	2,103,638	710,720	51.0%
Professional Services	228,185	251,000	267,220	(39,035)	-17.1%
Other	1,678,225	2,496,715	2,503,686	(825,461)	-49.2%
Total Expenditures	1,906,410	2,747,715	2,770,906	(864,496)	-45.3%
Net Revenues Less Expenditures	(513,492)	(667,054)	(667,268)	(153,776)	
Storm Drainage Fund					
Intergovernmental Revenue	25,000	47,673	47,673	22,673	90.7%
Charges for Goods/Services	1,537,340	1,184,258	1,533,350	(3,990)	-0.3%
Miscellaneous Revenue	500	36,799	37,873	37,373	7474.6%
Total Revenues	1,562,840	1,268,730	1,618,896	56,056	3.6%
Wages	556,387	271,341	413,770	142,617	25.6%
Benefits	242,846	118,910	173,990	68,856	28.4%
Professional Services	133,090	36,608	102,800	30,290	22.8%
Transfers-Out	80,000	-	80,000	-	0.0%
Other	605,668	432,009	600,960	4,708	0.8%
Total Expenditures	1,617,991	858,869	1,371,520	246,471	15.2%
Net Revenues Less Expenditures	(55,151)	409,862	247,376	302,527	
Storm Drainage Capital Fund					
Intergovernmental Revenue	-	80,000	80,000	80,000	
Transfers In	80,000	-	-	(80,000)	-100.0%
Total Revenues	80,000	80,000	80,000	-	0.0%
Other	80,000	112,818	123,760	(43,760)	-54.7%
Total Expenditures	80,000	112,818	123,760	(43,760)	-54.7%
Net Revenues Less Expenditures	-	(32,818)	(43,760)	(43,760)	

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September 2023 Monthly Financial Report

City of Shelton, Washington

City-Wide Overview - Revenues & Expenditures

Fund	2023 Revised Budget	2023 thru September	2023 Est Actual*	Variance Favorable (Unfavorable)	% Variance Favorable (Unfavorable)
Payroll Benefits Fund					
Charges for Goods/Services	40,000	36,786	49,050	9,050	22.6%
Miscellaneous Revenue	350	4,548	5,094	4,744	1355.3%
Transfers In	120,000	19,255	48,917	(71,083)	-59.2%
Total Revenues	160,350	60,590	103,061	(57,289)	-35.7%
Benefits	160,350	43,199	79,908	80,442	50.2%
Total Expenditures	160,350	43,199	79,908	80,442	50.2%
Net Revenues Less Expenditures	-	17,391	23,153	23,153	

Equipment Maint & Rental Fund					
Charges for Goods/Services	578,000	500,756	667,670	89,670	15.5%
Miscellaneous Revenue	5,000	11,376	11,957	6,957	139.1%
Total Revenues	583,000	512,133	679,627	96,627	16.6%
Wages	107,565	80,418	107,230	335	0.3%
Benefits	51,899	38,645	51,540	359	0.7%
Professional Services	14,308	3,206	8,000	6,308	44.1%
Other	931,304	491,527	913,430	17,874	1.9%
Total Expenditures	1,105,076	613,796	1,080,200	24,876	2.3%
Net Revenues Less Expenditures	(522,076)	(101,664)	(400,573)	121,503	

Firefighter's Pension Fund					
Taxes	100	-	-	(100)	-100.0%
Miscellaneous Revenue	9,000	20,235	21,634	12,634	140.4%
Transfers In	50,000	-	-	(50,000)	-100.0%
Total Revenues	59,100	20,235	21,634	(37,466)	-63.4%
Benefits	80,600	42,018	64,967	15,633	19.4%
Total Expenditures	80,600	42,018	64,967	15,633	19.4%
Net Revenues Less Expenditures	(21,500)	(21,783)	(43,333)	(21,833)	

Firefighters Pension Fund Notes

Revenues: Current estimate does not include a transfer-in from general fund in 2023.

Library Endowment Fund					
Miscellaneous Revenue	1,600	5,481	6,000	4,400	275.0%
Total Revenues	1,600	5,481	6,000	4,400	275.0%
Transfers-Out	24,000	-	-	24,000	100.0%
Total Expenditures	24,000	-	-	24,000	100.0%
Net Revenues Less Expenditures	(22,400)	5,481	6,000	28,400	

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CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item E1)

Touch Date: 11/07/2023
Brief Date: 11/21/2023
Action Date: 12/05/2023

Department: **Executive**
Presented By: **Mark Ziegler**

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:
Public Defense Contract

☐ Ordinance

☐ Dept. Head

☐ Finance Director

☒ Attorney

☒ City Clerk

☒ City Manager

ATTACHMENTS:

Contract – Sound Defenders, PLLC

☐ Resolution

☒ Motion

☐ Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

The City of Shelton is required to provide public defense for indigent individuals charged in the Municipal Court and has contracted for these services with Sound Defenders/Taschner and Associates since 2008. An amendment was executed in 2019 to better reflect case loads at that time, but it is prudent to address a new contract with the current case loads and market rates.

The terms of the contract anticipate 360 cases per calendar year at a compensation rate of \$348 per case and \$2,500 per month for in-custody hearings. Mason County is currently paying \$360 per case and Grays Harbor County is paying \$400 per case.

ANALYSIS/OPTIONS/ALTERNATIVES:

The City of Shelton could advertise a request for proposals to find a new firm or supplement services but that would likely not realize a savings if interested and eligible firms would be responsive.

BUDGET/FISCAL INFORMATION:

\$173,000 is budgeted in 2024 to retain our current Public Defense services. Additionally, grant funding from the Office of Public Defense would pay offset \$39,000 in each 2024 and 2025.

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained through the City Clerks' Office.

STAFF RECOMMENDATION/MOTION:

Staff requests "I move to place the contract for indigent defense services on the December 5, 2023 action agenda for further consideration".

CONTRACT FOR INDIGENT DEFENSE SERVICES

WHEREAS, the City of Shelton, Washington (hereinafter “City”) provides public defense services pursuant to contract for indigent defendants appearing before the Shelton Municipal Court (“Municipal Court”); and

WHEREAS, the City has adopted standards for the provision of public defense services, and

WHEREAS, the City, wishes to engage the services of skilled criminal defense counsel to provide services to indigent defendants.

NOW THEREFORE

In consideration of the mutual benefits to be derived and the promises contained herein, the City of Shelton, a Washington municipal corporation (“City”) and Sound Defenders, PLLC(the “Attorney”) have entered into this Agreement.

1. Scope of Services, Standards and Warranty. The Attorney will provide indigent defense services in accordance with the standards adopted by the City of Shelton by Chapter 2.96 of the Shelton Municipal Code (hereinafter “Standards”). These Standards are incorporated by this reference as if herein set forth. In the event the Standards adopted by the City are amended in order to incorporate changes required to conform to changes in Washington Supreme Court Rules or Standards or in the Washington State Bar Association Standards, the amended standards shall automatically apply to this Agreement, provided that either party may request to reopen this Agreement in order to adjust compensation if needed to ensure compliance with the Standards. The decision of the Honorable Robert S. Lasik in *Wilbur v. Mt. Vernon, et al*, details affirmative duties and obligations of the Attorney and ultimately the City. (“Decision”) The Attorney individually warrants that he/she, and every attorney and/or intern employed by the Attorney to perform services under this contract, have read and are fully familiar with the provisions of the Washington Supreme Court rule, the Washington State Bar Association Standards, and the Standards adopted by the City. Compliance with these Standards and guidance provided by the Decision goes to the essence of this Agreement.

1.1 The Attorney and every attorney and/or intern performing services under this Agreement shall certify compliance with the Supreme Court Caseload Standards quarterly with the Shelton Municipal Court on the form established for that purpose by court rule. A copy of each and every such certification shall be provided to the City contemporaneously with filing with the Municipal Court.

1.2 By way of illustration and not limitation, the Attorney has proposed compensation levels, staffing and infrastructure that provide the capacity and resources to meet the Standards including affirmative efforts to contact a client who fails to appear for an appointment and document those efforts.

1.3 The Attorney will maintain contemporaneous records on a daily basis in a format approved by the City. The Attorney will provide confirmation of continuing education courses in the area of criminal law and defense annually by December 31st. The Attorney will maintain and provide to the City all data, information and case files referenced in the Standards and this contract and any and all other information reasonably requested by the City or a successor, so long as consistent with the attorney-client privilege and any protective order entered by a court of competent jurisdiction. The Attorney shall promptly report a sustained disciplinary action by the Washington State Bar Association or a finding by a court of competent jurisdiction that an Attorney has been found to have provided ineffective assistance of counsel.

1.4 The Attorney will use a free “do not record” phone line to contact incarcerated indigent defendants and take reasonable measures consistent with local practice to ensure confidentiality of contacts with incarcerated defendants.

1.5 The Attorney shall, with respect to any jail or other incarceration facility in which an assigned defendant is incarcerated:

1.5.1 Review forms from the jail or other incarceration facility to assure that they accurately advise clients whether written communications are confidential; and

1.5.2 With reference to any indigent defendant client being held in an out-of-county jail or other incarceration facility, determine what arrangements have been made to allow clients to maintain confidential communications with their attorney and timely notify the City if no such arrangements are in place.

1.6 The Attorney shall maintain client complaints regarding his/her services received in a log as well as in the client’s file and shall follow up on complaints within three (3) court days. Copies of the complaint log shall be provided to the City on a quarterly basis or upon its request on the form developed by the City. The Attorney shall cooperate to the full extent consistent with preservation of the attorney-client privilege and any protective order, with review of Complaints by the City or other outside resource contracted with by the City to review the Attorney’s performance under this contract.

1.7 The Attorney warrants that his/her compensation, reflected in Section 2 Compensation, reflects all infrastructure, support, administrative services, and systems necessary to comply with the Standards.

1.8 Each and every Attorney providing services under this Agreement shall earn at least seven (7) CLE credits per year in areas relevant to the criminal law, as well as misdemeanor or public defense practice. The Attorney shall document training annually by providing the City with a list of all trainings attended by Attorney and staff during each year of the contract. Any training which results in a CLE credit shall be so designated showing the CLE credit given for such training.

1.9 The Attorney shall implement a system to collect the following information, (“Data Points”). The information gathered shall include:

1.9.1 the number of cases assigned to each Attorney authorized as a service provider each month, with the year-to-date total;

1.9.2 the number of closed cases in which expert services were requested;

1.9.3 the number of closed cases in which interpreter services requested, either in court or for utilization by the Attorneys;

1.9.4 the number of closed cases in which an investigator was used;

1.9.5 the number of closed cases in which substantive motions were filed;

1.9.6 the number of closed cases which were tried by a jury, by a judge, or in which charges were dismissed or significantly reduced on the day of trial;

1.9.7 the number of cases which were resolved by the dismissal of the charges, a significant reduction in charges or dismissal of other cases with a plea on the remaining case(s);

1.9.8 the number of appeals and/or writs;

1.9.9 the number of attorneys and investigator hours per closed case; and

1.9.10 the number of other criminal and civil cases handled in the calendar year. Information relating to the complexity of any civil matter and time billed will be provided.

1.10 The parties will communicate regularly regarding the information collected both under this Agreement and pursuant to the other Data Points. The parties will calendar meetings at least annually as may be necessary to review the data collected and its significance. Attorney agrees to cooperate and communicate with the City to the full extent consistent with preservation of the attorney/client privilege.

1.11 The Attorney shall provide counsel to defendants at arraignment and preliminary appearances regardless of whether they have been screened.

1.12 The Attorney's preparation and appearance at arraignment and status calendars where the Attorney appears without a case assignment shall be counted at 0.22 case per hour in determining case counts and compensation review under Section 2.6.

1.13 Quarterly or whenever requested in writing by the City, the Public Defender shall provide the City with records showing the following aspects of Public Defender representation for all cases in which services were rendered during the prior quarter and the case was closed or resolved with conditions or sentence imposed in the prior quarter.:

(i) Name, cause number, type of case appointed (separated by count),

and date of violation;

- (ii) Date of appointment;
- (iii) Date of initial contact with client;
- (iv) Whether contact took place within 72 hours and, if not, why;
- (v) How many confidential meetings took place and the total amount of time dedicated to confidential meetings;
- (vi) What the final disposition of the case was;
- (vii) What the date of the final disposition was;
- (viii) What stage the final disposition took place;
- (ix) Whether charges were reduced as a result of negotiation with the prosecuting attorney; and
- (x) The total amount of time dedicated to the case in tenths of an hour.

2. Compensation. Effective January 1, 2024, the City shall pay the Attorney for services rendered under this contract the sum of ten thousand, four hundred forty dollars (\$10,440.00) per month to reflect an annualized case count of up to three hundred sixty (360) cases at three hundred forty-eight dollars (\$348.00) per case. For the initial term, Attorney will be prepared to handle up to (360) cases.

The compensation amount represents the salary and benefits necessary to the Attorney performing anticipated work on three hundred sixty (360) assigned cases and all infrastructure, support, and systems necessary to comply with the Standards. As provided in Section 2.6 and its subparagraphs below, the parties will periodically review staffing in light of changes in court rule and case load, if any. The parties believe that they have provided sufficient capacity to ensure that, in all respects and at all times, public defense service will comply with the Standards with an adequate reserve capacity for each attorney. The Attorney additionally agrees and promises that he/she will devote his/her full effort to the performance of this Agreement and will undertake no private practice of law or other public defense contract that would impede his/her ability to perform under this Agreement.

2.1 Case Counts. Based upon case counts maintained by Attorney and reviewed by the City, current estimates for annual case counts for all indigent cases filed by the City is approximately four hundred (400) to five hundred twenty five (525) cases. As provided in the Standards, the case counts also include the Attorney's appearance at all arraignment calendars. (See Section 1.11 and 1.12 above). The terms "case" and "credit" shall be defined as provided in the Standards. The City has adopted an unweighted case count.

2.3 Base Compensation. Except as expressly provided in Section 2.4 and 2.5, the cost of all infrastructure, administrative support and systems, as well as standard overhead services necessary to comply with the established standards is included in the base payment provided in Section 2.1 above.

2.4 Payments in Addition to the Base Compensation. The City shall pay for the following case expenses when approved by the Municipal Court from funds available for that purpose. Unless the services are performed by the Attorney's staff or paraprofessional subcontractors, such as translator(s) or investigator(s), non-routine expenses include, but are not limited to:

- 2.4.1 medical and psychiatric evaluations;
- 2.4.2 expert witness fees and expenses;
- 2.4.3 interpreters;
- 2.4.4 polygraph, forensic and other scientific tests;
- 2.4.5 a computerized or other legal research which is not typically maintained as a part of defense counsel legal libraries or research capabilities;
- 2.4.6 investigation expenses; and
- 2.4.7 any other expenses the Municipal Court finds necessary and proper for the investigation, preparation, and presentation of a case.

2.5 The City shall pay or reimburse the following:

2.5.1 Lay Witness Fees. Lay witness fees and mileage incurred in bringing defense witnesses to court, including but not limited to, salary or expenses of law enforcement officers required to accompany incarcerated witnesses;

2.5.2 Copying Client's Files. The actual cost of providing one copy of a client's or former client's case file upon client's or client's appellate, post-conviction relief or habeas corpus Attorney's request, or at the request of counsel appointed to represent the client when the client has been granted a new trial;

2.5.3 Copying Direct Appeal Transcripts Supreme Court Rules for the Administration of Courts of Limited Jurisdiction RALJ Appeals. The actual cost of preparing and making copies of direct appeal transcripts for representation in post-conviction relief cases;

2.5.4 Records. To the extent such materials are not provided through discovery, the cost of acquiring medical, school, birth, DMV, and other similar records, and 911 and emergency communication recordings and logs; and

2.5.5 Process Service. The normal, reasonable cost for the service of a subpoena.

2.5.7 Daily Calendar Coverage. In addition to the base compensation provided for in paragraph 2, the City shall pay two thousand five hundred dollars (\$2,500.00) per month to provide daily calendar coverage for defendants booked into jail.

2.5.8 Case Overage. In addition to the base compensation provided for in paragraph 2 and the daily calendar coverage provided for in paragraph 2.5.7, If the number of cases assigned to the Attorney in any calendar year is more than 360, the Attorney may submit an invoice by February 15th (or the following business day if the 15th falls on a weekend or holiday) of the following year for each additional case in excess of 360 in the previous calendar year. The City shall compensate the attorney for each such excess case in the amount of \$348.00.

2.6 Review and Renegotiation.

2.6.1 Due to Increases or Decreases in Caseload. The City and the Attorney shall, at the option of either party, renegotiate this contract if there is a significant increase or decrease in the number of cases assigned. “Significant” shall mean a change of more than ten percent (10%) in the number of cases assigned. If cases are estimated to approach or exceed five-hundred fifty (550) cases per year, the parties may renegotiate this contract to increase case coverage and compensation to the Attorney. At the request of either party, the City and the Attorney will periodically review case assignment trends, requests for additional credits and any other matters needed to determine contract compliance or necessary contract modifications. The Attorney shall promptly notify the City when quarterly caseloads require use of overflow or conflict counsel to assure that cases assigned to the Attorney remain within the limits adopted in this contract and comply with state and local standards.

2.6.2 Renegotiation Due to Change in Rule or Standard. This contract may be renegotiated at the option of either party if the Washington State Supreme Court significantly modifies the Standards for Indigent Defense adopted pursuant to the Court rule.

2.6.3 Review of Contract Extension. On or before August 1, 2025, unless this Agreement has been terminated as provided herein, the Attorney will give the City a proposal for a two (2) year extension provided for in Section 3. The City shall respond by November 31, 2025. With the mutual agreement of the parties, compensation and other contract terms may be adjusted for future years.

3. Term. The term of this Agreement shall be from January 1, 2024 through December 31, 2025 , unless sooner terminated as provided herein. The Agreement may be extended for one (1) additional two (2) year term at the mutual agreement of the parties. The City Manager shall have authority to extend the agreement without City Council approval pursuant to this subsection.

3.1 For Cause. This Agreement may be terminated for cause for violation of any material term of this Agreement. “Material term” shall include any violation indicating a failure to provide representation in accordance with the rules of the court and the ethical

obligations established by the Washington State Bar Association, the failure to provide effective assistance of counsel, the willful disregard of the rights and interests of a defendant, and/or a willful disregard for the Standards, violation of the provisions of Section 6 relating to insurance, conviction of a criminal charge, and/or a finding that the license of the Attorney, or any attorney providing service under this Agreement, has been suspended or revoked. Any violation of the other provisions of this Agreement shall be subject to cure. Written notice of contract violation shall be provided to the Attorney who shall have thirty (30) business days to correct the violation. Failure to correct the violation will give rise to termination for cause at the City's discretion. In lieu of terminating this contract, the City may agree in writing to alternative corrective measures.

3.2 Termination on Mutual Agreement. The parties may agree in writing to terminate this contract at any time. Unless otherwise agreed to in writing, termination or expiration of this contract does not affect any existing obligation or liability of either party.

3.3 Termination on Cessation of the Municipal Court. In the event that the City in its sole discretion chooses to terminate its Municipal Court, this Agreement shall automatically terminate upon dissolution of the Court.

3.4 Obligations survive Termination. In the event of termination of this Agreement, the following obligations shall survive and continue:

3.4.1 Representation. The compensation established in this Agreement compensates the Attorney for services relating to each and every assigned case. Therefore, in the event this Agreement is terminated pursuant to Sections 3.2 or 3.3 above, the Attorney will continue to represent clients on assigned cases set for trial to be held within sixty (60) days of the date of termination until a case is concluded on the trial court level or the client fails to appear for a scheduled court appearance. The Attorney will continue to represent clients in post-conviction proceedings and will be compensated at the rate of fifty dollars (\$50.00) per hour for preparation and attendance at any hearing or other post-conviction proceeding for a maximum of 90 days, or such other term as the parties shall agree. The Attorney will reasonably cooperate with newly appointed counsel on case reassignment in fulfillment of his/her ethical obligations. This subsection shall not apply in situations in which the attorney is physically or mentally unable to perform, voluntarily suspends his/her license to practice law or is suspended or disbarred from the practice of law.

3.4.2 The provisions of Sections 1 and 5, as well as this subsection 3.4 survive termination as to the Attorney. The City shall remain bound by the provisions of Section 2.4 and its subsections with respect to additional costs incurred with respect to cases concluded after the termination of this contract.

4. Nondiscrimination. Neither the Attorney nor any person acting on behalf of the Attorney shall, by reason of race, creed, color, national origin, sex, sexual orientation, including gender identity, honorably discharged veterans or military status, or the presence of any sensory, mental, or physical disability, HIV/AIDS and Hepatitis C status, or the use of a trained guide dog or service animal by a person with a disability, discriminate against any person who is qualified and available to perform the work to which the employment relates, or in the provision of services under this Agreement.

5. Indemnification.

5.1 The Attorney agrees to hold harmless and indemnify the City, its officers, officials, agents, employees, and representatives from and against any and all claims, costs, judgments, losses, or suits including Attorney's fees or awards, and including claims by Attorney's own employees to which the Attorney might otherwise be immune under Title 51 arising out of or in connection with any willful misconduct or negligent error, or omission of the Attorney, his/her officers or agents.

5.2 It is specifically and expressly understood that the indemnification provided herein constitutes the waiver of the Attorney's waiver of immunity under Title 51 RCW solely for the purposes of this indemnification. The parties have mutually negotiated this waiver.

5.3 The City agrees to hold harmless and indemnify the Attorney, his/her officers, officials, agents, employees, and representatives from and against any and all claims, costs, judgments, losses, or suits including the Attorney's fees or awards, arising out of or in connection with any willful misconduct or negligent error or omission of the City, its officers, or agents.

5.4 This clause shall survive the termination or expiration of this Agreement and shall continue to be in effect for any claims or causes of action arising hereunder.

6. Insurance. The Attorney shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or property which may arise from or in connection with the performance of work hereunder by the Attorney, or the agents, representatives, employees, or subcontractors of the Attorney.

6.1 Minimum Scope of Insurance. The Attorney shall obtain insurance of the types described below, naming the City as additional named insureds:

6.1.1 General Liability with a minimum limit of liability of \$2,000,000 combined single limit each occurrence bodily injury and property damage.

6.1.2 Automobile Liability covering owned and non-owned vehicles with a minimum limit of liability of ~~\$1,000,000~~ \$500,000.00 combined single limit each occurrence bodily injury and property damage.

6.1.3 Professional Liability (Errors and Omissions) for Attorney with a minimum limit of liability of \$1,000,000 per claim and \$2,000,000 aggregate.

6.1.4 Workers' Compensation per statutory requirements of Washington industrial insurance RCW Title 51.

6.2 Verification of Coverage. The Attorney shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to

the additional insured endorsement, evidencing the insurance requirements of the Service Provider before commencement of the work. Policies shall provide thirty (30) days written notice of cancellation to the City. The Public Defender shall provide the City with proof of insurance for “tail coverage” no later than December 31 of the year of termination of the Contract. The purpose of “tail coverage” is to provide insurance coverage for all claims that might arise from occurrences during the term of the Contract or extension(s) thereof, but not filed during the term of the Contract.

7. Work Performed by the Attorney. In addition to compliance with the Standards, in the performance of work under this Agreement, the Attorney shall comply with all federal, state and municipal laws, ordinances, rules and regulations which are applicable to Attorney’s business, equipment and personnel engaged in operations covered by this Agreement or accruing out of the performance of such operations.

8. Work Performed at the Attorney’s Risk. The Attorney shall be responsible for the safety of its employees, agents, and subcontractors in the performance of work hereunder, and shall take all protections reasonably necessary for that purpose. All work shall be done at the Attorney’s own risk, and the Attorney shall be responsible for any loss or damage to materials, tools, or other articles used or held in connection with the work. The Attorney shall also pay his/her employees all wages, salaries and benefits required by law and provide for taxes, withholding and all other employment related charges, taxes or fees in accordance with law and IRS regulations.

9. Personal Services, No Subcontracting. This Agreement has been entered into in consideration of the Attorney’s particular skills, qualifications, experience, and ability to meet the Standards incorporated in this Agreement. Therefore, the Attorney has personally signed this Agreement below to indicate that he/she is bound by its terms. This Agreement shall not be subcontracted without the express written consent of the City and refusal to subcontract may be withheld at the City’s sole discretion. Any assignment of this Agreement by the Attorney without the express written consent of the City shall be void.

10. Modification. No waiver, alteration or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by the duly authorized representatives of the City and the Attorney. With the approval of the City, an additional attorney may be added to this Agreement by adding his or her signature to these agreements.

11. Entire Agreement; Prior Agreement Superseded. The written provisions in terms of this Agreement, together with any exhibit attached hereto, shall supersede all prior verbal statements of any officer or other representative of the City, and such statement(s) shall not be effective or construed as entering into or forming a part of, or altering in any manner whatsoever, this Agreement. Upon execution, this Agreement shall supersede any and all prior agreements between the parties. This section applies only to the services explicitly outlined in this Agreement. The parties acknowledge that Attorney provides services to the Court’s Individualized Treatment Court under a separate agreement, which is not superseded, modified, or terminated by this Agreement.

12. Written Notice. All communications regarding this Agreement shall be sent to the parties at the addresses listed below, unless notified to the contrary. Any written notice hereunder shall become effective as of the date of mailing by registered or certified mail, and shall be deemed sufficiently given if sent to the addressee at the address stated in the Agreement or such other address as may be hereinafter specified in writing:

CITY:
Mark Ziegler, City Manager
525 West Cota St.
Shelton WA 98584

ATTORNEY:
Sean Taschner
Sound Defenders PLLC Attorneys at Law
PO Box 1999
Shelton, WA 98584

13. Nonwaiver of Breach. The failure of the City to insist upon strict performance of any of the covenants and agreements contained herein or to exercise any option herein conferred in one or more instances shall not be construed to be a waiver or relinquishment of such covenants, agreements, or options and the same shall be and remain in full force and effect.

14. Resolutions of Disputes, Governing Law. Should any dispute, misunderstanding or conflict arise as to the terms or conditions contained in this Agreement, the matter shall be referred to the Contract Administrator, whose decision shall be final. Nothing herein shall be construed to obligate, require or permit the City, its officers, agents, or employees to inquire into any privileged communication between the Attorney and any indigent defendant. In the event of any litigation arising out of this Agreement, the parties shall bear their own costs and fees. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington and the rules of the Washington Supreme Court as applicable. Venue for an action arising out of this Agreement shall be in Mason County Superior Court.

IN WITNESS WHEREOF, the parties have executed this Agreement on the 5th day of December 2023.

CITY OF _____

By: _____
City Manager

ATTEST/AUTHENTICATED:

By _____
City Clerk

ATTORNEY:

By: _____
Sean Taschner, Sound Defenders PLLC

EXHIBIT A

The undersigned Attorney hereby personally warrant and certify that as a condition of their performance of this Agreement, they will commit to providing the services under this Agreement in accordance with the Standards set forth in sections 1, 4, and 7, and that the Attorney's personal warranty of that performance shall survive the Agreement in accordance with subsection 3.4 of this Agreement.

ATTORNEY: _____
Print Name



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item E2)

Touch Date: **11/07/2023**
Brief Date: **11/21/2023**
Action Date: **12/05/2023**

Department: **Executive**
Presented By: **Mark Ziegler**

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:
2024 Legislative Agenda

☐

Ordinance

☐ Dept. Head

☐ Finance Director

☐ Attorney

☒ City Clerk

☒ City Manager

MZ

ATTACHMENTS:

- **Resolution No. 1300-1123**

- **AWC 2024 Legislative Priorities**

☒

Resolution

☒

Motion

☐

Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

As part of the City of Shelton's efforts to influence, affect, and guide the passage of legislation in the Washington State Legislature by identifying legislative priorities to provide input to state legislators, the attached 2024 Legislative Agenda delineates the position of the City of Shelton on the capital funding requests and general policy issues stated therein.

It has been determined that the capital requests in the proposed 2024 Legislative Agenda could feasibly be funded through earmarks in the state capital or transportation budgets although the short session provides less opportunities than a full session. Upon approval, city staff will submit corresponding appropriation requests to members of the 35th Legislative District for consideration of sponsorship.

Any post-approval legislative priorities may be considered and pursued throughout the duration of the 2024 Washington Legislative Session.

ANALYSIS/OPTIONS/ALTERNATIVES:

N/A

BUDGET/FISCAL INFORMATION:

N/A

PUBLIC INFORMATION REQUIREMENTS:

N/A

STAFF RECOMMENDATION/MOTION:

"I move to forward Resolution No.1300-1123 to the action agenda of the December 5, 2023 Council meeting for further consideration."

RESOLUTION NO. 1300-1123

A RESOLUTION OF THE CITY OF SHELTON, WASHINGTON ESTABLISHING THE 2024 LEGISLATIVE AGENDA

WHEREAS, the City of Shelton is classified as a non-charter code city under Title 35A of the Revised Code of Washington (RCW); and

WHEREAS, section 35A.11.020 of the RCW provides in pertinent part that “[t]he legislative body of each code city shall have all powers possible for a city or town to have under the Constitution of this state, and not specifically denied to code cities by law;” and

WHEREAS, it is part of the normal and regular conduct of the City of Shelton to identify its legislative priorities to provide input to state legislators; and

WHEREAS, efforts of representation on behalf of the City of Shelton to influence, effect, or guide the passage of legislation in the Washington State Legislature are enhanced by a comprehensive package of proposals that have been officially adopted by the City Council;

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Shelton, Washington, that the attached City of Shelton 2024 Legislative Agenda delineates the position of the City of Shelton on the capital funding requests and general policy issues stated therein.

Any additional legislative priorities may be considered.

INTRODUCED AND PASSED by the City Council of the City of Shelton on this 5th day of December 2023.

Eric Onisko, Mayor

AUTHENTICATED:

Donna Nault, City Clerk



2024 LEGISLATIVE AGENDA

CAPITAL FUNDING REQUESTS

Potential member requests for funding through earmarks in the state capital or transportation budgets.

COMMUNITY & ECONOMIC DEVELOPMENT

Multimodal Path \$3,000,000

- Construct a 1.5 mile multimodal path through the City from Kneeland Park to Highway 101 utilizing the old Simpson Timber Railroad right-of-way.
- Funding will complete design and pave a 14-foot wide path with seating, lighting, and amenities.
- Will provide non-motorized transportation alternatives for all ages, provide safe route to school for children, and encourage positive health outcomes.
- Partners: Shelton Municipal Parks District, Shelton School District
- Other funding sources: Potential Safe Routes to School Grant, TBD/TIF monies

Homeless Mitigation Site \$2,000,000

- It is imperative for the City to begin addressing the homelessness crisis within the Shelton corporate limits, and in the surrounding community. Construction of a mitigation site to house the homeless population, and potential future supportive services including addiction and mental health counseling services.
- Partners: Local non-profit groups.
- Other funding sources: Staff time. Potential land donation.

Affordable Housing TBD

- An as-of-yet undetermined project with Mason County to build affordable and workforce housing in Downtown Shelton.
- Partners: Mason County, local non-profit groups.
- Other funding sources: State housing funds, CHIP grants, etc.

Redevelopment of Derelict Properties TBD

- Turn blighted and/or contaminated properties into revenue generating and space activating development.
- Other funding sources: Brownfield grants, EDA grants

INFRASTRUCTURE

Intersection Improvements on Wallace Kneeland Boulevard \$4,000,000

- Current traffic volumes warrant improvements/intersection reconfiguration at the state operated intersection at Olympic Highway Noth and Wallace -Kneeland Blvd.
- Current traffic volumes warrant improvements/intersection reconfiguration at 13th & Wallace Kneeland.

- Current traffic volumes warrant improvements/intersection reconfiguration at Shelton Springs & Wallace Kneeland.
- Partners: Shelton School District, Mason General Hospital, Private Developers
- Other funding sources: Potential TIB Grant - \$1 MIL, Local Partners - \$600,000, TBD/TIF Monies

Angleside Pressure Zone Reservoir #2 **\$3,100,000**

- Serve water to 1,000 proposed homes and a new school site in the south part of Shelton.
- A new 0.50 MG (+) standpipe reservoir will be constructed next to the existing reservoir.
- Other funding sources: Potential Public Works Trust Fund, Loans, EDA Grants

Upper Mountainview Pressure Zone Reservoir #2 **\$5,000,000**

- Serve water to new industrial users, the Port of Shelton, and 3,000 proposed homes in the north portion of the community.
- A new 0.41 MG (+) elevated reservoir will be constructed next to the existing elevated reservoir.
- Other funding sources: Potential Public Works Trust Fund, Loans, EDA Grants

Satellite Wastewater Treatment Plant Upgrades **\$17,200,000**

- Improve Oakland Bay environmental quality for shellfish and tribal interests, improve Goldsborough Creek water flows for salmon, and provide additional capacity for industrial and residential growth in the northwest part of Shelton.
 - MBR Filter Replacements: Estimated Cost (2021) of \$5.005 million.
 - Effluent Storage Facilities: Estimated Cost (2021) of \$1.467 million.
 - Phase 2 Expansion: Estimated Cost (2021) of \$8.416 million.
 - Sprayfield Expansion: Estimated Cost (2021) of \$2.275 million.
- Other funding sources: Potential Public Works Trust Fund, Loans, EDA Grants
- Partners: Squaxin Tribe

Johns Prairie Sewer Extension and Regional Lift Station **\$8,000,000**

- Collect wastewater from 2,000 new homes and multiple new industrial users at the Port of Shelton.
- Other funding sources: Potential Public Works Trust Fund, Loans, Developer Fees
- Partners: Port of Shelton, Private Developers

GENERAL POLICY ISSUES

Transportation Benefit District

Allow for continuation of transportation benefit districts beyond the ten-year limitation.

Public Works Infrastructure Funding

Support efforts to maintain long-term funding sources for public works infrastructure projects.

Local Control

Oppose unfunded and under-funded mandates while supporting local control over regulatory policy initiatives.

Association of Washington Cities Legislative Program

The City of Shelton will support the Association of Washington Cities in advancing legislation in the following areas:

- *See AWC's 2024 Legislative Priorities – attached*

2024 City Legislative Priorities

Strong cities make a great state. Cities are home to 65% of Washington's residents, drive the state's economy, and provide the most accessible form of government. Cities' success depends on adequate resources and local decision-making authority to best meet the needs of our residents.

Washington's 281 cities ask the Legislature to partner with us and act on the following priorities:



Help recruit and retain police officers for public safety

Provide additional funding tools and resources for officer recruitment and retention to improve public safety. This includes updating the existing local option Public Safety Sales Tax to allow implementation by councilmanic authority and greater flexibility for using the funds to cover increased officer wages and related programs like behavioral health co-response teams.

Expand access to state-mandated training. In particular, continue increasing the number of classes for the Basic Law Enforcement Academy (BLEA) and expanding the new regional academies. Getting new officers on the street faster supports recruitment and retention, thus improving public safety outcomes in our communities.



Revise the arbitrary property tax cap

Revise the arbitrary 1% property tax cap that has been in place for more than 20 years. Tie the tax to inflation and population growth factors with a new cap not to exceed 3%. This allows local elected officials to adjust the local property tax rate to better serve our communities and keep up with the costs of providing basic services like police, fire, streets, and valued community amenities like parks. The current 1% cap has created a structural deficit in cities' revenue and expenditure model, causing reliance on regressive revenues and artificially restricting the ability of property taxes to fund critical community needs.



Continue investing in infrastructure

Continue strong state investments in infrastructure funding to support operations and maintenance of traditional and non-traditional infrastructure like drinking water, wastewater, and broadband. Expand funding options that support state and local transportation needs with emphasis on preservation and maintenance to prevent expensive replacement and repairs. Improve access to Climate Commitment Act funding, including direct distributions, for city priorities that support carbon reduction and climate resiliency.



Provide behavioral health resources

Create greater access to behavioral health services to include substance use disorder treatment and dual diagnosis treatment facilities. Support continued state funding for cities to help communities establish alternative response programs like co-responder programs, diversion programs, and others that provide options beyond law enforcement to assist individuals experiencing behavioral health challenges.

AWC's advocacy is guided by these core principles from our Statement of Policy:

- Local decision-making authority
- Fiscal flexibility and sustainability
- Equal standing for cities
- Diversity, equity, and inclusion
- Strong Washington state partnerships
- Nonpartisan analysis and decision-making

Contact:

Candice Bock
Government Relations Director
candiceb@awcnet.org



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F1)

Touch Date: 10/10/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: Finance
Presented By: Mike Githens

APPROVED FOR COUNCIL PACKET:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:
2024 Master Fee Schedule

Action Requested:

<input checked="" type="checkbox"/>	Dept. Head	<u>10/11/2023</u>
<input checked="" type="checkbox"/>	Finance Director	<u>10/13/2023</u>
<input type="checkbox"/>	Attorney	<u> </u>
<input checked="" type="checkbox"/>	City Clerk	<u>10/27/2023</u>
<input checked="" type="checkbox"/>	City Manager	<u>10/16/2023</u>

ATTACHMENTS:

- Resolution No. 1294-0923
- Exhibit "A" with track changes
for 2024 Master Fee Schedule
- Exhibit "B" 2024 Transportation
Impact Fee Schedule

<input type="checkbox"/>	Ordinance
<input checked="" type="checkbox"/>	Resolution
<input checked="" type="checkbox"/>	Motion
<input type="checkbox"/>	Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

This resolution updates the City's Master Fee Schedule for 2024. The City annually updates fees to incorporate changes in the cost to provide certain City services, update services provided for a fee/charge, and eliminate any fees for services that may no longer be relevant.

Fees and charges for services such as animal licensing, parks and recreation, code enforcement, building and development, and permitting the general guiding principle is that these fees/charges may be set at a level that recovers all the direct and indirect costs associated with the activity, including administrative overhead.

Utility rates, utility system charges, and utility service fees are set to recover the cost of operating the utility systems, in addition to charging for replacing equipment and adding or expanding facilities to meet regulations, future service demands and setting aside for unforeseen events such as natural disasters. Revenues for fees and charges must meet the expenses of the system, in addition to setting aside reserves, to keep the utility operating in a fiscally responsible manner. Utility rates should also incorporate the utility's portion of indirect costs. Upon adoption of the 2024 fee schedule, it will go into effect January 1, 2024.

ANALYSIS/OPTIONS/ALTERNATIVES:

The updated fees and charges for services are set at a level to recover costs associated with the activities and services described in the master fee schedule. If the fees and charges are not updated, cuts would have to be made in order to operate the outlined services and activities provided to citizens.

BUDGET/FISCAL INFORMATION:

2024 budgets have been prepared with the updated fees and charges for services included in projected revenue.

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained from the City Clerk.

STAFF RECOMMENDATION/MOTION:

"I move to adopt Resolution No. 1294-0923 as presented."

RESOLUTION NO. 1294-0923

**A RESOLUTION OF THE CITY OF SHELTON, WASHINGTON
UPDATING AND ESTABLISHING THE CITY'S MASTER FEE SCHEDULE
FOR FISCAL YEAR 2024**

WHEREAS, it is the general policy of the city to establish fees that are reflective of the cost of services provided by the city; and

WHEREAS, it is best practice for the City's Master Fee Schedule to be updated annually to reflect changes in the cost for certain City services.

NOW, THEREFORE BE IT RESOLVED, by the City Council of the City of Shelton, Washington, as follows:

Section 1. Public Interest. The City Council for the City of Shelton, Washington finds that it is in the public interest to amend and supersede the previously adopted Master Fee Schedule to address costs associated with providing services.

Section 2. Supersede previous Resolutions. This resolution inclusive of Exhibits "A" and "B" attached hereto shall supersede in its entirety Resolution No. 1278-0723 approved by the Shelton City Council and set the City's 2024 Master Fee Schedule.

Section 3. Adjustments. The Shelton City Council amends the Master Fee Schedule to include Exhibits "A" and "B".

Section 4. Effective date. This resolution shall be in full force and effect on January 1, 2024.

INTRODUCED AND PASSED by the City Council of the City of Shelton on this 21st day of November 2023.

ATTEST:

Mayor Onisko

City Clerk Nault



City of Shelton
525 Cota Street
Shelton, Washington 98584
Master Fee Schedule-effective January 1, 2024
RESOLUTION NO. 1294-0923

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Type of Permit

Fee

General Government

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

*****Where applicable to certain fees**

Annual Report	\$10.00
Documents provided at Public Hearings Audio Reproduction (when requested within one year of hearing). *Other than Police	\$0.00 (within one year) \$10.00 (requested after one year of hearing date)
Video Reproduction * Other than Police	\$10.00
Copies	\$0.15 per page
Scanned copies to electronic format	\$0.10 per page
Files or attachments for electronic delivery	\$0.05 per four (4) attachments
Gigabyte of electronic records for transmission	\$0.10 per gigabyte
Storage media, container, envelope, postage and delivery charge	Actual Cost
R.C.W. 42.56.120 (2) (b) (c) and (e)	
New and renewal of Business License	\$50.00
Sexually Oriented Business License	\$100.00
Sexually Oriented Manager or Entertainer	\$50.00
Taxi Operator License (per operator)	\$40.00
Taxi Vehicle License (per vehicle)	\$40.00
Returned Check charge	\$40.00
VISA/MC chargeback	\$35.00
Special Event Permit	\$35.00 (An additional \$25.00 late fee for applications received less than 25 business days prior to the event).
Special Event Services (barricades, garbage, service, all set-up/take-down.): Tier I -Community Event – Open to the public at large Tier II -Ticketed and age restricted event	\$25.00 (per event, per service) Actual city costs billed



Displays on City message boards	\$35.00
Map Reproduction	Color 36 x 48 \$18.00 Color 24 x 36 \$12.00 Special Order 36 x 48 \$30.00 Special Order 24 x 36 \$20.00 Black Line \$1.00 (Per square foot)

Animal Shelter

Adoption Fees –	
Puppies (under 1 year)	\$500.00
Adolescent dogs (1-2 years)	\$350.00
Small dogs (adults under 21 lbs.)	\$300.00
Other adult dogs	\$100.00
Adoption Fees –	
Kittens (under one year)	\$150.00
Adult Cats	\$75.00
Animal License (Yearly)	\$30.00
Animal License (Microchipped Pet Lifetime)	\$100.00
Spayed or Neutered (Yearly)	\$25.00
Service Dogs (Yearly)	No fee
Senior citizen 65 yrs. and older (Yearly)	\$15.00
Surrender of Dog - City residents only	\$80.00
Animal Impound (City residents)	First impoundment \$100.00 Second impoundment \$150.00 Third and subsequent impoundment \$200.00 All impound fees shall also be charged unpaid animal license fees.
Boarding fee	\$30.00 per/day
Lost license or (transfer of license)	\$5.00(\$10.00)
Non-resident animal impound fee	First impoundment \$150.00 Second impoundment \$200.00



	Third and subsequent impoundment \$250.00
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Civic Center Rental

Damage Deposit	\$400.00
Kitchen	\$75.00
Black drapery	\$2.00 (per 10 foot section)
Staging	\$10.00 (use of 1 – 4 sections)
Equipment Rental	TV Monitor \$10.00 Multimedia Projector \$20.00
Meeting rooms	\$25.00 per hour for each 600 sq. ft.
Main meeting room	\$86.00 per hour
50% reduction in room rental for local government and non-profits during regular business hours	

Code Enforcement

***** Technology Fee set at 4% of the applicable permit fee*****

***** If payment is made by credit card a processing fee of 2% will be added to the total. *****

Infraction Issued Fees including site visit(s), photos, file creation, documentation, etc. Plus itemized fees to include attorney costs, additional tracked staff time and costs, title searches, service, court filing fees, which may be included in the city request for abatement cost reimbursement per R.C.W. 35.21.955	\$514.00 minimum
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Parks and Recreation

Parks Master Plan	\$20.00
Ballfields and Playfields (Callanan Park/Loop Field.	Field Rental \$15.00 per hour Softball Field preparation \$30.00 each field
City recreation programs	Actual cost of program
Refunds	Before first class: 100% Before second class: 80% Before third class: 50%



	After third class: No refunds
Picnic Shelters	\$12.50 per hour. Two hour minimum, plus applicable fees for garbage, labor, misc.
Commercial Park (Use by individual, company, corporation, business or similar for the purposes of selling, distributing, or promotion.	\$25.00 per hour

Police Department

Fingerprints	\$15.00
Video Reproduction	\$10.00 Plus \$.50 per minute for redaction
Audio Reproduction	\$10.00
Weapons Permit	\$49.25
Weapons Permit renewal	\$32.00
Weapons Permit renewal – late application	\$42.00
Weapons Permit – replacement	\$10.00
Weapons Dealer Permit	\$125.00
Excess Alarm fee	\$25.00 after three (3) false alarms

Community Development – Planning

***** Technology Fee set at 4% of the applicable permit fee*****

***** If payment is made by credit card a processing fee of 2% will be added to the total. *****

Address Assignment	\$100.00
Annexation	\$1,200.00 plus \$40.00 per acre or fraction thereof.
Appeal to the Hearing Examiner	Individual - \$1,000.00 H.O.A. - \$500.00
Boundary Line Adjustment	\$315.00
Comprehensive Plan Amendment	\$2,600.00
Comprehensive Plan document	\$35.00
Conditional Use Permit/Special Use Permit	\$2,700.00
SEPA	\$300.00
EIS	\$1,400.00 plus consultant costs



Fence	\$75.00 residential \$180.00 commercial
Forest Practices Application	\$350.00
Plat/Binding Site Plan	Preliminary: \$3,300.00 plus \$40.00 per lot Extension: \$200.00 Final: \$500.00 Administrative Amendments: \$200.00 Public Hearing Amendments: \$1,500.00
Planned Unit Development	Preliminary: \$3,000.00 plus \$25.00 per lot Extension: \$200.00 Final: \$500.00 plus \$30.00 per lot Administrative Amendments: \$200.00 Public Hearing Amendments: \$1,500.00
Parcel combination	\$320.00
Pre-submittal conference	\$150.00
RV/Tent Occupancy Application	\$45.00
Short Plat	\$920.00
Site Plan Review	\$1,200.00
Site Plan amendment	\$110.00
Variance Permit	\$2,700.00
Zone Change	\$2,400.00
Zoning Letter	\$45.00
Zoning Ordinance Text Amendment	\$435.00
Signs	\$50.00 when no building permit required \$55.00 per square foot valuation with building permit
<i>Shoreline Specific applications</i>	
Shoreline Management Program document	\$35.00
Shoreline Statement of Exemption	\$170.00
Substantial Development Permit	\$560.00 Public Hearing Required: \$2,300.00
Shoreline Conditional Use Permit	\$2,300.00
Shoreline Variance	\$2,300.00



Community Development – Building

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

After Hours Inspections (Regular business hours, 8am to 5pm Monday - Thursday.)	\$140 per hour (one-hour minimum)
Re-inspection fee	\$140.00 per hour (one hour minimum)
Inspections for which no fee is specifically indicated.	\$140.00 per hour (one hour minimum)
Additional plan review required for plan changes.	\$140.00 per hour (one hour minimum)
Note: For the building fees above, or the total; hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved. Actual costs include administrative and overhead costs.	
Building Valuation *NOTE: all footnotes of Building Valuation Data as published by ICC shall apply	1) New construction, and remodels greater than 50%: of "R" occupancies The City of Shelton will utilize the International Code Council's "Building Valuation Data Table" as published in the latest August edition of the Building Safety Journal. The square footage valuations from this table will be implemented on the first day of September following publication and remain in force through August of the following year. 2) Private garages, storage buildings, green houses and similar structures shall be valued as Utility, Miscellaneous 3) Remodels less than 50% shall be valued at 50% of the table value from the ICC Building Valuation Data for occupancy specified.
Bulkheads/Retaining wall(s)	\$140.00 per lineal foot
Building Permit NOTE: Washington State surcharge applies:	Valuation: \$1.00 to \$500.00: \$25.00 \$501.00 to \$2,000.00: \$25.00 and \$3.00 per



\$25.00 Commercial, \$6.50 Residential.	<p>each additional \$100 or fraction thereof and including \$2,000</p> <p>\$2,001.00 to \$25,000.00: \$70.00 and \$14.00 for each additional \$1,000 or fraction thereof to and including \$25,000</p> <p>\$25,000.00 to \$50,000.00: \$390.00 and \$10.00 for each additional \$1,000 or fraction thereof to and including \$50,000</p> <p>\$50,001.00 to \$100,000.00: \$640.00 and \$7.00 for each additional \$1,000 or fraction thereof to and including \$100,000</p> <p>\$100,001.00 to \$500,000.00: \$1,000.00 and \$6.00 for each additional \$1,000 or fraction thereof to and including \$500,000</p> <p>500,001.00 to \$1,000,000.00: \$3,400.00 and \$5.00 for each additional \$1,000 or fraction thereof to and including \$1,000,000</p> <p>\$1,000,000 and up: \$5,700 and \$7.00 for each additional \$1,000 or fraction thereof to and including \$1,000,000</p>
Minimum Building Permit fee	\$140.00
Early Foundation Permit/Early start agreement (Early foundation permit for commercial/industrial building will be deducted from permit fee upon full submittal.	25% of building permit fee
Demolition permit	\$280.00 plus State surcharge
Reroof – residential only	\$280.00
Reroof –commercial per square valuation is used to determine valuation	<p>\$280.00 per square - Class A&B (hotmap/torchdown)</p> <p>\$280.00 per square - Composition(roll/3 tab)</p> <p>\$420.00 per square - Composition with plywood replacement</p> <p>\$300.00 per square - Metal</p> <p>\$275.00 per square - Shake</p>



	\$300.00 per square - Shingle
Windows	\$25.00 first window, \$7.00 for each additional window (\$140.00 minimum)
Reissuance/Reinstate of expired permit in same code cycle	\$280.00
Stock Plans	FULL PERMIT FEE PLUS 50% of the plan review fee
Solid Fuel/Gas insert	\$140.00
Hearing Examiner appeal	\$500.00
Investigation fee	\$140.00 per hour (two hour minimum)
Mechanical Permit	<p>Each mechanical permit: \$140.00</p> <p>FURNACE:</p> <p>For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, up to and including 100,000 Btu/h (29.3kW): \$20.00</p> <p>For the installation or relocation of each forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance, over 100,000 Btu/h (29.3 kW): \$20.00</p> <p>For the installation or relocation of each floor furnace, including vent: \$20.00</p> <p>For the installation or relocation of each suspended heater, recessed wall heater on floor-mounted unit heater: \$20.00</p> <p>Appliance Vents:</p> <p>For the installation, relocation or replacement of each appliance vent and not included in an appliance permit: \$20.00</p>



	<p>Repairs or Additions: For the repair of, or addition to each heating appliance, refrigeration unit, cooling unit, absorption unit, or each heating, cooling, absorption or evaporative cooling system, including installation of controls regulated by the Mechanical Code: \$20.00</p> <p>Boilers, Compressors, and Absorption Systems: For the installation or relocation of each boiler or compressor to and including 3 horsepower (10.6 kW), or each absorption system to and including 100,000 Btu/h (29.3 kW): \$20.00</p> <p>For the installation or relocation of each boiler or compressor over three horsepower (10.6 kW) to and including 15 horsepower (52.7 kW), or each absorption system over 100,000 Btu/h (29.3 kW) to and including 500,000 Btu/h (146.6 kW): \$40.00</p> <p>For the installation or relocation of each boiler or compressor over 15 horsepower (52.7 kW) to and including 30 horsepower (105.5 kW), or each absorption system over 500,000 Btu/h (146.6 kW) to and including 1,000,000 Btu/h (293.1 kW): \$40.00</p> <p>For the installation or relocation of each boiler or compressor over 30 horsepower (105.5 kW) to and including 50 horsepower (176 kW), or each absorption system over 1,000,000 Btu/h (293.1 kW) to and including 1,750,000 Btu/h (512.9 kW): \$60.00</p> <p>For the installation or relocation of each boiler or compressor over 50 horsepower (176 kW), or each absorption system over 1,750,000 Btu/h (512.9 kW): \$100.00</p> <p>Air Handlers: For each air-handling unit to and including</p>
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	<p>10,000 cubic feet per minute (cfm) (4719 L/s), including ducts attached thereto: \$20.00</p> <p>Note: This fee does not apply to an air-handling unit, which is a portion of a factory-assembled appliance, cooling unit, evaporative cooler or absorption unit for which a permit is required elsewhere in the Mechanical Code for each air-handling unit over 10,000 cfm (4719 L/s): \$20.00</p> <p>Evaporative Coolers: For each evaporative cooler: \$20.00</p> <p>Ventilation and Exhaust: For each ventilation fan connected to a single duct: \$20.00</p> <p>For each ventilation system which is not portion of any heating or air-conditioning system authorized by a permit: \$20.00</p> <p>For the installation of each hood which is served by mechanical exhaust, including the ducts for such hood: \$20.00</p> <p>For the installation or relocation of each commercial or industrial-type incinerator: \$100.00</p> <p>Miscellaneous: For each appliance or piece of equipment regulated by the Mechanical Code but not classed in other appliance categories, or for which no other fee is listed in the table: \$20.00</p>
Mobile/Manufactured Home set-up	<p>Individual Lot: \$1,600.00 PLUS REVIEW FEE Park Set: \$800.00 PLUS REVIEW FEE</p>
Mobile Home Title Eliminations	\$140.00



Plan Review	65% of Permit fee
Plumbing Permit	<p>Each permit: \$140.00</p> <p><i>NOTE: Unit Fee Schedule in addition to above</i></p> <p>For each plumbing fixture on one trap or a set of fixtures on one trap (including water, drainage piping, and backflow protection therefore): \$20.00</p> <p>For each building sewer and each trailer park sewer: \$20.00</p> <p>Rainwater systems per drain (inside building): \$40.00</p> <p>For each water heater and/or vent: \$20.00</p> <p>For each industrial waste pretreatment interceptor including its trap and vent, except kitchen-type grease interceptors functioning as fixture traps: \$20.00</p> <p>For each installation, alteration or repair of water piping and/or water treating equipment, each: \$20.00</p> <p>For each repair or alteration of drainage or vent piping, each fixture: \$20.00</p> <p>For each lawn sprinkler system on any one meter including backflow protection devices therefore: \$20.00</p> <p>For each backflow protective device other than atmospheric type vacuum breakers:</p> <ul style="list-style-type: none"> • 2-inch (51 mm) diameter and smaller: \$20.00 • over 2-inch (51 mm) diameter: \$40.00 <p>Atmospheric-type vacuum breakers:</p> <ul style="list-style-type: none"> • Up to 3: \$20.00 • Over 3 each: \$10.00



Propane Tanks and Piping (above and below ground)	<ul style="list-style-type: none"> \$280.00 per tank
Refund:	<p>No permit fee refund will be allowed once any work has begun on a project. In order to request a refund of a permit fee, the request shall be addressed to the Building Official in writing and shall be received at the City of Shelton finance department within 180 days of the date of issuance of the permit; any refund request received after 180 days of the date of permit issuance shall automatically be denied. At the discretion of the Building Official, refund requests may be approved or denied based on the status of a project. All approved refunds shall be limited to 50% of the total permit fees paid. Refund requests shall only be considered for building, plumbing and mechanical permit fees. Refunds shall not include any plan review fees.</p>

Fire – Development Review

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Commercial Site Plans	\$390.00
Subdivision or Planned Residential Development	\$328.00
Pre-Application Conference	\$95.00
Other Land Use Application	\$264.00

Fire – Alarm Fees

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Fire Alarm System - Minor Alteration	\$100.00
Fire Alarm Zoned System - One Zone	\$296.00
Each Additional Zone	\$136.00
Fire Alarm Addressable System - 1 to 20 Devices	\$296.00



Each Additional Device	\$4.00
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Fire – Suppression

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Commercial Cooking Extinguishing System/Protection	\$252.00
Fire Pumps and Private or Dedicated Fire Hydrant Systems	\$372.00
Fire Hydrant - Witnessed Flow Test (1-4) Hydrants	\$100.00
Fire Hydrant - Each Additional Hydrant	\$40.00
Fire Sprinkler - Alteration to Existing System(s) (>4 heads)	\$200.00
Fire Sprinkler - New System - NFPA 13 (2 inspections)	\$472.00
NFPA 13 - Each Additional Riser	\$472.00
Fire Sprinkler - New System - NFPA 13D (Single Family)	\$200.00
Fire Sprinkler - New System - NFPA 13R (Per Building)	\$390.00
Other Extinguishing Systems	\$372.00
Standpipe System	\$200.00
Underground Fire Sprinkler Mains (2 inspections)	\$252.00

Fire – Other

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Fireworks Display	\$208.00
Investigation Fee (work started without a permit)	Double Permit Fee
Other Plan Reviews or Permits Required by the IFC and/or Municipal Code \$100.00 Per Hour Review + \$100.00 per Hour Inspection	Calculated
Re-inspection Fees	\$100.00
Revision to Plan Previously Submitted - \$100.00 per Hour	Calculated
Use of Consultant for Plan Review and Inspection	Actual Cost
Tents/Temporary Membrane (greater than 400 SF)	\$100.00



Public Works – Engineering and Permitting

**** Technology Fee set at 4% of the applicable permit fee****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Right-of-Way and Obstruction Permits (SMC Chapter 12.20)	Class 1: Short term maintenance: \$45.00 Class 2: Temporary Construction: \$65.00, plus review and inspection fees Class 3: Fixture and Encroachment: \$65.00; Sidewalk café, add \$280.00/hr review fee; \$15.00 annual renewal fee Class 4: Heavy Right-of-Way Use: \$65.00, plus review and inspection fees
Public Improvement Civil Plan Review Fee	3% of Estimated Cost of Public Improvements, \$250 minimum
Public Improvement Inspection Fee	3% of Estimated Cost of Public Improvements, \$125 minimum
Land Use Development Review Fees	
Public Works Planning Review, Partition, Subdivision, and Planned Unit Development.	Base Fee (Lots 2-19) \$330.00 Additional (Lots after 19, per lot) - \$15.00
Public Works Final Plat Review, Partition, and Subdivision.	Base Fee (Lots 2-19) \$330.00 Additional (Lots after 19, per lot/parcel) - \$15.00
Public Works Development Review for Public Improvements on Commercial, Industrial, institutional zone, and Multifamily Developments.	Base Fee (1 st Acre) \$470.00 Additional (Per Acre after First Acre) - \$15.00
Public or Private Utility Work (Gas, Cable, Phone, Electric)	\$150 Application Fee, includes first two hours review and first two inspections.
Fine for Work in Right of Way without Permits	\$250.00 plus standard permit fee
Utility Connection Application Permit Fee a. Water & Reclaimed Water Connections b. Sewer & Storm Drainage Connections	\$170.00 plus applicable Meter and GFC \$65.00 plus applicable GFC
ESC, Grading, and Stormwater: Single Family All other Sites	\$150.00, Includes Review and Inspection \$320.00, Includes first four hours review and first two inspections.
Additional/Re-Inspection Fee	\$75.00 Per Hour
Additional Plan Review	\$75.00 Per Hour
Contracted Consultant for Plan Review or Inspection	Contract Consultant fees
Special Development Studies: Traffic Impact Reports, Hydrology studies, and similar.	Contract Consultant fees



Design Modification Request (DMR)	\$150.00
Traffic Impact Fee	\$4,701.11 for SFR/varies based on use. Per SMC 17.12. See 2024 Addendum B for complete schedule.
Fee in lieu of Right of Way Chip Sealing	\$1.25/SF
Fee in lieu of Right of Way Sidewalk Addition (Square Foot)	\$8.00/SF
Fee in lieu of Right of Way AC Overlay (Square Foot/inch of asphalt overlay)	\$0.33 SF/1" Overlay \$0.66 SF/2" Overlay \$1.00 SF/3" Overlay
Fee in lieu of Right of Way Curb and Gutters (Per Lineal Foot)	\$25.00/LF
Latecomer Agreement	\$280.00
Right-of-Way vacation	\$500.00
Sidewalk Café/Boundary Marker Fee	\$15.00/each

Note: Fee in lieu numbers based on average costs for these items on recent capital improvement projects for the City of Shelton.

Stormwater

Stormwater Monthly Charges

Class of Service	Unit		2022	2023	2024	2025	2026
Single-Family	1 ESU		\$17.33	\$17.85	\$18.39	\$18.94	\$19.51
Duplex	2 ESUs		\$34.67	\$35.71	\$36.78	\$37.88	\$39.02
All Other Developed Parcels	Per ESU rounded to the nearest tenth		\$17.33	\$17.85	\$18.39	\$18.94	\$19.51

Note: 1 ESU = 2,900 square feet of impervious surface area. All other developed parcels: minimum of 1 ESU

Stormwater GFC-

**** Technology Fee set at 4% of the applicable permit fee ****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Class of Service	Unit: \$529.19 per ESU
Single-Family	1 ESU
Duplex	2 ESUs
All Other Developed Parcels	Per ESU rounded to the nearest tenth

Note: 1 ESU = 2,900 square feet of impervious surface area.

Illicit Connection Civil Penalty - \$150 per incident, per day that the illicit connection remains (SMC 13.02.120 (C)).



Sewer

Sewer Service Monthly Charges –

Monthly Sewer Rates	2023	2024	2025	2026
Schedule 1: Single-family residential and duplex				
A. Basic Charge (per meter)	\$54.14	\$56.58	\$59.12	\$61.78
B. Consumption Charge (per cubic foot)	\$0.1084	\$0.1133	\$0.1184	\$0.1237
Schedule 2: Single-family residential and duplex without water service				
Flat Monthly Rate (per customer)	\$138.99	\$145.24	\$151.78	\$158.61
Schedule 3: Triplex, multifamily, mobile home and trailer parks				
A. Basic Charge (per dwelling unit)	\$54.14	\$56.58	\$59.12	\$61.78
B. Consumption Charge (per cubic foot over 460 c.f. per unit)	\$0.1170	\$0.1223	\$0.1278	\$0.1335
Schedule 4: Commercial				
A. Monthly Base Charge based on consumption (per account):				
0 - 1,000 cubic feet	\$65.60	\$68.55	\$71.64	\$74.86
1,001 cubic feet - 2,000 cubic feet	\$98.12	\$102.54	\$107.15	\$111.97
2,000+ cubic feet	\$136.12	\$142.25	\$148.65	\$155.34
B. Consumption Charge (per cubic foot)	\$0.1172	\$0.1225	\$0.1280	\$0.1337
Schedule 5: Hotel/Motel				
A. Basic Charge (per unit)	\$9.92	\$10.37	\$10.83	\$11.32
B. Consumption Charge (per cubic foot over 84 c.f. per unit)	\$0.1172	\$0.1225	\$0.1280	\$0.1337
Schedule 6: Industrial	Case by case basis.			
Schedule 7: Regional Plan Partners	Based on agreements.			

c.f. = cubic foot

Sewer Connection GFC

**** Technology Fee set at 4% of the applicable permit fee ****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Water Meter Size	Weighting Factor	Fee
3/4"	1.00	\$8,000.00
1"	2.50	\$20,000.00
1.5"	5.00	\$40,000.00
2"	8.00	\$64,000.00
3"	16.00	\$128,000.00
4"	25.00	\$200,000.00
6"	50.00	\$400,000.00



8"	80.00	\$640,000.00
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- Developments pursuant to SMC 18.02.110 shall be charged twenty-five percent (25%) of the equivalent charge above (e.g. Tiny Homes).

Biosolids

Class A Biosolids Fertilizer, per bag	Fee set by City Manager
<u>Receiving Hauled Biosolids Sludge:</u>	
Sludge up to 1.5% Total Suspended Solids	\$0.116 per gallon
Sludge 1.6% to 3% Total Suspended Solids	\$0.138 per gallon
Sludge 3.1% to 6% Total Suspended Solids	\$0.160 per gallon

Reclaimed Water Connection

***** Technology Fee set at 4% of the applicable permit fee*****

***** If payment is made by credit card a processing fee of 2% will be added to the total. *****

****** Meter charges for reclaimed water are included as part of the water section. ******

Reclaimed Water Service Monthly Charges

Each account that is served shall pay the following monthly reclaimed water meter charge:

Meter Size	2024 Commercial
¾- inch	\$14.03
1-inch	\$17.31
1 ¼ - inch	\$20.49
1 ½ -inch	\$23.63
2-inch	\$34.55
2 ½ -inch	N/A
3-inch	\$88.43
4-inch	\$122.17
6-inch	\$201.48
8-inch	\$294.53
10-inch	\$451.72
12-inch	\$703.07



Monthly Reclaimed Water Consumption Charge –

In addition to the monthly reclaimed water meter charge, each service shall pay a consumption charge of \$0.01915 for each cubic foot of reclaimed water consumed in a month. Under the provisions of the regional water and wastewater plan, the city provides reclaimed water services to the Washington State Patrol and the Washington Corrections Center under a separate utility service agreement approved by the council. Rates and charges for reclaimed water services applicable to the regional plan partners will be set forth in the agreement.

Water

***** Technology Fee set at 4% of the applicable permit fee*****

***** If payment is made by credit card a processing fee of 2% will be added to the total. *****

Water/Reclaimed Water Connection Meter Charge

Meter Size	Meter Cost	Installation Fee	Inspection Fee
3/4" meter	\$505.00	\$150.00	N/A
1" meter	\$563.00	\$150.00	N/A
1.5" meter	Contractor Purchase	Contractor install	See note
2" meter	Contractor Purchase	Contractor install	See note
3" meter	Contractor Purchase	Contractor install	See note
4" meter	Contractor Purchase	Contractor install	See note
6" meter	Contractor Purchase	Contractor install	See note
Above 6" meter	Contractor Purchase	Contractor install	See note

Note: Inspection fee is the Public Improvement Inspection Fee. Meter cost includes cost for meter transceiver unit (MXU, \$170.00).

Water System Connection GFC

***** Technology Fee set at 4% of the applicable permit fee*****

***** If payment is made by credit card a processing fee of 2% will be added to the total. *****

Water Meter Size	Weighting Factor	Fee
3/4"	1.00	\$3,000.00
1"	2.50	\$7,500.00
1.5"	5.00	\$15,000.00
2"	8.00	\$24,000.00
3"	16.00	\$48,000.00
4"	25.00	\$75,000.00



6"	50.00	\$150,000.00
8"	80.00	\$240,000.00

- Developments pursuant to SMC 18.02.110 shall be charged twenty-five percent (25%) of the equivalent charge above. (e.g., Tiny Homes)
- No GFC charge associated with Reclaimed Water System.



Water Service Monthly Charges –

Schedule 1: Each account that is served shall pay the following monthly water meter charge:

Schedule 1 - 2024:

Meter Size	Single-family	Multifamily	Commercial	Irrigation	Private fire line
3/4-inch	\$18.76	\$16.55	\$15.99	\$49.60	\$12.00
1-inch	\$24.38	\$20.67	\$19.74	\$75.88	\$14.36
1-1/4-inch	\$30.30	\$24.72	\$23.36	\$107.40	\$16.42
1-1/2-inch	\$36.23	\$28.80	\$26.94	\$138.87	\$18.49
2-inch	\$54.22	\$42.34	\$39.38	\$218.53	\$26.51
2-1/2-inch	N/A	N/A	N/A	N/A	\$48.17
3-inch	\$133.55	\$109.74	\$103.83	\$462.48	\$73.51
4-inch	\$185.73	\$148.53	\$139.26	\$699.65	\$96.10
6-inch	\$322.55	\$248.17	\$229.68	\$1,350.05	\$152.18
8-inch	\$484.33	\$365.35	\$335.76	\$2,128.43	\$217.66
10-inch	\$728.54	\$557.52	\$514.96	\$3,092.19	\$339.28
12-inch	\$1,114.92	\$863.91	\$801.50	\$4,583.14	\$535.31

Schedule 1 - 2025:

Meter Size	Single-family	Multifamily	Commercial	Irrigation	Private fire line
3/4-inch	\$21.39	\$18.87	\$18.23	\$56.55	\$13.68
1-inch	\$27.80	\$23.56	\$22.51	\$86.50	\$16.37
1-1/4-inch	\$34.54	\$28.18	\$26.63	\$122.44	\$18.71
1-1/2-inch	\$41.30	\$32.83	\$30.71	\$158.32	\$21.08
2-inch	\$61.81	\$48.27	\$44.89	\$249.12	\$30.22
2-1/2-inch	N/A	N/A	N/A	N/A	\$54.91
3-inch	\$152.25	\$125.10	\$118.37	\$527.22	\$83.80
4-inch	\$211.73	\$169.32	\$158.76	\$797.60	\$109.56
6-inch	\$367.71	\$282.91	\$261.83	\$1,539.05	\$173.48
8-inch	\$552.14	\$416.50	\$382.77	\$2,426.41	\$248.13
10-inch	\$830.54	\$635.57	\$587.06	\$3,525.10	\$386.77
12-inch	\$1,271.01	\$984.86	\$913.71	\$5,224.78	\$610.25

Schedule 1 - 2026:

Meter Size	Single-family	Multifamily	Commercial	Irrigation	Private fire line
3/4-inch	\$24.39	\$21.51	\$20.79	\$64.46	\$15.60
1-inch	\$31.69	\$26.86	\$25.66	\$98.61	\$18.67
1-1/4-inch	\$39.38	\$32.12	\$30.36	\$139.58	\$21.33
1-1/2-inch	\$47.08	\$37.42	\$35.01	\$180.48	\$24.03
2-inch	\$70.46	\$55.02	\$51.17	\$284.00	\$34.45
2-1/2-inch	N/A	N/A	N/A	N/A	\$62.60
3-inch	\$173.56	\$142.61	\$134.94	\$601.03	\$95.53
4-inch	\$241.37	\$193.03	\$180.99	\$909.27	\$124.89
6-inch	\$419.19	\$322.52	\$298.49	\$1,754.52	\$197.77
8-inch	\$629.43	\$474.81	\$436.36	\$2,766.10	\$282.87
10-inch	\$946.81	\$724.55	\$669.24	\$4,018.61	\$440.92
12-inch	\$1,448.95	\$1,122.74	\$1,041.63	\$5,956.25	\$695.69

Monthly Water Service Consumption Charge –

In addition to the meter charge established in Schedule 1 above, each service shall pay the following rate for each cubic foot of water consumed in a month:



Monthly Water Rates	2023	2024	2025	2026
Schedule 2: Single-Family Residential				
Consumption Charge for First 600 c.f.	\$0.0345	\$0.0393	\$0.0448	\$0.0511
Consumption Charge for 601-1,500 c.f.	\$0.0413	\$0.0471	\$0.0537	\$0.0612
Consumption Charge for 1,500+ c.f.	\$0.0513	\$0.0585	\$0.0667	\$0.0760
Schedule 3: Multifamily (including duplexes, triplexes, mobile home parks and trailer parks)				
Multifamily Consumption Charge per c.f.	\$0.0401	\$0.0457	\$0.0521	\$0.0594
Schedule 4: Commercial (including government, industrial, hotel/motel)				
Commercial Consumption Charge per c.f.	\$0.0395	\$0.0450	\$0.0513	\$0.0585
Schedule 5: Irrigation				
Irrigation Consumption Charge per c.f.	\$0.0513	\$0.0585	\$0.0667	\$0.0760
Schedule 6: Wholesale Rate				
Wholesale Consumption Rate Charge per c.f.	\$0.0356	\$0.0406	\$0.0463	\$0.0527
Schedule 7: Standby Fire Protection Service	See City code.			
Schedule 8: Regional Plan Partners	Based on agreements.			

c.f. = cubic foot

Bulk Water and Hydrant Use Permits

**** Technology Fee set at 4% of the applicable permit fee ****

**** If payment is made by credit card a processing fee of 2% will be added to the total. ****

Annual Hydrant Water Use Permit	\$72.00
Application Fee	Or prorated at \$6/mo if issued in the 4 th quarter
Hydrant Meter, Gate Valve, and Wrench	\$750.00 refundable deposit
Deposit and Rental Fee	\$100 per month rental fee
Hydrant Water Billing and Water Use Charge	\$45.00 quarterly billing charge, plus
and PWM Hydrant Load/Use Charge	commercial water consumption charge per
	SMC 15.28.050
Water Filling Fee by City of Shelton Staff	\$25.00 per fill
Fine for connection to hydrant without permit/meter	\$1,000.00

Misc. Water Fees and Charges

Water Turn Off for Non-Payment	\$100.00
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Reconnect Fee For Non-Payment	\$20.00
<p>Water Disconnect:</p> <p style="text-align: right;">Regular Office Hours</p> <p style="text-align: right;">*Emergency After Hours</p> <p>*Disconnects after hours are for emergencies only; scheduled plumbing maintenance or repairs that requires City Staff to disconnect water is to occur during City business hours only.</p>	<p>\$0.00</p> <p>\$150.00</p>
<p>Water Reconnect:</p> <p style="text-align: right;">Regular Business Hours</p> <p style="text-align: right;">*Emergency After Hours</p> <p>*Reconnects after hours are for emergencies only; scheduled plumbing maintenance or repairs that requires City Staff to reconnect water is to occur during City business hours only.</p>	<p>\$0.00</p> <p>\$150.00</p>
Fine for unauthorized connection/disconnection of water service.	\$500.00
Fine for tampering with water meter, cutting lock, etc.	\$150.00 per instance
<p>Shut-off Door Hanger Fee</p> <p>Delinquent Fee</p>	<p>\$20.00 each occurrence</p> <p>\$10.00 each occurrence</p>

Attachment B

Transportation Impact Fee Schedule - 2024

Land Uses	ITE Land Use Code	Unit of Measure	Basic Trip Rate PM Peak Trips/Unit ⁽¹⁾	New Trips Percent	New Trip Rate ⁽²⁾	Fee Per Unit ⁽³⁾
Cost per New Trip Generated:						\$4,654.57
Residential						
Single Family (Detached)	210	dwelling	1.01	100%	1.01	\$4,701.11
Multifamily – Apartment	220	dwelling	0.62	100%	0.62	\$2,885.83
Low-Rise Apartment (1-2 Floors)	221	occupied dwelling	0.58	100%	0.58	\$2,699.65
Multifamily – Condominium/Townhouse	230	dwelling	0.52	100%	0.52	\$2,420.37
Mobile Home Park	240	dwelling	0.59	100%	0.59	\$2,746.19
Senior Adult Housing – Detached	251	dwelling	0.26	100%	0.26	\$1,210.19
Senior Adult Housing – Attached	252	occupied dwelling	0.11	100%	0.11	\$512.00
Congregate Care	253	dwelling	0.17	100%	0.17	\$791.28
Assisted Living	254	bed	0.22	100%	0.22	\$1,024.00
Recreational Homes	260	dwelling	0.26	100%	0.26	\$1,210.19
Industrial						
Light Industrial	110	1,000 sf GFA	0.98	100%	0.98	\$4.56
Industrial Park	130	1,000 sf GFA	0.86	100%	0.86	\$4.00
Warehousing	150	1,000 sf GFA	0.47	100%	0.47	\$2.19
Mini-Warehouse	151	1,000 sf GFA	0.26	100%	0.26	\$1.21
Commercial-Services						
Hotel	310	room	0.59	100%	0.59	\$2,746.19
Motel	320	room	0.47	100%	0.47	\$2,187.65
Walk-in Bank (4a)	911	1,000 sf GFA	33.15	53%	17.57	\$81.78
Drive-In Bank	912	1,000 sf GFA	45.74	60%	27.44	\$127.72
Day Care Center	565	1,000 sf GFA	13.18	100%	13.18	\$61.35
Quick Lubrication Vehicle Shop (4b)	941	servicing position	5.19	57%	2.96	\$13,777.51
Automobile Care Center (4b)	942	1,000 sf GFA	3.38	57%	1.93	\$8.98
Gasoline/Service Station	944	VFP	13.86	58%	8.04	\$37,422.70
Service Station/ Minimart	945	VFP	13.38	44%	5.89	\$27,415.39
Service Station/ Minimart/Carwash (4c)	946	VFP	13.33	44%	5.87	\$27,322.30
Carwash (4a)	947	stall	5.54	53%	2.94	\$13,684.42
Movie Theater	444	seat	0.07	100%	0.07	\$325.82
Health/Fitness Club	492	1,000 sf GFA	4.05	100%	4.05	\$18.85
Commercial-Institutional						
Elementary School (5)	520	1,000 sf GFA	n/a	100%	n/a	n/a
Middle/Junior High School	522	1,000 sf GFA	1.19	100%	1.19	\$5.54
High School	530	1,000 sf GFA	0.97	100%	0.97	\$4.51
Community/Junior College	540	Student	0.12	100%	0.12	\$558.55
College/University	550	Student	0.21	100%	0.21	\$977.46
Church	560	1,000 sf GFA	0.66	100%	0.66	\$3.07
Hospital	610	1,000 sf GFA	1.18	100%	1.18	\$5.49
Nursing Home	620	1,000 sf GFA	0.42	100%	0.42	\$1.95
Commercial-Restaurant						
Quality Restaurant	931	1,000 sf GFA	7.49	80%	5.99	\$27.88
High-Turnover (Sit-down) Restaurant	932	1,000 sf GFA	10.92	57%	6.22	\$28.95
Fast Food Restaurant w/o Drive-thru	933	1,000 sf GFA	26.15	50%	13.08	\$60.88
Fast Food Restaurant with Drive-thru	934	1,000 sf GFA	34.64	50%	17.32	\$80.62
Tavern/Drinking Place	936	1,000 sf GFA	11.34	65%	7.37	\$34.30

Land Uses	ITE Land Use Code	Unit of Measure	Basic Trip Rate PM Peak Trips/Unit ⁽¹⁾	New Trips Percent	New Trip Rate ⁽²⁾	Fee Per Unit ⁽³⁾
Commercial-Office						
General Office Building	710	1,000 sf GFA	1.49	100%	1.49	\$6.94
Medical-Dental Office/Clinic	720	1,000 sf GFA	3.72	100%	3.72	\$17.31
Commercial-Retail						
Retail Shopping Center						
up to 49,999 sf	820	1,000 sf GLA	9.98	50%	4.99	\$23.23
50,000-99,999 sf	820	1,000 sf GLA	6.9	55%	3.80	\$17.69
100,000-199,999 sf	820	1,000 sf GLA	5.45	60%	3.27	\$15.22
200,000-299,999 sf	820	1,000 sf GLA	4.58	65%	2.98	\$13.87
300,000-399,999 sf	820	1,000 sf GLA	4.09	70%	2.86	\$13.31
400,000 sf and over	820	1,000 sf GLA	3.75	75%	2.81	\$13.08
Automobile Parts Sales	843	1,000 sf GFA	5.98	57%	3.41	\$15.87
Car Sales – New/Used (4d)	841	1,000 sf GFA	2.64	75%	1.98	\$9.22
Convenience Market	851	1,000 sf GFA	52.41	39%	20.44	\$95.14
Discount Club (4e)	861	1,000 sf GFA	4.24	77%	3.26	\$15.17
Electronic Superstore	863	1,000 sf GFA	4.5	60%	2.70	\$12.57
Toy Superstore (4f)	864	1,000 sf GFA	4.99	66%	3.29	\$15.31
Furniture Store	890	1,000 sf GFA	0.46	47%	0.22	\$1.02
Hardware/Paint Store	816	1,000 sf GFA	4.84	74%	3.58	\$16.66
Home Improvement Superstore	862	1,000 sf GFA	2.45	52%	1.27	\$5.91
Nursery/Garden Center (4d)	817	1,000 sf GFA	3.8	75%	2.85	\$13.27
Pharmacy/Drugstore w/o Drive-thru	880	1,000 sf GFA	8.42	47%	3.96	\$18.43
Pharmacy/Drugstore w/Drive-thru	881	1,000 sf GFA	8.62	51%	4.40	\$20.48
Supermarket	850	1,000 sf GFA	10.45	64%	6.69	\$31.14
Tire Store	848	1,000 sf GFA	4.15	72%	2.99	\$13.92
Tire Superstore (4g)	849	1,000 sf GFA	2.11	72%	1.52	\$7.07
Video Rental Store (4a)	896	1,000 sf GFA	13.6	53%	7.21	\$33.56
Free-Standing Discount Superstore	813	1,000 sf GFA	3.87	72%	2.79	\$12.99
Free-Standing Discount Store	815	1,000 sf GFA	5.06	83%	4.20	\$19.55

Source: ITE "Trip Generation 7th Edition"

GFA = Gross Floor Area
GLA = Gross Leasable Area
VFP = Vehicle Fuling Position

⁽¹⁾ The New Trip Percentage reduces the average trip rate based on average pass-by trip percentages published in the ITE Trip Generation Handbook (2nd Edition, 2004)

⁽²⁾ For uses with the unit of measure in "1000 sf GFA" or "1000 sf GLA" the trip rate is given as trips per 1000 square feet

⁽³⁾ For uses with the unit of measure in "1000 sf GFA" or "1000 sf GLA" the impact fee is given as dollars per square foot

⁽⁴⁾ No pass-by rate are available. Pass-by rates were estimated from other similar uses:

Code	Land Use
4a	Drive-in Bank (912)
4b	Auto PArts Sales (843)
4c	Gasoline/Service Station w/Convience MArket (945)
4d	No data available. 25% estimated pass-by
4e	Discount Supermarket (854)
4f	Electronic Superstore (863)
4g	Tire Store (848)

⁽⁵⁾ No average PM peak hour trip rate available, Need to perform own PM peak hour traffic count for the identified land use to calculate impact fee.

The Transportation Impact fee for uses located within the downtown core shall be subject to a reduced trip factor resulting in a fifteen (15) percent fee reduction. The downtown core is interpreted in this Ordinance as the properties west of Front Street, south of Cedar Street, east of 7th Street, with the southern limit extending to include properties with frontage on Cota Street between 7th and Front Street.



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F2)

Touch Date: 08/22/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: Finance
Presented By: Mike Githens

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:
B&O Model Ordinance

☒ Ordinance

☒ Dept. Head 10/26/2023

☒ Finance Director 10/25/2023

☐ Attorney 10/25/2023

☒ City Clerk 10/26/2023

☒ City Manager 10/27/2023

ATTACHMENTS:
Ordinance No. 2016-1023

☐ Resolution

☒ Motion

☐ Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

To create a certain degree of uniformity for businesses operating in Washington State, all cities, and towns levying a B&O (Business and Occupation) tax must adopt the provisions of the statewide model B&O tax ordinance. These updates are mandatory for the City to continue receiving B&O collections.

This ordinance will update Shelton Municipal Code 3.52 and includes new and/or updated definitions. The updated ordinance also includes Council direction from the August 22, 2023 study session to adhere to the model ordinance and strike any exemptions that were specific to the City of Shelton and considered antiquated from former Shelton Municipal Code versions. This ordinance also includes Council direction to impose a tax rate of 0.2%

Upon adoption of this ordinance, it will go into effect January 1, 2024.

ANALYSIS/OPTIONS/ALTERNATIVES:

The updated B&O tax rate will fund general governmental functions including public safety; police, fire and emergency medical services, street maintenance, animal control and other general services not supported by rates and fees.

BUDGET/FISCAL INFORMATION:

2024 budgets have been prepared with the updated B&O rate included in projected revenue. Due to the timing of B&O tax receipts, 2024 projections are based on a realistic estimate of the revenue to be collected during the fiscal year.

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained from the City Clerk.

STAFF RECOMMENDATION/MOTION:

"I move to adopt Ordinance No. 2016-1023 as presented."

ORDINANCE NO. 2016-1023

AN ORDINANCE OF THE CITY OF SHELTON, WASHINGTON, AMENDING CHAPTER 3.52 OF THE SHELTON MUNICIPAL CODE, RELATED TO BUSINESS AND OCCUPATION TAX

WHEREAS, the City of Shelton raises revenue by collecting a Business and Occupation (B&O) tax on business activity occurring in the City; and

WHEREAS, as required by State law, in 2019 the City Council adopted the latest version of the Model B&O Tax Ordinance, which is incorporated into Chapter 3.52 of the Shelton Municipal Code (SMC); and

WHEREAS, the SMC imposes a tax rate of one-tenth of one percent (.1%) of gross proceeds of sale, gross income of business, or value of products; and

WHEREAS, State law authorizes cities to collect B&O tax up to a rate of two-tenths of one percent (.2%) of gross proceeds of sale, gross income of business, or value of products; and

WHEREAS, to increase revenue to support City services and operations, the City Council wishes to raise the B&O tax rate to two-tenths of one percent (.2%) of gross proceeds of sale, gross income of business, or value of products; and

WHEREAS, the City Council wishes to update the SMC's B&O tax exemptions to conform to the State Model Ordinance; and

WHEREAS, the State legislature has adopted mandatory revisions to the allocation requirement for newspaper printing and publishing.

NOW, THEREFORE, the City Council of the City of Shelton hereby amends the below-listed sections of Chapter 3.52 SMC as follows:

Section 1: SMC section 3.52.050 is amended as follows:

3.52.050 Imposition of the tax—Tax or fee levied.

A. Except as provided in subsection B of this section, there is hereby levied upon and shall be collected from every person a tax for the act or privilege of engaging in business activities within the city, whether the person's office or place of business be within or without the city. The tax shall be in amounts to be determined by application of rates against gross proceeds of sale, gross income of business, or value of products, including by-products, as the case may be, as follows:

1. Upon every person engaging within the city in business as an extractor; as to such persons the amount of the tax with respect to such business shall be equal to the value of the products, including by-products, extracted for sale or for commercial or industrial use, multiplied by the rate of two-tenths of one percent. The measure of the tax is the value of the products, including by-products, so extracted, regardless of the place of sale or the fact that deliveries may be made to points outside the city.
2. Upon every person engaging within the city in business as a manufacturer; as to such persons the amount of the tax with respect to such business shall be equal to the value of the products, including by-products, manufactured within the city, multiplied by the rate of two-tenths of one percent. The measure of the tax is the value of the products, including by-

products, so manufactured, regardless of the place of sale or the fact that deliveries may be made to points outside the city.

3. Upon every person engaging within the city in the business of making sales at wholesale, except persons taxable under Section [3.52.090](#); as to such persons, the amount of tax with respect to such business shall be equal to the gross proceeds of such sales of the business without regard to the place of delivery of articles, commodities or merchandise sold, multiplied by the rate of two-tenths of one percent.

4. Upon every person engaging within the city in the business of making sales at retail; as to such persons, the amount of tax with respect to such business shall be equal to the gross proceeds of such sales of the business without regard to the place of delivery of articles, commodities or merchandise sold, multiplied by the rate of two-tenths of one percent.

5. Upon every person engaging within the city in the business of (a) printing, (b) both printing and publishing newspapers, magazines, periodicals, books, music, and other printed items, (c) publishing newspapers, magazines and periodicals, (d) extracting for hire, and (e) processing for hire; as to such persons, the amount of tax on such business shall be equal to the gross income of the business multiplied by the rate of two-tenths of one percent.

6. Upon every person engaging within the city in the business of making sales of retail services; as to such persons, the amount of tax with respect to such business shall be equal to the gross proceeds of sales multiplied by the rate of two-tenths of one percent.

7. Upon every other person engaging within the city in any business activity other than or in addition to those enumerated in the above subsections; as to such persons, the amount of tax on account of such activities shall be equal to the gross income of the business multiplied by the rate of two-tenths of one percent. This subsection includes, among others, and without limiting the scope hereof (whether or not title to material used in the performance of such business passes to another by accession, merger or other than by outright sale), persons engaged in the business of developing, or producing custom software or customizing canned software, producing royalties or commissions, and persons engaged in the business of rendering any type of service which does not constitute a sale at retail, a sale at wholesale, or a retail service.

B. The gross receipts tax imposed in this section shall not apply to any person whose gross proceeds of sales, gross income of the business, and value of products, including by-products, as the case may be, from all activities conducted within the city during any calendar year is less than twenty thousand dollars, or is equal to or less than five thousand dollars during any quarter if on a quarterly basis.

Section 2. SMC Section 3.52.090 is amended as follows:

3.52.090 Exemptions.

A. Public Utilities. This chapter shall not apply to any person in respect to a business activity with respect to which tax liability is specifically imposed under the provisions of Chapter [3.30](#), Utility Tax.

B. Investments—Dividends from Subsidiary Corporations. This chapter shall not apply to amounts derived by persons, other than those engaging in banking, loan, security, or other financial businesses, from investments or the use of money as such, and also amounts derived as dividends by a parent from its subsidiary corporations.

C. Insurance Business. This chapter shall not apply to amounts received by any person who is an insurer or their appointed insurance producer upon which a tax based on gross premiums is paid to

the state pursuant to RCW [48.14.020](#); and provided further, that the provisions of this subsection shall not exempt any bonding company from tax with respect to gross income derived from the completion of any contract as to which it is a surety, or as to any liability as successor to the liability of the defaulting contractor.

D. Employees. This chapter shall not apply to any person in respect to the person's employment in the capacity as an employee or servant as distinguished from that of an independent contractor. For the purposes of this subsection, the definition of "employee" shall include those persons that are defined in the Internal Revenue Code, as hereafter amended. A booth renter is an independent contractor for purposes of this chapter.

E. Amounts Derived from Sale of Real Estate. This chapter shall not apply to gross proceeds derived from the sale of real estate. This, however, shall not be construed to allow an exemption of amounts received as commissions from the sale of real estate, nor as fees, handling charges, discounts, interest or similar financial charges resulting from, or relating to, real estate transactions. This chapter shall also not apply to amounts received for the rental of real estate if the rental income is derived from a contract to rent for a continuous period of thirty days or longer.

F. Mortgage Brokers' Third-Party Provider Services Trust Accounts. This chapter shall not apply to amounts received from trust accounts to mortgage brokers for the payment of third-party costs if the accounts are operated in a manner consistent with RCW [19.146.050](#) and any rules adopted by the director of financial institutions.

G. Amounts Derived from Manufacturing, Selling or Distributing Motor Vehicle Fuel. This chapter shall not apply to the manufacturing, selling, or distributing motor vehicle fuel, as the term "motor vehicle fuel" is defined in RCW [82.38.020](#) and exempt under RCW [82.38.280](#); provided, that any fuel not subjected to the state fuel excise tax, or any other applicable deduction or exemption, will be taxable under this chapter.

H. Amounts Derived from Liquor, and the Sale or Distribution of Liquor. This chapter shall not apply to liquor as defined in RCW [66.04.010](#) and exempt in RCW [66.08.120](#).

I. Casual and Isolated Sales. This chapter shall not apply to the gross proceeds derived from casual or isolated sales.

J. Accommodation Sales. This chapter shall not apply to sales for resale by persons regularly engaged in the business of making retail sales of the type of property so sold to other persons similarly engaged in the business of selling such property where (a) the amount paid by the buyer does not exceed the amount paid by the seller to the vendor in the acquisition of the article and (b) the sale is made as an accommodation to the buyer to enable the buyer to fill a bona fide existing order of a customer or is made within fourteen days to reimburse in kind a previous accommodation sale by the buyer to the seller.

K. Taxes Collected as Trust Funds. This chapter shall not apply to amounts collected by the taxpayer from third parties to satisfy third-party obligations to pay taxes such as the retail sales tax, use tax, and admission tax.

Section 3. SMC Section 3.52.078 is amended as follows:

3.52.078 Allocation and apportionment of printing and publishing income when activities take place in more than one location.

Notwithstanding RCW [35.102.130](#), effective January 1, 2024, gross income from the activities of printing, and of publishing newspapers, periodicals, or magazines, shall be allocated to the principal

place in the state from which the taxpayer's business is directed or managed. As used in this section, the activities of printing, and of publishing newspapers, periodicals, or magazines, are those activities to which the exemption in RCW [82.04.759](#) and the tax rate in RCW [82.04.280\(1\)\(a\)](#) apply.

Section 4: Referendum provision

Any referendum petition seeking to repeal the increased tax rate adopted by this ordinance must be filed with the City Clerk within seven days of the passage and publication of this ordinance. If a petition is filed, within 10 days the City Clerk shall confer with the petitioners concerning the form and style of the petition, issue an identification number for the petition and cause to be written a ballot title for the measure. The ballot title shall be posed as a question so that an affirmative vote on the measure results in the tax rate increase being imposed and a negative vote on the measure results in the tax rate increase not being imposed. The petitioner shall be notified of the identification number and ballot title within this ten day period. After notification of the identification number and ballot title, the petitioner shall have 30 days in which to secure the signatures of no fewer than 15% of the registered voters of the City and to file the signed petition with the City Clerk. The circulated and signed petition shall contain the ballot title and full text of the measure. The City Clerk shall verify the sufficiency of the signatures on the petition. If sufficient valid signatures are properly submitted, the City Clerk shall cause the referendum measure to be submitted to the voters at a special election.

Section 5: Effective date. This Ordinance shall take effect and be in force five days after passage and publication, as required by law.

Passed by the City Council at its regular meeting held on the ____ day of _____ 2023.

Mayor Onisko

ATTEST:

City Clerk Nault



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F3)

Touch Date: 10/25/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: Finance
Presented By: Mike Githens

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:
2024 Budget

☒ Ordinance

☐ Dept. Head

☒ Finance Director

☒ Attorney

☒ City Clerk

☒ City Manager

ATTACHMENTS:

**- Ordinance No. 2013-0923
- 2024 Proposed Budget**

☐ Resolution

☒ Motion

☐ Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

This Ordinance will adopt the City's 2024 Annual Budget and provide the mechanism for the City to expend funds for the purposes established in the budget. The budget totals \$44,008,761 with a General Fund appropriation of \$15,565,271. The appropriation for operating expenses is at the Fund Level and lapse at the end of the year. The ordinance also, as provided by RCW, adopts a continuing appropriation for all capital projects appropriated in the adopted budget. With the continuing appropriation, capital project budgets do not lapse at the end of the year rather, the budget remains in place until project completion. As with operating budgets, the budget for capital projects cannot exceed the budgeted amount. The budget for 2024 must be adopted by the end of this calendar year.

ANALYSIS/OPTIONS/ALTERNATIVES:

The City Council must adopt an annual budget in order for operations to continue in the new fiscal year.

BUDGET/FISCAL INFORMATION:

The City's Manager's proposed budget was provided to Council and the public on November 7th and is available online for anyone that would like to view it.

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained from the City Clerk.

STAFF RECOMMENDATION/MOTION:

"I move to adopt Ordinance No. 2013-0923 as presented."

ORDINANCE NO. 2013-0923

AN ORDINANCE OF THE CITY OF SHELTON, WASHINGTON, ADOPTING THE BUDGET FOR THE CALENDAR YEAR 2024

WHEREAS, a copy of the proposed budget and estimate of the amount of the moneys required to meet the public expenses, bond retirement and interest, reserve funds and expenses of government of the City of Shelton for the calendar year 2024 has been placed on file with the City Clerk; and

WHEREAS, notice was published that the City Council of the City of Shelton would meet on the 7th day of November 2023, at approximately 6:00 PM, and on the 21st day of November 2023, at approximately 6:00 PM for the purpose of holding a public hearing on the 2024 proposed budget and giving the public an opportunity to be heard upon said budget; and

WHEREAS, tax estimates and the proposed 2024 budget for the City of Shelton have been prepared and filed as provided by law, and the proposed budget has been printed and distributed; and

WHEREAS, notice was published that the City Council of the City of Shelton would meet on November 21st, 2023 to adopt the 2024 budget at its regular meeting open to the public; and

WHEREAS, the proposed budget does not exceed the lawful limit of taxation allowed by law to be levied on the property within the City of Shelton for the purposes set forth in the budget, and the estimated expenditures set forth in the budget are all necessary to carry on the government of the City for and sufficient to meet the various needs of the City during calendar year 2024.

NOW, THEREFORE, be it ordained by the City Council of the City of Shelton, Washington:

Section 1.

The 2024 Budget for the City of Shelton, Washington, for the calendar year 2024, as summarized in Exhibit "A" to this Ordinance is hereby adopted in the amounts and for the purposes established in that budget as the final budget for the period beginning January 1, 2024 and ending December 31, 2024.

Section 2.

This Ordinance, as provided in RCW 35A.33.150, adopts continuing appropriations for all Capital Projects in the adopted 2024 budget.

Section 3.

Budgeted resources, including fund balances supporting the budgeted expense appropriations for each separate fund of the City of Shelton, Washington, for the calendar year 2024 are set forth and summarized in Exhibit "B" to this Ordinance.

Section 4.

The City Manager shall administer the adopted budget and may authorize expenditures, appropriations, and transfers as provided by law.

Section 5.

The City Clerk is directed to transmit a certified copy of the budget hereby adopted to the Office of the State Auditor and to the Association of Washington Cities.

Section 6.

This Ordinance shall take effect five days after its passage and publication as required by law.

INTRODUCED the 7th day of November 2023.

ADOPTED by the City Council of the City of Shelton, Mason County, Washington at a regular open public meeting held the 21st day of November 2023.

Passed this _____ day of _____ 2023.

Eric Onisko, Mayor

AUTHENTICATED:

Donna Nault, City Clerk

City of Shelton 2024 Budget
Exhibit A

Fund	2024 Proposed Expenditures
<u>City-wide Expenditures</u>	
General Fund	\$ 15,565,271
Street Fund	1,886,758
Capital Resource Funds	
Real Estate Excise Tax -1	102,570
Real Estate Excise Tax -2	90,000
Transportation Benefit District	832,000
Traffic Impact Fees	-
General Resources	23,000
Tourism Fund	97,248
Bond Fund	180,100
Capital Improvement Fund	1,797,500
Water Fund	4,345,082
Sewer Fund	7,936,156
Solid Waste Fund	176,438
Storm Drainage Fund	2,154,207
Water Capital Fund	1,079,500
Sewer Capital Fund	6,510,500
Storm Drainage Capital Fund	395,000
Payroll Benefits Fund	160,350
Equipment Rental Fund	572,481
Firefighters's Pension Fund	80,600
Library Endowment Fund	24,000
Total Expenditures	\$ 44,008,761

City of Shelton 2024 Budget
Exhibit B

Fund	Estimated Beginning Fund Balance	2024 Proposed Revenue	2024 Proposed Expenditures	Proposed Ending Fund Balance	\$ Change	% Change
<u>City-wide Expenditures</u>						
General Fund	\$ 4,794,190	\$15,437,793	\$15,565,271	\$ 4,666,712	(127,478)	-2.7%
Street Fund	509,839	1,781,620	1,886,758	404,701	(105,138)	-20.6%
Capital Resource Funds						
Real Estate Excise Tax -1	553,322	52,500	102,570	503,252	(50,070)	-9.0%
Real Estate Excise Tax -2	740,438	52,500	90,000	702,938	(37,500)	-5.1%
Transportation Benefit District	1,524,035	-	832,000	692,035	(832,000)	-54.6%
Traffic Impact Fees	686,764	80,000	-	766,764	80,000	11.6%
General Resources	621,689	-	23,000	598,689	(23,000)	-3.7%
Tourism Fund	74,099	48,100	97,248	24,951	(49,148)	-66.3%
Bond Fund	7,592	180,100	180,100	7,592	-	0.0%
Capital Improvement Fund	352,941	1,797,500	1,797,500	352,941	-	0.0%
Water Fund	2,273,964	3,252,310	4,345,082	1,181,192	(1,092,772)	-48.1%
Sewer Fund	3,783,421	6,775,539	7,936,156	2,622,804	(1,160,617)	-30.7%
Solid Waste Fund	239,255	124,500	176,438	187,317	(51,938)	-21.7%
Storm Drainage Fund	838,951	1,758,630	2,154,207	443,374	(395,577)	-47.2%
Water Capital Fund	615,651	1,079,500	1,079,500	615,651	-	0.0%
Sewer Capital Fund	763,735	6,510,500	6,510,500	763,735	-	0.0%
Storm Drainage Capital Fund	135,984	395,000	395,000	135,984	-	0.0%
Payroll Benefits Fund	213,244	160,350	160,350	213,244	-	0.0%
Equipment Rental Fund	153,948	583,000	572,481	164,467	10,519	6.8%
Firefighters's Pension Fund	380,213	59,100	80,600	358,713	(21,500)	-5.7%
Library Endowment Fund	128,828	1,600	24,000	106,428	(22,400)	-17.4%
Total Expenditures	\$ 19,392,103	\$ 40,130,142	\$ 44,008,761	\$ 15,513,484	(3,878,619)	-20.0%



October 19, 2023

Shelton Residents
Mayor Onisko
Deputy Mayor Schmit
Members of the City Council

The development of the City's annual budget is one of the most important, challenging, and exciting responsibilities of city leadership. Although adopted annually, the budget is a living document that requires constant management, monitoring, adjustments and sometimes revisions throughout the year. Staff is actively managing the 2023 budget while formulating the 2024 proposed budget using the Council's Strategic 2022-2025 Goals to guide decisions and reflect our shared commitment to providing valuable government services in a cost-effective and efficient manner.

The City established the Financial Sustainability Task Force in early 2023 to further garner public input on the financial health of the City and balance citizen-focused services. Through reports provided by each City department, the Task Force gained an understanding of the constraints and abilities of municipal finances. Three recommendations offered by the Task Force include:

1. The reduction in program, service delivery or property ownership
2. Revenue enhancements for community investment
3. Placing a strong focus on how to grow the population

Measures to meet these recommendations include:

1. Revisions adopted by Council on June 20, 2023, reduced expenditures in the general fund by \$470,514 to better align with ongoing revenue and position the 2024 budget formulation to better coordinate anticipated revenue with ongoing expenses.

Reductions included seven full-time positions housed in facilities, finance, public works, and the clerk's office. Service impacts are primarily internal, but the general public will realize the greatest impact with reduced operating hours at the utility billing/permit counter. These reductions also include the elimination of two department director positions, including Parks, Recreation and Facilities and Administrative Services, that necessitated reorganization across City departments. (I caution, these are not long-term sustainable cuts and will be felt through direct and indirect services or staff attrition).

The sale of property to Mason County Public Hospital District #1 and further examination of all of the City's assets are ongoing to reduce financial liability in assets that have no long-term function.

2. Consideration of new and different revenue approaches in order to continue to provide the full complement of city services is needed. Providing and maintaining services in a cost-effective way in an economic environment that shows a moderate inflation rate and increased demands on city services, with little revenue growth for existing resources, remains a very challenging budget environment.

The Council's adoption of utility rates that appropriately fund maintenance and operations, debt service, and capital improvements is vital to the delivery of critical drinking water and wastewater operations. In conjunction with these utility rates, appropriate general facility charges capture more of the true costs of system development and will be borne by development rather than existing rate payers.

The consideration of the few revenue sources the City has available to positively support the general fund is ongoing. Councilmanic options are limited, however consideration of the City's business and operation tax levy as a potential source to maintain critical public services such as police, court, streets, code enforcement, facility maintenance and animal control in the near future is recommended.

Pursuing grants to fund critical infrastructure and operations are a priority. Grants that support public defense, library deck repairs, safe routes to schools and direct appropriations for water infrastructure, and facility security have been successfully secured. The City's ongoing efforts with community partners to secure the Federal Economic Development Administration Recompete Grants and the inclusion of funds to contract a grant writer in 2024 bolster the City's efforts to find outside resources.

3. Residential growth can benefit the current population, although we must manage this growth appropriately to minimize impacts on utilities, traffic, schools, environment, etc. Residential growth can distribute the burden of utility infrastructure to a larger base and lead to investment in the commercial sector that provides jobs and additional sales and business and operations taxes for general fund services. The 2024 budget invests in the Angleside Pressure Zone, wastewater and satellite wastewater plants to add treatment capacity, reclaimed water storage and further ensure environmental sustainability.

As with previous years, the General Fund started the budget process in a deficit position where expenditures exceeded revenue because expenditures annually increase at a rate that exceeds revenue growth. Many factors are causing concern for the future stability of the overall economy and city budget:

- Inflation continues increasing moderately and interest rates remain high after an extended period of historically low rates.
- Supply chain issues, from material sourcing to manufacturing to distribution, continue to be problematic.
- Aging infrastructure for which replacement costs increase at a rate greater than budgeted for.
- Insurance and staffing costs that are increasing at rates not experienced in some time

The City's General Fund revenue budget for 2024 is modestly increased over 2023 adopted revenues. Department requests for expense budget increases for expansion or creation of programs for residents were, for the most part, unable to be funded with projected resources, though the 2024 budget includes some general capital improvements including three safe Routes to Schools projects, library deck repair, patrol vehicle, and Northcliff Neighborhood Park improvements funded by Shelton Metropolitan Park District.

Operational projects funded include the periodic Comprehensive Plan update, contract grant writer, public defense, derelict building abatement funds, an account analyst and half-time administrative support position to backfill some of the 2023 staff reductions.

This budget supports the many core services our community relies upon, such as clean drinking water, public safety, parks, paths and other outdoor spaces, communications, maintenance of facilities, and overall, it continues to fund and prioritize maintenance to ensure safety and the long-term investment of asset replacement. The City's highest priority is public safety, and we are pleased to have a department that will employ a patrol staff that meets minimum staffing requirements.

The City's budget philosophy is to develop realistic revenues for the upcoming year and fit expenses within those revenue estimates. In cases where fund balance is being utilized to balance budgeted expenses, a thoughtful determination was made by comparing the current level of fund balance to the minimum level of fund balance necessary based on cash flows and any contingency requirements for those funds. Furthermore, the use of fund balance is restricted to paying for one-time expenses such as capital, major maintenance projects, or stand-alone contract services and is not used for on-going operations.

The proposed 2024 budget, subject to review and approval by City Council, totals \$44 million, an increase of \$3.1 million or 8% from the 2023 revised budget. The proposed budget includes a General Fund allocation of \$15.5 million which is approximately \$326,349 or 2.1% less than the revised 2023 General Fund budget.

The proposed budget as presented is a carefully planned document for how the City of Shelton is spending limited resources. The recommendations about how to allocate funding demonstrate fiscal stewardship. The recommendations reflect shared values, advance community and council priorities, attempt to address critical and emerging needs, and improve the quality of life for our residents.

Respectfully,

Mark Ziegler
City Manager
City of Shelton, WA

City of Shelton 2024 Budget

Exhibit A

Fund	2024 Proposed Expenditures
<u>City-wide Expenditures</u>	
General Fund	\$ 15,565,271
Street Fund	1,886,758
Capital Resource Funds	
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Real Estate Excise Tax -2	90,000
Transportation Benefit District	832,000
Traffic Impact Fees	-
General Resources	23,000
Tourism Fund	97,248
Bond Fund	180,100
Capital Improvement Fund	1,797,500
Water Fund	4,345,082
Sewer Fund	7,936,156
Solid Waste Fund	176,438
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Payroll Benefits Fund	160,350
Equipment Rental Fund	572,481
Firefighters's Pension Fund	80,600
Library Endowment Fund	24,000
Total Expenditures	\$ 44,008,761

BUDGET OVERVIEW

City of Shelton 2024 Budget

Exhibit B

Fund	Estimated Beginning Fund Balance	2024 Proposed Revenue	2024 Proposed Expenditures	Proposed Ending Fund Balance	\$ Change	% Change
City-wide Expenditures						
General Fund	\$ 4,794,190	\$ 15,437,793	\$ 15,565,271	\$ 4,666,712	(127,478)	-2.7%
Street Fund	509,839	1,781,620	1,886,758	404,701	(105,138)	-20.6%
Capital Resource Funds						
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General Resources	621,689	-	23,000	598,689	(23,000)	-3.7%
Tourism Fund	74,099	48,100	97,248	24,951	(49,148)	-66.3%
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Sewer Fund	3,783,421	6,775,539	7,936,156	2,622,804	(1,160,617)	-30.7%
Solid Waste Fund	239,255	124,500	176,438	187,317	(51,938)	-21.7%
Storm Drainage Fund	838,951	1,758,630	2,154,207	443,374	(395,577)	-47.2%
Water Capital Fund	615,651	1,079,500	1,079,500	615,651	-	0.0%
Sewer Capital Fund	763,735	6,510,500	6,510,500	763,735	-	0.0%
Storm Drainage Capital Fund	135,984	395,000	395,000	135,984	-	0.0%
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Firefighters's Pension Fund	380,213	59,100	80,600	358,713	(21,500)	-5.7%
Library Endowment Fund	128,828	1,600	24,000	106,428	(22,400)	-17.4%
Total Expenditures	\$ 19,392,103	\$ 40,130,142	\$ 44,008,761	\$ 15,513,484	(3,878,619)	-20.0%

City-Wide FTE by Fund

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
General Fund					
City Council	7.00	7.00	7.00	7.00	7.00
Municipal Court	4.50	4.50	4.50	4.50	5.03
City Clerk	2.00	2.00	2.00	2.00	1.50
City Manager	2.00	2.00	2.00	2.00	2.00
Human Resources	2.85	2.85	2.85	2.85	1.00
Information Technology	1.15	1.15	1.15	1.15	1.00
Finance	8.05	9.05	9.00	7.00	9.50
Public Works	3.60	5.10	5.10	5.10	4.60
Police	21.50	23.00	21.00	21.00	21.00
Community Development	3.95	3.80	5.85	5.85	5.85
Parks, Rec & Facilities	8.35	9.00	9.00	8.00	7.00
Total General Fund	64.95	69.45	69.45	66.45	65.48
Other City Funds					
Street Operating	4.90	4.65	4.65	4.65	4.65
Water Utility	8.65	8.40	8.80	8.80	8.80
Sewer Utility	11.55	11.30	11.70	11.70	11.70
Storm Drainage Utility	7.25	7.50	7.60	7.60	7.60
Equip. Maint. & Rental	1.20	1.20	1.30	1.30	1.30
Total Other Funds	33.55	33.05	34.05	34.05	34.05
Grand Total City	98.50	102.50	103.50	100.50	99.53

GENERAL FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	4,777,607	5,047,716	5,047,716	4,752,003	(295,713)	-5.9%

FUNDING SOURCES

Taxes	9,709,772	9,996,164	9,687,941	10,674,781	678,617	6.8%
Licenses & Permits	306,329	301,900	293,862	295,050	(6,850)	-2.3%
Intergovernmental Revenue	2,147,469	632,086	564,912	669,070	36,984	5.9%
Charges for Goods/Service	3,060,577	3,159,306	3,290,062	3,527,342	368,036	11.6%
Fines & Penalties	51,581	92,550	50,820	92,550	-	0.0%
Miscellaneous Revenue	260,291	153,096	226,702	132,000	(53,200)	-34.7%
Transfers In	128	178,000	154,000	47,000	(131,000)	-73.6%
Total Revenues	15,536,147	14,513,102	14,268,298	15,437,793	924,691	6.4%

EXPENDITURES BY DEPARTMENT

Administrative Services

Human Resources	327,848	324,148	304,357	161,119	(163,029)	-50.3%
Information Technology	374,562	411,911	416,936	418,643	6,732	1.6%
Risk Management	136,360	141,556	150,366	124,367	(17,189)	-12.1%
City Clerk	238,028	273,030	237,923	261,013	(12,017)	-4.4%
City Council	77,768	70,438	61,324	75,963	5,525	7.8%

City Manager

City Manager	344,279	405,609	422,151	450,094	44,485	11.0%
Legal	277,979	328,170	340,090	375,170	47,000	14.3%
Detention & Corrections	339,327	1,137,280	436,980	504,390	(632,890)	-55.6%

Community Dev, Parks, Facilities

Civic Center Activities	51,915	81,540	78,814	59,588	(21,952)	-26.9%
Community Development	728,236	1,044,298	1,040,466	1,089,281	44,983	4.3%
Facility Services	652,720	923,360	977,972	747,243	(176,117)	-19.1%
Parks & Recreation	575,245	720,339	756,003	666,958	(53,381)	-7.4%

Finance

Finance	1,079,083	1,171,129	1,194,990	1,421,224	250,095	21.4%
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Fire & Emergency Services

Fire & Emergency Services	1,690,846	2,195,161	2,518,230	2,583,353	388,192	17.7%
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Municipal Court

Community Restitution	118,260	131,349	127,902	137,452	6,103	4.6%
Court Services	548,717	598,083	655,743	592,923	(5,160)	-0.9%

Non-Departmental

Non-Departmental	3,220,764	905,228	166,697	826,530	(78,698)	-8.7%
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Police

Police	3,587,265	4,043,910	3,924,232	4,127,310	83,400	2.1%
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Public Works

Public Works	896,836	985,081	752,835	942,650	(42,431)	-4.3%
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Total Expenditures	15,266,038	15,891,620	14,564,012	15,565,271	(326,349)	-2.1%
Ending Fund Balance	5,047,716	3,669,198	4,752,003	4,624,525		

Change in Fund Balance	270,109	(1,378,518)	(295,713)	(127,478)		
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GENERAL FUND

GENERAL FUND REVENUE SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Taxes:						
Property	2,546,999	2,846,399	2,846,399	2,997,899	151,500	5.3%
Sales & Use	3,436,648	3,515,360	3,385,790	3,525,360	10,000	0.3%
City Utility	1,474,584	1,276,600	1,357,084	1,448,082	171,482	13.4%
Non-City Utility	1,205,659	1,301,400	1,233,902	1,341,400	40,000	3.1%
Business & Occupation	985,461	1,007,475	807,475	1,308,110	300,635	29.8%
Other	60,421	48,930	57,291	53,930	5,000	10.2%
Licenses & Permits	306,329	301,900	293,862	295,050	(6,850)	-2.3%
Intergovernmental Revenue	2,147,469	632,086	564,912	669,070	36,984	5.9%
Charges for Goods/Services	3,060,577	3,159,306	3,290,062	3,527,342	368,036	11.6%
Fines and Penalties	51,581	92,550	50,820	92,550	-	0.0%
Miscellaneous Revenue	260,291	153,096	226,702	132,000	(53,240)	-32.0%
Transfers In	128	178,000	154,000	47,000	(131,000)	
Total Revenues	15,536,147	14,513,102	14,268,298	15,437,793	924,691	6.4%

MISSION STATEMENT

The City Clerk acts as a liaison between the citizens of Shelton and their local government. The mission of the Clerk's office is to provide information to the public in a transparent, and professional manner. The Clerk's office also provides support to the City Manager and the Council.

DEPARTMENT SUMMARY

The Clerk's office manages the City's records and archives/retains/destroys records according to Washington State's records and retention schedule. We prepare the agenda and packet for Council meetings, publish legal notices, and codify City ordinances. We handle Special Event Permits and all aspects of the Lodging Tax Advisory Committee. The City Clerk is also the City's Public Records Officer and processes public records requests, (with the exception of the Police Department).

BUDGET HIGHLIGHTS

All City Clerk activities are budgeted together. The City Clerk budget decreases 4.4% from the 2023 budget due to a reduction of .50 FTE Administrative Support Assistant. The position is being shared with Public Works.

CITY CLERK

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

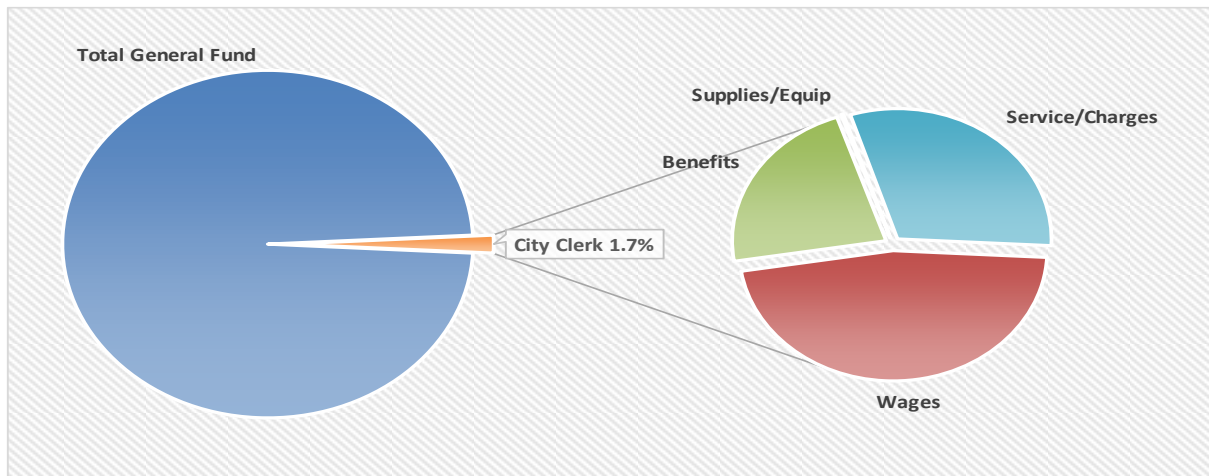
General Fund Resources	238,028	273,030	237,923	261,013	(12,017)	-4.4%
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EXPENDITURES BY DIVISION

City Clerk	118,804	135,742	126,257	128,122	(7,620)	-5.6%
Election Costs	22,115	21,900	22,000	22,000	100	0.5%
Recording Services	97,109	115,388	89,666	110,891	(4,497)	-3.9%
Total Expenditures	238,028	273,030	237,923	261,013	(12,017)	-4.4%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	131,369	143,604	139,111	121,767	(21,837)	-15.2%
Benefits	56,086	61,966	58,554	58,342	(3,624)	-5.8%
Supplies/Equip	110	570	-	570	-	0.0%
Service/Charges	50,463	66,890	40,258	80,334	13,444	20.1%
Total Expenditures	238,028	273,030	237,923	261,013	(12,017)	-4.4%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
City Clerk	1.00	1.00	1.00	1.00	1.00
Admin Support Assistant	1.00	1.00	1.00	1.00	0.50
Total City Clerk	2.00	2.00	2.00	2.00	1.50

MISSION STATEMENT

The City of Shelton strives to build a strong community and quality of life.

DEPARTMENT SUMMARY

The City Council is comprised of seven at-large members elected to each serve four-year terms. The Council serves as the legislative body and represents the residents of the City of Shelton in the following:

- developing and prioritizing strategic issues;
- establishing policies and regulations for future growth and development;
- adopting the annual budget;
- representing the City on regional boards and commissions;
- appointing and evaluating performance of the City Manager

Every two years, councilmembers will appoint one member of the Council to serve as Mayor. The Mayor serves as the presiding officer at Council meetings and is the ceremonial leader of Shelton. The Mayor has no executive or administrative authority. Once a Mayor has been selected, the Council may then appoint a Deputy Mayor.

The City of Shelton operates under the Council-Manager form of government. The Council will appoint a City Manager who is responsible for administrative functions of the City, including the daily operations of City government, personnel functions, and preparing the City budget. The City Manager is directly accountable to the City Council.

BUDGET HIGHLIGHTS

The City Council budget increases by \$5,525 or 7.8% from the 2023 budget. The budget includes changes due to increased costs for liability insurance and advertising costs to publish public notices, code publishing and the cost to stream Council meetings.

CITY COUNCIL

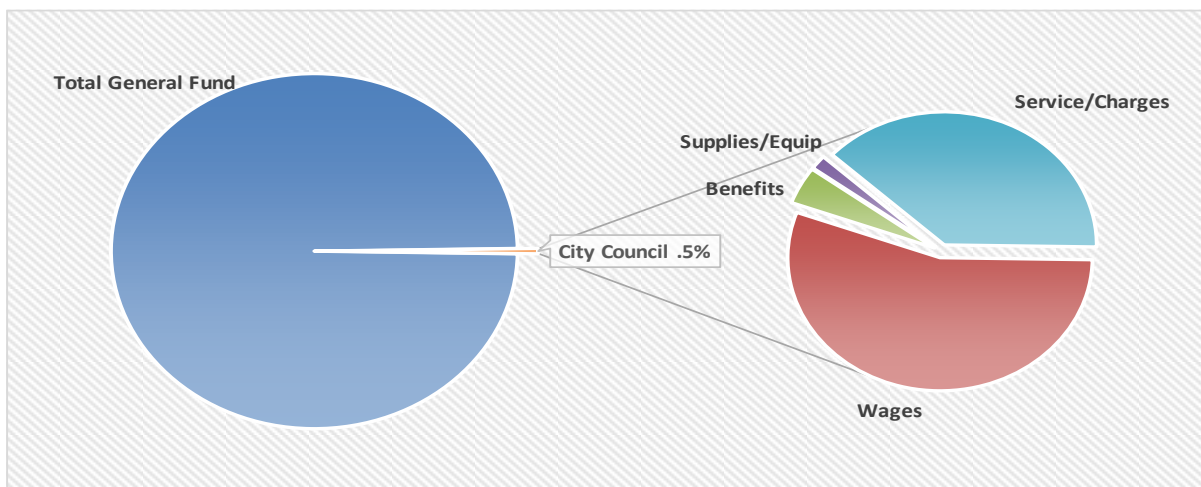
	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

General Fund Resources	77,768	70,438	61,324	75,963	5,525	7.8%
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	42,957	42,000	42,000	42,000	-	0.0%
Benefits	5,343	3,448	3,457	3,473	25	0.7%
Supplies/Equip	578	1,320	150	1,320	-	0.0%
Service/Charges	28,890	23,670	15,717	29,170	5,500	23.2%
Total Expenditures	77,768	70,438	61,324	75,963	5,525	7.8%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Councilmember (new Council position)	6.00	7.00	7.00	7.00	7.00
Councilmember (former Commission)	1.00	-	-	-	-
Total City Council	7.00	7.00	7.00	7.00	7.00

MISSION STATEMENT

The City Manager will provide Council and staff with the leadership to implement best practices to achieve adopted goals and deliver quality services to the community, promote cooperation among the Council, staff and citizens in developing City policies and building a sense of community.

DEPARTMENT SUMMARY

The City Manager is appointed by the City Council as the chief administrative officer. The City Manager is responsible to the Mayor and Council for the proper administration of all City business including policy advice, daily operations of city government, personnel functions including the power to appoint and remove employees and preparation of the annual city budget, enforce all City ordinances, resolutions, franchise agreements, leases, contracts, permits, and encourage and support regional and intergovernmental cooperation.

BUDGET HIGHLIGHTS

The City Manager Department budget decreases by \$721,623 or 30.9%. The Administrative Services Department was reorganized towards the end of 2023 and eliminated. The Human Resources function of the former Administrative Services Department was reorganized to be under the City Manager and 1.0 FTE was reduced for a savings of \$163,029. The contract for jail services was increased in 2023 for expected one-time costs that were not fully realized due to a renegotiated contract and the ability use expanded jail services through an agreement with the Nisqually tribe. This results in a reduction to Detention and Corrections in the amount of \$632,890. The City is budgeting for jail services in 2024 that will allow police to enforce laws and use jail services as necessary.

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

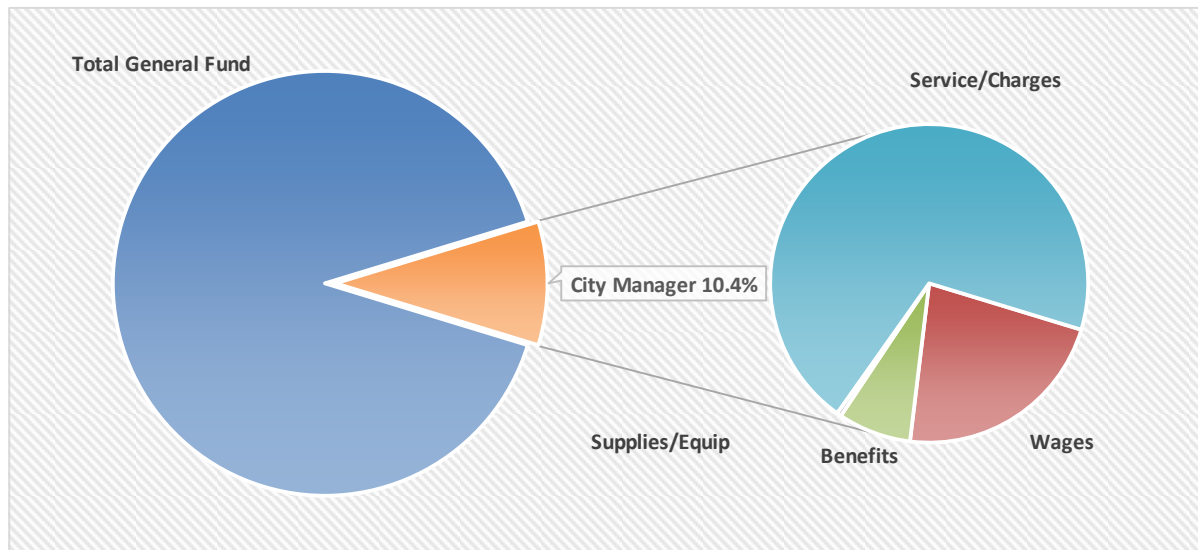
General Fund Resources	1,425,793	2,336,763	1,653,945	1,615,140	(721,623)	-30.9%
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EXPENDITURES BY DIVISION

City Manager	344,279	405,609	421,953	450,094	44,485	11.0%
Legal	277,979	328,170	340,971	375,170	47,000	14.3%
Detention & Corrections	339,327	1,137,280	436,980	504,390	(632,890)	-55.6%
Human Resources	327,848	324,148	303,674	161,119	(163,029)	-50.3%
Risk Management	136,360	141,556	150,366	124,367	(17,189)	-12.1%
Grand Total	1,425,793	2,336,763	1,653,945	1,615,140	(721,623)	-30.9%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	473,149	506,002	511,583	359,028	(146,974)	-29.0%
Benefits	176,530	195,458	169,556	120,254	(75,204)	-38.5%
Supplies/Equip	5,585	7,310	7,452	7,310	-	0.0%
Service/Charges	770,529	1,627,993	965,354	1,128,548	(499,445)	-30.7%
Grand Total	1,425,793	2,336,763	1,653,945	1,615,140	(721,623)	-30.9%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
City Manager	1.00	1.00	1.00	1.00	1.00
Human Resources Manager*	-	-	-	-	1.00
Communications Specialist	1.00	1.00	1.00	1.00	1.00
Total City Manager	2.00	2.00	2.00	2.00	3.00

*As of 2024 HR position moved to City Manager from former Administrative Services Department

MISSION STATEMENT

Planning/Building: The Community & Economic Development Department will promote a safe, vibrant, and prosperous community through sound planning principles and consistent code implementation while providing customer service that is prompt, accurate, and courteous.

DEPARTMENT SUMMARY

Long Range Planning - Creating forward-looking plans in cooperation with the community for guiding the growth and vision of Shelton. Promoting economic development activities that include grant application, business development and retention, and infrastructure planning.

Current Planning – Reviewing applications for development ranging from single-family homes to new businesses to large subdivisions. Ensuring compliance with State statutes, local regulations, and environmental guidelines.

Building Safety - Reviewing structural and architectural plans to ensure a safely built community in compliance with Shelton Municipal Code and internationally-accepted building codes. Issuing permits and conducting inspections.

Code Enforcement - Ensuring a clean and safe community through proactive engagement with residents to resolve nuisances and code violations. Abating hazardous situations and

Animal Control – Caring for stray, impounded, and abandoned animals at the City's Animal Shelter and conducting investigations related to animal aggression, neglect, and cruelty.

BUDGET HIGHLIGHTS

The Community & Economic Development Department budget increases by \$44,983 or 4.3%. This is due to changes in salaries and benefits and an appropriation for abatement of hazardous structures and nuisances.

COMMUNITY & ECONOMIC DEVELOPMENT

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

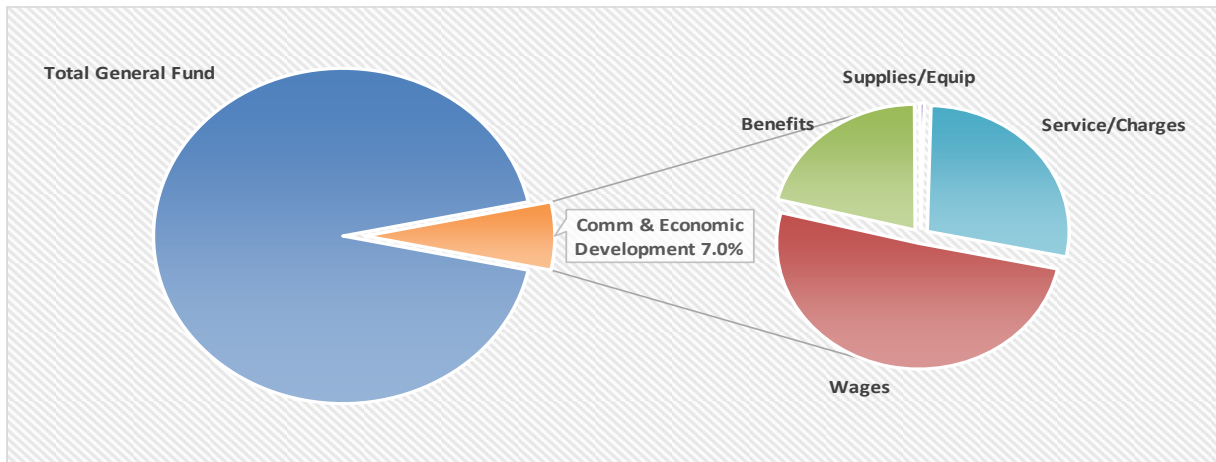
General Fund Resources	641,410	1,044,298	1,040,466	1,089,281	44,983	4.3%
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EXPENDITURES BY DIVISION

Animal Control	-	77,902	82,640	174,435	96,533	
Code Enforcement	78,160	207,783	205,280	157,780	(50,003)	-24.1%
Community Development	563,250	758,613	752,546	757,066	(1,547)	-0.2%
Total Expenditures	641,410	1,044,298	1,040,466	1,089,281	44,983	4.3%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	347,559	537,379	551,630	551,772	14,393	2.7%
Benefits	130,951	228,236	210,960	228,790	554	0.2%
Supplies/Equip	6,344	8,940	6,000	5,400	(3,540)	-39.6%
Service/Charges	156,555	269,743	271,876	303,319	33,576	12.4%
Total Expenditures	641,410	1,044,298	1,040,466	1,089,281	44,983	4.3%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Community Dev/Parks & Rec Director	0.65	-	-	-	-
Community & Economic Development Director	-	1.00	1.00	1.00	1.00
Senior Planner	1.00	1.00	1.00	1.00	1.00
Building Official	1.00	1.00	1.00	1.00	1.00
Permit Coordinator	0.80	0.80	0.85	0.85	0.85
Code Enforcement Officer	-	-	-	-	1.00
Senior Code Enforcement Officer	-	-	1.00	1.00	-
Animal Control Officer	-	-	-	-	1.00
Animal Control Tech/Code Enforce Officer	0.50	-	1.00	1.00	-
Total Community Development	3.95	3.80	5.85	5.85	5.85

MISSION STATEMENT

The Finance Department serves as dependable stewards of public resources. Through integrity, expertise, and accountability we ensure confidence through transparent financial reporting; ensure the safety and security of financial assets; develop sound financial strategies for making business decisions; interact respectfully; provide excellent service; and provide accurate, clear, and concise information.

DEPARTMENT SUMMARY

The Finance Department serves both internal partners and external customers by providing a broad range of services and information. Core operational services include information technology, payroll, cash receipting, accounting, treasury, utility billing, accounts payable, grant management, budget, procurement and contract services and accounts receivable. The Finance Department is also responsible for accounting and financial reporting including the development of the annual budget, quarterly reporting, investments, and the City's annual financial statements, audit and other reporting functions.

BUDGET HIGHLIGHTS

The Finance Department budget increases by \$256,827 or 16.2%. The budget increase includes changes due to the addition of an IT position from the former Administrative Services Division and a position formerly named Administrative Manager is moved under Finance from Public Works Administration and redesigned to be Procurement & Contracting Coordinator. The 2024 budget adds back a .50 FTE Customer Service Specialist position to better cover the customer service duties. This position is largely paid for by water, sewer, and stormwater rates.

Information Technology

The City's IT Department supports internal customers by providing responsive, efficient, and forward-thinking information technology services. The IT Department is an internal services department that provides technology implementation and support to all departments and programs at the City of Shelton. Services provided include:

- IT Administration
- Telecommunications Support
- System Administration
- Applications Support
- Help Desk Support
- Network Support
- IT Security

Finance

The Finance Department ensures sound management of the City's financial practices, that the City is conforming with legal and professional standards and provides for the short and long-term financial needs of the city while ensuring its continued sound fiscal management practices.

Staff provide objective analysis and consulting to internal and external users for the best use of limited city resources to achieve City Council strategic goals and objectives. The Finance Department provides for the following services:

- Accounting including financial reporting, audit and budget development and monitoring
- Accounts Payable (paying the City's vendors)
- Procurement and Contract Management
- Grant Financial Management and Reporting
- Payroll
- Accounts Receivable (billing and tracking amounts owed to the City)
- Treasury Management
- Utility Billing
- Customer Service

FINANCE DEPARTMENT

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

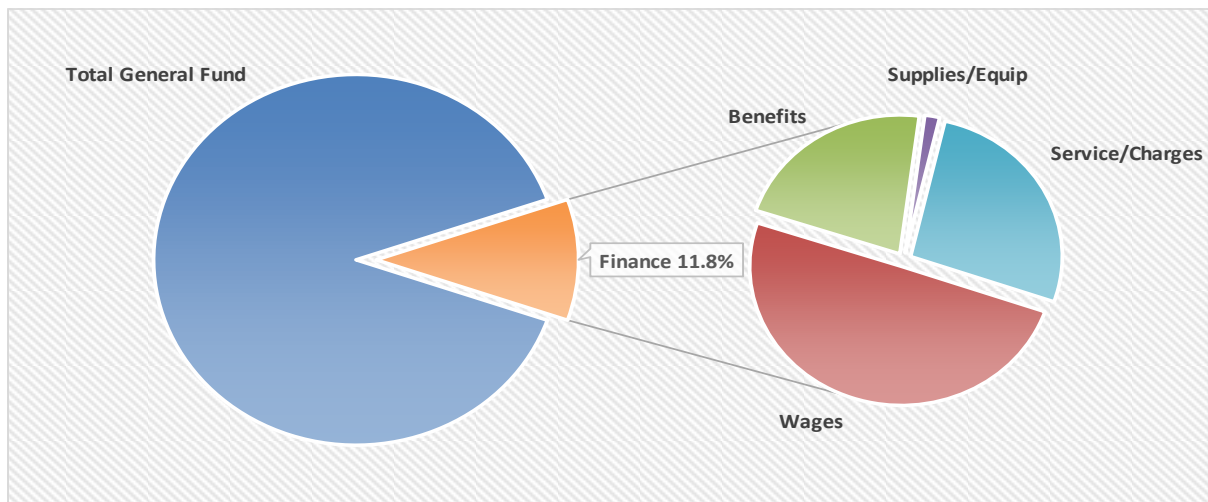
General Fund Resources	1,453,645	1,583,040	1,611,926	1,839,867	256,827	16.2%
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EXPENDITURES BY DIVISION

Accounting	653,431	748,933	774,140	984,145	235,212	31.4%
Utility Billing	425,652	422,196	420,850	437,079	14,883	3.5%
Information Technology	374,562	411,911	416,936	418,643	6,732	1.6%
Total Expenditures	1,453,645	1,583,040	1,611,926	1,839,867	256,827	16.2%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	735,362	778,130	829,332	916,054	137,924	17.7%
Benefits	304,959	341,152	358,489	404,342	63,190	18.5%
Supplies/Equip	20,212	17,580	15,486	29,358	11,778	67.0%
Service/Charges	393,113	446,178	408,619	490,113	43,935	9.8%
Total Expenditures	1,453,645	1,583,040	1,611,926	1,839,867	256,827	16.2%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Finance Director	1.00	1.00	1.00	1.00	1.00
Accounting Manager	1.00	-	-	-	-
Deputy Finance Director	-	1.00	1.00	1.00	1.00
Finance Specialist	1.00	-	-	-	-
Budget Coordinator & Grants Administrator	-	1.00	1.00	1.00	1.00
Procurement & Contracting Coordinator	-	-	-	-	1.00
Information Technology Support Administrator*					1.00
Accounting Assistant	-	1.00	1.00	1.00	1.00
Customer Service Specialist	2.00	2.00	2.00	1.00	1.50
Permit Coordinator	0.05	0.05	-	-	-
Accountant Analyst	3.00	3.00	3.00	2.00	3.00
Total Finance	8.05	9.05	9.00	7.00	10.50

*As of 2024 IT position moved to Finance from former Administrative Services Department

MISSION STATEMENT

Central Mason Fire & EMS is committed to the preservation of life, health, property, and the environment through extensive training, community outreach, and a dedication to excellence.

DEPARTMENT SUMMARY

The City contracts with Central Mason Fire & EMS (CMFE) to provide fire and emergency medical services to the City of Shelton. Central Mason Fire & EMS is the largest and busiest in Mason County as well as one of the busiest on the Olympic Peninsula. Through mutual-aid agreements CMFE provides primary advanced life support services to the majority of Mason County.

BUDGET HIGHLIGHTS

The Fire & Emergency Services Department budget increases by \$388,192 or 17.7%. The annual expenditure for the City for Fire & EMS Services is based on the City's assessed value and Fire District rates as determined by the Mason County Assessor's Office plus a flat fee for Fire Marshall services.

FIRE & EMERGENCY SERVICES DEPARTMENT

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

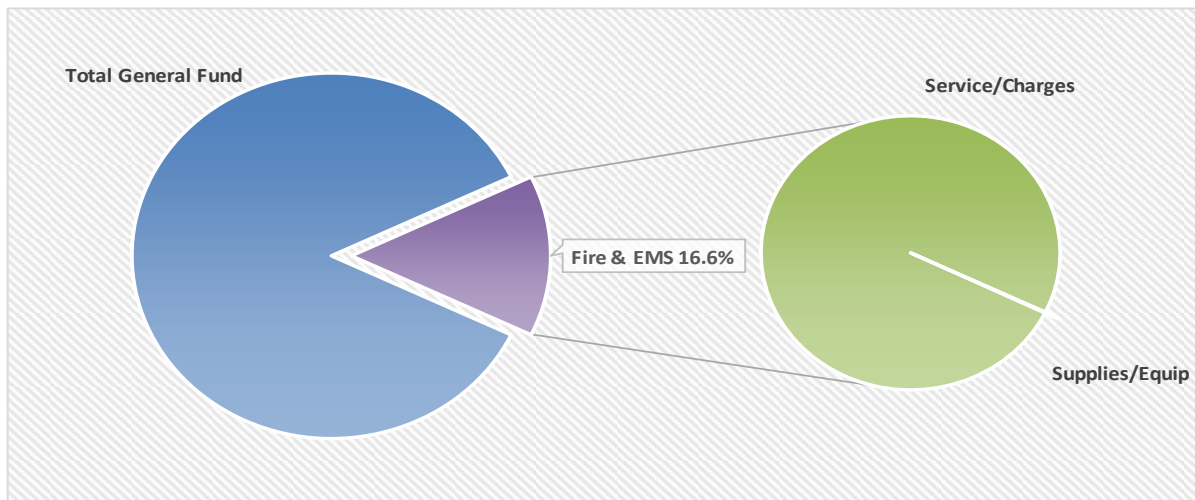
General Fund Resources	1,690,846	2,195,161	2,518,230	2,583,353	388,192	17.7%
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EXPENDITURES BY DIVISION

Facilities	50,109	34,860	53,830	34,460	(400)	-1.1%
Fire/EMS	1,640,737	2,160,301	2,464,400	2,548,893	388,592	18.0%
Total Expenditures	1,690,846	2,195,161	2,518,230	2,583,353	388,192	17.7%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Supplies/Equip	4,836	3,150	8,630	3,150	-	0.0%
Service/Charges	1,686,010	2,192,011	2,509,600	2,580,203	388,192	17.7%
Total Expenditures	1,690,846	2,195,161	2,518,230	2,583,353	388,192	17.7%



MISSION STATEMENT

The Municipal Court is an independent branch of government constitutionally entrusted with the fair and just resolution of disputes in order to preserve the rule of the law and to protect the rights and liberties guaranteed by the Constitution and laws of the United States, Washington State, and the City of Shelton.

DEPARTMENT SUMMARY

The Court must not only be fair, but also avoid even the appearance of unfairness, which is why we adhere to the Code of Judicial Conduct and provide open records and proceedings. Judicial independence requires that we follow the law and make decisions that we believe are correct, fair and just, even though those decisions may be unpopular. There shall be equal treatment for all, regardless of race, gender, ethnicity, religion, wealth, physical abilities, sexual orientation, or any other legally protected status. The Court shall maintain the independence of the Judiciary while strengthening relations with the public, the bar, and the other branches of government. The Court shall acknowledge and enhance the potential of every person in our organization to contribute to the administration of justice through participation, training and technology. The Court recognizes that everyone is different and unique and will strive to embolden a holistic and restorative criminal justice model within the confines of the law.

BUDGET HIGHLIGHTS

The Municipal Court budget increases by \$943 or 0.1%. There is a reduction of expenses due to a Grant expiring and that amount is reducing the overall Municipal Court budget. The budget does include a COLA adjustment and benefit costs increases due to rate changes.

MUNICIPAL COURT

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

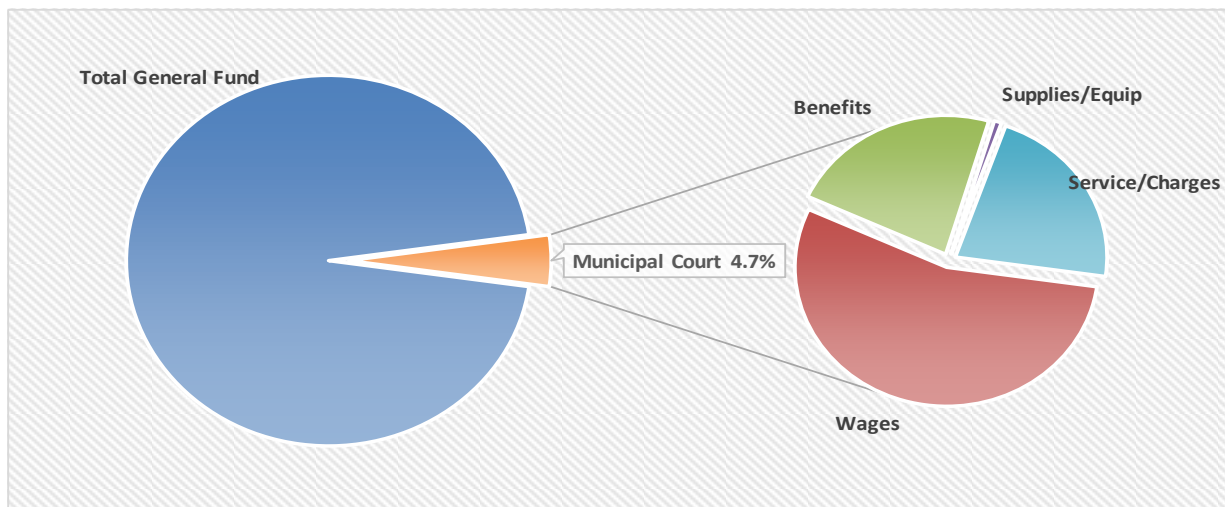
General Fund Resources	666,977	729,432	783,645	730,375	943	0.1%
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EXPENDITURES BY DIVISION

Community Restitution	118,260	131,349	127,902	137,452	6,103	4.6%
Court Services	548,717	598,083	655,743	592,923	(5,160)	-0.9%
Total Expenditures	666,977	729,432	783,645	730,375	943	0.1%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	356,267	383,209	376,626	398,779	15,570	4.1%
Benefits	140,093	162,892	146,926	166,189	3,297	2.0%
Supplies/Equip	6,822	9,429	16,575	5,729	(3,700)	-39.2%
Service/Charges	163,795	173,902	243,518	159,678	(14,224)	-8.2%
Total Expenditures	666,977	729,432	783,645	730,375	943	0.1%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Municipal Judge	0.50	0.50	0.50	0.50	0.63
Court Administrator	1.00	1.00	1.00	1.00	1.00
Community Services Supervisor	1.00	1.00	1.00	1.00	1.00
Judicial Specialist	-	-	-	1.00	1.00
Sr. Judicial Specialist	-	-	-	1.00	1.00
Office Assistant					0.40
Legal Process Assistant	2.00	2.00	2.00	-	-
Total Municipal Court	4.50	4.50	4.50	4.50	5.03

DEPARTMENT SUMMARY

The non-departmental classification is used to account for activities that are not the function of a specific department in the general fund.

BUDGET HIGHLIGHTS

The 2024 budget includes:

- ❖ \$132,530 for debt obligations on the 2011 LTGO for the Fire Station;
- ❖ \$120,000 to fully fund the obligations of the Payroll Benefits Fund (see Payroll Benefits Fund page for more information);
- ❖ \$50,000 to fully fund the obligations of the Firefighter's Pension Fund (see Firefighter's Pension Fund page for more information);
- ❖ \$400,000 as supplemental funding for on-going street operations;
- ❖ \$8,000 Fire insurance benefit payment transferred to Firefighters Pension Fund.
- ❖ \$116,000 for deferred maintenance and deferred capital projects

NON-DEPARTMENTAL

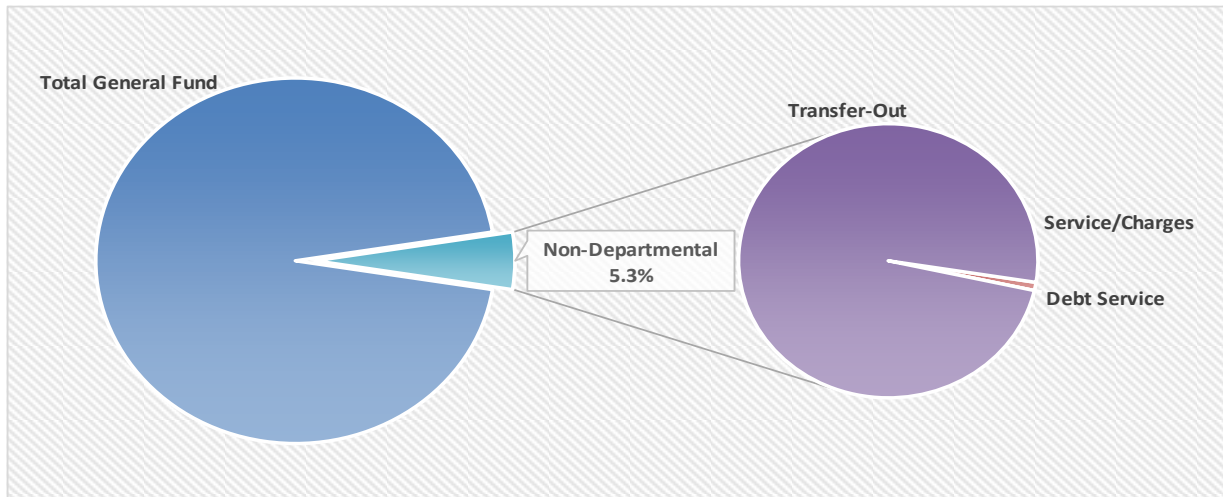
	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

General Fund Resources	3,181,361	905,228	166,697	826,530	(78,698)	-8.7%
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Service/Charges	52,070	11,712	54,703	8,000	(3,712)	-31.7%
Debt Service	21,494	21,494	21,494	-	(21,494)	-100.0%
Transfer-Out	3,107,797	872,022	90,500	818,530	(53,492)	-6.1%
Total Expenditures	3,181,361	905,228	166,697	826,530	(78,698)	-8.7%



MISSION STATEMENT

Parks and Recreation: The Parks, Recreation & Facilities Department will serve to enrich lives by providing recreational opportunities through safe and inviting parks, trails, facilities, open space and by being good environmental stewards.

DEPARTMENT SUMMARY

Parks - Providing safe and inviting parks, trails, facilities and open space for enhanced quality of life.

Recreation Services - Building community and improving health through seasonal camps, classes and activities for all ages and demographics.

Facilities and Grounds - Maintain the City's infrastructure to ensure a safe and clean environment for all residents and visitors alike and ensure community's assets are preserved.

BUDGET HIGHLIGHTS

The Parks, Recreation & Facilities Department budget decreases by \$251,450 or -14.6%. The decrease is largely due to a reduction in the Director position and reassigning duties within current staffing levels.

PARKS, RECREATION & FACILITIES

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

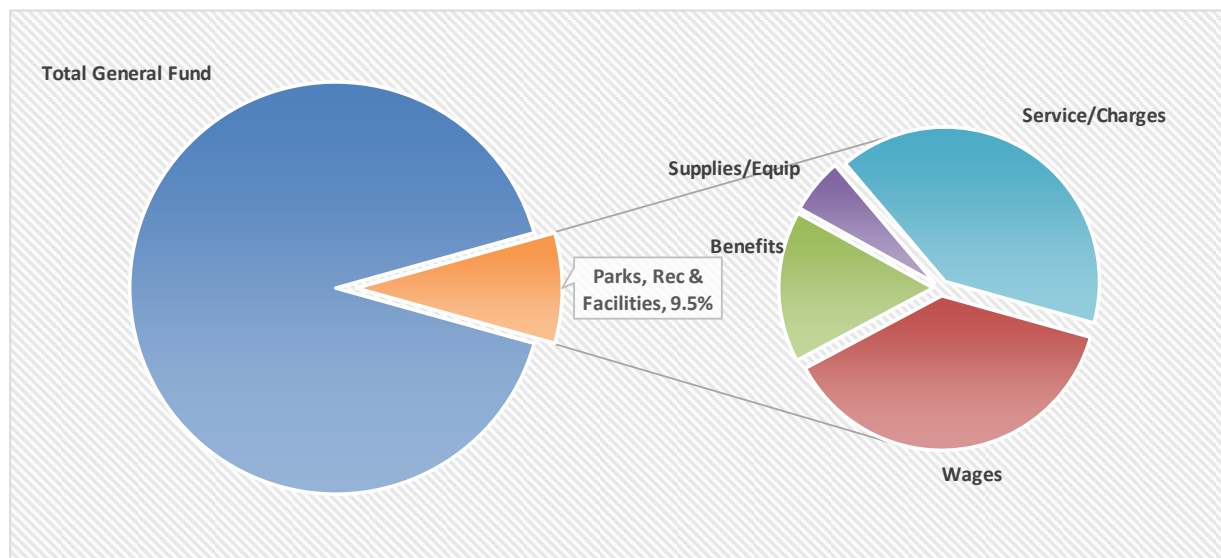
General Fund Resources	1,278,837	1,725,239	1,812,789	1,473,789	(251,450)	-14.6%
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EXPENDITURES BY DIVISION

Civic Center Activities	51,915	81,540	78,814	59,588	(21,952)	-26.9%
Facility Services	651,678	923,360	977,972	747,243	(176,117)	-19.1%
Parks & Recreation	575,245	720,339	756,003	666,958	(53,381)	-7.4%
Total Expenditures	1,278,837	1,725,239	1,812,789	1,473,789	(251,450)	-14.6%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	559,551	664,466	674,225	558,649	(105,817)	-15.9%
Benefits	239,939	275,233	298,566	233,024	(42,209)	-15.3%
Supplies/Equip	80,902	77,130	91,773	85,130	8,000	10.4%
Service/Charges	398,444	708,410	748,225	596,986	(111,424)	-15.7%
Total Expenditures	1,278,837	1,725,239	1,812,789	1,473,789	(251,450)	-14.6%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Community Dev/Parks & Rec Director	0.35	-	-	-	-
Parks, Rec & Facilities Director	-	1.00	1.00	1.00	-
Crew Lead Parks/Facilities	1.00	1.00	-	-	-
Field Supervisor	-	-	1.00	1.00	1.00
Recreation Coordinator	1.00	1.00	1.00	1.00	-
Parks and Recreation Supervisor					1.00
Assistant Crew Lead Parks/Facilities	1.00	1.00	-	-	-
Assistant Field Supervisor	-	-	1.00	1.00	1.00
Maintenance Worker	3.00	3.00	3.00	3.00	3.00
Custodial Worker	2.00	2.00	2.00	1.00	1.00
Total Parks, Rec & Facilities	8.35	9.00	9.00	8.00	7.00

MISSION STATEMENT

Our mission is to provide excellent service and protection through leadership and partnership with the community. Protecting the community is at the core of what we do, but we also provide a variety of traditional and non-traditional services. We will accomplish our mission by being leaders in the community and working together with the public to make Shelton a great place to live and work.

DEPARTMENT SUMMARY

The Shelton Police Department is comprised of 20 sworn positions and 2 civilian employees. These positions include Chief of Police, Police Captain, Sergeants, Detectives, Patrol Officers, and Records/Evidence Clerks. Not unlike other departments in Washington state, in 2023, it has been difficult to keep the Shelton Police Department's sworn positions fully staffed. In 2024, it is our goal to fill, train, and retain all available sworn positions within the department with qualified and motivated people that want to serve the Shelton community.

BUDGET HIGHLIGHTS

The budget for the Police Department in 2024 increases by \$83,400 or 2.1%. The budget includes no staffing changes for 2023. The budget includes salary and benefit increases for COLA adjustments and medical, dental, and other rate increases. The budget also has decreases in Animal Control and Code Enforcement as those activities have moved to the Community and Economic Development Department.

POLICE DEPARTMENT

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

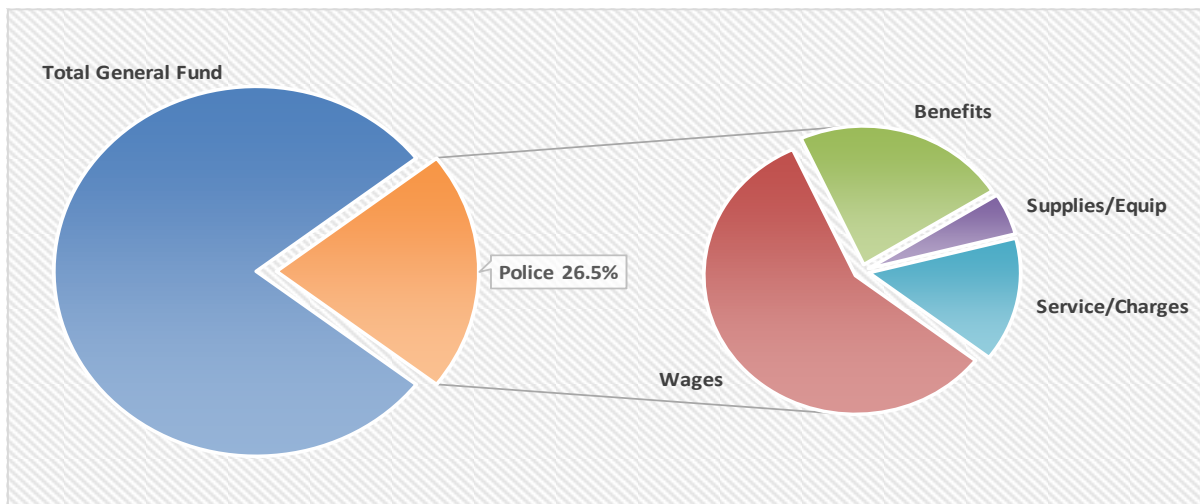
Law Enforcement Services	73,610	219,600	-	21,900	(197,700)	-90.0%
General Fund Resources	3,597,355	3,824,310	3,924,232	4,105,410	281,100	7.4%
General Fund Resources	3,670,965	4,043,910	3,924,232	4,127,310	83,400	2.1%

EXPENDITURES BY DIVISION

Administration	347,413	380,794	377,990	407,349	26,555	7.0%
Animal Control	83,700	-	-	-	-	
Investigations	408,519	511,792	497,876	529,130	17,338	3.4%
Patrol	2,406,339	2,713,011	2,789,470	2,918,329	205,318	7.6%
Records	172,283	207,189	193,640	211,032	3,843	1.9%
SRO	115,139	163,598	4,660	6,730	(156,868)	-95.9%
Code Enforcement	124,239	-	-	-	-	
Training	13,332	67,526	60,596	54,740	(12,786)	-18.9%
Total Expenditures	3,670,965	4,043,910	3,924,232	4,127,310	83,400	2.1%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	2,200,385	2,330,310	2,280,046	2,382,701	52,391	2.2%
Benefits	795,932	920,897	782,930	944,220	23,323	2.5%
Supplies/Equip	226,787	192,887	232,460	201,894	9,007	4.7%
Service/Charges	447,862	599,816	628,796	598,495	(1,321)	-0.2%
Total Expenditures	3,670,965	4,043,910	3,924,232	4,127,310	83,400	2.1%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Police Chief	1.00	1.00	1.00	1.00	1.00
Police Captain	-	-	1.00	1.00	1.00
Sergeant - Detective	1.00	1.00	1.00	1.00	1.00
Sergeant - Patrol	2.00	2.00	4.00	4.00	4.00
Detective	1.00	1.00	2.00	2.00	2.00
Corporal Officer - Patrol (SRO)	1.00	1.00	-	-	-
Police Officer	11.00	11.00	9.00	9.00	9.00
School Resource Officer	0.00	0.00	1.00	1.00	1.00
Evidence Records Clerk	2.00	2.00	1.00	1.00	1.00
Senior Evidence Records Clerk	-	-	1.00	1.00	1.00
Animal Control Tech/Code Enforce Officer	0.50	1.00	-	-	-
Senior Code Enforcement Officer	-	1.00	-	-	-
Lieutenant	2.00	2.00	-	-	-
Total Police Department	21.50	23.00	21.00	21.00	21.00

MISSION STATEMENT

Shelton Public Works is dedicated to excellence, integrity and stewardship. We enhance the safety, welfare, and livability of the community by providing and managing reliable infrastructure and services for transportation, water, stormwater, and wastewater systems.

DEPARTMENT SUMMARY

The Public Works Department is responsible for the maintenance and improvement of the City's infrastructure, including streets, sidewalks, water service, wastewater treatment, storm drainage, and fleet/equipment. These systems that serve the public focus on transportation and mobility, water treatment/delivery, storm water quality/quantity, and wastewater collection/disposal.

The Water, Sewer, Storm Drainage, and Solid Waste funds are enterprise funds and are discussed further in the proprietary fund section. The Public Works Division within the General Fund include Administration and Engineering

BUDGET HIGHLIGHTS

The Public Works 2024 Department Budget reflects a decrease of \$42,431 or -4.3%. The decrease is due to a partial reallocation of a support position to City Clerk's Office. The position will be shared between Public Works and the City Clerk's Office.

PUBLIC WORKS

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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FUNDING SOURCES

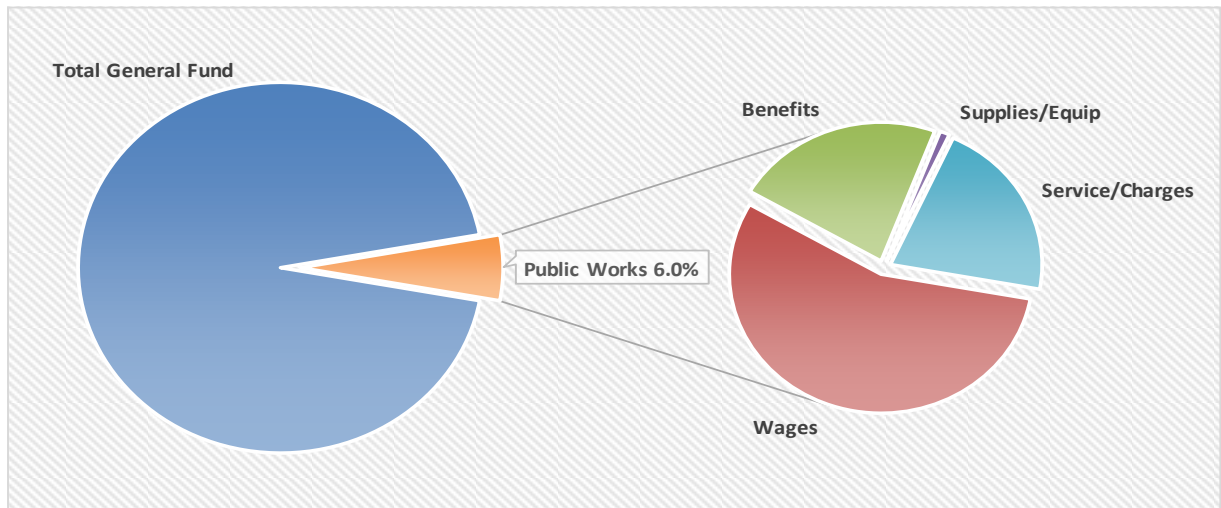
General Fund Resources	896,836	985,081	752,835	942,650	(42,431)	-4.3%
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EXPENDITURES BY DIVISION

Administration	367,292	422,415	331,242	361,924	(60,491)	-14.3%
Engineering	529,544	562,666	421,593	580,726	18,060	3.2%
Total Expenditures	896,836	985,081	752,835	942,650	(42,431)	-4.3%

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	504,111	567,028	422,873	523,302	(43,726)	-7.7%
Benefits	203,335	225,941	160,107	210,956	(14,985)	-6.6%
Supplies/Equip	8,550	10,580	5,977	9,770	(810)	-7.7%
Service/Charges	180,840	181,532	163,878	198,622	17,090	9.4%
Total Expenditures	896,836	985,081	752,835	942,650	(42,431)	-4.3%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Public Works Director	1.00	1.00	1.00	1.00	1.00
City Engineer	0.50	1.00	1.00	1.00	1.00
Sr Associate Civil Engineer	1.00	-	-	-	-
Senior Engineer	-	1.00	1.00	1.00	-
Senior Inspector	-	1.00	1.00	1.00	1.00
Admin Support Assistant	-	-	-	-	0.50
Administrative Manager	1.00	1.00	1.00	1.00	-
Capital Projects Manager	-	-	-	-	1.00
Permit Coordinator	0.10	0.10	0.10	0.10	0.10
Total Public Works	3.60	5.10	5.10	5.10	4.60

MISSION STATEMENT

To provide and maintain streets and sidewalks within the City of Shelton that allow for safe and efficient transportation.

DEPARTMENT SUMMARY

The Street department is responsible for constructing and maintaining transportation and mobility assets including roadways, alleys and right of ways within the City of Shelton. Maintenance includes patching, paving, grading gravel roads and parking strips, crack sealing, chip sealing, roadside mowing, street sweeping and pedestrian path maintenance.

BUDGET HIGHLIGHTS

The Street Fund budget for 2024 reduces by \$154,067 or -7.5%. The adopted budget for 2024 includes increases to fund items such as liability insurance and cost adjustments per the indirect cost plan for central, IT, and public administration services. Refer to the Capital Improvements Fund page for a list of the 2024 capital projects.

Refer to the TBD, REET1, REET2 and Capital Improvement pages for a list of the 2024 projects.

The General Fund supports Street Fund activities in the amount of \$400,000 in FY 2024.

STREET FUND

STREET FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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Beginning Fund Balance	423,415	432,336	432,336	586,533		
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FUNDING SOURCES

Taxes	698,510	675,000	692,305	675,000	-	
Licenses & Permits	13,566	10,000	10,380	10,000	-	
Intergovernmental Revenue	209,169	199,000	194,880	199,000	-	0.0%
Charges for Goods/Service	99,230	56,120	60,146	106,120	50,000	89.1%
Miscellaneous Revenue	16,588	1,500	10,282	1,500	-	0.0%
Transfer In	884,000	1,126,696	1,126,696	790,000	(336,696)	
Total Revenues	1,921,063	2,068,316	2,094,689	1,781,620	(286,696)	-13.9%

EXPENDITURES BY DIVISION

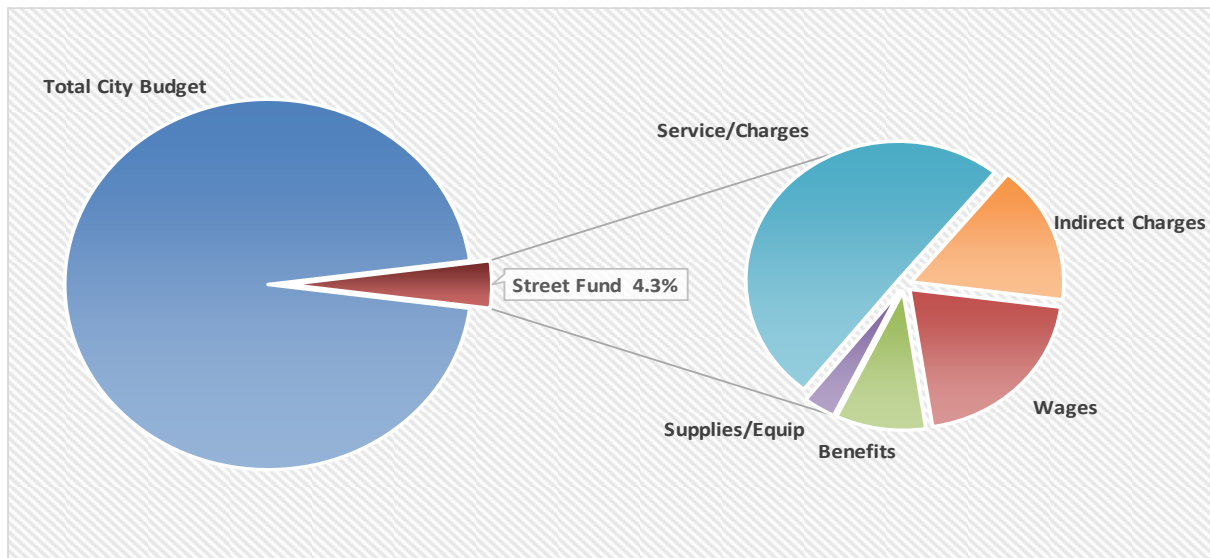
Maint Adm & Overhead	612,205	707,873	622,855	715,723	7,850	1.1%
Parking Facilities	5,557	1,190	2,772	1,190	-	0.0%
Roadside	73,217	158,373	125,616	274,425	116,052	73.3%
Roadway	431,849	333,193	352,756	436,511	103,318	31.0%
Sidewalks	5,206	300	1,542	100,300	100,000	33333.3%
Snow and Ice Control	24,859	16,411	39,278	18,698	2,287	13.9%
Special Purpose Paths	2,052	-	-	-	-	#DIV/0!
Street Cleaning	15,665	45,621	22,949	42,064	(3,557)	-7.8%
Street Lighting	167,041	136,500	136,500	136,500	-	0.0%
Traffic Control Devices	74,491	116,364	111,224	161,347	44,983	38.7%
Transfer-Out	500,000	525,000	525,000	-	(525,000)	-100.0%
Total Expenditures	1,912,143	2,040,825	1,940,492	1,886,758	(154,067)	-7.5%

Ending Fund Balance	432,336	459,827	586,533	481,395		
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Change in Fund Balance	8,921	27,491	154,197	(105,138)		
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	300,286	378,476	360,232	387,638	9,162	2.4%
Benefits	139,774	177,468	149,357	180,622	3,154	1.8%
Supplies/Equip	52,582	64,970	62,989	64,970	-	0.0%
Service/Charges	619,166	589,370	547,373	948,310	358,940	60.9%
Indirect Charges	279,640	305,541	295,541	305,218	(323)	-0.1%
Transfer-Out	500,000	525,000	525,000	-	(525,000)	-100.0%
Total Expenditures	1,891,448	2,040,825	1,940,492	1,886,758	(154,067)	-7.5%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Superintendent - Streets/Water/EM&R	0.40	0.40	0.40	0.40	0.40
Field Supervisor - Streets	1.00	1.00	1.00	1.00	1.00
Assistant Field Supervisor - Streets	-	-	1.00	1.00	1.00
Heavy Equipment Operator	-	-	1.00	1.00	1.00
Sr. Heavy Equipment Operator	-	-	0.25	0.25	0.25
Operator	1.25	1.25	-	-	-
Truck Driver	1.00	1.00	-	-	-
Maintenance Worker	1.00	1.00	1.00	1.00	1.00
Senior Inspector	0.25	-	-	-	-
Total Street Fund	4.90	4.65	4.65	4.65	4.65

FUND SUMMARY

The Capital Resources Fund was approved by the City Council on December 17, 2019 as a new Special Revenue Fund to be used to account for and accumulate financial resources. On December 7, 2021, the City Council approved four new Capital Resource Funds for accounting for Special Revenues. In the interest of transparency and clarity, these funds will be used for Real Estate Excise Tax 1 (REET 1), Real Estate Excise Tax 2 (REET2), Transportation Benefit District (TBD) and Traffic Impact Fees (TIF) which will clearly show beginning and ending fund balances as well as budgeted transfers to authorized uses. The cash will remain in these funds until it is allocated by the City Council, through Ordinance, for use on qualifying projects.

BUDGET HIGHLIGHTS

The 2024 budget includes the following transfers out of REET 1 resources:

- ❖ \$47,570 for 2020 refunding bond payment – Bond Fund
- ❖ \$30,000 for Downtown Street Tree and Sidewalk – Street Fund
- ❖ \$25,000 for Railroad Ave at 1st Street to 7th Street Striping – Street Fund

CAPITAL RESOURCES - REAL ESTATE EXCISE TAX 1 FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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Beginning Fund Balance	356,027	505,896	505,896	519,322		
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FUNDING SOURCES

Taxes	190,330	52,500	130,000	52,500	-	0.0%
Miscellaneous Revenue	5,637	-	12,000	-	-	
Total Revenues	195,967	52,500	142,000	52,500	-	0.0%

EXPENDITURES BY DIVISION

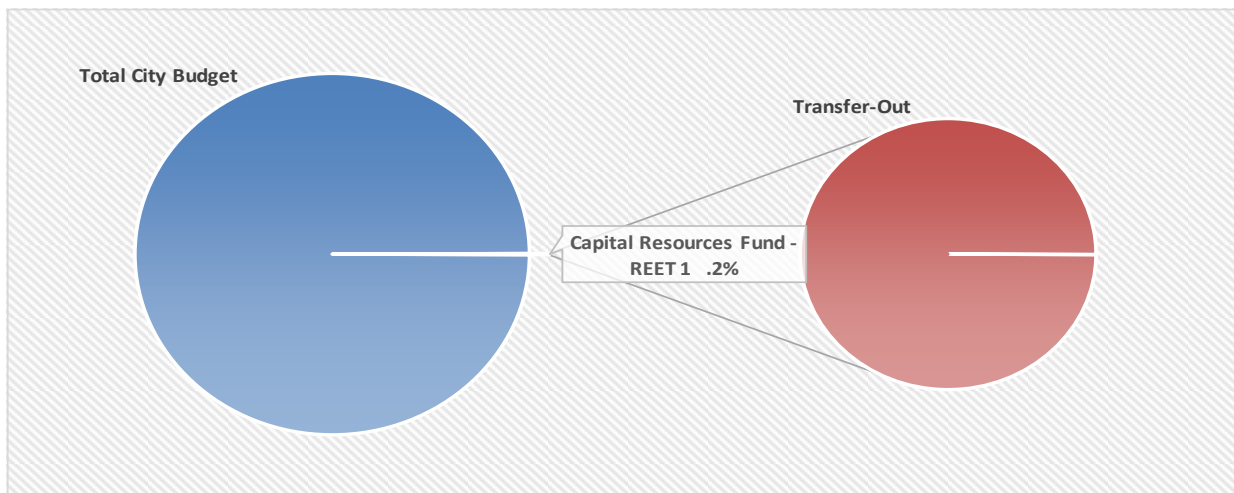
Transfers-Out	46,098	128,574	128,574	102,570	(26,004)	-20.2%
Total Expenditures	46,098	128,574	128,574	102,570	(26,004)	-20.2%

Ending Fund Balance	505,896	429,822	519,322	469,252		
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Change in Fund Balance	149,869	(76,074)	13,426	(50,070)		
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Transfer-Out	46,098	128,574	128,574	102,570	(26,004)	-20.2%
Total Expenditures	46,098	128,574	128,574	102,570	(26,004)	-20.2%



FUND SUMMARY

The Capital Resources Fund was approved by the City Council on December 17, 2019 as a new Special Revenue Fund to be used to account for and accumulate financial resources. On December 7, 2021, the City Council approved four new Capital Resource Funds for accounting for Special Revenues. In the interest of transparency and clarity, these funds will be used for Real Estate Excise Tax 1 (REET 1), Real Estate Excise Tax 2 (REET2), Transportation Benefit District (TBD) and Traffic Impact Fees (TIF) which will clearly show beginning and ending fund balances as well as budgeted transfers to authorized uses. The cash will remain in these funds until it is allocated by the City Council, through Ordinance, for use on qualifying projects.

BUDGET HIGHLIGHTS

The 2024 budget includes the following transfers out of REET 2 resources:

- ❖ \$30,000 ADA Transition Plan – Street Fund
- ❖ \$15,000 Railroad Street Light Replacement – Street Fund
- ❖ \$45,000 Safe Routes to School – Capital Improvement Fund

CAPITAL RESOURCES - REAL ESTATE EXCISE TAX 2 FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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Beginning Fund Balance	395,753	592,438	592,438	705,438		
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FUNDING SOURCES

Taxes	190,330	52,500	130,000	52,500	-	0.0%
Miscellaneous Revenue	6,355	-	13,000	-	-	
Total Revenues	196,685	52,500	143,000	52,500	-	0.0%

EXPENDITURES BY DIVISION

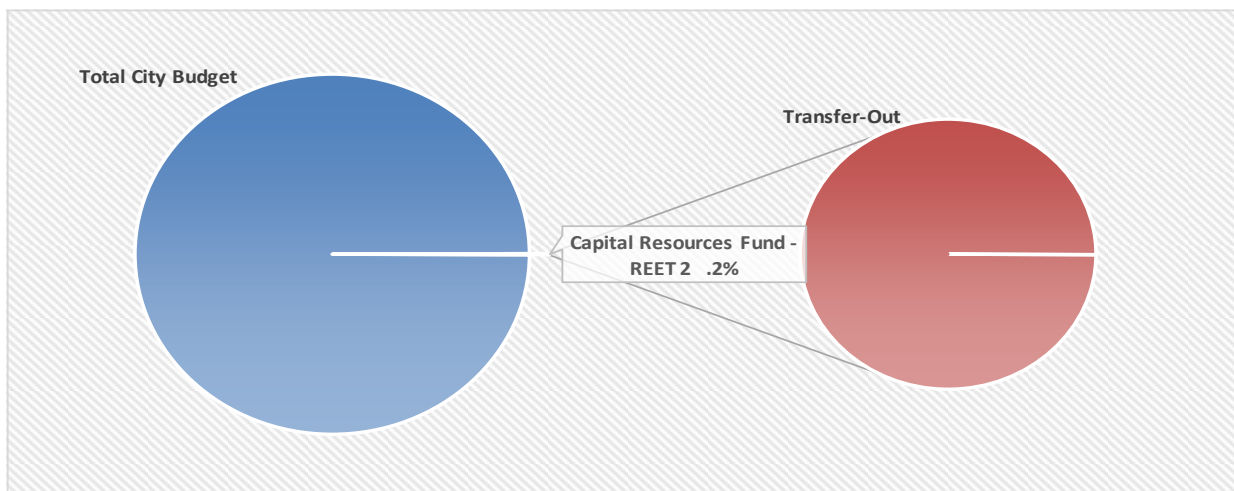
Transfers-Out	-	30,000	30,000	90,000	60,000	
Total Expenditures	-	30,000	30,000	90,000	60,000	

Ending Fund Balance	592,438	614,938	705,438	667,938		
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Change in Fund Balance	196,685	22,500	113,000	(37,500)		
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Transfer-Out	-	30,000	30,000	90,000	60,000	
Total Expenditures	-	30,000	30,000	90,000	60,000	



FUND SUMMARY

The Capital Resources Fund was approved by the City Council on December 17, 2019 as a new Special Revenue Fund to be used to account for and accumulate financial resources. On December 7, 2021, the City Council approved four new Capital Resource Funds for accounting for Special Revenues. In the interest of transparency and clarity, these funds will be used for Real Estate Excise Tax 1 (REET 1), Real Estate Excise Tax 2 (REET2), Transportation Benefit District (TBD) and Traffic Impact Fees (TIF) which will clearly show beginning and ending fund balances as well as budgeted transfers to authorized uses. The cash will remain in these funds until it is allocated by the City Council, through Ordinance, for use on qualifying projects.

BUDGET HIGHLIGHTS

The 2024 Adopted budget includes the following transfers out of TBD resources:

- ❖ \$100,000 Street Operations Non-Motorized Comprehensive Plan – Street Fund
- ❖ \$100,000 Street Chip Seal Project Partnership with Mason County – Street Fund
- ❖ \$60,000 City-wide pavement condition report – Street Fund
- ❖ \$30,000 ADA Transition Planning – Street Fund
- ❖ \$100,000 Capital Hill Paving of gravel road
- ❖ \$190,000 Olympic Hwy. North: “C” Street to Wallace Kneeland Grind/Inlay
- ❖ \$207,000 Maintenance Division Yard Purchase
- ❖ \$45,000 Safe Routes to School

CAPITAL RESOURCES - TRANSPORTATION BENFIT DISTRICT FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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Beginning Fund Balance	1,302,997	1,540,535	1,540,535	1,313,035		
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FUNDING SOURCES

Miscellaneous Revenue	13,183	-	27,000	-	-	
Transfer In	609,745	525,000	525,000	-	(525,000)	100.0%
Total Revenues	622,928	525,000	552,000	-	(525,000)	-100.0%

EXPENDITURES BY DIVISION

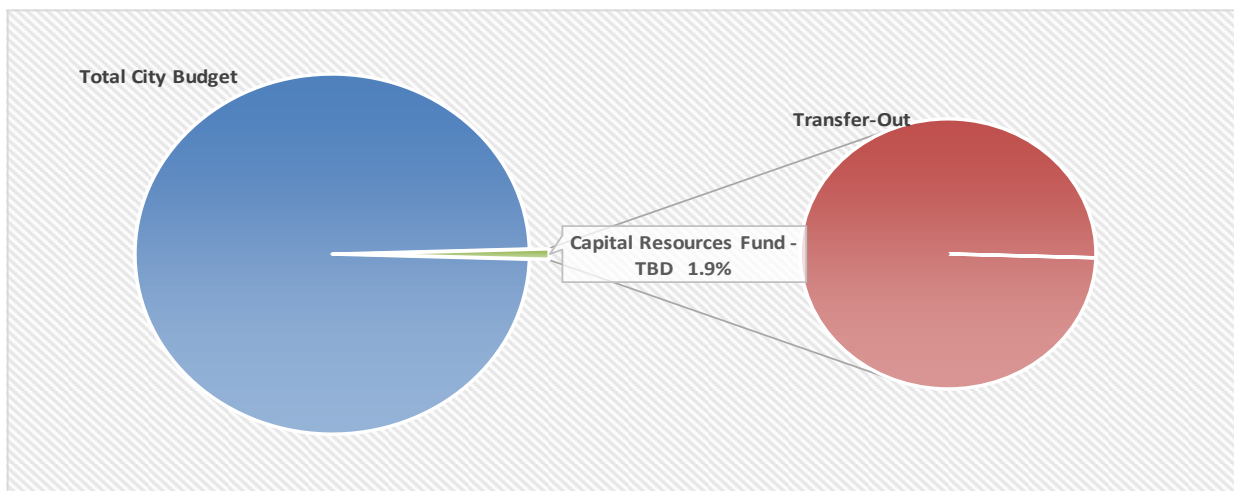
Transfers-Out	385,390	779,500	779,500	832,000	52,500	6.7%
Total Expenditures	385,390	779,500	779,500	832,000	52,500	6.7%

Ending Fund Balance	1,540,535	1,286,035	1,313,035	481,035		
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Change in Fund Balance	237,538	(254,500)	(227,500)	(832,000)		
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Transfer-Out	385,390	779,500	779,500	832,000	52,500	6.7%
Total Expenditures	385,390	779,500	779,500	832,000	52,500	6.7%



FUND SUMMARY

The Capital Resources Fund was approved by the City Council on December 17, 2019 as a new Special Revenue Fund to be used to account for and accumulate financial resources. On December 7, 2021, the City Council approved four new Capital Resource Funds for accounting for Special Revenues. In the interest of transparency and clarity, these funds will be used for Real Estate Excise Tax 1 (REET 1), Real Estate Excise Tax 2 (REET2), Transportation Benefit District (TBD) and Traffic Impact Fees (TIF) which will clearly show beginning and ending fund balances as well as budgeted transfers to authorized uses. The cash will remain in these funds until it is allocated by the City Council, through Ordinance, for use on qualifying projects.

BUDGET HIGHLIGHTS

The 2024 Adopted budget includes the following transfers out of TIF resources:

- ❖ No transfers out for 2024

CAPITAL RESOURCES - TRAFFIC IMPACT FEES FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
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Beginning Fund Balance	997,437	706,764	706,764	701,764		
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FUNDING SOURCES

Charges for Goods/Services	115,038	80,000	80,000	80,000	-	0.0%
Miscellaneous Revenue	8,389	-	15,000	-	-	
Transfer In	-	-	-	-	-	100.0%
Total Revenues	123,427	80,000	95,000	80,000	-	0.0%

EXPENDITURES BY DIVISION

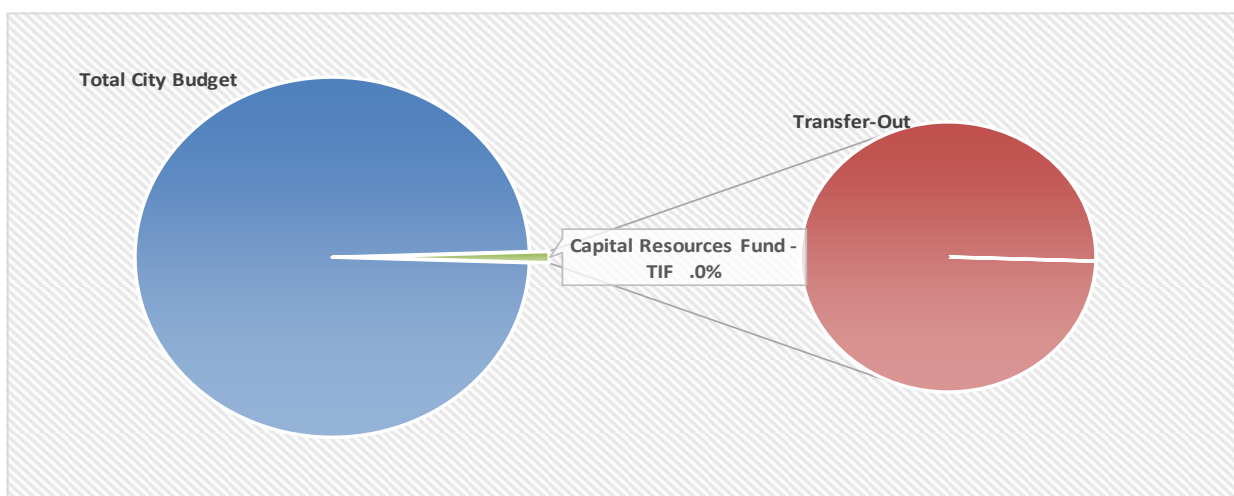
Transfers-Out	414,100	100,000	100,000	-	(100,000)	
Total Expenditures	414,100	100,000	100,000	-	(100,000)	

Ending Fund Balance	706,764	686,764	701,764	781,764		
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Change in Fund Balance	(290,673)	(20,000)	(5,000)	80,000		
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Transfer-Out	414,100	100,000	100,000	-	(100,000)	
Total Expenditures	414,100	100,000	100,000	-	(100,000)	



FUND SUMMARY

The Capital Resources Fund was approved by the City Council on December 17, 2019 as a new Special Revenue Fund to be used to account for and accumulate financial resources. On December 7, 2021, the City Council approved four new Capital Resource Funds for accounting for Special Revenues. In the interest of transparency and clarity, these funds will be used for Real Estate Excise Tax 1 (REET 1), Real Estate Excise Tax 2 (REET2), Transportation Benefit District (TBD) and Traffic Impact Fees (TIF) which will clearly show beginning and ending fund balances as well as budgeted transfers to authorized uses. All the remaining types of Capital Resources will be maintained as Capital Resources – General Resources. The cash will remain in these funds until it is allocated by the City Council, through Ordinance, for use on qualifying projects.

BUDGET HIGHLIGHTS

The 2024 Adopted budget includes the following transfers out:

- ❖ \$23,000 of General Resources for Library Deck Repair – General Fund

CAPITAL RESOURCES - GENERAL RESOURCES FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	1,649,409	1,222,689	1,222,689	586,689		

FUNDING SOURCES

Intergovernmental Revenue	142,572	303,204	303,204	-	(303,204)	
Miscellaneous Revenue	13,216	-	18,000	-		
Transfer In	1,788,613	-	-	-	-	100.0%
Total Revenues	1,944,401	303,204	321,204	-	(303,204)	-100.0%

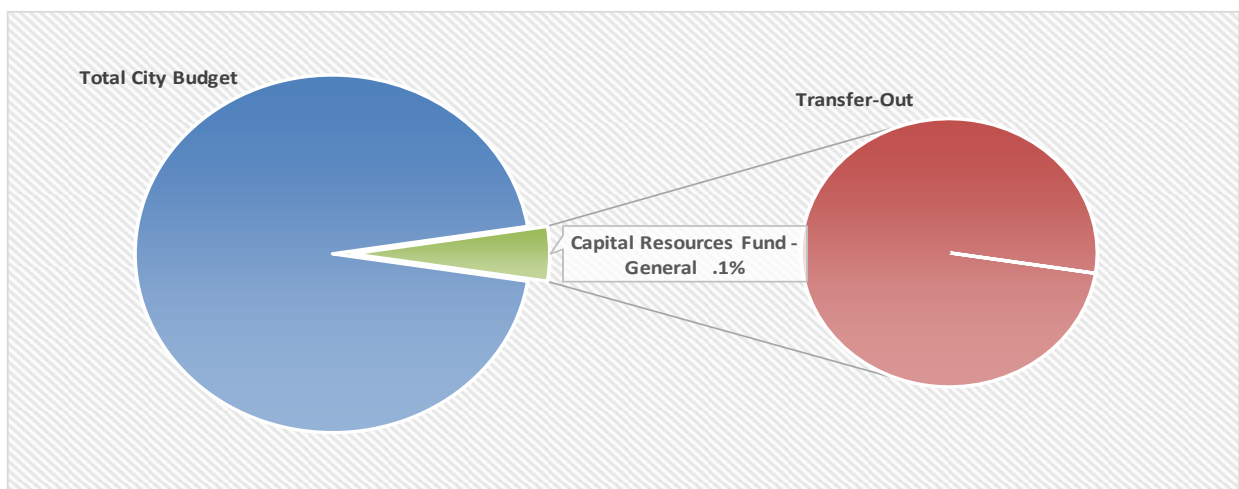
EXPENDITURES BY DIVISION

Veteran's Village	142,572	303,204	303,204	-	(303,204)	-100%
Transfers-Out	2,228,549	654,000	654,000	23,000	(631,000)	-96.5%
Total Expenditures	2,371,121	957,204	957,204	23,000	(934,204)	-97.6%

Ending Fund Balance	1,222,689	568,689	586,689	563,689		
Change in Fund Balance	(426,720)	(654,000)	(636,000)	(23,000)		

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Veteran's Village	142,572	303,204	303,204	-	(303,204)	-100%
Transfer-Out	2,228,549	654,000	654,000	23,000	(631,000)	-96.5%
Total Expenditures	2,371,121	957,204	957,204	23,000	(934,204)	-97.6%



DEPARTMENT SUMMARY

The Tourism Fund is used to account for the 4.2% tax as allowed by RCW on lodging at hotels, motels, and similar establishments, including bed and breakfasts and RV parks located within Shelton. These revenues are restricted for tourism promotion and for the acquisition and/or operation of tourism-related facilities or businesses. Tourism promotion means activities, operations, and expenditures designed to increase tourism, including advertising, publicizing, or other distribution of information to attract and welcome tourists. It also includes developing strategies to expand tourism, operating tourism promotion agencies, and funding marketing of or the operation of special cultural, athletic, or entertainment events and activities designed to attract tourists. The City's Lodging Tax Advisory Committee receives, reviews and recommends funding appropriations for selected activities to the City Council, who authorize spending through the budget process.

BUDGET HIGHLIGHTS

The Tourism Fund budget increases by \$29,248 or 43.0% from the 2023 appropriation. The funding allocations equal \$97,248 for 2024 activities/events are:

- ❖ Bluegrass from the Forest (Kristmas Town Kiwanis) - \$9,000
- ❖ Mason County Forest Festival Association - \$10,000
- ❖ Christmas Town Marketing & Events (NW Event Organizers) - \$12,000
- ❖ Overlook Park Mural Installation (NW Event Organizers) - \$3,300
- ❖ Downtown Get Down (Freedom Highway Studios) - \$2,000
- ❖ Mason County Disc Golf Association - \$14,198
- ❖ Shelton-Mason County Chamber of Commerce - \$20,000
- ❖ Cruisin' Through Time Car Show (Mason County Historical Society) - \$1,750
- ❖ Museum/Visitors Center (Mason County Historical Society) - \$25,000

TOURISM FUND

TOURISM FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	89,620	91,844	91,844	73,449		

FUNDING SOURCES

Taxes	65,113	48,000	48,633	48,000	-	0.0%
Miscellaneous Revenue	1,179	100	3,417	100	-	0.0%
Total Revenue	66,292	48,100	52,050	48,100	-	0.0%

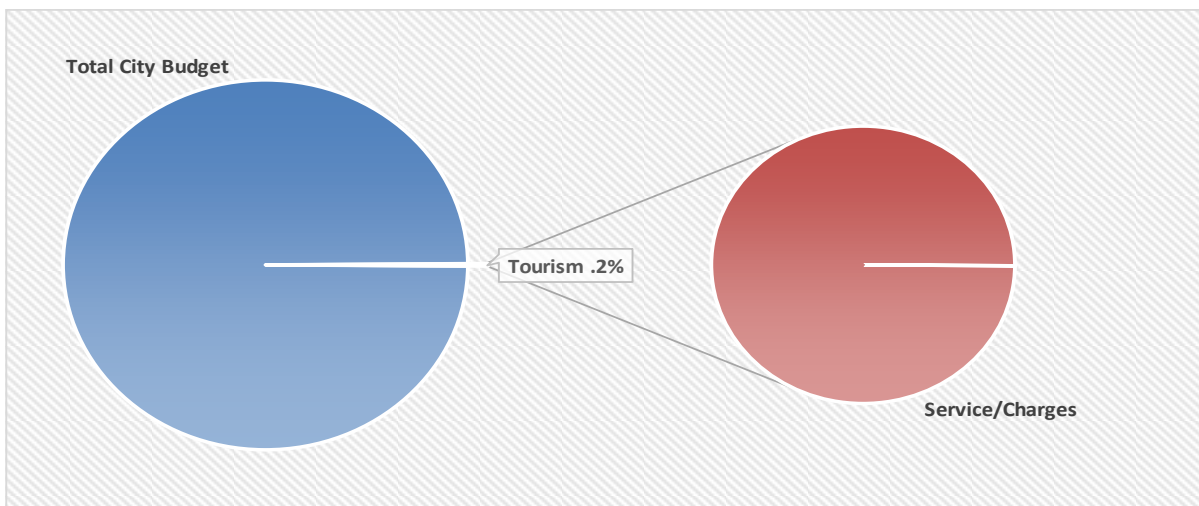
EXPENDITURES BY DIVISION

Tourism	64,067	68,000	70,445	97,248	29,248	43.0%
Total Expenditures	64,067	68,000	70,445	97,248	29,248	43.0%

Ending Fund Balance	91,844	71,944	73,449	24,301		
Change in Fund Balance	2,224	(19,900)	(18,395)	(49,148)		

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Service/Charges	64,067	68,000	70,445	97,248	29,248	43.0%
Total Expenditures	64,067	68,000	70,445	97,248	29,248	43.0%



DEPARTMENT SUMMARY

The Bond Fund is used to account for the accumulation of resources to be used for the retirement of City general long-term debt. The appropriation authorized for these funds are determined by the debt payment schedules approved by the City Council (or City Commission) as part of debt issuance and cannot legally be altered by legislative action.

BUDGET HIGHLIGHTS

The 2024 budget reflects a decrease of \$3,800 from 2023. The Bond Fund is utilized for paying the portion of the 2020 Refunding Bond which replaced the 2011A and 2011B LTGO Fire Station Bonds.

BOND FUND

BOND FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	7,618	7,592	7,592	7,592		

FUNDING SOURCES

Taxes	79	-	-	-	-	0.0%
Transfer In	177,300	183,900	183,900	180,100	(3,800)	-2.1%
Total Revenue	177,379	183,900	183,900	180,100	(3,800)	-2.1%

EXPENDITURES BY DIVISION

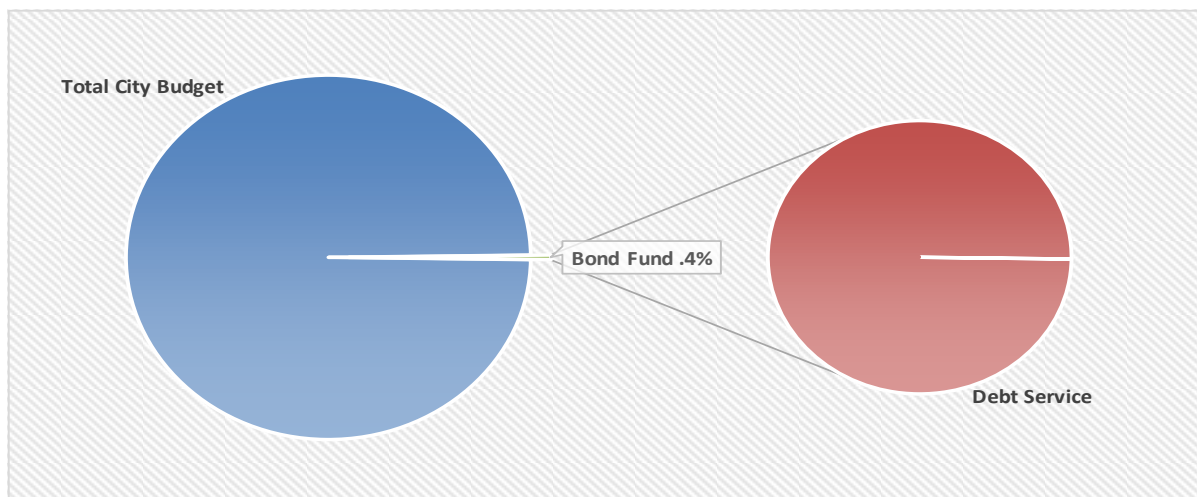
Bond Fund	177,405	183,900	183,900	180,100	(3,800)	-2.1%
Total Expenditures	177,405	183,900	183,900	180,100	(3,800)	-2.1%

Ending Fund Balance	7,592	7,592	7,592	7,592		
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Change in Fund Balance	(26)	-	-	-		
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Debt Service	177,405	183,900	183,900	180,100	(3,800)	-2.1%
Total Expenditures	177,405	183,900	183,900	180,100	(3,800)	-2.1%



DEPARTMENT SUMMARY

The Capital Improvement Fund is where the City accounts for the resources and expenditures related to all City Capital Projects that are not accounted for in City Proprietary Funds. The City uses this fund to track revenue and expenses at the project level to ensure that the City has financial resources to cover the cost of each project and to ensure that total project expenses do not exceed budget authority. Potential funding includes state and federal grants, Real Estate Excise Tax (REET), Traffic Impact Fees (TIF), Transportation Benefit District (TBD) tax monies, Shelton Metropolitan Parks District (SMPD), debt financing, as well as transfers into this fund.

In all cases, the City considers restricted monies to have been spent first when expenditures are incurred for purposes for which both restricted and unrestricted resources are available. When expenditures occur of unrestricted monies, unassigned resources are always considered the last monies to be included after all other qualified resources have been exhausted.

BUDGET HIGHLIGHTS

The Capital Improvement Fund budget will fluctuate somewhat from year to year depending on budgeted capital projects and the funding sources for those projects.

Capital projects included in the Capital Improvement Fund for 2024 are:

Street/Transportation:

- ❖ Capital Hill Paving Gravel Road - \$100,000
Funding Sources: TBD-\$100,000
- ❖ Olympic Highway North - "C" St. to Wallace Kneeland Grind-Inlay - \$190,000
Funding Sources: TBD-\$190,000
- ❖ Maintenance Division Yard Purchase - \$207,000
Funding Sources: TBD-\$207,000
- ❖ Safe Routes to School - \$90,000
Funding Sources: REET 2-\$45,000; TBD-\$45,000
- ❖ Wallace Kneeland/Shelton Springs Intersection Design - \$650,000
Funding Sources: State Grant-\$650,000
- ❖ Railroad Track Crossing Removal - \$279,000
Funding Sources: State Grant-\$279,000
- ❖ Civic Center Security Upgrades - \$145,500
Funding Sources: State Grant-\$145,500
- ❖ Civic Center Universal Power Supply Replacement/Design - \$30,000
Funding Sources: General Fund-\$30,000

- ❖ Police Vehicle Replacement - \$86,000
Funding Sources: General Fund-\$86,000

Parks:

- ❖ Northcliff Neighborhood Park Improvements - \$20,000
Funding Source: SMPD-\$20,000

CAPITAL IMPROVEMENT FUND

CAPITAL IMPROVEMENT FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	879,714	860,451	860,451	46,019		

FUNDING SOURCES

Intergovernmental Revenue	414,159	1,845,085	1,030,653	1,074,500	(770,585)	-41.8%
Charges for Goods/Service	24,033	50,000	50,000	20,000	(30,000)	-60.0%
Transfer In	1,073,043	929,500	929,500	703,000	(226,500)	-24.4%
Total Revenue	1,511,235	2,824,585	2,010,153	1,797,500	(1,027,085)	-36.4%

EXPENDITURES BY DIVISION

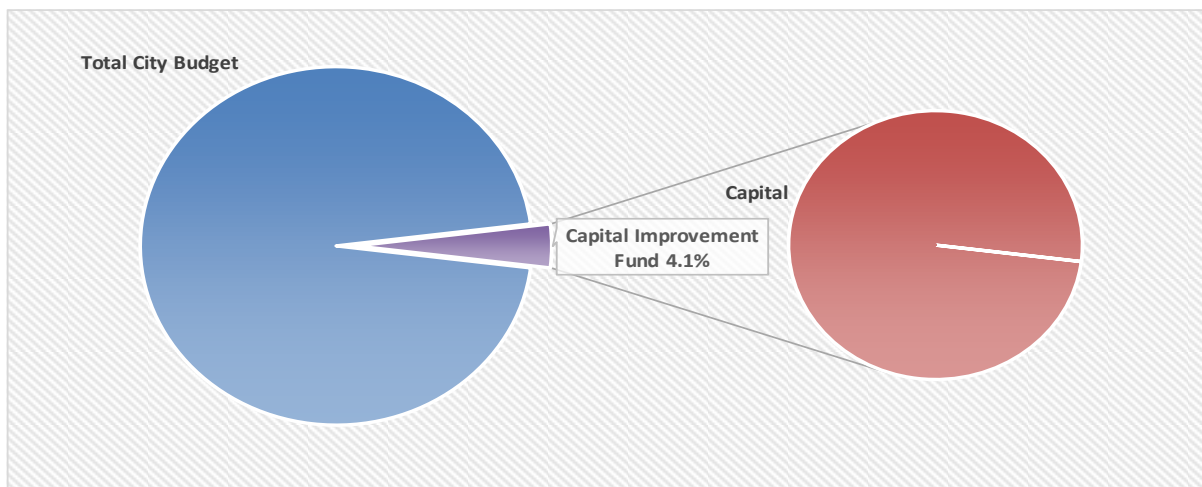
Capital	1,413,422	2,824,585	1,925,091	1,797,500	(1,027,085)	-36.4%
Transfer Out	117,076	-	899,494	-	-	
Grand Total	1,530,498	2,824,585	2,824,585	1,797,500	(1,027,085)	-36.4%

Ending Fund Balance 860,451 860,451 46,019 46,019

Change in Fund Balance (19,263) - (814,432) -

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Supplies/Equip	1,298	-	-	-	-	
Service/Charges	112,015	-	146,807	-	-	
Capital	1,218,430	2,824,585	2,653,668	1,797,500	(1,027,085)	-36.4%
Indirect Charges	12,643	-	24,110	-	-	
Grand Total	1,344,386	2,824,585	2,824,585	1,797,500	(1,027,085)	-36.4%



MISSION STATEMENT

To provide high quality water services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Water Utility Fund is used to operate, maintain, and improve the water distribution system to provide for the delivery of safe, high-quality water for all City water users. The Water Department maintains and services three wells, four booster pump stations, and five City reservoirs that store a total of 2,227,000 gallons of high-quality drinking water. The Department also operates and maintains the potable (safe drinking water) and non-potable (not of drinking quality but safe for other uses) water distribution system. This system is comprised of 316,133 linear feet of potable mainline piping, 4,815 linear feet of non-potable mainline piping, 956 valves, 598 fire hydrants, and 4,125 water service meters. The Water Department constantly monitors and regulates water use and production City-wide to ensure it is able to meet the demands of the City while maintaining reserves necessary for fire flow storage for emergency needs. Revenue is primarily from charges for service with additional funding from system development fees, lease revenue, and investment interest.

BUDGET HIGHLIGHTS

The Water Fund budget increases by \$839,131 or 23.9%. The adopted budget for 2024 includes increases to fund items such as liability insurance, the replacement of a vehicle, increase the amount of in-stock fire-hydrants, valves, and pipe, cost adjustments per the indirect cost plan for central, finance, and public administration services, and credit card processing fees. A fund transfer to the Water Capital Fund in the amount of \$1,031,000, refer to the Water Capital Fund page for a list of the 2024 capital projects.

WATER FUND

WATER FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	1,650,758	2,003,551	2,003,551	2,095,950		

FUNDING SOURCES

Charges for Goods/Service	2,940,925	2,916,210	2,697,689	3,206,210	290,000	9.9%
Miscellaneous Revenue	190,250	46,100	892,546	46,100	-	0.0%
Total Revenue	3,131,175	2,962,310	3,590,235	3,252,310	290,000	9.8%

EXPENDITURES BY DIVISION

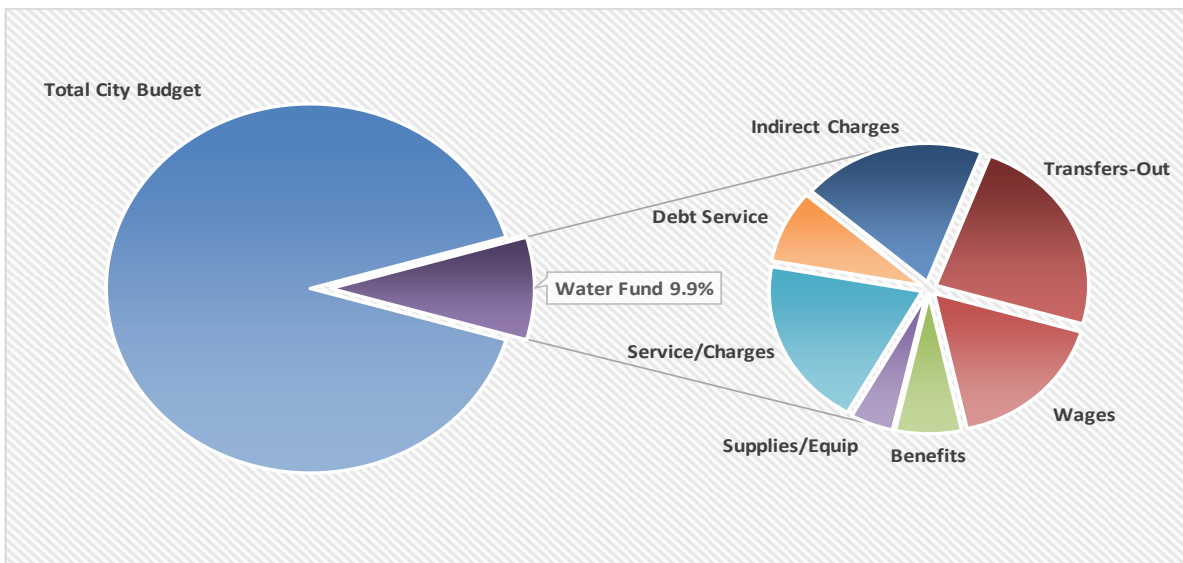
Water Operations	2,778,382	3,505,951	3,497,836	4,345,082	839,131	23.9%
Total Expenditures	2,778,382	3,505,951	3,497,836	4,345,082	839,131	23.9%

Ending Fund Balance	2,003,551	1,459,910	2,095,950	1,003,178
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Change in Fund Balance	352,793	(543,641)	92,399	(1,092,772)
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WATER FUND

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	559,324	679,386	670,881	741,496	62,110	9.1%
Benefits	241,550	300,270	300,270	303,167	2,897	1.0%
Supplies/Equip	151,968	228,250	221,466	198,250	(30,000)	-13.1%
Service/Charges	580,997	847,370	849,924	858,723	11,353	1.3%
Capital	4,447	-	-	-	-	
Debt Service	372,618	371,367	372,827	368,859	(2,508)	-0.7%
Indirect Charges	681,892	689,308	692,468	843,587	154,279	22.4%
Transfers-Out	182,667	390,000	390,000	1,031,000	641,000	164.4%
Total Expenditures	2,775,462	3,505,951	3,497,836	4,345,082	839,131	23.9%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Superintendent - Streets/Water/EM&R	0.40	0.40	0.40	0.40	0.40
Field Supervisor - Water	1.00	1.00	1.00	1.00	1.00
Assistant Field Supervisor - Water	1.00	1.00	1.00	1.00	1.00
Water Quality Specialist	1.00	1.00	1.00	1.00	1.00
Water Quality Specialist in Training	1.00	1.00	1.00	1.00	1.00
Heavy Equipment Operator	-	-	0.50	0.50	0.50
Sr. Heavy Equipment Operator	-	-	2.50	2.50	2.50
Operator	2.50	2.50	-	-	-
Truck Driver	0.50	0.50	-	-	-
Maintenance Worker	1.00	0.50	0.50	0.50	0.50
Public Works Technician	-	0.50	0.50	0.50	0.50
GIS & Asset Management Technician	-	-	0.40	0.40	0.40
Senior Inspector	0.25				
Total Water Fund	8.65	8.40	8.80	8.80	8.80

DEPARTMENT SUMMARY

The Water Capital Fund is where the City accounts for the resources and expenditures related to Water Capital Projects. The City uses this fund to track revenue and expenses at the project level to ensure that the City has financial resources to cover the cost of each project and to ensure that total project expenses do not exceed budget authority. Potential funding includes state and federal grants, debt financing, as well as transfers into this fund.

BUDGET HIGHLIGHTS

The Water Capital Fund budget will fluctuate somewhat from year to year depending on budgeted capital projects and the funding sources for those projects.

Capital projects included for 2024 are:

- Full Size Pickup Truck; \$70,000
- Well 1 to High School Tank Pipe Pressurization Project; \$470,000
- Maintenance Division Yard Purchase; \$391,000
- Water System Security Upgrades; \$48,500 (Grant match)
- Reservoir Vent Replacements; \$100,000

WATER CAPITAL FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	1,146,128	1,042,911	1,042,911	716,808		

FUNDING SOURCES

Intergovernmental Revenue	-	950,000	950,000	48,500	(901,500)	100.0%
Transfer In	1,687,344	390,000	390,000	1,031,000	641,000	100.0%
Total Revenue	1,687,344	1,340,000	1,340,000	1,079,500	(260,500)	100.0%

EXPENDITURES BY DIVISION

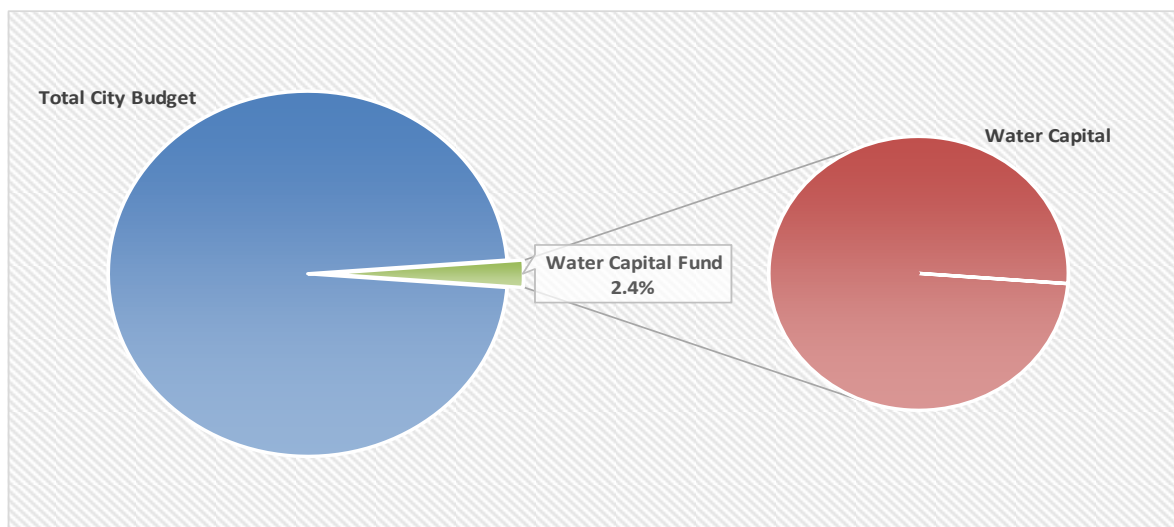
Water Capital	1,790,561	1,340,000	1,666,103	1,079,500	(260,500)	100.0%
Total Expenditures	1,790,561	1,340,000	1,666,103	1,079,500	(260,500)	100.0%

Ending Fund Balance 1,042,911 1,042,911 716,808 716,808

Change in Fund Balance (103,217) - (326,103) -

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Water Capital	1,751,346	1,340,000	1,666,103	1,079,500	(260,500)	100.0%
Total Expenditures	1,751,346	1,340,000	1,666,103	1,079,500	(260,500)	100.0%



MISSION STATEMENT

To provide high quality sewer services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Sewer Utility Fund is used to operate, maintain, and improve the City's sewer system to provide for the safe disposal and treatment of wastewater for the residents of the City of Shelton. The City's sewer collection system is comprised of 213,364 linear feet of gravity sewer piping, 9,592 linear feet of force sewer piping, and 1,104 manholes. The piping is either gravity-fed or pumped by one of the five wastewater lift stations, to one of the City's two wastewater treatment plants, the Main Wastewater Treatment Plant and the Water Reclamation (Satellite) Plant. Both wastewater plants conduct multiple tests on a daily, monthly, and yearly basis to verify the City meets or exceeds State requirements and regulations, in order to prevent unwanted discharge into Oakland Bay and ensure safe discharge of reclaimed water to customers and the spray field infiltration system. Revenue for this fund is primarily from charges for service.

BUDGET HIGHLIGHTS

The Sewer Fund budget increases by \$905,492 or 12.9%. The adopted budget for 2024 includes increases to fund items such as liability insurance, pump and mixer replacements, cost adjustments per the indirect cost plan for central, finance, and public administration services, and credit card processing fees. A fund transfer to the Sewer Capital Fund in the amount of \$1,294,000, refer to the Sewer Capital Fund page for a list of the 2024 capital projects.

SEWER FUND

SEWER FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	3,664,095	4,162,000	4,162,000	4,101,447		

FUNDING SOURCES

Intergovernmental Revenue	16,381	-	-	-	-	
Charges for Goods/Service	6,470,289	6,445,320	6,734,882	6,757,539	312,219	4.8%
Miscellaneous Revenue	421,334	18,000	110,230	18,000	-	0.0%
Total Revenue	6,908,004	6,463,320	6,845,112	6,775,539	312,219	4.8%

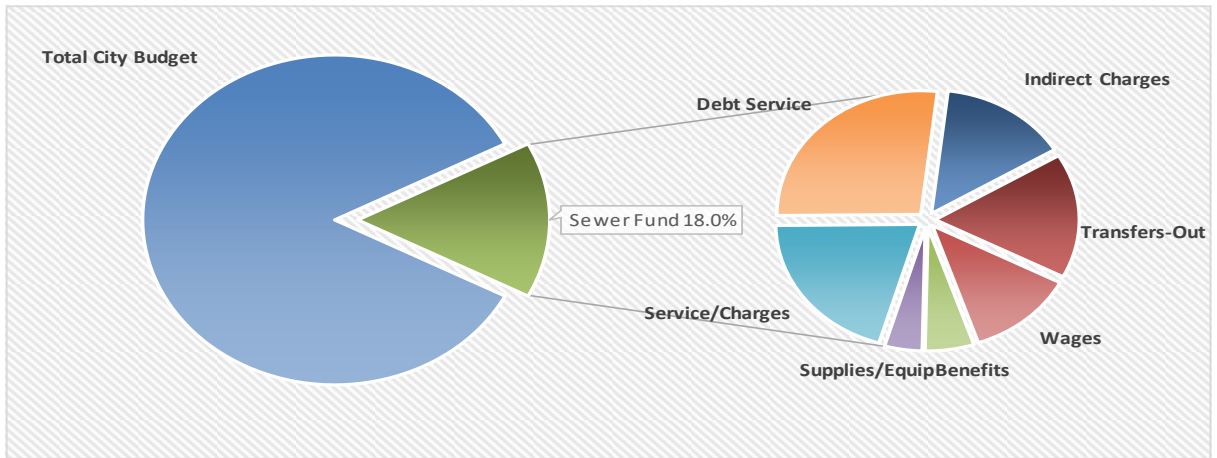
EXPENDITURES BY DIVISION

Collection Main	231,418	273,658	264,217	281,065	7,407	2.7%
Other Main	510,371	510,577	516,349	594,998	84,421	16.5%
Service Main	1,541,579	1,945,773	1,817,344	2,012,808	67,035	3.4%
Sewer Operations	3,726,200	3,765,622	3,843,625	4,524,740	759,118	20.2%
Services -Satellite Plant	311,272	441,444	372,704	465,920	24,476	5.5%
Other Satellite Plant	89,259	93,590	91,426	56,625	(36,965)	-39.5%
Total Expenditures	6,410,099	7,030,664	6,905,665	7,936,156	905,492	12.9%

Ending Fund Balance	4,162,000	3,594,656	4,101,447	2,940,830		
Change in Fund Balance	497,905	(567,344)	(60,553)	(1,160,617)		

SEWER FUND

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	734,453	896,320	812,912	967,051	70,731	7.9%
Benefits	340,130	414,152	357,505	437,406	23,254	5.6%
Supplies/Equip	298,458	335,860	363,327	335,860	-	0.0%
Service/Charges	1,274,021	1,557,980	1,482,825	1,610,369	52,389	3.4%
Capital	11,180	-	76,041	-	-	
Debt Service	2,168,736	2,175,351	2,177,313	2,141,739	(33,612)	-1.5%
Indirect Charges	1,136,529	1,009,001	993,742	1,149,731	140,730	13.9%
Transfers-Out	437,901	642,000	642,000	1,294,000	652,000	101.6%
Total Expenditures	6,401,408	7,030,664	6,905,665	7,936,156	905,492	12.9%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Superintendent - Sewer/Storm	0.50	0.50	0.50	0.50	0.50
Field Supervisor - Sewer/Storm	0.50	0.50	1.50	1.50	1.50
Assistant Field Supervisor - Sewer/Storm	-	-	1.50	1.50	1.50
Waste Water Treatment Plant Tech III	1.00	1.00	2.00	2.00	2.00
Waste Water Treatment Plant Tech II	1.00	1.00			
Waste Water Treatment Plant Tech I	-	-	2.00	2.00	2.00
GIS & Asset Management Technician	-	-	0.40	0.40	0.40
Operator Tech III	2.00	2.00	-	-	-
Waste Water Treatment Plant Tech in Trng	2.00	2.00	-	-	-
Sr. Heavy Equipment Operator	-	-	1.80	1.80	1.80
Operator	1.50	1.50	-	-	-
Truck Driver	0.80	0.80	-	-	-
Maintenance Worker	2.00	2.00	2.00	2.00	2.00
Senior Inspector	0.25	-	-	-	-
Total Sewer Fund	11.55	11.30	11.70	11.70	11.70

DEPARTMENT SUMMARY

The Sewer Capital Fund is where the City accounts for the resources and expenditures related to Sewer Capital Projects. The City uses this fund to track revenue and expenses at the project level to ensure that the City has financial resources to cover the cost of each project and to ensure that total project expenses do not exceed budget authority. Potential funding includes state and federal grants, debt financing, as well as transfers into this fund.

BUDGET HIGHLIGHTS

The Sewer Capital Fund budget will fluctuate somewhat from year to year depending on budgeted capital projects and the funding sources for those projects.

Capital projects included for 2024 are:

- Shelton Springs Road Sewer extension to Port of Shelton; \$2,960,000
- Membrane Plant Headworks Capacity Upgrades; \$3,265,000
- Maintenance Division Yard Purchase; \$207,000
- Large Equipment Replacements; \$30,000
- Sewer System Security Upgrades; \$48,500 (Grant match)

SEWER CAPITAL FUND

SEWER CAPITAL FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	1,308,976	1,317,368	1,317,368	1,124,776		

FUNDING SOURCES

Intergovernmental Revenue	-	400,000	101,044	5,216,500	4,816,500	100.0%
Miscellaneous Revenue	54,267	-	-	-		
Transfer In	837,901	642,000	642,000	1,294,000	652,000	100.0%
Total Revenue	892,168	1,042,000	743,044	6,510,500	5,468,500	100.0%

EXPENDITURES BY DIVISION

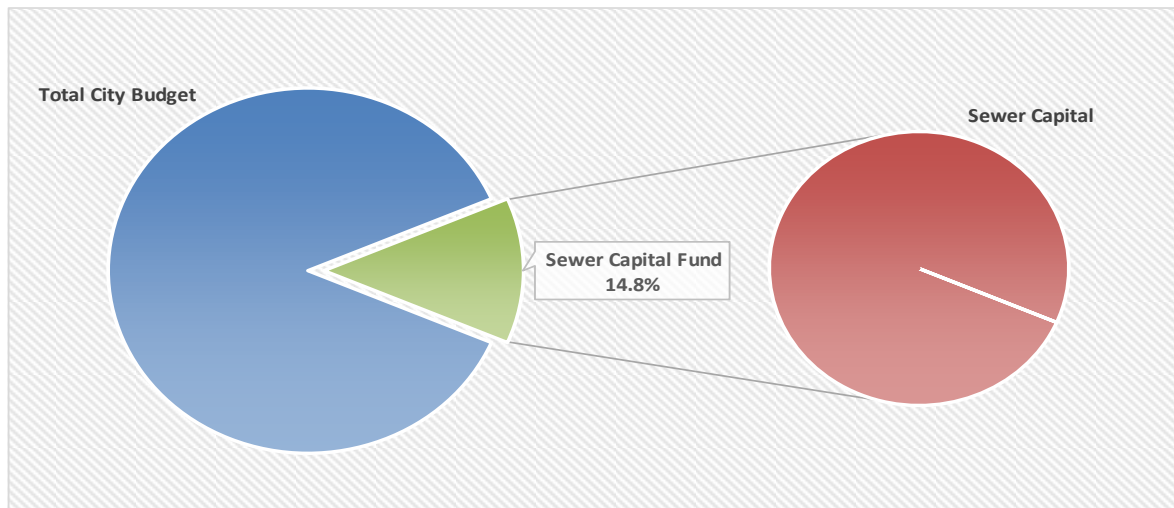
Sewer Capital	883,776	1,042,000	935,636	6,510,500	5,468,500	100.0%
Total Expenditures	883,776	1,042,000	935,636	6,510,500	5,468,500	100.0%

Ending Fund Balance 1,317,368 1,317,368 1,124,776 1,124,776

Change in Fund Balance 8,392 - (192,592) -

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Sewer Capital	543,296	1,042,000	935,636	6,510,500	5,468,500	100.0%
Total Expenditures	543,296	1,042,000	935,636	6,510,500	5,468,500	100.0%



MISSION STATEMENT

To provide high quality solid waste services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Solid Waste Utility Fund accounted for the operation of refuse and recycling collection. The City contracted with Mason County Garbage & Recycling in 2017 for solid waste services. The fund remains open to account for the monitoring costs that follow the cleanup of the C Street landfill completed in the Spring of 2023.

BUDGET HIGHLIGHTS

All funds collected will be restricted for landfill closeout and subsequent yearly costs for closeout monitoring and reporting to the Department of Ecology.

SOLID WASTE FUND

SOLID WASTE FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	1,015,514	955,208	955,208	292,928		

FUNDING SOURCES

Intergovernmental Revenue	59,452	1,392,918	2,138,820	124,500	(1,268,418)	-91.1%
Charges for Goods/Service	26	-	256	-	-	
Miscellaneous Revenue	11,770	-	22,167	-	-	
Total Revenue	71,248	1,392,918	2,161,243	124,500	(1,268,418)	-91.1%

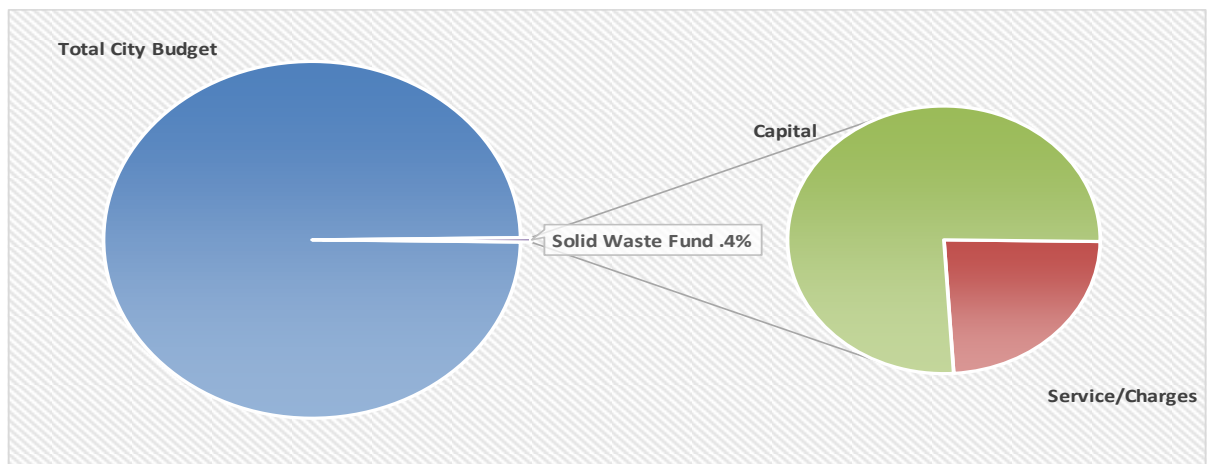
EXPENDITURES BY DIVISION

Solid Waste Operations	131,554	1,906,410	2,823,523	176,438	(1,729,972)	-90.7%
Total Expenditures	131,554	1,906,410	2,823,523	176,438	(1,729,972)	-90.7%

Ending Fund Balance	955,208	441,716	292,928	240,990		
Change in Fund Balance	(60,306)	(513,492)	(662,280)	(51,938)		

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Inventory	-	-	-	-	-	
Service/Charges	127,622	228,185	305,115	42,000	(186,185)	-81.6%
Capital	585	1,668,225	2,483,806	129,938	(1,538,287)	-92.2%
Indirect Charges	3,347	10,000	34,601	4,500	(5,500)	
Grand Total	131,554	1,906,410	2,823,523	176,438	(1,729,972)	-90.7%



MISSION STATEMENT

To provide high quality storm water drainage services to the residents of the City of Shelton.

DEPARTMENT SUMMARY

The Storm Drainage Utility Fund provides for the maintenance and operation of the City's storm drainage facilities which consists of 158,400 linear feet of stormwater piping, 42,240 linear feet of roadside ditches, 191 storm drain manholes, and 1,950 storm drain grates. Proper maintenance of the drainage facilities reduces the impact of heavy rain or prolonged wet weather conditions and protects water quality. Revenue for this fund is primarily from charges for services.

BUDGET HIGHLIGHTS

The Storm Drainage Fund budget increases by \$536,216 or 33.1%. The adopted budget for 2024 includes increases to fund items such as liability insurance, professional services, street sweeping costs, a vehicle replacement, and cost adjustments per the indirect cost plan for central, finance, and public administration services. A fund transfer to the Storm Capital Fund in the amount of \$395,000, refer to the Stormwater Capital Fund page for a list of the 2024 capital projects.

STORM DRAINAGE FUND

STORM DRAINAGE FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	391,777	612,365	612,365	982,536		

FUNDING SOURCES

Intergovernmental Revenue	4,826	25,000	80,000	175,000	150,000	600.0%
Charges for Goods/Service	1,447,694	1,537,340	1,566,884	1,583,130	45,790	3.0%
Miscellaneous Revenue	23,829	500	30,371	500	-	0.0%
Total Revenue	1,476,349	1,562,840	1,677,255	1,758,630	195,790	12.5%

EXPENDITURES BY DIVISION

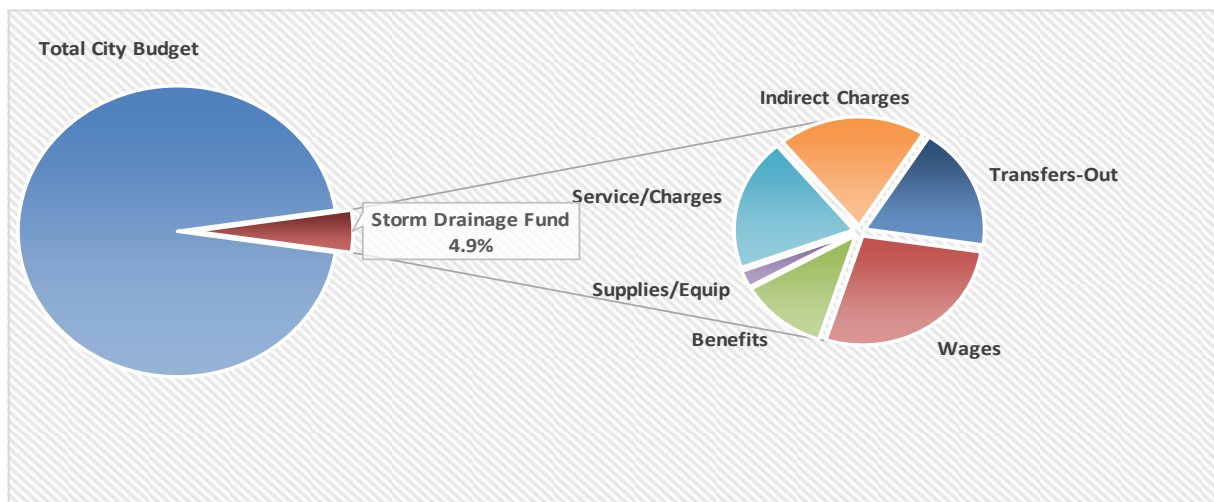
Storm Operations	1,255,761	1,617,991	1,307,084	2,154,207	536,216	33.1%
Total Expenditures	1,255,761	1,617,991	1,307,084	2,154,207	536,216	33.1%

Ending Fund Balance	612,365	557,214	982,536	586,959
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Change in Fund Balance	220,588	(55,151)	370,171	(395,577)
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	334,273	556,387	413,508	595,164	38,777	7.0%
Benefits	145,888	242,846	167,356	256,842	13,996	5.8%
Supplies/Equip	37,933	53,900	43,029	53,900	-	0.0%
Service/Charges	207,268	348,900	288,035	421,835	72,935	20.9%
Capital	-	-	-	-	-	-
Indirect Charges	353,365	335,958	310,156	431,466	95,508	28.4%
Transfers-Out	177,035	80,000	85,000	395,000	315,000	393.8%
Total Expenditures	1,255,761	1,617,991	1,307,084	2,154,207	536,216	33.1%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Superintendent - Sewer/Storm	0.50	0.50	0.50	0.50	0.50
City Engineer	0.50	-	-	-	-
Field Supervisor - Sewer/Storm	0.50	0.50	0.50	0.50	0.50
Assistant Field Supervisor - Sewer/Storm	-	-	0.50	0.50	0.50
GIS & Asset Management Technician	-	-	0.10	0.10	0.10
Heavy Equipment Operator	-	-	0.50	0.50	0.50
Sr. Heavy Equipment Operator	-	-	3.45	3.45	3.45
Operator	3.75	3.75	-	-	-
Truck Driver	0.70	0.70	-	-	-
Maintenance Worker	1.00	1.00	1.00	1.00	1.00
Permit Coordinator	0.05	0.05	0.05	0.05	0.05
Stormwater Technician	-	1.00	1.00	1.00	1.00
Senior Inspector	0.25	-	-	-	-
Total Storm Drainage Fund	7.25	7.50	7.60	7.60	7.60

DEPARTMENT SUMMARY

The Storm Drainage Capital Fund is where the City accounts for the resources and expenditures related to Storm Drainage Capital Projects. The City uses this fund to track revenue and expenses at the project level to ensure that the City has financial resources to cover the cost of each project and to ensure that total project expenses do not exceed budget authority. Potential funding includes state and federal grants, debt financing, as well as transfers into this fund.

BUDGET HIGHLIGHTS

The Storm Drainage Capital Fund budget will fluctuate somewhat from year to year depending on budgeted capital projects and the funding sources for those projects.

Capital projects included for 2024 are:

- Maintenance Division yard Purchase; \$345,000
- Mid-size SUV Purchase; \$50,000

STORM DRAINAGE CAPITAL FUND

STORM DRAINAGE CAPITAL FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	25,871	185,194	185,194	153,169		

FUNDING SOURCES

Intergovernmental Revenue	88,631					
Transfer In	402,035	80,000	80,000	395,000	315,000	100.0%
Total Revenue	490,666	80,000	80,000	395,000	315,000	100.0%

EXPENDITURES BY DIVISION

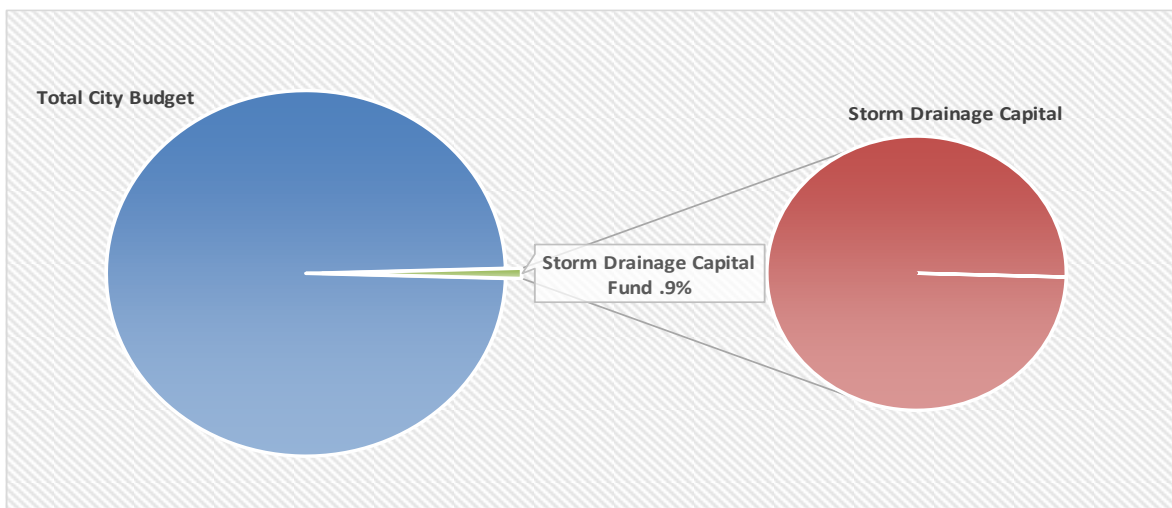
Storm Drainage Capital	331,343	80,000	112,025	395,000	315,000	100.0%
Total Expenditures	331,343	80,000	112,025	395,000	315,000	100.0%

Ending Fund Balance 185,194 185,194 153,169 153,169

Change in Fund Balance 159,323 - (32,025) -

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Storm Drainage Capital	315,646	80,000	112,025	395,000	315,000	100.0%
Total Expenditures	315,646	80,000	112,025	395,000	315,000	100.0%



DEPARTMENT SUMMARY

The Payroll Benefits Fund accounts for the City's self-funded unemployment program, medical costs for retired police officers covered by the LEOFF 1 retirement plan, and the City's sick leave buy-back program.

BUDGET HIGHLIGHTS

The Payroll Benefits Fund reflects no change in the City's assumption of resources needed for 2024.

PAYROLL BENEFITS FUND

PAYROLL BENEFITS FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	167,652	196,855	196,855	219,573		

FUNDING SOURCES

Charges for Goods/Service	46,599	40,000	49,420	40,000	-	0.0%
Miscellaneous Revenue	2,011	350	4,000	350	-	0.0%
Transfer In	30,444	120,000	90,500	120,000	-	0.0%
Total Revenue	79,054	160,350	143,920	160,350	-	0.0%

EXPENDITURES BY DIVISION

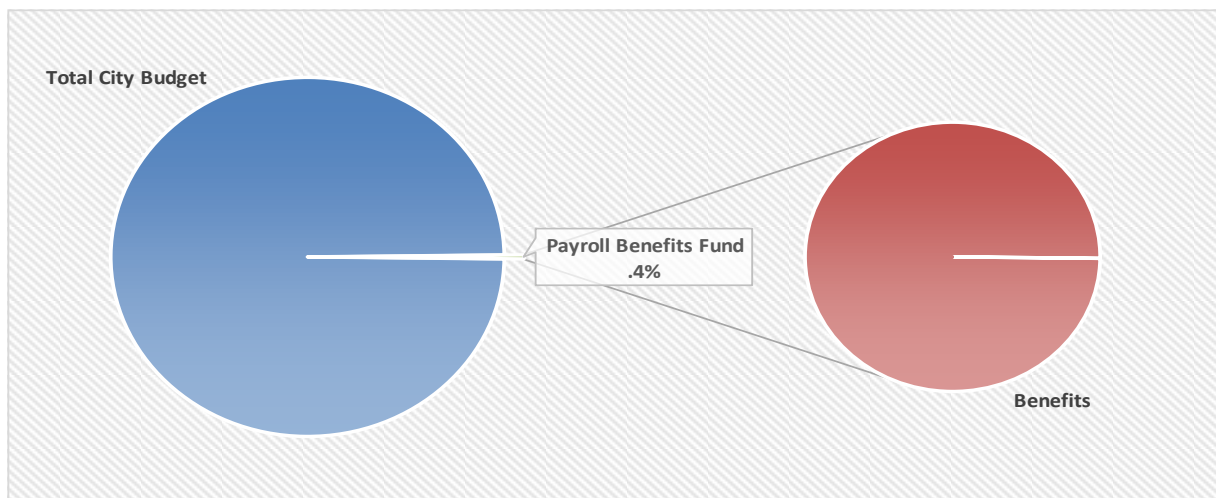
Payroll Benefits	49,851	160,350	121,203	160,350	-	0.0%
Total Expenditures	49,851	160,350	121,203	160,350	-	0.0%

Ending Fund Balance 196,855 196,855 219,573 219,573

Change in Fund Balance 29,203 - 22,718 -

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Benefits	49,851	160,350	121,203	160,350	-	0.0%
Total Expenditures	49,851	160,350	121,203	160,350	-	0.0%



MISSION STATEMENT

To provide skilled maintenance and repair services for vehicles and equipment for other City departments.

DEPARTMENT SUMMARY

The Equipment Maintenance & Rental Fund is an internal service fund for the City which accounts for maintenance of most of the City vehicles and equipment. This department provides for the maintenance and repair of 26 vehicles in the City Administration, Community Development, Parks, Building, and Public Works Departments, 36 emergency generators, water trucks, street sweepers, backhoes, loaders, roadway graders, dump trucks, vector trucks, a TV truck, crane trucks, crew/service trucks, and 12 pieces of small equipment. The major source of revenue is user fees charged to other City departments for work provided to departments vehicles.

BUDGET HIGHLIGHTS

The Equipment Maintenance and Rental fund includes a FY 2024 project for \$15,000 for a financial consultant to complete a rate study evaluating the current and future rates charged to various funds served by the Department for ongoing new and equipment replacement purchases.

EQUIPMENT MAINTENANCE & RENTAL FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	593,494	564,289	564,289	125,307		

FUNDING SOURCES

Charges for Goods/Service	674,725	578,000	647,031	578,000	-	0.0%
Miscellaneous Revenue	2,739	5,000	17,480	5,000	-	0.0%
Total Revenue	677,464	583,000	664,511	583,000	-	0.0%

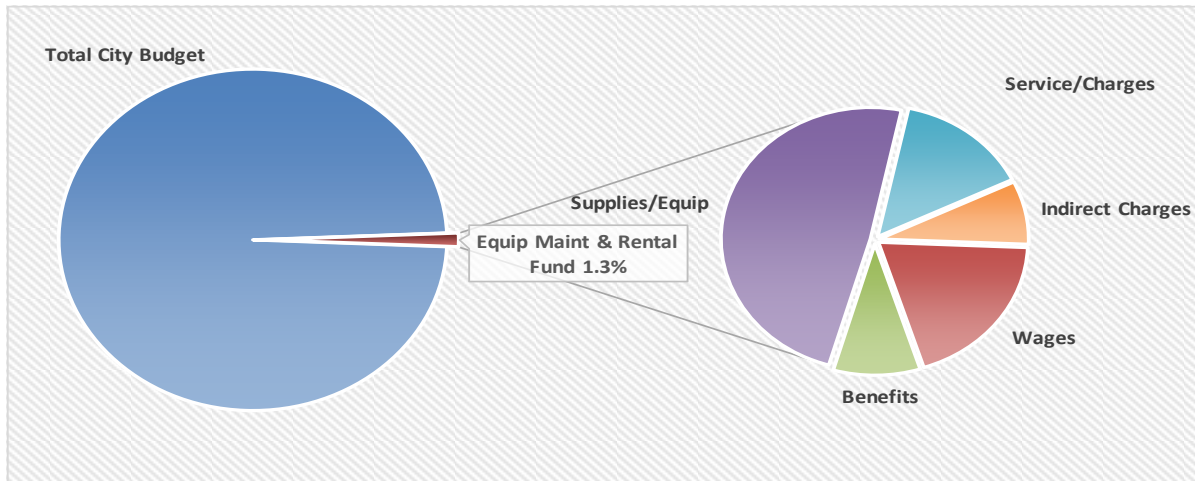
EXPENDITURES BY DIVISION

Equipment Maint & Rental	706,669	1,105,076	1,103,493	572,481	(532,595)	-48.2%
Total Expenditures	706,669	1,105,076	1,103,493	572,481	(532,595)	-48.2%

Ending Fund Balance	564,289	42,213	125,307	135,826		
Change in Fund Balance	(29,205)	(522,076)	(438,982)	10,519		

EQUIPMENT MAINTENANCE & RENTAL FUND

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Wages	95,573	107,565	107,565	111,323	3,758	3.5%
Benefits	45,840	51,899	51,899	53,852	1,953	3.8%
Supplies/Equip	264,028	272,580	288,980	279,580	7,000	2.6%
Service/Charges	59,995	75,068	57,085	83,068	8,000	10.7%
Inventory	11,430	-	-	-	-	
Capital	182,912	551,100	551,100	-	(551,100)	-100.0%
Indirect Charges	46,890	46,864	46,864	44,658	(2,206)	-4.7%
Total Expenditures	706,669	1,105,076	1,103,493	572,481	(532,595)	-48.2%



STAFFING

	2021 Actual	2022 Actual	2023 Budget	2023 Supl Budget	2024 Proposed
Superintendent - Streets/Water/EM&R	0.20	0.20	0.20	0.20	0.20
GIS & Asset Management Technician	-	-	0.10	0.10	0.10
Master Mechanic	1.00	1.00	1.00	1.00	1.00
Total Equipment Maint & Rental	1.20	1.20	1.30	1.30	1.30

DEPARTMENT SUMMARY

The Firefighters Pension Fund accounts for the City's obligations toward retired LEOFF 1 firefighters for their pension and medical expenses.

BUDGET HIGHLIGHTS

The Firefighters Pension Fund budget for 2024 reflects no change.

FIREFIGHTERS PENSION FUND

FIREFIGHTER'S PENSION FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	479,800	426,890	426,890	370,908		

FUNDING SOURCES

Taxes	-	100	-	100	-	0.0%
Miscellaneous Revenue	14,102	9,000	16,000	9,000	-	0.0%
Transfer In	-	50,000	-	50,000	-	0.0%
Total Revenue	14,102	59,100	16,000	59,100	-	0.0%

EXPENDITURES BY DIVISION

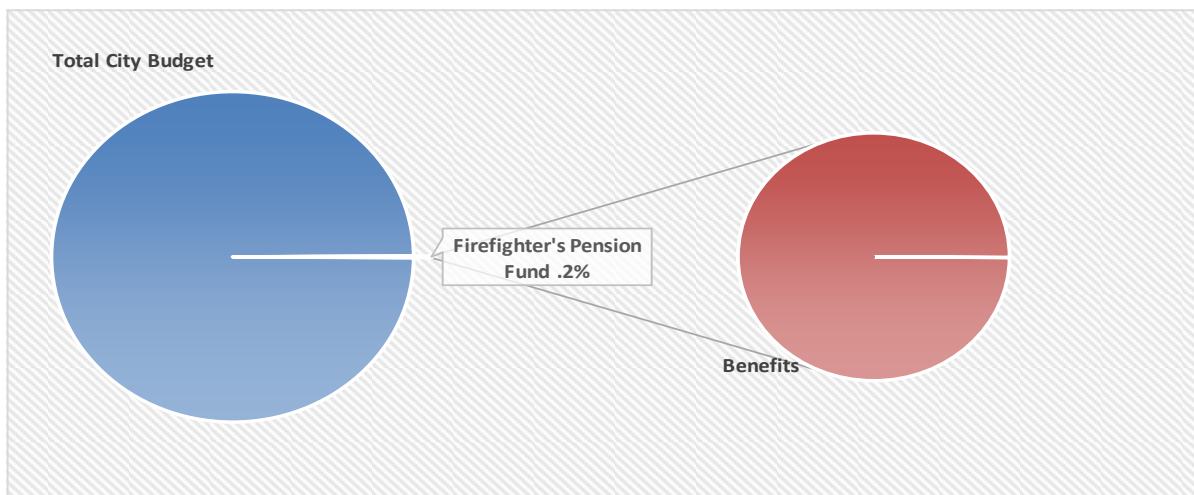
Firefighters Pension	67,012	80,600	71,982	80,600	-	0.0%
Total Expenditures	67,012	80,600	71,982	80,600	-	0.0%

Ending Fund Balance	426,890	405,390	370,908	349,408
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Change in Fund Balance	(52,910)	(21,500)	(55,982)	(21,500)
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EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Benefits	67,012	80,600	71,982	80,600	-	0.0%
Total Expenditures	67,012	80,600	71,982	80,600	-	0.0%



DEPARTMENT SUMMARY

The Library Endowment Fund is a permanent fund and accounts for an endowment given to the City for maintenance of the library facility. As a permanent fund, the resources are legally restricted for the purposes as outlined in the endowment. Only earnings on principal, but not the principal, are eligible to be spent as allowed.

BUDGET HIGHLIGHTS

The Library Endowment Fund budget for 2024 reflects no change in budget. The \$24,000 will be used for a portion of the cost of the Library Deck Repairs. This portion of the budget allocation is being used to repair the deck along with funds from a Grant through the Department of Commerce, City of Shelton funds and Timberland Regional Library funds.

LIBRARY ENDOWMENT FUND

LIBRARY ENDOWMENT FUND SUMMARY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Beginning Fund Balance	122,098	122,928	122,928	128,928		

FUNDING SOURCES

Miscellaneous Revenue	830	1,600	6,000	1,600	-	0.0%
Total Revenue	830	1,600	6,000	1,600	-	0.0%

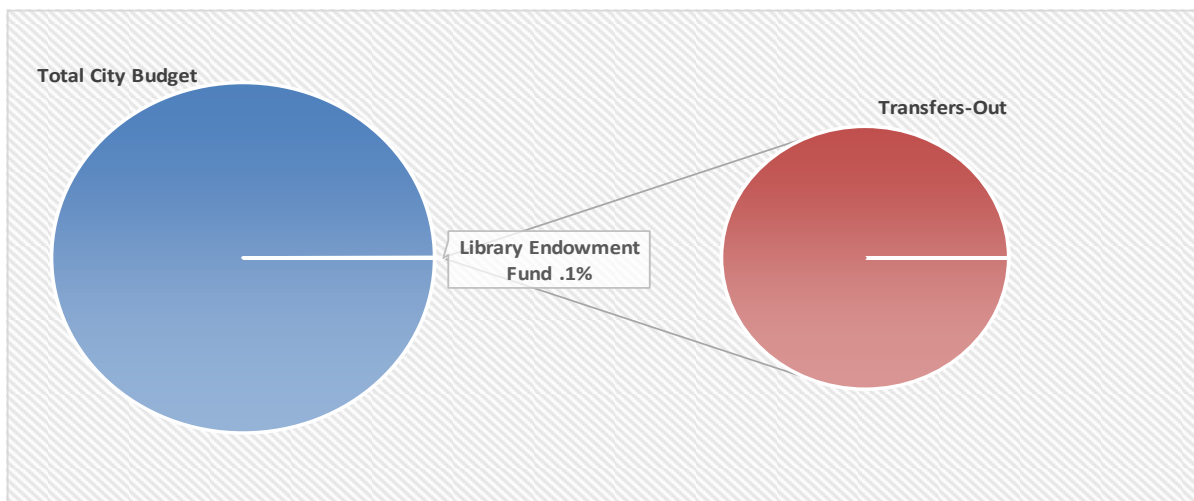
EXPENDITURES BY DIVISION

Library Endowment	-	24,000	-	24,000	-	
Total Expenditures	-	24,000	-	24,000	-	

Ending Fund Balance	122,928	100,528	128,928	106,528		
Change in Fund Balance	830	(22,400)	6,000	(22,400)		

EXPENDITURES BY CATEGORY

	2022 Actual	2023 Budget	2023 YE Estimate	2024 Proposed Budget	\$ Change 24 - 23	% Change 24 - 23
Transfers-Out	-	24,000	-	24,000	-	
Total Expenditures	-	24,000	-	24,000	-	





CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F4)

Touch Date: 10/25/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: Finance
Presented By: Mike Githens

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

- | | | |
|-------------------------------------|------------------|------------|
| <input type="checkbox"/> | Dept. Head | _____ |
| <input checked="" type="checkbox"/> | Finance Director | 10/25/2023 |
| <input type="checkbox"/> | Attorney | _____ |
| <input checked="" type="checkbox"/> | City Clerk | 10/27/2023 |
| <input checked="" type="checkbox"/> | City Manager | 10/27/2023 |

PROGRAM/PROJECT TITLE:
**2024 Regular and EMS Ad
Valorem Taxes**
ATTACHMENTS:
Ordinance No. 2014-0923

- | | |
|-------------------------------------|------------|
| <input checked="" type="checkbox"/> | Ordinance |
| <input type="checkbox"/> | Resolution |
| <input checked="" type="checkbox"/> | Motion |
| <input type="checkbox"/> | Other |

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

Ordinance to set the regular and EMS levies for collection in 2024. This ordinance will levy the statutory maximum Ad Valorem Tax by increasing levy collections by 1% from the highest lawful levy amount plus new construction and State assessed utilities property which are legally allowed add-ons beyond the 1% statutory regulation.

Property tax collections are allowed to increase by the lower of 1% or the Implicit Price Deflator (IPD). The IPD for calculating the increase on 2024 property tax collections is 3.67%, higher than the statutory limit of 1%. RCW 8.55.0101 allows taxing districts, when the IPD is less than 1%, to collect up to the statutory 1% maximum if the City Council approves legislation finding a substantial need for the tax district to collect the full 1%. Because the IPD is above 1%, there is no requirement to find substantial need.

This ordinance is scheduled to be heard again at the November 21st Council meeting for the second public hearing. The Council will also consider the 2024 proposed budget.

ANALYSIS/OPTIONS/ALTERNATIVES:

The 2024 budget has been developed utilizing the 1% increase in the property tax levy rate.

BUDGET/FISCAL INFORMATION:

Without utilizing the 1% increase in the property tax levy, reductions to services within the General Fund would be necessary.

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained from the City Clerk.

STAFF RECOMMENDATION/MOTION:

"I move to adopt Ordinance No. 2014-0923 setting the 2024 ad valorem taxes as presented."

ORDINANCE NO. 2014-0923

**AN ORDINANCE OF THE CITY OF SHELTON, WASHINGTON, SETTING THE
AMOUNT OF THE ANNUAL AD VALOREM TAXES IN THE CITY OF SHELTON FOR
CALENDAR YEAR 2024**

WHEREAS, the City Council of the City of Shelton held properly noticed public hearings on November 7, 2023 and November 21, 2023 to consider the General Fund revenues and expenses for the 2024 budget; and

WHEREAS, the City Council of the City of Shelton held a properly noticed public hearing on November 7, 2023 and November 21, 2023 to consider the City of Shelton's Ad Valorem (Property) taxes for the 2024 calendar year, pursuant to RCW 84.55.120; and

WHEREAS, the City of Shelton's highest lawful regular levy amount from the previous year was \$2,227,997.19; and

WHEREAS, the City of Shelton's highest lawful EMS levy amount from the previous year was \$567,090.84; and

WHEREAS, the population of the City of Shelton is more than 10,000; and

WHEREAS, the City Council, after duly considering all relevant evidence and testimony presented, determined that the City of Shelton requires a regular levy in the amount of \$2,262,887.43, which includes an increase in property tax revenue from the previous year, and amounts resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, and amounts authorized by law as a result of any annexations that have occurred and refunds made, in order to discharge the expected expenses and obligations of the City and in its best interests; and

NOW, THEREFORE, be it ordained by the City Council of the City of Shelton, Washington, as follows:

Section 1.

A levy is authorized to be collected in 2024, with an increase in the City's 2023 highest lawful levy of the statutory 1% for collections in 2024, resulting in a dollar amount increase of \$34,890.24 or 1.56599% from the previous year's regular levy. The levy will be used to for the purpose of paying the general expenses of the City of Shelton municipal government and is calculated:

2023 Highest Lawful Levy	\$ 2,227,997.19
2023 Regular Levy	\$ 2,227,997.19
2024 Limit Factor of 1% on Highest Lawful Levy	\$ 2,250,277.16
<i>Dollar Increase from 2023 Regular Levy</i>	<i>\$ 22,279.97</i>
<i>Percent Increase from 2023 Regular Levy</i>	<i>1.00000%</i>
Legally allowed add-on's in addition to the 1% statutory limit	
New Construction	\$ 12,610.27
Estimated State Assessed Property	\$ -
2024 Regular Property Tax	\$ 2,262,887.43
<i>Dollar Increase Including add-ons</i>	<i>\$ 34,890.24</i>
<i>Percent Increase Including add-ons</i>	<i>1.56599%</i>

This Ordinance reserves unutilized levy from any add-ons such as changes to new construction or state utilities, refunds, and any changes resulting from the Mason County Assessor's Office finalization of the 2024 levy amounts provided to the City of Shelton.

Section 2.

An EMS levy is authorized to be collected in 2024, with an increase in the levy for collections in 2024, resulting in a levy amount of \$575,971.43 which includes an increase in property tax revenue from the previous year, and amounts resulting from the addition of new construction and improvements to property and any increase in the value of state-assessed property, and amounts authorized by law as a result of any annexations that have occurred and refunds made, in order to discharge the expected expenses and obligations of the City and in its best interests. The levy will be used for the purpose of paying the Fire and EMS expenses of the City of Shelton municipal government.

This Ordinance reserves unutilized levy from any add-ons such as changes to new construction or state utilities, refunds, and any changes resulting from the Mason County Assessor's Office finalization of the 2024 levy amounts provided to the City of Shelton.

2023 Highest Lawful Levy	\$ 567,090.84
2023 Regular Levy	\$ 567,090.84
2024 Limit Factor of 1% on Highest Lawful Levy	\$ 572,761.75
<i>Dollar Increase from 2023 Regular Levy</i>	<i>\$ 5,670.91</i>
<i>Percent Increase from 2023 Regular Levy</i>	<i>1.00000%</i>
Legally allowed add-on's in addition to the 1% statutory limit	
New Construction	\$ 3,209.68
Estimated State Assessed Property	\$ -
2024 EMS Property Tax	\$ 575,971.43
<i>Dollar Increase Including add-ons</i>	<i>\$ 8,880.59</i>
<i>Percent Increase Including add-ons</i>	<i>1.56599%</i>

Section 3.

Severability. If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is declared unconstitutional or invalid for any reason, such invalidity shall not affect the validity or effectiveness of the remaining portions of this ordinance.

Section 4.

This ordinance shall become effective five days from the date of passage and publication.

INTRODUCED the 7th day of November 2023.

ADOPTED by the City Council of the City of Shelton, Mason County, Washington at a regular open public meeting held the 21st day of November 2023.

Passed this _____ day of _____ 2023.

Eric Onisko, Mayor

AUTHENTICATED:

Donna Nault, City Clerk



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F5)

Touch Date: 10/22/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: Public Works

Presented By: Aaron Nix, Capital Projects Manager

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:

Well #1 Pipe Pressurization Project

☐

Ordinance

☒ Dept. Head

J.O.H.

☐ Finance Director

ATTACHMENTS:

☒

Resolution

☐ Attorney

- Resolution No.1295-1023

☒

Motion

☒ City Clerk

- Site Map

- Bid Tabulation Form

☐

Other

☐ City Manager

- Review of Bids

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

This project will replace aging City infrastructure and provide water customers with a consistent, reliable, and safe drinking water supply and distribution system. The project eliminates the gravity fed water line(s) by replacing the existing 20" and 24" steel water lines with a 12" ductile iron pressurized line from Well #1 to the Spring House, and a 12" HDPE pipe installed in the existing steel water casing from the Spring House to the High School Tank. Other improvements, such as fencing, generators, chlorine buildings, facility updates, and pipe upgrades, will be completed (as budget allows) as part of the project at the High School Tank site, and Well 1, 3, and 4 sites.

An Invitation to Bid was advertised in the Shelton-Mason County Journal on October 5th and 12th, 2023 and in the Seattle Daily Journal of Commerce on October 4th and 11th. The optional contractor walk through of the project areas was completed the afternoon of October 18, 2023. Four bids were received and opened at the November 7, 2023 bid opening, with Rognlin's Inc. having the lowest responsible bid of \$2,040,217.60. The current Engineer's construction cost estimate for the project is \$1,924,000. The bid tabulation is attached.

ANALYSIS/OPTIONS/ALTERNATIVES:

The design engineering firm, Gray and Osborne, was hired to complete the design to eliminate the existing gravity fed section of the City's water distribution system to upgrade and improve the integrity of this part of the City's water system. The completed project improves reliability and will lower costs to operate and maintain this portion of the city water system.

BUDGET/FISCAL INFORMATION:

The City was awarded a Department of Commerce grant of \$2,000,000 for the project. The FY 2024 budget allocates an additional \$470,000 to the project for construction contingency and the addition of generators and chlorine treatment buildings at the well sites, as budget allows.

PUBLIC INFORMATION REQUIREMENTS:

Design materials and supporting documentation are available for review both online and through the City of Shelton Public Work's Department.

STAFF RECOMMENDATION/MOTION:

"I move to adopt Resolution No. 1295-1023 for the Well #1 Pipeline Pressurization Project as presented."

RESOLUTION NO. 1295-1023

**A RESOLUTION OF THE COUNCIL OF THE CITY OF SHELTON, WASHINGTON
AUTHORIZING THE CITY MANAGER TO APPROVE A PUBLIC WORKS CONTRACT WITH ROGNLIN'S INC.
FOR COMPLETION OF THE WELL #1 PIPELINE PRESSURIZATION PROJECT**

WHEREAS, an Invitation to Bid was advertised in the Shelton-Mason County Journal on October 5th and 12th, 2023 and in the Seattle Daily Journal of Commerce on October 4th and 11th;

WHEREAS, the City received four (4) bids in response to the Invitation to Bid, which were opened on November 7, 2023 at the Civic Center at 525 W Cota Street, Shelton, WA 98584; and

WHEREAS, Rognlin's Inc. had the lowest responsible bid of \$2,040,217.60

THEREFORE, BE IT RESOLVED by the City Council of the City of Shelton, Washington, as follows:

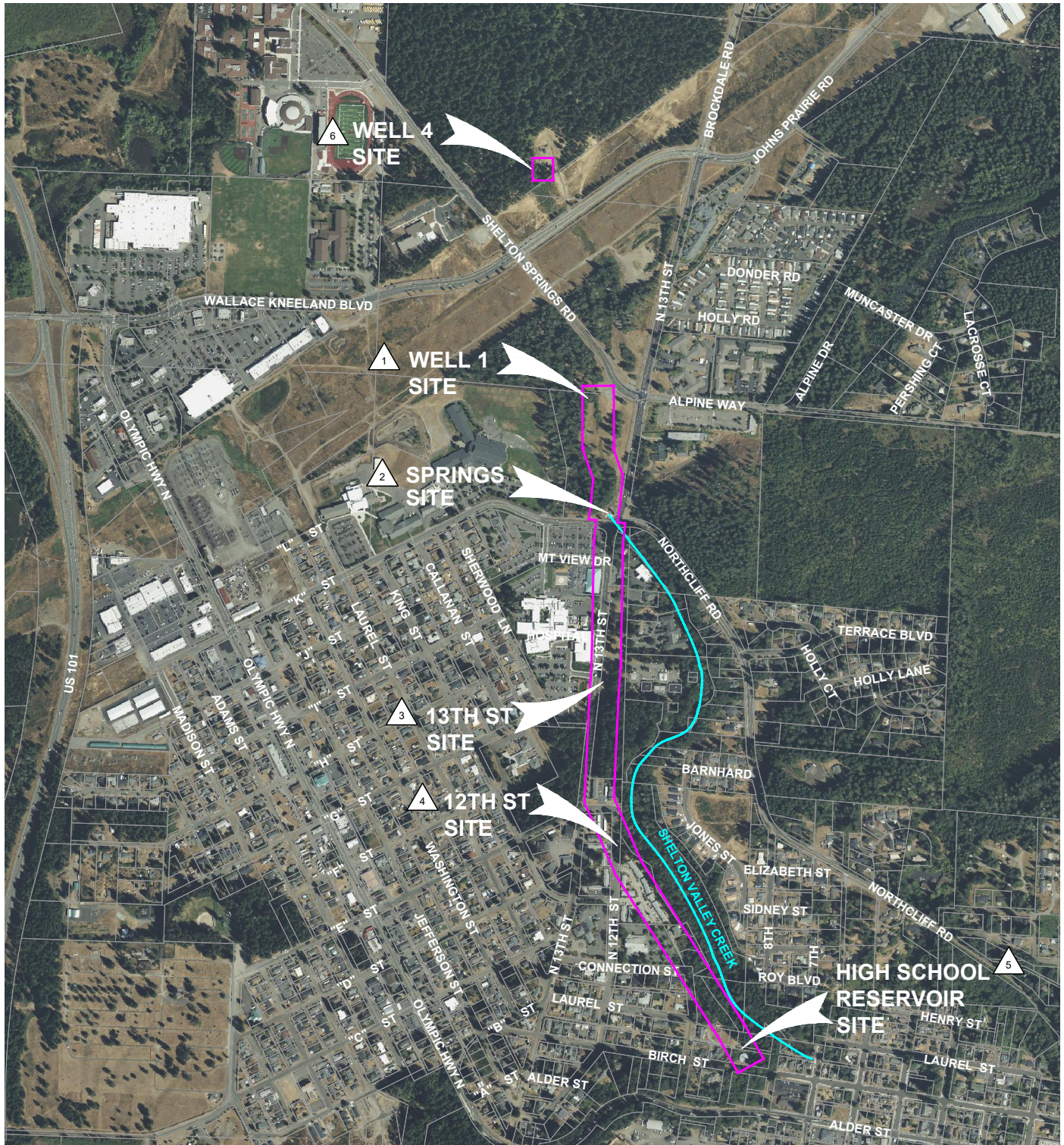
1. The City Manager is authorized to execute a Public Works Contract and any change orders necessary with Rognlin's Inc. for completion of Well #1 Pipeline Pressurization Project.
2. The Public Works Director is authorized to execute change orders up to 10 percent of the original contract amount.

INTRODUCED on the 7th of November 2023 and **PASSED** by the City Council at its regular meeting on the 21st of November 2023.

ATTEST:

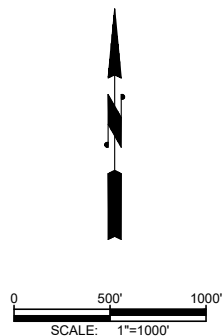
Mayor Onisko

City Clerk Nault









LOCATION MAP

SCALE: 1" = 1000'



AREA NUMBERS

-  WELL 1 SITE
-  SPRINGS SITE
-  13TH STREET SITE
-  12TH STREET SITE
-  HIGH SCHOOL RESERVOIR SITE / PRV
-  WELL 4 SITE

CITY OF SHELTON

WELL 1 PIPELINE
PRESSURIZATION PROJECT

PROJECT LOCATION MAP



WELL 1 PIPELINE PRESSURIZATION PROJECT
BID TABULATION FORM
Bids Due: 11/07/2023, 11:30 AM

BIDDER				ENGINEER'S ESTIMATE		ROGNLIN'S, INC.		BRUMFIELD CONSTRUCTION, INC.		NORTHWEST CASCADE, INC.		GRANITE CONSTRUCTION CO.	
BIDDER ADDRESS						321 W. State Street		PO Box 600		PO Box 73399		3200 113th Ave.	
						Aberdeen, WA 98520		Aberdeen, WA 98520		Puyallup, WA 98373		Olympia, WA 98512	
WASHINGTON STATE CONTRACTOR'S REG. NUMBER						ROGNL**342LF		BRUMFCI114K4		NORTHCI148BG		GRANICC916DL	
BID BOND OR OTHER GOOD FAITH TOKEN						5% BID BOND		5% BID BOND		5% BID BOND		5% BID BOND	
No.	Item	Quantity	UOM	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	Mobilization and Demobilization	1	LS	\$175,000.00	\$175,000.00	\$175,000.00	\$175,000.00	\$100,000.00	\$100,000.00	\$200,000.00	\$200,000.00	\$303,000.00	\$303,000.00
2	Minor Change	1	CALC	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00
3	Temporary Traffic Control	1	LS	\$15,000.00	\$15,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$50,000.00	\$50,000.00	\$65,000.00	\$65,000.00
4	Locate Existing Utilities	1	LS	\$15,000.00	\$15,000.00	\$8,000.00	\$8,000.00	\$25,000.00	\$25,000.00	\$40,000.00	\$40,000.00	\$9,000.00	\$9,000.00
5	Dewatering	1	LS	\$25,000.00	\$25,000.00	\$10,000.00	\$10,000.00	\$40,000.00	\$40,000.00	\$20,000.00	\$20,000.00	\$140,000.00	\$140,000.00
6	Trench Excavation Safety System	1	LS	\$40,000.00	\$40,000.00	\$15,000.00	\$15,000.00	\$32,000.00	\$32,000.00	\$2,500.00	\$2,500.00	\$220,000.00	\$220,000.00
7	Unsuitable Excavation	20	CY	\$150.00	\$3,000.00	\$100.00	\$2,000.00	\$115.00	\$2,300.00	\$150.00	\$3,000.00	\$90.00	\$1,800.00
8	Erosion Control	1	LS	\$30,000.00	\$30,000.00	\$10,000.00	\$10,000.00	\$20,000.00	\$20,000.00	\$7,000.00	\$7,000.00	\$65,000.00	\$65,000.00
9	Sitework and Restoration	1	LS	\$260,000.00	\$260,000.00	\$298,000.00	\$298,000.00	\$100,000.00	\$100,000.00	\$334,000.00	\$334,000.00	\$400,000.00	\$400,000.00
10	Bank Run Gravel for Trench Backfill	880	TN	\$25.00	\$22,000.00	\$30.00	\$26,400.00	\$38.00	\$33,440.00	\$28.00	\$24,640.00	\$45.00	\$39,600.00
11	Well 1 Site Modifications	1	LS	\$130,000.00	\$130,000.00	\$145,000.00	\$145,000.00	\$275,000.00	\$275,000.00	\$169,000.00	\$169,000.00	\$610,000.00	\$610,000.00
12	12-inch HDPE Open Cut, Water Main, Incl. Bedding, Well 1 to Springs	850	LF	\$125.00	\$106,250.00	\$98.00	\$83,300.00	\$155.00	\$131,750.00	\$112.00	\$95,200.00	\$115.00	\$97,750.00
13	Additional Ductile Iron Fittings	1,000	LBS	\$4.00	\$4,000.00	\$3.00	\$3,000.00	\$15.00	\$15,000.00	\$7.50	\$7,500.00	\$4.00	\$4,000.00
14	Springs Site Modifications	1	LS	\$150,000.00	\$150,000.00	\$197,000.00	\$197,000.00	\$285,000.00	\$285,000.00	\$155,000.00	\$155,000.00	\$200,000.00	\$200,000.00
15	12-inch HDPE Slipline, Springs to PSV Vault	1	LS	\$460,000.00	\$460,000.00	\$460,000.00	\$460,000.00	\$425,000.00	\$425,000.00	\$449,000.00	\$449,000.00	\$765,000.00	\$765,000.00
16	High School Reservoir/PSV Site Modifications	1	LS	\$160,000.00	\$160,000.00	\$171,000.00	\$171,000.00	\$260,000.00	\$260,000.00	\$216,000.00	\$216,000.00	\$170,000.00	\$170,000.00
17	Well 4 Site Modifications	1	LS	\$60,000.00	\$60,000.00	\$61,000.00	\$61,000.00	\$110,000.00	\$110,000.00	\$107,000.00	\$107,000.00	\$59,000.00	\$59,000.00
18	Electrical	1	LS	\$50,000.00	\$50,000.00	\$30,000.00	\$30,000.00	\$45,000.00	\$45,000.00	\$50,000.00	\$50,000.00	\$38,000.00	\$38,000.00
19	Grout Annular Space	3,850	LF	\$6.00	\$23,100.00	\$30.00	\$115,500.00	\$20.00	\$77,000.00	\$24.00	\$92,400.00	\$36.00	\$138,600.00
Subtotal				\$1,768,350.00		\$1,875,200.00		\$2,041,490.00		\$2,062,240.00		\$3,365,750.00	
Washington State Sales Tax 8.8%				\$155,614.80		\$165,017.60		\$179,651.12		\$181,477.12		\$296,186.00	
TOTAL CONSTRUCTION COST				\$1,923,964.80		\$2,040,217.60		\$2,221,141.12		\$2,243,717.12		\$3,661,936.00	

Sealed bids were opened at the City of Shelton, 525 W Cota Street, Shelton, WA 98584 on November 7, 2023, at 11:30 am (local time)

DENOTES MATHEMATICAL ERROR OCCURRED ON ORIGINAL BID. CORRECTED AMOUNT SHOWN.

I hereby certify that, to the best of my knowledge, the above tabulations are true and correct transcriptions of the unit prices and total amounts bid.

PRINTED NAME, TITLE



November 8, 2023

Mr. James Harris, P.E.
Public Works Director
City of Shelton
525 West Cota Street
Shelton, Washington 98584

SUBJECT: REVIEW OF BIDS, WELL 1 PIPELINE PRESSURIZATION PROJECT
CITY OF SHELTON, MASON COUNTY, WASHINGTON
G&O #18286

Dear Mr. Harris:

On November 7, 2023, the City of Shelton received four responsive bids for the Well 1 Pipeline Pressurization Project. The responsive bids ranged from \$2,040,217.60 to \$3,661,936.00. The Engineer's Estimate was \$1,923,964.80. Each proposal was checked for correctness of extensions of the prices per unit and the total price. No correction was made. We have provided a bid summary with this letter. The bidders and their respective bid amounts, including sales tax where applicable, are as follows:

	Engineer's Estimate.....	\$1,923,964.80
1.	Rognlin's, Inc. (Aberdeen, WA)	\$2,040,217.60
2.	Brumfield Construction, Inc. (Aberdeen, WA)	\$2,221,141.12
3.	Northwest Cascade, Inc. (Puyallup, WA).....	\$2,243,717.12
4.	Granite Construction Co. (Olympia, WA).....	\$3,661,936.00

The lowest responsive bidder, Rognlin's, Inc. of Aberdeen, WA, is currently a Washington State registered and licensed contractor and appears to have the relevant qualifications and experience to successfully perform the work the project will require. To our knowledge, the lowest bidder has not claimed bid error and no formal bidding protests have been recorded. In accordance with RCW 39.04, we have verified the lowest bidder, Rognlin's, Inc. of Aberdeen, WA, has met the responsibility criteria. The Mandatory Bidder Responsibility Checklist, including documentation, is attached for the City's file. We have also reviewed the Supplemental Bidder Criteria information submitted by Rognlin's, Inc. and they appear to meet the requirements of the Supplemental Bidder Responsibility Criteria.



Mr. James Harris, P.E.
November 8, 2023
Page 2

Based on our evaluation, we recommend that the project be awarded to the lowest responsive, responsible bidder:

Rognlin's, Inc.
321 West State Street
Aberdeen, WA 98520

Please contact us if you have any questions and/or require additional information.

Sincerely,

GRAY & OSBORNE, INC.

Dominic J. Miller, P.E.

DJM/sp
Encl.

cc: Mr. Aaron Nix, City of Shelton
Ms. Brooke Kilts, City of Shelton

WELL 1 PIPELINE PRESSURIZATION PROJECT
BID TABULATION FORM
Bids Due: 11/07/2023, 11:30 AM

BIDDER				ENGINEER'S ESTIMATE		ROGNLIN'S, INC.		BRUMFIELD CONSTRUCTION, INC.		NORTHWEST CASCADE, INC.		GRANITE CONSTRUCTION CO.	
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						Aberdeen, WA 98520		Aberdeen, WA 98520		Puyallup, WA 98373		Olympia, WA 98512	
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No.	Item	Quantity	UOM	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
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3	Temporary Traffic Control	1	LS	\$15,000.00	\$15,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$50,000.00	\$50,000.00	\$65,000.00	\$65,000.00
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Washington State Sales Tax 8.8%					\$155,614.80		\$165,017.60		\$179,651.12		\$181,477.12		\$296,186.00
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I hereby certify that, to the best of my knowledge, the above tabulations are true and correct transcriptions of the unit prices and total amounts bid.

PRINTED NAME, TITLE

MANDATORY BIDDER RESPONSIBILITY CHECKLIST

General Information	
Project Name: <i>Well 1 Pipeline Pressurization Project</i>	Project Number: <i>18-WELL1REHAB</i>
Bidder's Business Name: <i>Rognlin's Inc.</i>	Bid Submittal Deadline: <i>11/7/2023 11:30 am</i>
Contractor Registration - https://secure.lni.wa.gov/verify/	
License Number: <i>ROGNL**342LF</i>	Status: Active: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Effective Date (must be effective on or before Bid Submittal Deadline): <i>06/06/1966</i>	Expiration Date: <i>08/01/2025</i>
Current UBI Number - https://secure.lni.wa.gov/verify/	
UBI Number: <i>141 005 883</i>	Account: Open <input checked="" type="checkbox"/> Closed <input type="checkbox"/>
Industrial Insurance Coverage - https://secure.lni.wa.gov/verify/	
Account Number: <i>216,583-01</i>	Account Current: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Required Public Works Training – Effective July 1, 2019 https://secure.lni.wa.gov/verify/	
Per RCW 39.04.350 and RCW 39.06.020, has contractor had L&I training or meet exemption? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wage Payment Status Compliance – RCW 39.04.350(1g)	
Sworn statement or verification form received acknowledging compliance? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Employment Security Department Number – Obtain from Contractor	
Employment Security Department Number: <i>245143 00 0</i>	
<ul style="list-style-type: none"> • Has Bidder provided account number on the Bid Form? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> • Have you asked the Bidder for documentation from ESD on account number? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 	
State Excise Tax Registration Number - https://secure.dor.wa.gov/gteunauth/#1	
Tax Registration Number: <i>91-0724387</i>	Account: Open <input checked="" type="checkbox"/> Closed <input type="checkbox"/>
Not Disqualified from Bidding - https://secure.lni.wa.gov/debarandstrike/ContractorDebarList.aspx	
Is the Bidder listed on the "Contractors Not Allowed to Bid" list of the Depart. of Labor and Industries? (Print the pertinent page showing where the Bidder's name does or would appear on the list) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Not Disqualified from Bidding – Federal - https://sam.gov/content/exclusions	
Does Bidder have an "Active Exclusion Record" with the Federal Government? (Print the page showing record or 'No Record Found') Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Checked By:	
Name of Employee: <i>Brooke Kilts</i>	Date: <i>11/7/2023</i>



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F6)

Touch Date: 10/24/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: **Public Works**

Presented By: **Brent Armstrong, Sewer/Storm Superintendent**

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:

☐

Ordinance

☒ Dept. Head

J.O.H.

**SCADA Services Contract
Amendment**

☒

Resolution

☐ Finance Director

ATTACHMENTS:

- **Resolution No. 1298-1023**

☒

Motion

☒ Attorney

KH

- **SCADA Services Contract
Amendment**

☐

Other

☒ City Clerk

☐ City Manager

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

Both the City of Shelton's Water and Sewer utilities require constant monitoring and control via the SCADA (Supervisory Control & Data Acquisition) system. SCADA is a complex computer system that is used to monitor, control, and analyze each utility system's devices and processes, and allows the data gathered from the utility's equipment to be accessed on-site and remotely. Due to the complexity of the SCADA system, specialized skills and knowledge are necessary in order to configure each system to a utility's needs and troubleshoot and resolve issues when they arise. In March of 2018, following a formal qualification-based selection process, the then City Commission awarded a \$30,000 contract to Parametrix, Inc. for SCADA Services. The Contract was divided into two tasks; Task 1 for Water Utility Services was allotted \$10,000 and Task 2 for Sewer Utility Services was allotted \$20,000. In October of 2019, in preparation for turbidity and UVT transmitters being added to the UV System at the Main Wastewater Treatment Plant, replacement of the telemetry radios at remote Water facilities with fiber optic cable, and SCADA software and hardware upgrades needed to support both the Water and Sewer utilities, the City Council authorized an Amendment to the Professional Services Contract with Parametrix, adding \$150,000 to the Contract Budget - \$50,000 for Water Utility support and \$100,000 for Sewer Utility support. In April of 2022, an additional \$10,000 was added to the Contract budget to allow for Parametrix to prepare backup PLC processors for the Well 4, Angleside Booster Station, Capital Hill Booster Station, Mountain View Tank, and Upper Mountain View Water Facilities, as part of the City's mission for increasing emergency preparedness, locally.

Due to the latest Microsoft updates, the version of the City's SCADA software, AVEVA System Platform, is outdated and no longer compatible, leaving our system vulnerable. Additional upgrades to the Water and Sewer Utility's SCADA system, including updated software installation and configuration, are necessary for continual performance, monitoring, reporting, and system security.

This Amendment will increase the Contract by a total of \$99,390; \$30,543 for the Water Utility, which includes \$20,000 for as-needed support through the remainder of the Contract, and \$68,847 for the Sewer Utility, which includes \$30,000 for as-needed support through the remainder of the Contract. In addition to the increased Contract value, this Amendment:

- Extends the Contract end date to December 31, 2024 to allow for completion of the necessary upgrades and configuration.
- Adds a provision for all cybersecurity and security control related issues to be communicated to the City's

IT Staff.

- Adds an Exhibit to the Contract which defines guidelines for Reimbursable Expenses (a new Exhibit that is being implemented with all of the City's current Consultant Contracts, as the need for amendments arise, and with new Contract opportunities).
- Adjusts the Indemnification/Hold Harmless provision and increases insurance requirements to a more appropriate level associated with the risk of technology Consultants having access to the City's computer systems.

ANALYSIS/OPTIONS/ALTERNATIVES:

The Council could not approve the Contract Amendment, but staff does not recommend this as the Water and Sewer SCADA systems are currently running on outdated, unsupported software and these upgrades are necessary to keeping our Water and Sewer systems running efficiently and accurately, which is crucial in order to avoid permit violations with the Department of Ecology and the Department of Health.

BUDGET/FISCAL INFORMATION:

The cost of the upgrades and as-needed services will come out of each utility's respective operating budgets for 2023 and 2024.

PUBLIC INFORMATION REQUIREMENTS:

Information can be obtained through the Public Works Department.

STAFF RECOMMENDATION/MOTION:

Staff recommends: *"I move to adopt Resolution No. 1298-1023 for the SCADA Contract Amendment with Parametrix Inc. as presented."*

RESOLUTION NO. 1298-1023

A RESOLUTION OF THE COUNCIL OF THE CITY OF SHELTON, WASHINGTON, APPROVING CONTRACT AMENDMENT NO. 7 TO THE PROFESSIONAL SERVICES CONTRACT FOR SCADA SERVICES WITH PARAMETRIX, INC. AND GRANTING SIGNATURE AUTHORITY FOR RELATED DOCUMENTS

WHEREAS, both the City of Shelton's Water and Sewer Utilities require constant monitoring and control via the SCADA (Supervisory Control & Data Acquisition) system, a complex computer system that is used to monitor, control, and analyze each utility's devices and processes; and

WHEREAS, due to the complexity and uniqueness of SCADA systems which are designed specific to each utility's distinct needs, specialized skills and knowledge are necessary in order to configure, maintain, and troubleshoot and resolve issues as they arise; and

WHEREAS, in March of 2018, the then City Commission awarded a \$30,000 contract for SCADA services to Parametrix, Inc., which was divided into two tasks, allotting \$10,000 to Task 1 for Water utility services and \$20,000 to Task 2 for Sewer utility services; and

WHEREAS, in October of 2019, in preparation for necessary Hardware and Software upgrades, the City Council authorized an Amendment to the Contract with Parametrix, adding \$150,000 to the Contract budget; \$50,000 for Water Utility support and \$100,000 for Sewer Utility support; and

WHEREAS, in April of 2022 an additional \$10,000 was added to the Contract budget to allow for Parametrix to prepare backup programmable logic controller (PLC) processors for various water facilities as part of the City's mission towards emergency preparedness; and

WHEREAS, due to the latest Microsoft updates, the City's current version of SCADA software, AVEVA System Platform, is outdated and no longer compatible, which leaves our system vulnerable and a security liability; and

WHEREAS, this Amendment will increase the Contract value by a total of \$99,390 for the necessary upgrades and support, allotting \$30,543 for Water Utility and \$68,847 for Sewer Utility; and

WHEREAS, this Amendment will also extend the Contract end date to allow for completion of the needed upgrades and configuration, add provisions for involving City IT Staff in any cybersecurity or security control related issues, as well as adjust the Indemnification/Hold Harmless provisions and increase insurance requirements to a more appropriate level.

THEREFORE, BE IT RESOLVED by the City Council of the City of Shelton, Washington, as follows:

1. The City Manager is authorized to execute Contract Amendment No. 7 to the Professional Services Contract for SCADA Services with Parametrix, Inc.
2. The Public Works Director, or their designee, is authorized to execute work orders as needed and within the Contract amount approved by this Amendment.

Passed by the City Council at its regular meeting held on the 21st day of November 2023.

ATTEST:

Mayor Onisko

City Clerk Nault

**AMENDMENT NO. 7
TO
PROFESSIONAL SERVICES AGREEMENT**

WHEREAS, the City of Shelton entered into a Professional Services Agreement with Parametrix, Inc. executed on March 6, 2018 and identified as SCADA Services; and

WHEREAS, the City's SCADA system for both the water and sewer utilities requires certain necessary hardware and software upgrades in order to maintain control of the system and remain compliant with current permit standards; and

WHEREAS, the Scope in the current Contract with Parametrix includes any necessary upgrades to the system but requires additional budget allowance and an extension of contract time in order to allow for the upgrades to be performed; and

WHEREAS, there are additional provisions necessary in order to address essential protections that were not foreseeable or required at the time the contract was originally executed.

AGREEMENT

NOW THEREFOR, all provisions in the basic agreement remain in effect except as expressly modified by this amendment and agreed upon as follows:

1. Section 1 *Scope of Services to be Performed by Consultant*, shall be amended to add the following sentence: "All cybersecurity and security control related issues will be communicated to City of Shelton IT staff".
2. The Contract value identified in Section 5 *Compensation and Method of Payment*, is increased by \$99,390 - allocating \$30,543 to Task 1 (Water) and \$68,847 to Task 2 (Sewer), for new amounts not to exceed of \$100,543 for Task 1 and \$188,847 for Task 2.
3. The current Exhibit B – *Consultant Billing Rates* referenced in Section 5 to the Agreement shall be replaced in its entirety with a new Exhibit B, attached hereto and incorporated herein by this reference, effective through 2023. It is understood that these rates are subject to periodic review and adjustment, with rates for the year 2024 set to become effective January 1, 2024, or as soon as they are provided to the City by the consultant, whichever last occurs.
4. The following paragraph is added to Section 5 *Compensation and Method of Payment*:

Consultant may receive payment as reimbursement for Eligible Expenses actually incurred. "Eligible Expenses" means those types and amounts of expenses either listed in Exhibit E or such expenses as are approved for reimbursement by the City's Contract Manager, in writing, prior to the expense being incurred. Expenses not specifically identified in Exhibit E may not be reimbursed unless prior written approval was obtained from the City. An expense shall not be reimbursed if: 1) the expense is not identified in Exhibit E; 2) the expense would exceed the contract value identified in Section 5; or 3) the expense was not approved in writing by the City's Contract Manager, or an authorized City representative, prior to the Consultant incurring the expense.
5. New Exhibit E – Reimbursable Expenses, attached hereto and incorporated herein by this reference.
6. Section 10 *Indemnification/Hold Harmless* is hereby deleted in its entirety and replaced with the following:

“Consultant shall defend, indemnify, and hold the City, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses, or suits including attorney fees, arising out of or resulting from the negligent acts, errors, or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

However, should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the City, its officers, officials, employees, and volunteers, the Consultant's liability, including the duty and cost to defend, hereunder shall be only to the extent of the Consultant's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

7. Section 11 *Insurance* is hereby deleted in its entirety and replaced with the following:

A. Insurance Term

The Consultant shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.

B. No Limitation

The Consultant's maintenance of insurance as required by the Agreement shall not be construed to limit the liability of the Consultant to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available at law or in equity.

C. Minimum Scope of Insurance

The Consultant shall obtain insurance of the types and coverage described below:

1. Automobile Liability insurance covering all owned, non-owned, hired, and leased vehicles. Coverage shall be written at least as broad as Insurance Services Office (ISO) form CA 00 01.
2. Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap, independent contractors and personal injury and advertising injury. The City shall be named as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the work performed for the City using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.
3. Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
4. Technology Errors & Omissions (E&O)
5. Network Security (Cyber) and Privacy Insurance shall include, but not be limited to, coverage, including defense, for the following losses or services:

Liability arising from theft, dissemination, and/or use of City confidential and personally identifiable information, including but not limited to, any information about an individual maintained by the City, including (i) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records; and (ii) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information regardless of how or where the information is stored or transmitted.

Network security liability arising from (i) the unauthorized access to, use of, or tampering with computer systems, including hacker attacks; or (ii) the inability of an authorized third party to gain access to supplier systems and/or City data, including denial of service, unless caused by a mechanical or electrical failure; (iii) introduction of any unauthorized software computer code or virus causing damage to the City or any other third party data.

Lawfully insurable fines and penalties resulting or alleging from a data breach.

Event management services and first-party loss expenses for a data breach response including crisis management services, credit monitoring for individuals, public relations, legal service advice, notification of affected parties, independent information security forensics firm, and costs to re-secure, re-create and restore data or systems.

D. Minimum Amounts of Insurance

The Consultant shall maintain the following insurance limits:

1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
2. Commercial General Liability insurance shall be written with limits no less than \$2,000,000 each occurrence, \$2,000,000 general aggregate.
3. Technology Errors & Omissions (E&O) shall be written with limits no less than \$1,000,000 per claim and \$1,000,000 policy aggregate limit.
4. Network Security (Cyber) and Privacy Insurance shall be written with limits no less than \$2,000,000 per claim \$2,000,000 policy aggregate for network security and privacy coverage, \$100,000 per claim for regulatory action (fines and penalties), and \$100,000 per claim for event management services.

E. Other Insurance Provision

The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain, that they shall be primary insurance as respect the City. Any insurance, self-insurance, or self-insured pool coverage maintained by the City shall be excess of the Contractor's insurance and shall not contribute with it.

F. Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

G. Verification of Coverage

The Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the insurance requirements of the Agreement before commencement of the work.

H. Notice of Cancellation

The Consultant shall provide the City with written notice of any policy cancellation within two business days of their receipt of such notice.

I. Failure to Maintain Insurance

Failure on the part of the Consultant to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five business days' notice to the Consultant to correct the breach, immediately terminate the Agreement or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Consultant from the City.

J. City Full Availability of Consultant Limits

If the Consultant maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Consultant, irrespective of whether such limits maintained by the

Consultant are greater than those required by this Agreement or whether any certificate of insurance furnished the City evidences limits of liability lower than those maintained by the Consultant.

K. Safeguarding of Personal Information

The Consultant shall not use or disclose Personal Information, as defined in RCW 19.255.010, in any manner that would constitute a violation of federal law or applicable provisions of Washington State law. Consultant agrees to comply with all federal and state laws and regulations, as currently enacted or revised, regarding data security and electronic data interchange of Personal Information.

The Consultant shall ensure its directors, officers, employees, subcontractors, or agents use Personal Information solely for the purposes of accomplishing the services set forth in the Agreement.

The Consultant shall protect Personal Information collected, used, or acquired in connection with the Agreement, against unauthorized use, disclosure, modification, or loss.

The Consultant and its sub-consultants agree not to release, divulge, publish, transfer, sell or otherwise make Personal Information known to unauthorized persons without the express written consent of City or as otherwise authorized by law.

The Consultant agrees to implement physical, electronic, and managerial policies, procedures, and safeguards to prevent unauthorized access, use, or disclosure of Personal Information.

The Consultant shall make the Personal Information available to amend as directed by City and incorporate any amendments into all the copies maintained by the Consultant or its subcontractors. Consultant shall certify its return or destruction upon expiration or termination of the Agreement and the Consultant shall retain no copies. If Consultant and City mutually determine that return or destruction is not feasible, the Consultant shall not use the Personal Information in a manner other than those permitted or authorized by state and federal laws.

The Consultant shall notify City in writing immediately upon becoming aware of any unauthorized access, use or disclosure of Personal Information. Consultant shall take necessary steps to mitigate the harmful effects of such use or disclosure. Consultant is financially responsible for notification of any unauthorized access, use or disclosure. The details of the notification must be approved by City. Any breach of this clause may result in termination of the Agreement and the demand for return of all Personal Information.

8. The designated City representative identified in Section 18 *Notices* shall be amended with the following:

Brooke Kilts
Procurement & Contracts Manager
525 W Cota Street
Shelton, WA 98584
Phone: (360) 432-5130
Email: brooke.kilts@sheltonwa.gov

IN WITNESS WHEREOF, the Parties enter into this Amendment. DATED this 21st day of November 2023.

CITY OF SHELTON

PARAMETRIX, INC.

Mark Ziegler, City Manager

JC Hungerford, PE, Division Manager

EXHIBIT B - BILLING RATES

Parametrix Puget Sound Billing Rates - October 1, 2022 through December 31, 2023

Classification	Grade	Rate for Billing	Classification	Grade	Rate for Billing
CADD Operator I	8	\$120	Jr. Planner	8	\$120
CADD Operator II	9	\$130	Planner I	10	\$135
CADD Operator III	11	\$145	Planner II	11	\$145
CADD Supervisor/Technical Lead	12	\$155	Planner III	12	\$155
CADD Services Manager	14	\$175	Planner III	13	\$160
			Planner IV	14	\$180
Jr. Designer	8	\$120	Sr. Planner	15	\$200
Designer I	10	\$140	Sr. Planner	16	\$220
Designer II	11	\$150	Sr. Planner	17	\$235
Designer III	12	\$160			
Designer III	13	\$170	Jr. Scientist/Biologist	8	\$120
Designer IV	14	\$170	Scientist/Biologist I	10	\$135
Sr. Designer	15	\$190	Scientist/Biologist II	11	\$145
Sr. Designer	16	\$210	Scientist/Biologist III	12	\$155
Sr. Designer	17	\$225	Scientist/Biologist III	13	\$160
			Scientist/Biologist IV	14	\$180
Jr. Engineer	8	\$125	Sr. Scientist/Biologist	15	\$200
Engineer I	10	\$145	Sr. Scientist/Biologist	16	\$220
Engineer II	11	\$150	Sr. Scientist/Biologist	17	\$235
Engineer III	12	\$160			
Engineer III	13	\$175	Environmental Technician I	7-8	\$120
Engineer IV	14	\$190	Environmental Technician II	9	\$130
Sr. Engineer	15	\$215	Environmental Technician III	10	\$135
Sr. Engineer	16	\$230			
Sr. Engineer	17	\$250	Jr. Hydrogeologist	8	\$120
Sr. Consultant	18	\$285	Hydrogeologist I	10	\$135
Sr. Consultant	19	\$290	Hydrogeologist II	11	\$145
			Hydrogeologist III	12-13	\$160
Electrical Designer I	11	\$150	Hydrogeologist IV	14	\$180
Electrical Designer II	12	\$165	Sr. Hydrogeologist	15	\$200
Electrical Designer III	13	\$180	Sr. Hydrogeologist	16	\$220
Electrical Designer IV	14	\$180	Sr. Hydrogeologist	17	\$235
Sr. Electrical Designer	15-16	\$215			
Sr. Electrical Designer	17	\$235	GIS Technician	9	\$130
Electrical Engineer I	11	\$150	GIS Analyst	10	\$135
Electrical Engineer II	12	\$160	Sr. GIS Analyst	11	\$145
Electrical Engineer III	13	\$175			
Electrical Engineer IV	14-15	\$200	Graphic Designer	10-11	\$145
Sr. Electrical Engineer	16-17	\$230	Sr. Graphic Designer	12-13	\$160
Sr. Electrical Engineer	18	\$270			
			Publications Specialist I	8	\$110
Jr. Surveyor	8	\$120	Publications Specialist II	9-10	\$130
Surveyor I	9	\$130	Sr. Publications Specialist	10-11	\$140
Surveyor II	10	\$135	Publications Supervisor	12-13	\$150
Surveyor III	11	\$150	Technical Editor	10-11	\$140
Sr. Surveyor	12	\$160	Sr. Technical Editor	12-13	\$150
Sr. Surveyor	13	\$195			
Survey Supervisor	14-15	\$205	Technical Aide	7	\$110
Survey Supervisor	16-17	\$225	Sr. Technical Aide	8	\$120
Survey Prevailing Wage*			Project Coordinator	9	\$130
			Sr. Project Coordinator	10	\$135
Jr. Inspector	8	\$120	Project Controls Specialist	11	\$145
Construction Inspector	10-11	\$145	Sr. Project Controls Specialist	12-13	\$160
Sr. Construction Inspector	12-13	\$160			
Resident Engineer	13	\$170	Project Accountant	9	\$130
Resident Engineer	14	\$180	Sr. Project Accountant	10-11	\$145
Construction Manager I	12-14	\$180	Accounting Specialist	9	\$130
Construction Manager II	15-17	\$195	Sr. Accounting Specialist	10-11	\$140
Sr. Construction Manager	15	\$210			
Sr. Construction Manager	16-17	\$235	Admin Assistant	7	\$110
Owner's Representative	18-19	\$260	Sr. Admin Assistant	8	\$120
			Office Administrator	10-11	\$145
Division Manager	16-17	\$235	Sr. Office Administrator	12-13	\$155
Regional Division Manager	18-19	\$265	Office Administrative Manager	14-15	\$180
Operations Manager	16-17	\$235	Business Manager	15-16	\$195
Operations Manager	18-19	\$275	Sr. Contract Administrator	12-13	\$160
Program Manager	18-20	\$280	Director of Risk Management	20	\$295
Principal Consultant	19	\$280			
Principal Consultant	20	\$300	UAV Pilot	12-13	\$190
Vice President/Sr. Vice President	18-20	\$300	Expert Witness		\$400

* Prevailing Wage Rates apply to construction surveying on all Washington Public Works Projects.

Exhibit E – Reimbursable Expenses

Reimbursable expenses for Consultants/Contractors and Sub-Consultants/Sub-Contractors working for the City of Shelton shall follow the guidelines outlined below, unless otherwise specified in the Agreement. All reimbursable expenses will be billed at the actual direct cost, unless otherwise indicated below.

Expense Type	Reimbursement Policies	Documentation Required	Pre- Approval Required?*
Hotel	Lodging reimbursement is limited to the current GSA per-diem daily lodging rate allowance for Mason County plus tax (https://www.gsa.gov/travel-resources). The City does not reimburse for in-room purchases, laundry, or any other incidentals. The City will not reimburse extra booking fees or related charges.	Itemized Receipt from check out – Booking receipts will not be accepted	Yes
Airfare	Based on the most economical flights with reasonable routing. Business class and first class are not reimbursable. Baggage fees are limited to one bag per person.	Receipt	Yes
Airport Shuttle/ Taxi/Rideshare	Actual expense, may include a customary gratuity.	Receipt	Automatic when airfare approved
Rental Car	Reimbursement for rental cars will be for a standard size car or smaller and reimbursed for the actual expense.	Receipt	Yes
Ferry Service	Only if required for travel between the local office and the City office/site. If other modes & routes are available, the cheaper route and mode shall be utilized.	Receipt	No
Privately-Owned or Company Car	Mileage shall be calculated from the actual local office or office identified below and reimbursed at the IRS allowable rate for the current year.	Printed Map w/ Mileage	No
Zipcar/Similar Service	The City will reimburse contractual car rental fees to the extent they do not exceed the comparable mileage rate reimbursement.	Receipt & Printed Map	No
Tolls	Only if required for travel between the local office and the City office/site. If other non-toll routes are possible, the cheapest route shall be utilized.	Good to Go or other statement	No
Meals	Meal reimbursement is limited to the current GSA per-diem meal allowance, and only allowed when consultant travels overnight or at least 150 miles per one-way trip. https://www.gsa.gov/travel-resources	Itemized Receipt - Identify Person(s), Meal Type, and Dates of Travel	Yes
Courier or Parcel Services	Reimbursable only if required to fulfill a request of the City. Does not include routine correspondence.	Receipt	No
Printing, copying	Reimbursement will be allowed for documents that are to be provided to the owner or provided to an outside entity on behalf of the owner, only. Prints/copies of documents used by the Consultant/Contractor to perform normal services and not provided to the City are not reimbursable.	Receipt	No
Sub-Consultants/ Sub-Contractors	Up to 5% markup allowed unless grant/funding guidelines prohibit. All subs are subject to these reimbursement guidelines. Sub-Consultants hired to perform basic services required by the Contract are not eligible for reimbursement.	Sub-Invoices	Yes

* Pre-approval means an approval in writing from the Contract Manager prior to the cost(s) being incurred. Documentation of approval shall be included with the invoice.

Office Address Mileage will be calculated from: _____



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F7)

Touch Date: 10/27/2023
Brief Date: 11/07/2023
Action Date: 11/21/2023

Department: Community & Economic Development
Presented By: Jae Hill, Director

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:

Mason County Multi-jurisdictional
Multi-hazard Mitigation Plan Adoption

☐

Ordinance

☒ Dept. Head

jbh

☐ Finance Director

☐ Attorney

☒ City Clerk

☐ City Manager

ATTACHMENTS:

-Resolution No. 1299-1023

-HMP Final Volume 1

-HMP Volume 2

-FEMA Approval Letter

☒

Resolution

☒

Motion

☐

Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

The City of Shelton is required by federal law to plan for hazard mitigation under 44 CFR § 201.6, Robert T. Stafford Act Sec 102(5), and Revised Codes of Washington (RCW) Chapter 38.52.030, 38.52., 38.52.070, and 38.52.107. We also perform some of this work as related to our participation in the National Flood Insurance Program.

Mason County took the lead in preparing a multi-jurisdictional multi-hazard mitigation plan that includes the entirety of Mason County. The City of Shelton participated in team meetings and—through its Police Chief, Public Works Director, and Community & Economic Development Director—contributed to, reviewed, and edited the document.

For the document to take full effect—making the community eligible for pre- and post-disaster funding—it must be adopted by all participating jurisdictions. Mason County has already adopted the plan by resolution.

ANALYSIS/OPTIONS/ALTERNATIVES:

The work has already been completed by a multi-jurisdictional team and headed by a consultant firm. The findings and recommendations from the plan will feed into the City's ongoing Comprehensive Plan Update, especially the new Resilience Element required by the State.

BUDGET/FISCAL INFORMATION:

There is no cost to the city; the plan was funded by Mason County and federal grants. Adoption of this plan will make the City eligible for future grant funding and FEMA disaster assistance.

PUBLIC INFORMATION REQUIREMENTS:

No notice or public hearing are required for resolutions.

STAFF RECOMMENDATION/MOTION:

"I move to approve Resolution No. 1299-1023, adopting the 2023 Mason County Multi-jurisdictional Multi-Hazard Plan."

RESOLUTION NO. 1299-1023

**A RESOLUTION OF THE COUNCIL OF THE CITY OF SHELTON,
WASHINGTON, ADOPTING THE 2023 MASON COUNTY
MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLAN**

WHEREAS, the City is required by federal law to develop hazard mitigation plans under 44 CFR § 201.6, Robert T. Stafford Act Sec 102(5), and Revised Codes of Washington (RCW) Chapter 38.52.030, 38.52., 38.52.070, and 38.52.107; and

WHEREAS, Mason County was awarded a federal grant to complete the update of the previously approved Mason County Hazard Mitigation Plan; and

WHEREAS, the City of Shelton was a participant in the County's multi-jurisdictional, multi-hazard planning process; and

WHEREAS, plan adoption is required by all participating jurisdictions to receive emergency preparedness and response grants;

NOW, THEREFORE BE IT RESOLVED, that the City Council of the City of Shelton hereby adopts the 2023 Mason County Multi-jurisdictional Multi-hazard Mitigation Plan.

INTRODUCED on the 7th day of November 2023 and **PASSED** by the City Council at its regular meeting held on the 21st day of November 2023.

Mayor Onisko

ATTEST:

City Clerk Nault

SEPTEMBER 2023

MASON COUNTY 2023 MULTI-JURISDICTION HAZARD MITIGATION PLAN

VOLUME 1 - COUNTYWIDE ELEMENTS



Bridgeview Consulting, LLC.
915 N. Laurel Lane | Tacoma, WA 98406 | 253.301.1330



**MASON COUNTY MULTI-JURISDICTION
2023 HAZARD MITIGATION PLAN UPDATE
VOLUME 1: COUNTYWIDE PLANNING ELEMENTS**

SEPTEMBER 2023

Prepared for:

Mason County Division of Emergency Management
100 Public Works Drive
Shelton, WA 98584
(360) 427-9670

Prepared by:



Bridgeview Consulting LLC
915 No. Laurel Lane
Tacoma, WA 98406
(253) 301-1330

Mason County 2023 Multi-Jurisdiction Hazard Mitigation Plan Update

Volume 1—Countywide Planning Elements

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EXECUTIVE SUMMARY

The federal Disaster Mitigation Act (DMA) promotes proactive pre-disaster planning by making it a condition of receiving financial assistance under the Robert T. Stafford Act. The DMA established a Pre-Disaster Mitigation Program and new requirements for the national post-disaster Hazard Mitigation Grant Program.

The DMA encourages state and local authorities to work together on pre-disaster planning, promoting sustainability as a strategy for disaster resistance. Sustainable hazard mitigation addresses the sound management of natural resources and local economic and social resiliency, and it recognizes that hazards and mitigation must be understood in a broad social and economic context. The planning network called for by the DMA helps local governments articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk-reduction projects.

Disaster incidents will continue to occur, and with climate change, are expected to become more severe. Knowing this provides us with unique opportunities. Opportunities which, when implemented, help to reduce the impacts from those disaster incidents. While we cannot control nature, the impact from those disasters are within our ability to influence and change, at least to some degree. By targeting proactive measure in those vulnerable or critical areas in ways which will positively influence the most vulnerable areas in our community, we can make a difference and lessen the burden of impact on our citizens, government, and nature itself.

The Mason County Multi-Jurisdiction Hazard Mitigation Plan promotes programs and projects that partner with communities, building a foundation of resilience before, during, and after disasters. The planning partnership made up of Mason County and local governments worked together to create this Mason County 2023 Multi-Jurisdiction Hazard Mitigation Plan Update not only to fulfill the DMA requirements for all fully participating partners, but also to identify positive measures which, when implemented, will reduce the negative impact of disaster incidents.

PLAN UPDATE

Federal regulations require hazard mitigation plans include a system for monitoring, evaluating, and updating of the document. The update provides an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a plan that has expired is not able to pursue funding under the Robert T. Stafford Act for which a current hazard mitigation plan is a prerequisite.

INITIAL RESPONSE TO DMA IN MASON COUNTY

The inevitability of natural hazards and the growing population and activities within the planning region created a need to develop information, concepts, strategies, and a coordination of resources to increase public awareness of the hazards of concern and the risk associated with those hazards.

In an effort to reduce the impact of the hazards and assist in protecting life, property and the economy, Mason County leadership determined that it was in the best interests of its citizenry to develop the County's first Hazard Mitigation Plan in 2004, with updates occurring regularly as required since that time.

These plans have also provided information for several other efforts throughout the county, including land use development and zoning regulations, hazard-specific plans, and various other emergency management plans, such as the County's Comprehensive Emergency Management Plan, which helps guide all disaster response countywide.

Since completion of the various editions, new technologies, information and increased awareness have brought about a wealth of information to enhance the validity of the initial plan, providing the opportunity, through development of the 2023 update to the Mason County Multi-Jurisdiction Hazard Mitigation Plan, to continue to increase the resilience of the planning region as a whole.

THE 2023 MASON COUNTY PLAN UPDATE—WHAT HAS CHANGED?

Mason County is using the five-year update process to enhance the existing plan based on availability of new hazard data, including more detailed analysis of existing hazards of concern, and a better understanding of the Federal Emergency Management Agency's (FEMA's) guidance to develop mitigation plans, which was revised in 2021 and became effective April 19, 2023.

The following changes have been incorporated in the 2023 plan:

- The layout of the plan varies somewhat in formatting, but maintains the two-volume approach. Volume 1 includes general planning information and hazard profile data which is consistent with all entities involved, as well as the County-specific data. Volume 2 includes each jurisdiction's separate annex, as well as the linkage procedure for partners wishing to join at a later date.
- Hazards of concern were modified slightly for this 2023 update, with climate change removed as a stand-alone hazard, and rather identified as additional impact within each hazard impacted by climate change.
- Dam inundation data was enhanced to the degree possible based on available data provided by the dam owners; however, inundation data was identified as confidential by some owners. Data which was available was included.
- Wildfire profile was enhanced due to the increase in wildfire occurrences within Mason County since completion of the last plan, and the availability of updated LandFIRE and WA DNR data.
- Severe Weather was again expanded to include additional impacts experienced from the severe heat events (2021 and 2022) and increased snow levels and occurrences since the last plan's completion.
- Tsunami was again discussed, but based on the limited impact, the Planning Team again determined it would not include Tsunami during this update. As with the 2018 plan, the Planning Team elected to again review the option to include it in future updates.
- Volcano was again reviewed, but also tabled during this update process due to limited historic impact.
- The risk assessment was expanded to use additional methodologies and new studies to define risk and determine vulnerability. This edition is again based on analysis using both GIS and Hazus, and focuses on determining impacts on people, property, environment, and the economy. This edition also utilizes FEMA's 2017 Risk Map data.

- Critical infrastructure data was expanded and updated to include new structures within the planning area as identified throughout the process to ensure community lifelines were included to the extent possible.
- The risk assessment has been prepared to better support future grant applications by providing risk and vulnerability information that will directly support the measurement of “cost-effectiveness” required under FEMA mitigation grant programs.
- The method of risk ranking was expanded slightly, but is still based on a Calculated Priority Risk Index Ranking. While similar in nature, this edition includes an expanded social vulnerability assessment.
- The risk assessment remains consistent, breaking down the areas of impact by planning partnership as appropriate, to include an analysis of the unincorporated areas of the County, and further by each planning partner involved. This will allow planning partners to annually review and determine accuracy of the greatest hazards of concern based on their impact, versus the entire planning area. This will also allow planning partners the ability to identify new mitigation strategies as various grant opportunities become available.
- All charts, graphs and maps have been updated with the most current data. In those cases where data was no longer available and the previous graphic was utilized, it was so noted.
- All Census and Census-related data has been updated with the most current data available.
- Goals and objectives were reviewed and updated appropriately with only slight modifications. The Planning Team felt they remained consistent with the intent of the County and its planning partnership with respect to its mitigation strategy.
- Additional analysis was completed concerning the impact of land use development trends on the hazards of concern.
- Community Lifelines were discussed and the concept integrated in the on-going effort to support basic services on which a community relies. New information was added with respect to FEMA’s development (and definition) of the lifelines, as well as an additional analysis indicating potential positive impact from the County’s identified mitigation action items as they relate to the specific identified lifeline.
- Strategies from the 2018 edition were updated, and new strategies identified. The method of prioritizing strategies was maintained, including a form of benefit cost analysis.
- Additional outreach was conducted by the County’s Project Manager to expand the number of planning partners, including outreach to the hospital, transit, school districts, Red Cross, and additional fire agencies. One previous planning partner (Transit Authority) was lost this update cycle; one new fire district was added. The County Project Manager also conducted outreach to gain greater participation from County Departments, including one-on-one meetings, but due to limited staffing throughout the County, only a limited number of new departments participated. Those departments are identified in Chapter 2.

- The plan maintenance strategy was reviewed. Due to COVID and other public health-related issues, in-person public outreach since completion of the last plan was restricted or reduced, with actual in person meetings not occurring for much of the time. While the “Annual Report Card” developed for use with the 2018 plan was not completed, the Planning Partnership did have discussions at various times through their LEPC meetings concerning the hazards of concern, potential new strategies, and the impact of the hazards during events.

THE PLANNING PARTNERSHIP

The planning partnership assembled for this plan consists of Mason County, the City of Shelton, PUDs 1 and 3, Central Mason Fire and Emergency Services, Mason County Fire District #4, and Fire District 16, all defined as “local governments” under the Disaster Mitigation Act. Of these six planning partners, all completed the required phases of this plan’s development. Jurisdictional annexes for those partners are included in Volume 2 of the plan. Jurisdictions not covered by this process can link to this plan at a future date by following the linkage procedures identified in Volume 2 of this plan.

One new planning partner was added for this 2023 update – Mason County Fire District #4; one planning partner did not participate for this update cycle, and did not complete an annex update – Mason County Transit Authority.

PLAN DEVELOPMENT METHODOLOGY

Update of the Mason County hazard mitigation plan included seven phases:

- **Phase 1, Organize resources**—Under this phase, grant funding was secured to fund the effort, the planning partnership was formed, and other stakeholders were assembled to oversee development of the plan. Also under this phase were coordination with local, state, and federal agencies and a comprehensive review of existing programs that may support or enhance hazard mitigation.
- **Phase 2, Assess risk**—Risk assessment is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards. Phase 2 occurred simultaneously with Phase 1, with the two efforts using information generated by one another. This process focuses on the following parameters:
 - Identification of new hazards and updating hazard profiles
 - The impact of hazards on physical, social, and economic assets
 - Vulnerability identification
 - Estimates of the cost of damage or costs that can be avoided through mitigation.
- **Phase 3, Involve the public**—Under this phase, a public involvement strategy was developed that used multiple media sources to give the public multiple opportunities to provide comment on the plan. The strategy focused on three primary objectives:
 - Assess the public’s perception of risk.
 - Assess the public’s perception of vulnerability to those risks.
 - Identify mitigation strategies that will be supported by the public.

- **Phase 4, Identify goals, objectives, and actions**—Under this phase, the goals and objectives were reviewed and updated, as well as a range of potential mitigation actions for each natural hazard identified. A “mitigation catalog” was used by each planning partner to guide the selection of recommended mitigation initiatives to reduce the effects of hazards on new development and existing inventory and infrastructure. A process similar to the one created for the last edition was utilized for prioritizing, implementing, and administering action items based in part on a review of project benefits versus project costs.
- **Phase 5, Develop a plan maintenance strategy**—Under this phase, a strategy for long-term mitigation plan maintenance was created, with the following components:
 - A method for monitoring, evaluating, and updating the plan on a five-year cycle
 - A protocol for a progress report to be completed annually on the plan’s accomplishments
 - A process for incorporating requirements of the mitigation plan into other planning mechanisms
 - Ongoing public participation in the mitigation plan maintenance process
 - “Linkage procedures” that address potential changes in the planning partnership.
- **Phase 6, Develop the plan**—The internal planning group for this effort assembled key information into a document to meet DMA requirements. The document was produced in two volumes: Volume 1 including all information that applies to the entire planning area, serving as the base plan and the County’s annex; and Volume 2, including jurisdiction-specific information.
- **Phase 7, Implement and adopt the plan**—Once pre-adoption approval has been granted by the Washington Emergency Management Division and FEMA, the final adoption phase will begin. Each planning partner will be required to adopt the plan according to its own protocols.

MITIGATION GOALS

The 2018 goals were reviewed and confirmed for the 2023 update during the initial kick-off meeting. Objectives developed in 2018 were also reviewed and confirmed for the current update. The goals and objectives were utilized to allow further assessment of mitigation strategies. Strategies were assessed to determine association with several general categories related not only to emergency management as a whole, but also inclusive of the seven Community Lifelines (Safety and Security; Food, Water, Shelter; Health and Medical; Energy; Communications; Transportation; and Hazardous Materials, and the Community Rating System, as follows:

- Prevention
- Public Information and Education
- Property Protection
- Emergency Services / Response
- Natural resources
- Structural projects
- Recovery

PROGRESS REPORT OF 2018 HAZARD MITIGATION PLAN

Since the 2018 Hazard Mitigation Plan (HMP) was approved, the County and its planning partners have completed many initiatives identified throughout this document in an attempt to serve the population and increase economic growth throughout the planning area. Chapter 12 identifies the current status of the strategies contained in the previous plan. The 2018 plan maintenance strategy identified an annual meeting with all planning team members as its method of tracking project completion and identification of hazard impact. Such meetings did not occur due to staffing levels and workloads, as well as COVID response and operations. The Planning Team, however, does feel that such maintenance and report strategy remains effective as it relates to them, and has developed a similar process for their use as discussed in Plan Maintenance portion of this document. The County's Emergency Management Coordinator will continue to work with the Planning Team in the continued quest to reduce the risk and vulnerability to the County and its residents. The Local Emergency Planning Committee (LEPC) will also be utilized, as the majority of all Planning Team Members are also part of the LEPC.

In addition to implementation of some of the 2018 mitigation strategies, the Planning Partnership has developed a number of different efforts which have enhanced the County's ability to support mitigation-friendly infrastructure development. During development of these various planning efforts, data from the previous Hazard Mitigation Plan (HMP) were integrated to the greatest extent possible, with the HMP data serving as a starting point. A detailed list of the various efforts which support mitigation is contained within the Capability Matrix (Chapter 13). Occurring simultaneously with this update, the County is also in the process of updating its Comprehensive Land Use Plan, and data from this effort will be utilized to support that update as well.

Integrating mitigation efforts into the daily practices has become commonplace to a large extent. A number of Departments' and Agencies' daily practices support mitigation, including the Planning Departments, Natural Resources Departments, PUDs, etc.. These entities, as well as others, have continued to incorporate mitigation activities into various day-to-day functions. A few examples of those efforts include:

- Land use development projects emphasizing smart planning by utilizing the risk data to assist in selecting site locations outside of high hazard areas;
- Maintaining and enhancing natural habitats to create space which reduces the negative impact of flooding;
- Utilizing building materials and standards based on recommended codes and their ability to reduce risk;
- Implementing program management for shoreline management, wildlife and cultural resource protection, and air and water quality monitoring;
- Overall assessment of the communities' usage of new construction to determine if multiple purposes exist, which, when fully operational, can be used for multiple purposes (e.g., a shelter or community resilience center which can also serve as a gym); and
- During planning stages, projected development includes prioritizing mitigation efforts based on impact (positive and negative), such as the project's proximity to the 100- and 500-year floodplain and landslide risk, among others.

The updated version of the hazard mitigation action plan is a key element of this plan. For the purpose of this document, mitigation action items are defined as: *activities designed to reduce or eliminate the long-term losses resulting from the impacts of natural hazards of concern*. It is through the implementation of the action plan that the County and its Planning Partners can strive to become disaster-resilient through sustainable hazard mitigation.

Although one of the driving influences for preparing this plan was grant funding eligibility, that is not the focus of this plan. It was important to the Planning Partners that they examine initiatives that would work through all phases of emergency management and that contribute to, rather than remove from, the environment. It is significant that the mitigation efforts include mainstreaming adaptive, ‘no-regrets’ strategies which improve the ability to live with the hazards of concern. As such, some of the initiatives outlined in this plan are not grant-eligible, and grant eligibility was not the focus of the selection. Rather, the focus was the initiatives’ effectiveness in achieving the goals of the plan and whether they are within each entities’ capabilities, while also supporting FEMA’s Community Lifelines and the established Core Capabilities. As established, the lifelines enable the continuous operation of critical government and business functions to help ensure human health and safety, and economic security of the community.

This planning process resulted in the identification of mitigation actions to be targeted for implementation both collectively, and by individual planning partners. Individual initiatives and their priorities can be found in Volume 2 of this plan. Those countywide initiatives benefiting the whole partnership which will be implemented by pooling resources based on capability are identified in Chapter 12.

CONCLUSION

Full implementation of the recommendations of this plan will take time and resources. The measure of the plan’s success will be the coordination and pooling of resources within the planning partnership. Keeping this coordination and communication intact will be the key to successful implementation of the plan. Teaming together to seek financial assistance at the state and federal level will be a priority to initiate projects that are dependent on alternative funding sources. These funding sources may be non-traditional sources, and include partnering with private industry where feasible. This plan was built upon the effective leadership of a multi-disciplined planning team and a process that relied heavily on public input and support. The plan will succeed for the same reasons. Each planning partner and their representative jurisdiction are commended for their level of effort and determination in completing this 2023 Mason County Hazard Mitigation Plan Update.

CHAPTER 1.

INTRODUCTION

Hazard mitigation is defined as the use of long- and short-term strategies to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves strategies such as planning, policy changes, programs, projects, and other activities that can mitigate the impacts of hazards. The responsibility for hazard mitigation lies with many, including private property owners; business and industry; and local, state, and federal government.

1.1 AUTHORITY

The federal Disaster Mitigation Act (DMA) (Public Law 106-390) required state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. Prior to 2000, federal disaster funding focused on disaster relief and recovery, with limited funding for hazard mitigation planning. The DMA increased the emphasis on planning for disasters before they occur. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Act) by repealing and replacing sections which emphasized the need for state and local entities to closely coordinate mitigation planning and implementation efforts.

The DMA encourages state and local authorities to work together on pre-disaster planning, and it promotes sustainability for disaster resistance. Sustainable hazard mitigation includes the sound management of natural resources and the recognition that hazards and mitigation must be understood in the largest possible social and economic context. The enhanced planning network called for by the DMA helps local governments articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk reduction projects.

The Mason County Hazard Mitigation Plan 2023 Update has been developed pursuant to the requirements of 44 CFR 201.6. The plan meets FEMA's guidance for multi-jurisdictional mitigation planning.

1.2 ACKNOWLEDGEMENTS

Many groups and individuals have contributed to development of the Mason County Hazard Mitigation Plan Update. The Mason County Division of Emergency Management provided support for all aspects of plan development. Mason County GIS also provided assistance by providing building stock data and information. The planning partners met on a regular basis to guide the project, identify the hazards most threatening Countywide, develop and prioritize mitigation projects, review draft deliverables, and facilitate public outreach efforts.

Local communities participated in the planning process by facilitating (and attending as local government policies allowed) public meetings and contributed to plan development by reviewing and commenting on the draft plan. Several planning partners provided assistance and guidance to support the efforts of smaller entities by providing data and information to help develop specific annex documents. Citizens' participation was exceptionally good during the plan's development, with citizens attending various public outreach sessions and providing invaluable information with

respect to concerns, strategy ideas, and hazard information. Input was incorporated as appropriate throughout the document.

1.3 PURPOSE OF PLANNING

The local mitigation plan is the representation of a jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans also serve as the basis for the State to provide technical assistance and to prioritize project funding. This hazard mitigation plan identifies resources, information, and strategies for reducing risk.

One benefit of completing a hazard mitigation plan which includes all local municipalities and special purpose districts is cost-savings for citizens. A multi-jurisdictional planning effort provides the ability to pool resources and eliminate redundant activities within a planning area that has uniform risk exposure and vulnerabilities. FEMA encourages multi-jurisdictional planning under its guidance for the DMA. The plan will help guide and coordinate mitigation activities throughout Mason County. It was developed to enable all planning partners to continue using federal grant funding to reduce risk through mitigation, meeting the needs of each planning partner as well as state and federal requirements.

Developing a multi-jurisdiction plan into this type of document creates a single planning document that integrates all planning partners into a framework that supports partnerships within the county and puts all partners on the same planning cycle for future updates. It also allows coordination between existing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented.

All citizens and businesses of Mason County are the ultimate beneficiaries of this hazard mitigation plan. When implemented, the plan helps reduce risk for those who live in, work in, and visit the county. It provides a viable planning framework for all known natural hazards that may impact the county. Participation in development of the plan by key stakeholders in the county helped ensure that outcomes will be mutually beneficial. The resources and background information in the plan are applicable countywide, and the plan's goals and recommendations can lay groundwork for the development and implementation of local mitigation activities and partnerships.

1.4 PLAN ADOPTION

44 CFR 201.6(c)(5) requires documentation that a hazard mitigation plan has been formally adopted by the governing body of the jurisdiction requesting federal approval of the plan. For multi-jurisdictional plans, each jurisdiction requesting approval must document that it has been formally adopted. This plan will be submitted for a pre-adoption review to the Washington State Division of Emergency Management and FEMA prior to adoption. Once pre-adoption approval has been provided, all planning partners will formally adopt the plan. All partners understand that DMA compliance and its benefits cannot be achieved until the plan is adopted. Copies of the resolutions adopting the plan can be obtained from each planning partner. The FEMA approval letter can be found in Appendix B of this volume.

1.5 SCOPE AND PLAN ORGANIZATION

The process followed to update the 2023 Mason County Hazard Mitigation Plan included the following:

- Review and prioritize disaster events that are most probable and destructive.
- Update and identify new critical facilities.
- Review and update areas within the community that are most vulnerable.
- Review (and update as appropriate) goals for reducing the effects of a disaster event.
- Review old and identify new projects to be implemented for each goal.
- Review procedures for monitoring progress and updating future hazard mitigation plans.
- Review the draft hazard mitigation plan.
- Adopt the updated hazard mitigation plan.

This plan has been set up in two volumes so that elements that are jurisdiction-specific can easily be distinguished from those that apply to the whole planning area:

- Volume 1 includes all federally required elements of a disaster mitigation plan that apply to the entire planning area. This includes the description of the planning process, public involvement strategy, goals and objectives, countywide hazard risk assessment, countywide mitigation initiatives, and a plan maintenance strategy. Volume 1 serves as the Base Plan, and represents the County's portion of the Hazard Mitigation Plan.
- Volume 2 includes all federally required jurisdiction-specific elements, assimilated into specific annexes for each participating jurisdiction. Volume 2 also includes a description of the participation requirements for planning partners. Volume 2 also includes "linkage" procedures for eligible jurisdictions that did not participate in development of this plan but wish to adopt it in the future, as well as contact information to obtain the annex template and instructions.

All planning partners will adopt Volume 1 and the associated appendices in their entirety, as well as each partner's jurisdiction-specific annex contained in Volume 2.

The following appendices provided at the end of Volume 1 include information or explanations to support the main content of the plan:

- Appendix A—A glossary of acronyms and definitions;
- Appendix B—Final FEMA Plan Approval (after adoption by all planning partners); and
- Appendix C—A template for progress reports to be completed as this plan is implemented.

CHAPTER 2.

PLANNING PROCESS

To develop the Mason County hazard mitigation plan, the County applied the following primary objectives:

- Secure grant funding
- Form an internal planning group
- Establish a planning partnership
- Coordinate with individual and agency stakeholders
- Review existing plans and studies
- Engage the public:
 - Conduct a hazard survey
 - Hold public meetings (as public policy allowed due to COVID restrictions and concerns)
 - Review the draft hazard mitigation plan.

These objectives are discussed in the following sections.

2.1 SECURE GRANT FUNDING

This planning effort was supplemented by a Hazard Disaster Mitigation Grant Program (HMGP) grant from FEMA. Mason County was the applicant agent for the grant. The grant was applied for originally in 2021, and funding was appropriated in 2022. It covered 90 percent of the cost for development of this plan; the County and its planning partners covered 5 percent of the cost through in-kind contributions, and the state of Washington provided the remaining 5 percent balance.

2.2 INTERNAL PLANNING GROUP FORMATION

Mason County hired Bridgeview Consulting, LLC to assist with development and implementation of the plan. The Bridgeview Consulting project manager assumed the role of the lead planner, reporting directly to a County-designated project manager. An internal planning group was formed to lead the planning effort, made up of the following members:

- Tammi Wright, Mason County Project Manager
- John Taylor, Mason County Emergency Management Manager
- Robert Burbridge, Mason County Emergency Management Exercise and Training Coordinator
- Beverly O'Dea, Bridgeview Consulting (Lead Project Planner)

2.3 PLANNING PARTNERSHIP

A primary focus of this effort was to re-engage the planning partnership from the 2018 plan, and to open this process to eligible local governments. Mason County opened this planning effort to those eligible entities within the county which expressed an interest in participating in the planning process. Emergency Management personnel made presentations at various meetings beginning January 2022, soliciting letters of intent to participate to support the County's grant application.

The County received letters of intent to participate by several of the planning partners. In addition to a Press Release announcing the County's initiation of the planning effort, an email was distributed inviting participation. The email was accompanied with a letter detailing the process which would be followed to allow planning partners with a knowledge base on which to form their decision of whether or not to participate. Each jurisdiction wishing to join the planning partnership was asked to provide an executed Letter of Intent to Participate. That letter designated a point of contact for the jurisdiction and confirmed the jurisdiction's commitment to the process and understanding of expectations.

For those jurisdictions invited but who could not participate, linkage procedures have been established (see Volume 2) for any jurisdiction or special purpose district wishing to join the Mason County plan in the future. This process is the same process utilized for the 2018 plan, and carried forward to the 2023 update.

Responsibilities of the planning partners included participating in meetings to discuss plan development, providing data for analysis in the risk assessment, participating in public meetings, providing input and feedback on mitigation strategies, developing an annex document, reviewing the draft plan document, and supporting the plan throughout the adoption process.

The initial kickoff planning workshop took place on December 13, 2022. Key workshop objectives were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Describe the reasons for a plan.
- Outline the County work plan.
- Outline and adopt planning partner expectations necessary to establish an annex to the County's Plan.
- Confirm hazards of concern.
- Review and update, as appropriate, the Goals and Objectives.
- Establish the Planning Partnership's definition of Critical Facilities.
- Establish a Public Outreach Strategy for use during this update cycle.

During the initial workshop, the planning partners also confirmed meeting guidelines, which identified staffing, elected a chairperson to act as spokesperson for the planning effort, identified a minimum attendance by planning team members to gain an active level of participation, established the decision-making method (quorum of membership or majority rule), identified the concept of alternative representatives for planning team members unable to attend, and identified the method in which the public would address the planning team during meetings. Specific guidelines established are available upon request to the Mason County Emergency Management Division.

During the initial workshop meeting, John Taylor was elected Chairperson of the planning team, and the team determined that decisions would be made based on the majority of members in attendance.

Various meetings were held with the planning partners while the plan was being drafted. In advance of each meeting, an agenda and materials to be discussed (i.e. example mitigation strategies, examples of projects eligible for FEMA funding, etc.) were sent to meeting participants. All members issuing letters of intent were engaged as a planning partner throughout this process.

2.4 COORDINATION WITH AGENCIES AND OTHER STAKEHOLDERS

Hazard mitigation planning enhances collaboration and support among diverse parties whose interests can be affected by hazard losses. 44 CFR requires that opportunities for involvement in the planning process be provided to neighboring communities, local and regional agencies involved in hazard mitigation, agencies with authority to regulate development, businesses, academia, and other private and nonprofit interests (Section 201(6)(b)(2)). Stakeholders which were identified and invited to participate in this effort include:

- County stakeholders included Board of County Commissioners, emergency managers, the floodplain coordinator, the Community Development Director, the GIS Department, the Public Administrator, Search and Rescue, the Local Emergency Planning Committee (LEPC), the Health Department, 911 dispatch, and the Sheriff's Office. Their participation included providing data, attending public meetings, utilizing their established meetings as a venue to discuss the mitigation planning process, and reviewing the draft hazard mitigation plan.
- Stakeholders from throughout the County were invited, as well as members of the Skokomish and Squaxin Tribes. Invitations were also distributed to members of various other county departments, police and fire chiefs, representatives from the local PUDs, hospital, and port districts, Red Cross, and others. When engaged, their participation included providing data, meeting attendance, and review of the draft hazard mitigation plan.
- Washington State stakeholders included representatives from the Department of Natural Resources, Department of Ecology, Department of Corrections, and Department of Transportation, and the State Hazard Mitigation Grant Program Officer, among others. Their participation included providing data, attending meetings, grant coordination and oversight, and reviewing the draft hazard mitigation plan.
- Federal agency stakeholders and information included the FEMA Region X, National Weather Service (NWS), U.S. Army Corps of Engineers, U.S. Geologic Survey, U.S. Forest Service, and U.S. Fish and Wildlife Service. These agencies provided information on plan development, invited to public meetings, and were invited to review the draft hazard mitigation plan.
- Non-government stakeholders included the American Red Cross and the Chamber of Commerce, among others.

The County's Emergency Management email distribution list was utilized, which reaches in excess of 100 individuals from various departments and organizations throughout the region, including the LEPC. The County elected to utilize the LEPC due to its reach to many different

disciplines supporting emergency management, and on which the County or the entity relies during disaster incidents. Many of these entities provided information for plan development, attended the public meetings, and/or reviewed the draft hazard mitigation plan update.

Table 2-1 lists planning team members involved in the update. Each of the entities which completed an annex also established internal planning teams. Those team members are referenced in their respective annex documents.

Table 2-2 identifies the various stakeholders who were contacted and asked to participate in the plan update. In some instances, while requested to participate, not all did. The list also identifies agencies from which data was captured. Those that participated are highlighted in gray. Many of the individuals in Table 2-2 are LEPC members and during the LEPC meetings, received notices, plan briefings, information on the hazard mitigation planning process, and the risk assessment findings, as well as a request to take the County's survey. Most were invited to participate in the various plan reviews as indicated. In some instances, the stakeholders were also invited to prepare an annex template, as identified. All LEPC meetings are regularly advertised and open to the public, and were utilized to ensure information exchange occurred.

Table 2-1 Planning Team Membership and Tasks	
Name and Jurisdiction	Tasks
John Taylor Chair of Planning Team Emergency Management Manager Mason County Division of Emergency Management	Meeting attendance; provided briefings to council members and department heads on process and events occurring; provided information on historic county information; assisted with development of planning team; conducted plan reviews at various stages; assisted with grant monitoring oversight.
Tammi Wright Project Manager and Emergency Management Coordinator Mason County Division of Emergency Management	Project manager for event; led effort for county. Assisted with data capture from various departments; assisted with planning team development; coordinated Letters of Intent, grant application, grant monitoring and submissions; prepared quarterly reports; provided data and information as needed; coordinated and attended meetings with various departments for information gathering; conducted plan review at various stages; led strategy update from 2018 strategies; conducted department level outreach for 2023 strategy development; assisted with public outreach efforts, posting on FB, website, email distributions, posting of maps at Public Works, assimilation of outreach data for presentation to public; attended all meetings and completed all reviews; conducted briefings to public officials and department heads.
Robert Burbridge Exercise and Training Coordinator Mason County Division of Emergency Management	Attendance at all planning team meetings; provided input and information into the county; assisted with identification of planning team members; led public outreach efforts to several community groups throughout the process, including announcing project at the beginning of the process, distribution of survey (hard copies and flyers with QR and survey link), provided risk information at various meetings; facilitated the capturing data and comments as appropriate at those meetings for planning team members' review, announced availability of risk assessment data at public meetings

Table 2-1 Planning Team Membership and Tasks	
Name and Jurisdiction	Tasks
	providing website information and providing hard copy for citizens' review; completed review of the various drafts of the plan.
Richard Diaz, Senior GIS Coordinator Mason County Planning rdiaz@masoncountywa.gov 360.427.9670 ext. 526	Provided GIS layers at various stages; provided hazard data as available; provided land use information; assisted with the distribution of maps and information for the risk assessment.
Kell Rowen, Director Community Development KRowen@masoncountywa.gov O: (360) 427-9670 ext. 286 C: (360) 463-3035	Attended meetings with planning team members; provided information on available risk data; assisted with review of land use authority in county and application and association of the mitigation plan into those planning mechanism; provided general information and overview/insight; provided building count data, permitting data, buildable lands data, serves as County Director in update of the County's land use plan to ensure coordination of data between both plans. Conducted reviews of draft and final plans.
Loretta Swanson Director, Mason County Public Works	Assisted with updating of data in plan with respect to impact and mitigation efforts completed since last plan; provided assistance with strategy development; provided information on additional mitigation projects completed since the 2018 plan was completed, and conducted plan reviews at various stages.
Richard Dickinson, Deputy Director, Mason County Public Works	Assisted with updating of data in plan with respect to impact and mitigation efforts completed since last plan; provided assistance with strategy development; conducted plan reviews at various stages.
Mike Collins, PE Mason County Public Works	Assisted with updating of data in plan with respect to impact and mitigation efforts completed since last plan; provided assistance with strategy development; conducted plan reviews at various stages.
Mason County Public Health Dave Windom, Director Jacob Ritter, PH Epidemiologist	Members of LEPC. Attended meetings, receiving information on planning process; risk assessment, and draft plan. Invited to participate in plan update by providing relevant information. Invited to review risk assessment and draft plans.
Chief Greg Yates Central Mason Fire & EMS	Served as Planning Partner Lead for Central Mason Fire & EMS. Attended meetings; provided input and information into overall plan; completed annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; assisted with presentation of plan prior to adoption.
Jeff Snyder (Alternate) Central Mason Fire & EMS	Served as Planning Partner Alternate Lead for Central Mason Fire & EMS and as planning team member for Central Mason. Attended meetings; provided input and information into overall plan; assisted with completion of annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; assisted with presentation of plan prior to adoption.
KC Whitehouse (Alternate) Central Mason Fire & EMS	Served as Planning Partner Alternate Lead for Central Mason Fire & EMS and as planning team member for Central Mason. Attended meetings; heavily involved in providing input and information into overall plan; provided historic wildfire data for county; assisted with completion of annex template; conducted risk assessment review

Table 2-1 Planning Team Membership and Tasks	
Name and Jurisdiction	Tasks
	and hazard ranking; conducted various reviews of plan as completed; assisted with presentation of plan prior to adoption.
Chief Carole Beason (Police Chief and Emergency Manager) City of Shelton	Served as Planning Partner Lead for the City of Shelton. Attended meetings; provided input and information into overall plan; completed annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; provided presentations during planning process to during City Council Meetings; led presentation of Draft plan prior to adoption.
Capt. Chris Kostad (Police) (Alternate) City of Shelton	Served as Planning Partner Alternate Lead for the City of Shelton and planning team member for the City. Attended meetings in Chief's place; provided input and information into overall plan; assisted with completion of annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed.
Kristin Masteller, General Manager PUD No. 1	Served as Planning Partner Lead for the PUD 1; Attended meetings and led internal planning group for PUD; provided input and information into overall plan, including historic data on power outages; facilitated the updating of the critical facilities list for the PUD (significant enhancement); led completion of PUD's annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; provided presentations during planning process during Board Meetings; led presentation of Draft plan prior to adoption; facilitated posting of data and information on FB and on PUD's website.
James Reyes, Engineering Manager PUD 1	Served as alternate point of contact for all phases of plan development. Provided general information; conducted review of plan at various stages.
Katie Arnold, District Treasurer and Director of Business Services, PUD 1	Served as planning team member for PUD 1; assisted with data capture for base plan regarding power outages and impact/loss data; conducted review of draft plan and annex template; assisted with completion of risk assessment process; coordinated distribution of public information on PUD's FB and website.
Ali Burgess, PUD 3, Safety & Environmental Programs Coordinator	Served as Planning Partner Lead for the PUD 3; Attended meetings and led internal planning group for PUD 3; provided input and information into overall plan; facilitated the updating of the critical facilities list for the PUD; led completion of PUD's annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; provided presentations during planning process during Board Meetings; led presentation of Draft plan prior to adoption; facilitated posting of data and information on FB and on PUD's website.
Barbara Adkins PUD 3, Grant Writer	Provided input and information to overall plan for PUD 3; attended meetings; assisted with update to critical facilities list; assisted with risk assessment and hazard ranking; conducted various reviews during plan completion.
Chris Miller, PUD 3 Operations Manager	Provided information on mutual aid, safety measures and regional prioritization of actions.

Table 2-1 Planning Team Membership and Tasks	
Name and Jurisdiction	Tasks
Lynn Eaton PUD 3, Communications & Government Relations Manager	Provided input and information to overall plan for PUD 3; attended meetings; assisted with update to critical facilities list; assisted with risk assessment and hazard ranking; conducted various reviews during plan completion.
Stephanie Schuffenhauer PUD 3, Business Analyst	Provided input and information to overall plan for PUD 3; attended meetings; assisted with update to critical facilities list; assisted with risk assessment and hazard ranking; conducted various reviews during plan completion.
Chief Matthew Welander West Mason Fire	Served as Planning Partner Lead for West Mason Fire. Attended meetings; provided input and information into overall plan; completed annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; assisted with presentation of plan prior to adoption. Assisted other fire agencies during annex development, providing examples of the type of data needed as well as sources to capture data.
Greg Seals (Alternate) West Mason Fire (Fire District #16)	Served as Planning Partner Alternate for West Mason Fire. Attended meetings as available; provided input and information into overall plan; assisted with completion of annex template; reviewed risk assessment and hazard ranking data; conducted various reviews of plan as completed
Chief Gregory Rudolph Mason County Fire District #4	As a new planning partner to the 2023 Update, Chief Rudolph served as Planning Partner Lead for Mason County Fire District #4. Attended meetings; provided input and information into overall plan; completed annex template; conducted risk assessment review and hazard ranking; conducted various reviews of plan as completed; assisted with presentation of plan prior to adoption.
Beverly O'Dea, Consultant/Lead Planner Bridgeview Consulting, LLC bevodea@bridgeviewconsulting.org (253) 301-1330	Project Manager and Author of Plan. Facilitated all meetings; captured data and information for all elements of the plan; prepared public review data for presentation of risk assessment findings; prepared drafts of plan for citizen review; completed survey analysis, etc.
Cathy Walker, GIS Analyst Bridgeview Consulting, LLC (253) 301-1330	Conducted GIS and Hazus functions; captured data necessary to conduct risk assessment; developed maps and updated CIKR list with hazard impact data.

Table 2-2 Stakeholders and Areas of Participation		
Stakeholders	Name	Data/Information Provided or Invited to Participate
US Forest Service		Wildfire Data LandFire Data
FEMA Region X	Ted Perkins Josha Crowley, PE Starr II – Region 10 Service Center Marshall Rivers FEMA Risk Analyst	Flood hazard information Risk Report FEMA Risk Report Data and Depth Grid Data (Sea Level Rise) Floodplain Specialist
Hannah Cleverly Nick Falley	Grays Harbor County Emergency Management	THLS Region 3 Planning Team Member – received updates and notice of various drafts for review. No comments received with respect to the HMP.
Brandon Cheney (partial) Sarah Spearman	Thurston County Emergency Management	THLS Region 3 Planning Team Member – received updates and notice of various draft reviews. No comments received.
Comcast	Gabriella Corchado	LEPC Planning Team Member; attended meetings and briefings re: HMP update, risk data, and draft reviews.
I-Fiber One (Broadcast Media)	Jeff Chew	LEPC Planning Team Member; received notices of availability of risk data and availability of draft plans for review.
WSP	Benjamin Lewis	LEPC Planning Team Member; received notices of availability of risk data and draft plans.
DiVita	Kidus Legesse	LEPC Planning Team Member; received notices of availability of risk data and availability of draft plans for review.
Red Cross	Larry Smith	LEPC Planning Team Member; received notices of availability of risk data and draft plans.
WA DNR	Ana Barros DNR Dispatcher	Landslide and Tsunami Data Wildfire Data Wildfire History
WA DOE	Diane Fowler, Community Right to Know Coordinator	Reporting Hazmat sites in Mason County

**Table 2-2
Stakeholders and Areas of Participation**

	Jerry Franklin, RiskMap Coordinator	Provided Risk Map and Flood data
WA DOT	Lit Dudley, Emergency Manager	LEPC Planning Team Member; received notices of availability of risk data and draft plans; Data for landslide hazard reduction and roadway projects.
WA DOC	Various	LEPC Planning Team Member; received notices of availability of risk data and draft plans.
NGLEP	Adrian Anderson	Energy Partner – Natural Gas Liquids
ESD #113	Dan Beaudoin (ESD #113) Dana Rosenbauch (North Mason School) John Holbrook (Shelton School District) Matt Lowery Mary M. Knight School	Invited to develop annex for each school district; LEPC Planning Team Members; received notices of availability of risk data and draft plans.
Economic Development Council of Mason County	Karin Leaf, Business Development Manager	LEPC Planning Team Member; Information on County's economic development
WA EMD	Kevin Zerbie, HM Strategist Tim Cook, SHMO	NFIP Data; Plan Review, Grant Guidance/Coordination
Skokomish Tribe	Jackie Smith	LEPC Planning Team Member
Squaxin Tribe	Kelly Guy Emergency Manager	LEPC Planning Team Member; invited to participate in plan update (developing Tribal annex); attended meetings for plan update; received risk data; received notice of plan review.
Lewis / Mason/ Thurston Area Agency on Aging (WA DSHS)	Lisa Jolly	LEPC Planning Team Member;
WA DSHS	Jemma Williamson	LEPC Planning Team Member; received notices of availability of risk data and availability of draft plans for review.
North West Health Care Response Network	Maria Pede	LEPC Planning Team Member; received briefings on plan status and update; requested to review and comment on plan
Mason General Hospital	Kim Cooper, RN, Infection Prevention	Invited to develop annex; LEPC Planning Team Member;

Table 2-2 Stakeholders and Areas of Participation		
	Sabrina Nelson, RN, Supervisor, Trauma and Emergency	received information on plan update; request to review and comment on plan
USGS		Earthquake Data

2.5 REVIEW OF PLANS AND STUDIES

44 CFR states that hazard mitigation planning must include review and incorporation as appropriate of existing plans, studies, reports, and technical information (Section 201.6.b(3)). Laws and ordinances in effect in the planning area that can affect hazard mitigation initiatives are reviewed in Chapter 13. The list of references at the end of this volume presents sources used to capture information necessary to complete this planning effort. Plans, studies, and reports used for this process include, but are not limited to:

- Mason County Hazard Mitigation Plan (2018)
- Mason County Comprehensive Emergency Management Plan (CEMP) (2022)
- Mason County Comprehensive Land Use Management Plan (1996, 2005, 2017, 2022)
- Mason County Shoreline Management Plan (2021)
- Mason County Emergency Action Plan for North Bay/Case Inlet Water Reclamation Facility Dam (2023)
- Mason County Emergency Action Plan for Belfair Water Reclamation Facility Dam (2023)
- Regional Catastrophic Plan
- Flood Insurance Study; Mason County and Incorporated Areas (2017, 2019)
- WRIA 14 Kennedy-Goldsborough Watershed Focus Sheet (2016)
- WRIA 14 Kennedy-Goldsborough Watershed Plan (2006)
- WRIA 14 Kennedy-Goldsborough Watershed Restoration and Enhancement (2022)
- WRIA 16 Skokomish-Dosewallips Fact Sheet (2012)
- WRIA 16 Watershed Management Plan (2006)
- Washington State Enhanced Hazard Mitigation Plan (2010, 2013, 2018)
- Washington Department of Natural Resources (WDNR) Landslide Reports (various)
- Coastal erosion data (various)
- Climate change data (various)
- Washington Department of Ecology Coastal Zone Atlas
- Washington State Department of Ecology Drought Studies/Data (various)
- Washington Department of Ecology Hazardous Materials Annual Report for Mason County (2018, 2022)

- FEMA Region X Risk Report (2017 – most recent).

Data obtained from the plan and regulation review was incorporated into various sections of the hazard mitigation plan. The risk analysis beginning in Chapter 4 through Chapter 11 (hazard ranking) refer to plans and ordinances that affect the management of each hazard. Section 14.2 describes how mitigation can be implemented through existing programs. An assessment of all planning partners' regulatory, technical, and financial capabilities to implement hazard mitigation initiatives is presented in the jurisdiction-specific annexes in Volume 2 and in Chapter 13. Many of these relevant plans, studies and regulations are cited in the capability assessment.

2.6 PUBLIC INVOLVEMENT

Broad public participation in the planning process helps ensure that diverse points of view about the planning area's needs are considered and addressed. The public must have opportunities to comment on disaster mitigation plans during the drafting stages and prior to plan approval (44 CFR Section 201.6(b), 201.6(c)(1)(i) and 201.6(c)(1)(ii)).

The Planning Partners did conduct extensive outreach using different methods to increase engagement. This included utilizing existing meetings to gain greater involvement, holding web-based meetings, utilize websites and social media, and scheduling conference calls that allowed participation by agencies and individuals. Interviews with individuals and specialists from outside organizations identified common concerns related to natural and manmade hazards, and key long- and short-term activities to reduce risk. Interviews included public safety personnel, planning department personnel, natural resources personnel, cultural resource personnel, and representatives from other government agencies from surrounding jurisdictions. The public outreach strategy for involving the public in this plan emphasized the following elements:

- Include members of the public on the planning team.
- Use a questionnaire to determine general perceptions of risk and support for hazard mitigation and to solicit direction on alternatives. The questionnaire was available to anyone wishing to respond via the website and was distributed by hard copy for those without computer access. Distribution of the email included employee lists, agency distribution lists, and notices through social media and website platforms maintained by various planning partners.
- The County provided a news release to local papers and identified the survey on the hazard mitigation website (published December 15, 2022 in the Mason County Journal). Several Planning Team Members throughout the County also posted the link to the survey and press release on their various Facebook and Twitter accounts (PUDs 1 and 3).
- Attempt to reach as many citizens as possible using multiple formats. This is important because of the somewhat geographically remote areas in the county.
- Identify and involve planning area stakeholders.
- Include safety fairs from the various planning partners and utilize existing email distribution lists to announce planning milestones.

Some of the outreach sessions and planning milestones are identified in Table 2-3. This list is not all-inclusive, but rather demonstrative of the various efforts of the planning team.

2.6.1 News Releases

A news release was published on December 15, 2022 to draw attention to the County's update process and the survey (see Figure 2-1). The County published a separate news release concerning an invitation to the general public to learn about emergency management as a whole, including presentation of risk data and hazard maps. When the draft plan was available for public review, notice was published in an effort to draw in as many comments as possible.

2.6.2 Internet

At the beginning of the plan development process, a website was created to keep the public posted on plan development milestones and to solicit input. The plan was provided via a file-transfer site, which allowed for the plan downloading for review. The County intends to keep a website active after the plan's completion to keep the public informed about successful mitigation projects and future plan updates.

The County's website address was publicized in all press releases, mailings, questionnaires, and public meetings. Information on the plan development process, the planning team, the questionnaire, and phased drafts of the plan was made available to the public on the site throughout the process. Hazard maps were published on this site, and were available for download. The County also utilized its Facebook page to distribute information.

Review of Census data indicates that of the population within Mason County, 93% owned a computer, with approximately 90% having broadband internet subscriptions, making the use of the computer and internet a viable option for public outreach.

2.6.3 Plan Development Milestones

Several public meetings and events which were open to the public were held during this effort. All planning meetings were also open to the public, and citizens did attend, providing information and input. The Planning Team also utilized its local LEPC as a planning resource. Once completed, the hazard maps were presented and made available for review at meetings, posted in public buildings, made available via the County's webpage, and posted on the County's Emergency Management Facebook page, which has in excess of 7,7000 followers. Email notifications and press releases were distributed at various stages announcing the availability of the information, as well as distributed via various social media tools. Each citizen attending meetings or outreach efforts were also asked to complete a questionnaire, and each was given an opportunity to provide written comments to Planning Team members.

The risk maps were also posted to the County's website beginning April 20, 2023, with blast email distributions made to over 400 county residents and employees, as well as on Facebook. Figure 2-2 is an illustration of the County's Hazard Mitigation Website on which the risk maps were posted for viewing by citizens once they were completed. The county intends to maintain the maps on its

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COUNTY BRIEFS

County to update hazard mitigation plan

Mason County is in the planning process to prepare for effects of natural disasters as required by the federal mandate in the Disaster Mitigation Act of 2000 and will update its 2018 Hazard Mitigation Plan to enhance resilience throughout the county.

According to a news release, the planning process is led by Mason County's Division of Emergency Management Project Manager and Emergency Management Coordinator Tammi Wright, who will have support from Bridgeview Consulting's Beverly O'Dea. The project is funded by a planning grant from FEMA and the planning process will take seven to nine months to complete.

During the process, residents will be asked to share knowledge of the areas vulnerability to hazards based on past occurrences. The public can get involved through public meetings, web-based information, questionnaires, maps and updates on the plan's progress through a website. Notice of date, time and locations of meeting will be posted on the county's website.

The website for the plan is at tinyurl.com/3cb548m. This website will be the best way for the public to gain information on the plan and ways to participate in the planning process. The public is highly encouraged to provide comments on all phases of the plan's development.

Questions or comments can be directed to Wright at TammiW@masoncountywa.gov or to O'Dea at bevedea@bridgeviewconsulting.org.

Figure 2-1 December 2022 Press Release – Mason County Journal

website once this planning process is completed. Figure 2-3 illustrates the initial Facebook posting by the County, while Figure 2-4 illustrates the same for PUD 1. Figure 2-5 announced the availability of the updated risk maps and hazard profiles, and illustrates over 7,700 followers on the site.

Draft Plan Review

Once the draft plan was completed, the public was invited to provide comments on the hazard mitigation plan. The final public review period began May 15, 2023 lasting through May 30, 2023. The County and its planning partners completed the following outreach activities:

- During the May 20, 2023 Commissioner’s Meeting, Emergency Management Director John Taylor provided a briefing on the plan status and information on the plan. He further announced that the draft plan was available for review, and citizens were asked to review the draft plan and provide comments (email addresses and phone numbers provided for points of contact for any comments). The meetings are also recorded for later viewing. No public comments were received (beyond acknowledgement and thanks for project completion).
- A News Release was issued by the County to customary local media sources, announcing the plans’ availability. The News Release was also posted at County facilities. All of the planning partners also posted the News Release on their respective websites. LEPC distribution list was utilized announcing plan availability on two separate occasions, which includes all stakeholders invited to participate, as well as local citizens in the area.
- The draft plan was posted on the project website and stakeholders were notified through press releases and e-mail messages of its availability, including Twitter and Facebook (reaching several thousand citizens).
- All entities completing an annex template made presentations at their various councils, boards and/or commissioners’ meetings (which are all open to the public), providing notification of the plan’s availability for review.
- Each planning partner held their own final public meeting, at which the plan was presented to their commission or council and the approving authority adopting the plan.

Once the review period closed, final comments and edits were addressed, and the plan was submitted to FEMA for review. Once pre-adoption approval was received from FEMA, the plan was provided to the Mason County Board of County Commissioners (BOCC) and the incorporated communities for adoption. After adoption, final copies of the plan were submitted to the Washington State Department of Emergency Management and FEMA. Appendix B includes the final FEMA approval letter for all planning partners submitting adoption resolutions.

The final plan will remain on the County's website over the next five years. Future comments on the plan should be addressed to:

Tammi Wright
Mason County Division of Emergency Management Division
100 West Public Works Drive
Shelton, WA 98584
Office: 360-427-9670 Extension 800

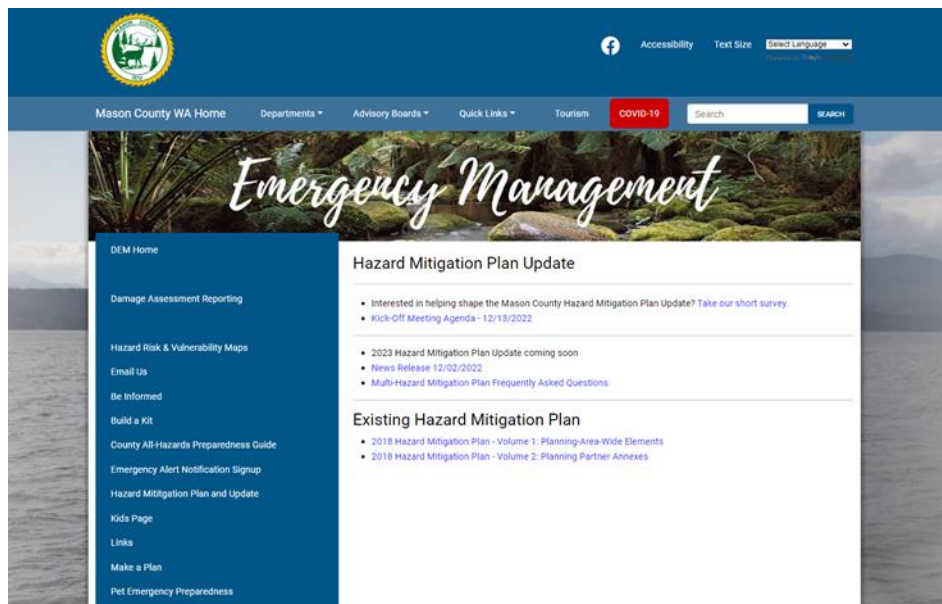


Figure 2-2 Website

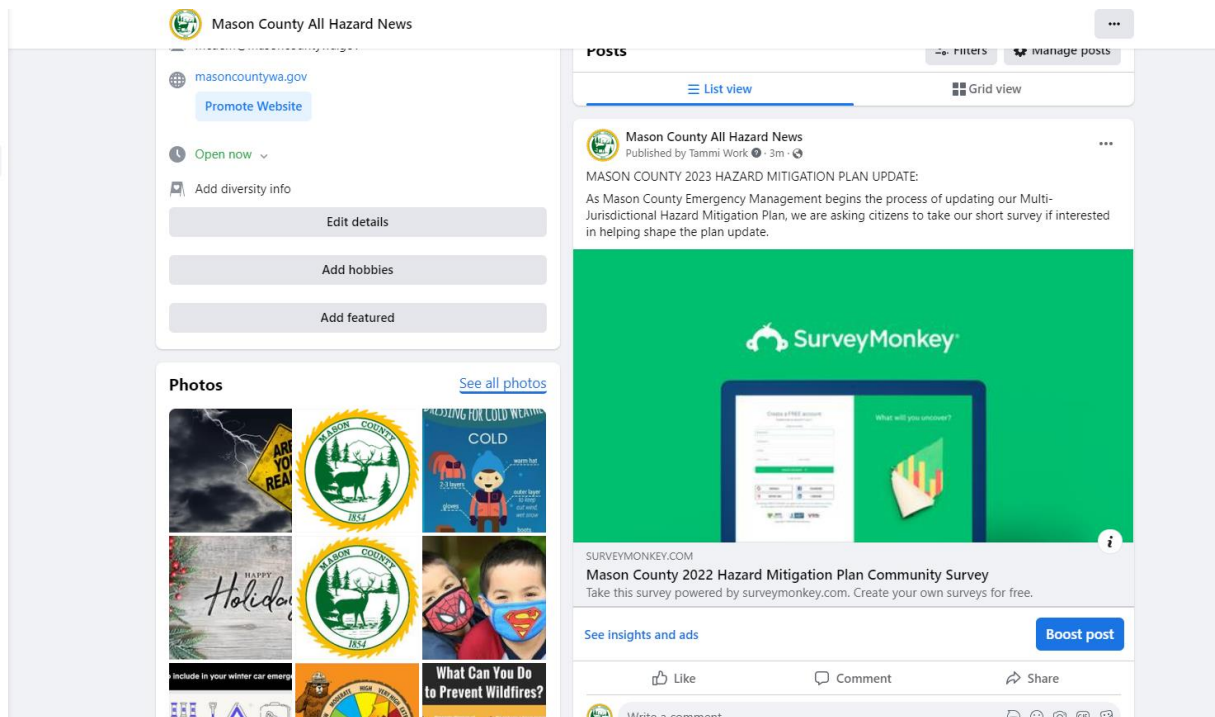


Figure 2-3 Facebook Post of the County's Risk Assessment and Mitigation Planning Process

Mason County PUD No. 1
 Page · Public Utility Company
 21971 N US Highway 101, Shelton, WA, United States.
 Washington
 +1 360-877-5249
 customerservice@mason-pud1.org
 mason-pud1.org
 Promote Website
 Open now
 Rating - 4.4 (85 Reviews)
 Add diversity info
 Edit details
 Add hobbies
 Add featured

Mason County PUD No. 1
 Just now ·
 PUD 1 is working with our partners at Mason County and other public sector agencies to update our Mason County Hazard Mitigation Plan for FEMA. This is the process we use to get grant funding to rebuild critical parts of our power and water infrastructure. [FEMA Federal Emergency Management Agency](#) has been a great partner to our utility! If you have 2 minutes, please take the short survey. https://www.surveymonkey.com/.../Mason_County_2022_Hazard...

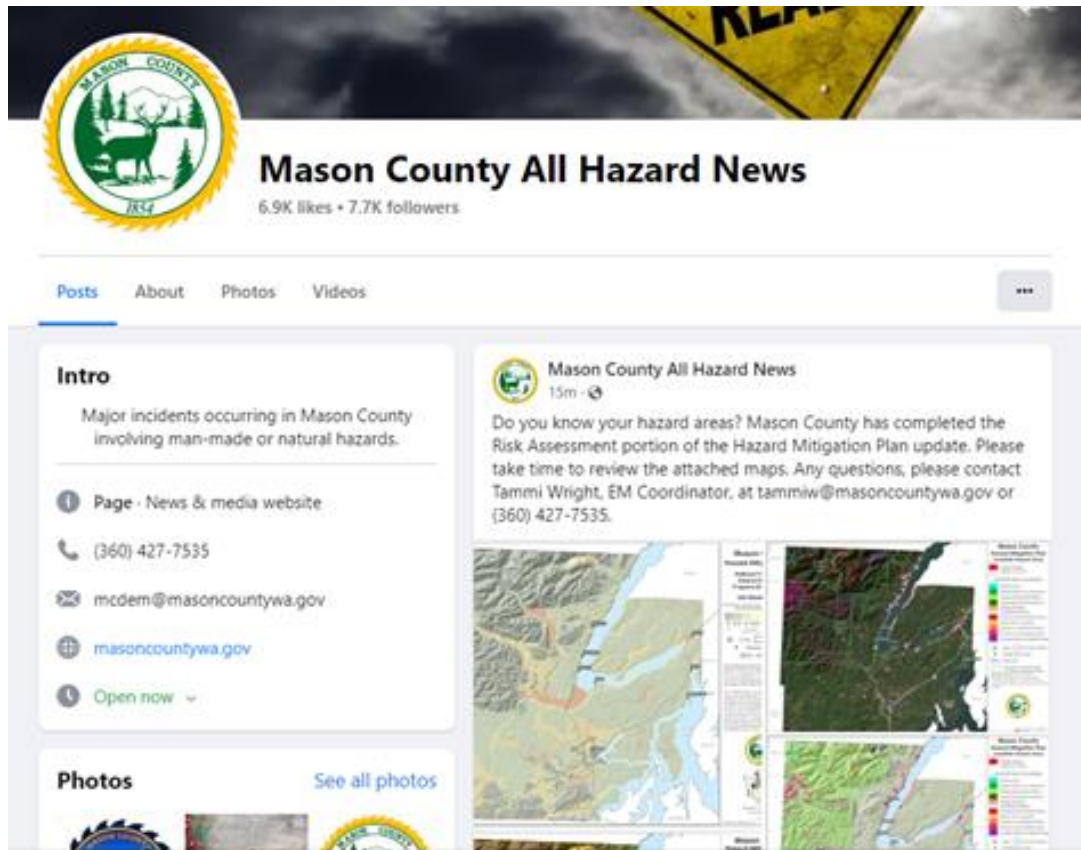
**Mason County
Hazard Mitigation Plan Update**

Interested in helping shape the Mason County Hazard Mitigation Plan Update?
 Take our short survey by either scanning the QR code on your phone, or visit
https://www.surveymonkey.com/.../Mason_County_2022_Hazard_Mitigation_Plan_Survey

Prepared by:
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Bevadea@bridgeviewconsulting.org

Photos See all photos

Figure 2-4 Mason County PUD No. 1 Facebook Notification



Connect with Mason County All Hazard News on Facebook

Figure 2-5 FB Posting Announcing Updated Risk Maps Available for Review

Table 2-3 Plan Milestones and Public Outreach Events		
Date	Jurisdiction	Description
2022		
Jan	County	County received notice of grant award, and began solicitation for vendor.
March - November	Countywide	Countywide planning meetings (e.g., LEPC) utilized to invite participation in the planning process. These planning meetings are open to the public.
Sept – Oct	County	County initiated consultant procurement through an open solicitation. Several responses and inquiries were received from vendors nationwide. Letters of Qualifications submitted by vendors were reviewed, screened, and rated.
October	County	Commissioner Presentation was made identifying the Hazard Mitigation Project; vendor selection was identified and the Commissioners approved execution of contract with consultant

**Table 2-3
Plan Milestones and Public Outreach Events**

Date	Jurisdiction	Description
November	Countywide	Begin formation of the planning team; core project management team identified to lead effort from various county departments; Consultant begins review of various documentation and assimilating data, reports, studies, etc.
December	Countywide	Press release announcing the up-coming project, published in local newspaper.
December	Countywide	Hazard mitigation plan website established; frequently asked questions posted; Press Release posted.
December 13	Countywide	Kick-off meeting held, including planning partners, volunteers, and citizens. Kick-Off Meeting audio recording posted and available
December	Countywide	Press Release Published in Mason County Journal (December 15, 2022)
2023		
January	Countywide	Survey deployed
January	FD#4	Flyer for survey was posted throughout the district's stations, as well as on their social media platform.
January 4, 18	CMFE	Battalion Chief Whitehouse provided a briefing during the Commissioner's meeting (publicly open and advertised meeting), during which he announced the kick-off of HMP project, providing an overview of the process and hazards to be addressed in the plan. During the meeting, BC Whitehouse also provided information concerning the available HM survey, providing the link and QR code, which was made available throughout the process.
January Meeting (MC Planning Team / LEPC)	Countywide	Discussions and presentation on status of project to Mason County Planning Team / LEPC meeting, included representatives from various local communities, including the NW Health Care Coalition, WDOE Spill Response, the Shelton School District and Shelton School District Security personnel, several County Commissioners, and various other agencies and departments. A full list of participants is available from Mason County DEM.
January	Countywide	Continued update of critical facilities list by planning team members.
January 10	PUD 3	During the regularly scheduled Commissioners Meeting attended by citizens which are held twice monthly, PUD 3 planning team members provided information on the planning process, identifying the hazards of concern and potential impact, and began identifying an update on the previous strategies. The 2023 Annual Report data was determined to be an acceptable source of information with respect to growth within the service area, and providing asset valuation data, being the most recent report developed.
January 11, 19	County	Emergency Management made a presentation at the Kristmas Town Kiwanis Club, discussing the hazard mitigation planning process and the effects of disasters that occur with the younger populations. Public presentation at Alderbrook discussing hazards of concern, mitigation plan update process, availability of survey, and CERT training.

**Table 2-3
Plan Milestones and Public Outreach Events**

Date	Jurisdiction	Description
January 18	PUD Service Area	Posted on Facebook PUD's involvement in mitigation planning effort; provided link to survey
February 1	CMFE	Battalion Chief Whitehouse provided an overview of the HMP project during the Commissioner's Meeting, which is regularly held and advertised and open to the public. Information exchange included identifying the hazards of concern and preliminary risk data, as well as inviting public participation and comments from citizens attending the meeting.
February 16	County Planning Team Staff	Made presentation at the Pioneer School Community Dinner concerning the hazards of concern, the planning process in general, introduced the concept of strategies, and invited participants to take the HMP survey.
March	County Planning Staff	Various meetings for data capture.
April 17	County Planning Team Meeting	Risk ranking exercise completed and confirmed for county; strategy/action items reviewed and discussed; incorporation of risk data into other planning mechanisms discussed (e.g., land use, CEMP, evacuation plans, etc.)
April 19	Planning Team Meeting	Planning Team Meeting (general emergency management planning team) discussed plan status and review of hazard profiles.
April 20	Countywide	Risk Maps were made available via the County's website, as well as posted throughout the lobby of the County's Public Works Building, in which permitting and the County's Planning Department exist. An email announcing the availability of maps for review and viewing was also distributed to over 400 individuals.
April 22	Countywide	Presentation of hazard information via notebooks and maps available at public opening of Mason County Dog Park was conducted by DEM's public outreach coordinator. Available data also included printed version of the risk ranking process, hazard maps, and hard copies of the hazard profiles. No comments were received.
April 25	PUD 1	During the regularly, advertised Board meeting, planning team members presented information on the hazard risks, including identification of structures at risk based on structure analysis. While that specific data was not made public (privileged), the maps were presented, and attendees were asked to provide any comments. The PUD also distributed links via social media re: the County's website and the availability of the survey.
May 2	CMFE	During the regularly held Commissioner's, planning team members presented information on the hazards identified during this process, and the associated risks. Attendees were asked to provide any comments. CMFE also distributed links via social media re: the County's website and the availability of the survey and additional outreach and hazard data.

**Table 2-3
Plan Milestones and Public Outreach Events**

Date	Jurisdiction	Description
May 9	City of Shelton Council Meeting	Planning team members presented an update to the planning process during the (recorded) City Council Meeting, inviting citizens to take the survey and review hazard maps posted in council chambers. Attendees were also directed to the County's mitigation planning website for additional information; also advised attendees that the draft plan will be available for review on the County's website within two weeks.
May 9	PUD 3	Planning meeting with all planning team members to review and finalize draft of Annex. Draft plan posted on PUD's website; Facebook announcement distributed to subscribed members in PUDs service area.
Various Dates	Countywide	Planning Team and one-on-one meetings with all planners from all disciplines were presented with an update on the HMP, provided another overview of the risk maps, and provided the hazard ranking as defined by the County and planning partners. The strategies were also again identified and discussed with the intent of seeking additional input and data. Team members were asked to further disseminate information concerning the risk assessment and the availability of risk maps on the County's website, as well as posted within county facilities. Strategy development Cheat Sheets and FEMA's Mitigation Ideas handbooks were distributed for discussion and review to help identify potential strategies.
May 9	PUD 3	PUD 3 made presentations to their respective Board concerning the HMP process, annex development, and risk associated with the hazards of concern. Specific critical facilities information is available to the Board Members via the 2023 Annual Report, but due to the nature of the structures (critical infrastructure) the list itself was not made public. It was determined that the PUD will post availability of the draft plan via posting to website and Facebook, and email notification to its staff and service providers of its availability, with additional announcements occurring at its next regularly scheduled meeting on May 23 rd .
May 10	Countywide Planning Team	The Planning Team began review of the draft plan prior to public distribution.
May 15	Mason County	Press Release (Mason County Journal) announcing plan availability for review on Website and hard copy available for review at Mason County Emergency Management. Email notification to all County employees, countywide planning team email notice provided (+20 planning team members from outside agencies and jurisdictions), as well as LEPC distribution list. Planning team members distributed press release as well as posting on Facebook and Twitter accounts. Reminder emails also distributed.
May 17	CMFE	Chief Rudolph (FD #4) made presentations on the updated risk assessment at their Commissioners' meetings, as well as announcing that the Draft HMP will be available for review and comment beginning the week of May 15 th . These presentations are in addition to the public outreach at various community events conducted by the County's Public Outreach Coordinator.

**Table 2-3
Plan Milestones and Public Outreach Events**

Date	Jurisdiction	Description
May 20	Countywide	Public Outreach Coordinator Bob Burbridge provided an update on the status of the hazard mitigation plan, providing information on the hazards of concern, and advising citizens of the availability of the draft plan. Handouts of the risk maps and survey link were provided.
May 23	Mason County - Board of County Commissioners Countywide	Plan review before Commissioners; invitation extended to citizens to review existing plan; announcement of website address and that hard a copy is available for review at the office of Mason County Emergency Management. Notice of availability published via newspaper, website, and other social media. No comments received which modified content.
May 31	State Review	Draft plan submitted to Washington State for review
May	FEMA Review	Draft plan submitted to FEMA for review
September	Approved Pending Adoption	FEMA approved the plan, pending adoption by County and all of its Planning Partners
September	Adoption	

Most members of the planning team live or work in the planning area. Planning team participation by individuals with varied backgrounds and from varied organizations added details and information that were valuable in identifying direction for the plan development process.

The County created a new webpage, which hosted a mitigation section, wherein all notices and survey links were posted. During meetings within the planning area or attended elsewhere by planning team members, individuals were directed to the website to gain better insight of the County's endeavors and to solicit input. The planning team identified stakeholders to target through the public involvement strategy. Members of the planning team attending conferences or meetings provided updates to those in attendance, asking for input and review of the plan.

2.7 HAZARD QUESTIONNAIRE RESULTS

A hazard mitigation plan questionnaire developed by the planning team was used to gauge household preparedness for natural hazards and the level of knowledge of tools and techniques for reducing risk and loss from natural hazards. This questionnaire was designed to help identify areas vulnerable to one or more natural hazards. The answers to its questions helped guide the planning partners in selecting goals, objectives, and mitigation strategies, as well as helping to identify potential vulnerability with respect to social inequalities as they relate to respondents. Hard copies were disseminated throughout the planning area, and a web-based version was made available on the hazard mitigation plan website which was distributed and announced during meetings. A flyer was also developed and distributed with the website address and a QR code. The flyer was posted in various locations throughout the planning area, and distributed during meetings.

Survey Results

Over 75 questionnaires were completed. Figure 2-6 shows a sample from the web-based questionnaire. Survey responses indicate a close match between respondents' hazards of greatest concern and hazards identified through the Planning Team's risk ranking. Points of interest from the survey results include:

- 44 percent of respondents have experienced an earthquake over the last 20 years; 77 percent have experienced a severe weather event. Severe weather events are the majority of hazards that have impacted the County in the last 20 years. 40 percent of respondents have also experienced a wildland fire.
- 81 percent of respondents have experienced a disaster incident while living in Mason County, while 69 percent indicate that such incident(s) did not impact their ability to utilize their residence due to damages. Of those responding, approximately 49 percent have lived in Mason County for more than 20 years.
- Respondents identified the primary hazards of concern as follows:
 - Earthquake
 - Wildland Fire
 - Severe weather
 - Landslide
 - Flood
 - Climate Change
- Drought, tsunamis, hazardous materials, and volcanic eruption were the hazards of least concern.
- Most respondents identified the hazards to which their residences were at risk (flood, fire, landslide hazard area), with over 67 percent of respondents indicating that the impact of disaster incidents played a role in their decision to purchase their residence. 93 percent of respondents indicate they have homeowners' or renters' insurance.
- When queried about their level of preparedness, 49 percent indicate they are somewhat prepared, while 30 percent indicate they are adequately prepared, and 17 percent well prepared, maintaining a surplus of extra medical supplies, food, water, identifying utility shut-off valves, and having fire escape plans in place.
- Demographic data indicates that 62 percent of respondents were female, with over 47 percent having a college degree, followed by some college and technical trade schooling. 41 percent of respondents indicate they are 61 years or older, followed by 28 percent between the ages of 41-50.
- General comments include positive feedback for the county's and the PUDs' use of social media during times of incidents as television and radio stations seldom provide relevant data; some voiced concern over isolation resulting from impact to major arterials; some comments were received concerning citizens' capacity to take care of themselves without reliance on government. Several citizens provided contact information to provide

assistance and volunteer with emergency management (data was provided to emergency management).

- The internet and social media are the preferred methods for distributing information to citizens in the County, with 84 percent indicating those sources to be their preference in information exchange.
- Over half of respondents indicated that data concerning potential hazards and risk information is readily available..

Figure 2-7 illustrates one of the public outreach events that occurred during the planning process.



Mason County 2022 Hazard Mitigation Plan Community Survey

1. Survey Introduction

A planning partnership comprised of stakeholders from Mason County, its jurisdictions, local Native American Tribes, special purpose districts, private industry, federal, and state governments are working together to develop the Mason County 2023 Multi-Jurisdictional Hazard Mitigation Plan. This plan is developed in response to Federal programs that will enable the County and its participating jurisdictions to use pre- and post-disaster financial assistance to reduce the exposure of residents to risks associated with natural hazards.

In order to identify and plan for future natural disasters, we need your assistance! This questionnaire is designed to help us gather information from local citizens about disaster issues, and to find out from you about areas vulnerable to various types of natural disasters. The information you provide will help us coordinate activities to reduce the risk of injury or property damage in the future.

The survey consists of various questions related to the county, its jurisdictions and residents, and provides an opportunity for any additional comments at the end. The survey should take less than 10 minutes to complete and is anonymous, unless you decide to provide contact information. When you have finished the survey, please click "Done" on the final page.

The Mason County Planning Partnership thanks you for taking the time to participate in this information-gathering process.

Figure 2-6 Introduction to Mason County Survey



Figure 2-7 Pioneer Middle School Public Outreach Event

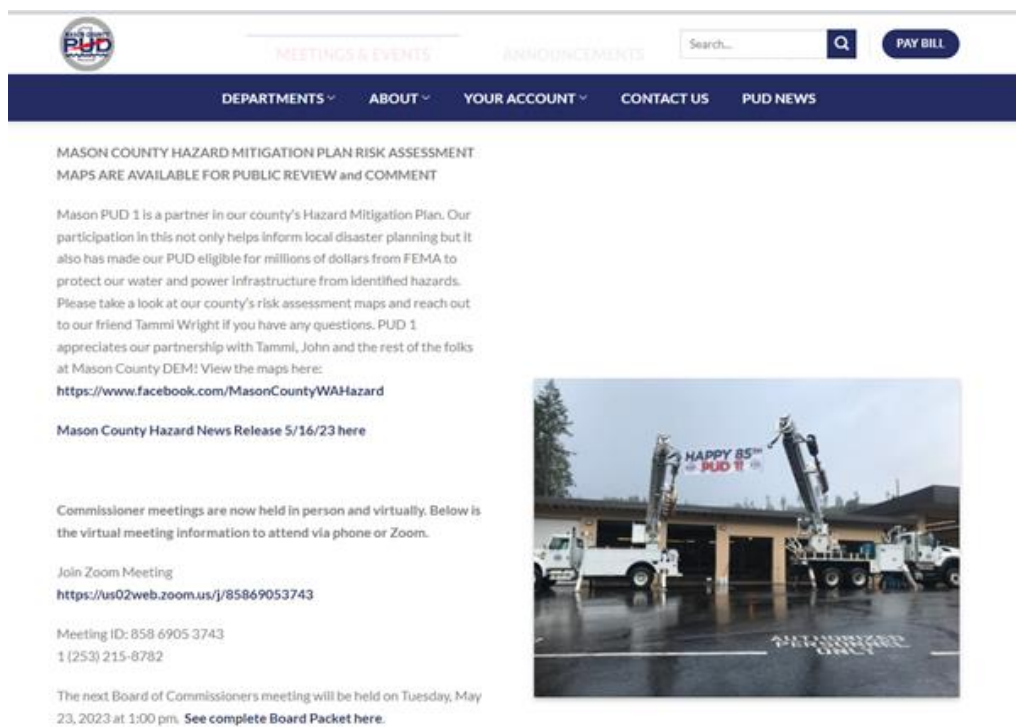


Figure 2-8 PUD 1 Website for Mitigation Activities

CHAPTER 3.

COMMUNITY PROFILE

This section of the hazard mitigation plan presents an overview of Mason County, the communities of Allyn and Belfair, the City of Shelton, and the unincorporated areas of the County. It provides baseline information on the characteristics of the county, the communities, economy and land use patterns, and presents the backdrop for this mitigation planning process.

The planning area for this hazard mitigation plan is defined as all incorporated and unincorporated areas of Mason County. All partners to this plan have jurisdictional authority within their defined planning areas.

3.1 PHYSICAL SETTING

Mason County is comprised of a total land mass of ~972 square miles. The County has ~92 square miles of marine shoreline, nearly 100 freshwater lakes, two major rivers, and a number of smaller tributaries and creeks.

The County is located in western Washington at the southwest end of Puget Sound. It is bordered to the north by Jefferson County, to the west and southwest by Grays Harbor County, and to the southeast by Thurston County. The County's eastern boundary----shared with Kitsap, Pierce, and Thurston Counties----is primarily delineated by the rugged contours of Hood Canal and Case Inlet. The City of Shelton, the only incorporated area in Mason County, includes approximately 4.77 square miles, or less than one percent of the County's total land area. Two Native American Tribes, the Skokomish and the Squaxin Island Tribes, have reservations within the boundaries of Mason County.

Mason's topography was heavily influenced by prehistoric glacial activity. After the ice retreated, the more mountainous areas in the County's interior evolved into dense forest land. This is particularly true in the north County, much of which is incorporated in the Olympic National Forest and Olympic National Park (elevations in this part of the county reach 6,000 feet above sea level). The lower elevations (where they are not forested) consist of fertile, but gravelly, loam. Past glacial activity accounts for nearly 100 lakes that dot the county. The larger of these bodies are Lake Cushman, Mason Lake, Lake Limerick, Isabella Lake, Timber Lake, and Spencer Lake. Hood Canal and Puget Sound account for most of Mason County's 90 square miles of water. Two-thirds of Hood Canal runs through Mason County. Two-to-three miles wide in certain places, Hood Canal enters the county from the north and, in the course of its 30-plus mile stretch, turns northeasterly at the Great Bend to form a lopsided "V." Case Inlet forms the lower half of Mason's eastern boundary. Lying in County waters are two big islands----Harstine and Squaxin----and three smaller ones: Hope, Reach, and Stretch. Of the innumerable inlets that break up the county's shore, two deserve mention: Hammersley Inlet (Shelton's access to Puget Sound) and Little Skookum Inlet (Kamilche's access to Puget Sound).

Three geological provinces combine to form Mason County. They include the Puget Sound Lowland, the Olympic Mountains, and the Black Hills. Additionally, seven watersheds exist within Mason County. They include Case Inlet, Chehalis, Lower Hood Canal, Oakland Bay, Skokomish, Totten-Little Skookum, and West Hood Canal.

The longest and most powerful river in Mason County is the Skokomish. Formed high in the Olympic Mountains, the Skokomish flows southeasterly through Mason County before emptying at the Great Bend of the Hood Canal. One fork of the Skokomish feeds Lake Cushman and the hydroelectric power plant at Potlatch (built and owned by the City of Tacoma). The Skokomish River is the largest source of freshwater to Hood Canal and of critical importance to the overall health of Hood Canal.

Other notable rivers in Mason County are the Satsop and Hamma Hamma. Originating in the south County, the Satsop flows southwesterly to Grays Harbor and the Pacific Ocean. The Hamma Hamma runs east near the County's northern border before flowing into Hood Canal.

Combined national, state, and private forest currently account for ~57 percent of the County's land. Mineral deposits underlie Mason County's top soils, with open space in the County hosting wildlife habitat, undeveloped natural areas, and many developed park and recreation sites.

3.2 CLIMATE

Mason County lies on the southeast side of the Olympic Coastal Range, which influences prevailing wind and precipitation patterns. Mason County's climate can be characterized as moderate-maritime, influenced by the Pacific Ocean, yet sheltered by the Olympic Mountains. Temperatures range from a high of 77° F. in July to 33° F. in January. The average daily temperature in Mason County is 51° F. The County receives an average of 66 inches of precipitation annually, with average monthly rainfalls ranging from a low in July of 0.9 inches, to a high of 10.4 inches in January.

Based on data from USA Facts (2022), temperatures within Mason County have increased 0.2 degrees from May 1900 to April 2022 (see Figure 3-1). The 12-month total precipitation increased 9.9 inches from May 1900 to April 2022. From May 1900 to April 2022, the average 12-month total precipitation was 88.6 inches. The wettest 12-month average was November 1996-October 1997, with a total of 132.5 inches. The driest 12-month average was December 1928-November 1929, with only 49.5 inches (see Figure 3-2). April 2022 had 9 inches of precipitation, which is 4 inches wetter than average when compared to all Aprils since 1985.¹

¹ [Climate in Mason County, Washington | USAFacts](#)

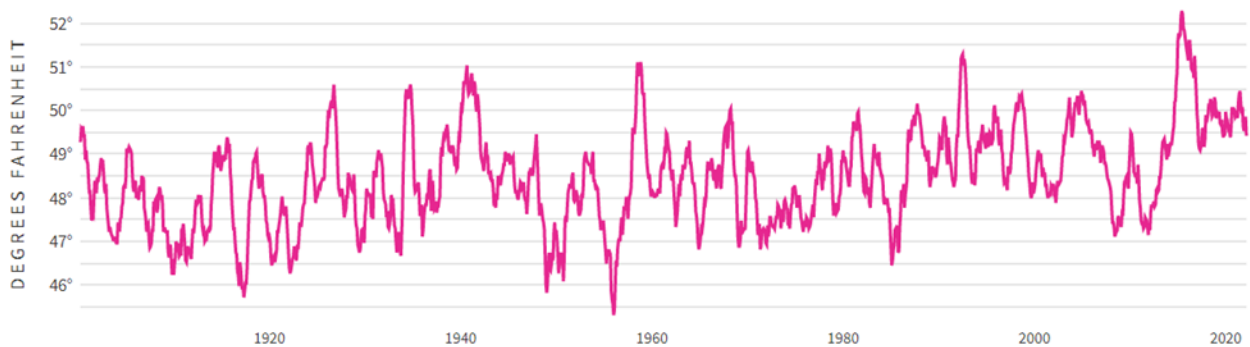


Figure 3-1 Mason County 12-month Average Temperature 1900-2022

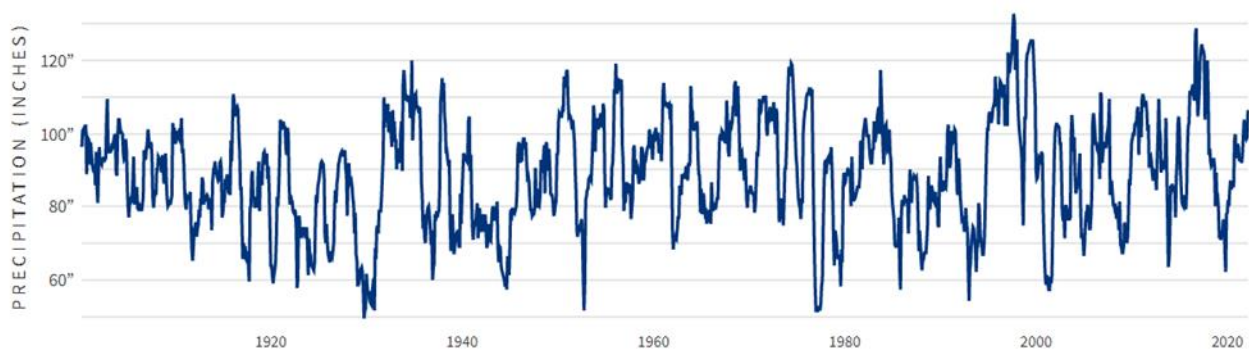


Figure 3-2 Mason County 12-month Precipitation Totals 1900-2022

3.3 MAJOR PAST HAZARD EVENTS

Presidential disaster declarations are typically issued for hazard events that cause more damage than state or local governments can handle without assistance from the federal government, although no specific dollar loss threshold has been established for these declarations. A presidential disaster declaration puts federal recovery programs into motion to help disaster victims, businesses, tribal, and public entities. In some instances, grant funding from disaster declarations are also matched by state programs and funds, for which the County and its planning partners may be eligible. FEMA categorizes disaster declarations as one of three types:

- **Presidential major disaster declaration**—Major disasters are hurricanes, earthquakes, floods, tornados, or major fires that the President determines warrant supplemental federal aid. The event must be clearly more than state or local governments can handle alone. Funding comes from the President’s Disaster Relief Fund, managed by FEMA and disaster aid programs of other participating federal agencies. A presidential major disaster declaration puts into motion long-term federal recovery programs, some

of which are matched by state programs (Hazard Mitigation Grant Program), to help disaster victims (Individual Assistance, National Flood Insurance Program), businesses (Small Business Administration), and public entities (Public Assistance). These are the various types of funding which the County and its planning partners have received most often after disaster events.

- **Emergency declaration**—An emergency declaration is more limited in scope and without the long-term federal recovery programs of a presidential major disaster declaration. Generally, federal assistance and funding are provided to meet a specific emergency need or to help prevent a major disaster from occurring.
- **Fire management assistance declaration** (44 CFR 204.21)—FEMA approves declarations for fire management assistance when a fire constitutes a major disaster, based on the following criteria:
 - Threat to lives and improved property, including threats to critical facilities and critical watershed areas
 - Availability of state and local firefighting resources
 - High fire danger conditions, as indicated by nationally accepted indices such as the National Fire Danger Ratings System
 - Potential major economic impact.

Since 1956, 28 federal disaster declarations have affected Mason County, as listed in Table 3-1 (FEMA, 2023). Review of these events helps identify targets for risk reduction and ways to increase a community's capability to avoid large-scale events in the future.

Unfortunately, many natural hazard events do not trigger federal disaster declaration protocol but have significant impacts on their communities. These events are also important to consider in establishing recurrence intervals for hazards of concern. Table 3-1 identifies additional events which occurred in the planning area which did not rise to the level of a disaster declaration. Planning partners impacted by non-declared events also identified those events in their disaster history table within their respective annex documents, if such occurred. In addition, the various hazard profiles, such as Drought events declared at the state level, but not at the federal level, are also identified.

**Table 3-1
Disaster Declarations for Hazard Events in Mason County
1956-2022**

Disaster Number	Programs Declared		Declaration Date	Incident		Incident Date	Comments/ Dollar Losses (if available)
	IA	PA		Type	Title		
4650	N	Y	3/29/2022	Severe Winter Storm	Severe Winter Storms, Straight-Line Winds, Flooding	12/26/2021 – 1/15/ 2022	Pending
4593	N	Y	4/8/2021	Severe Winter Storm	Severe Winter Storms, Straight-line Winds, Flooding	12/29/2020- 1/16/2021	~\$5.4 million statewide
4539	N	Y	4/23/2020	Flood	Severe Storms, Flooding, Landslides and Mudslides	1/20 – 2/10/2020	\$10.6 million statewide
4481 / 3427	Y	Y	3/22/2020	Pan-demic	COVID-19	1/20/ 2020 - continuing	Continuing
4418	N	Y	3/4/2019	Severe Storm	Severe Winter Storm	12/10 – 12/24/ 2018	\$12.7 statewide
4253	N	Y	2/2/2016	Flood	Severe Winter Storm, Straight-Line Winds, Flooding, Landslides, Mudslides	12/1/ to 12/14/ 2015	PUD 3: \$103,500
4249	N	Y	1/15/2016	Severe Storm	Severe Storms, Straight-Line Winds, Flooding, Landslides, Mudslides	11/12/ to 11/21/ 2015	PUD 3: \$271,668
4056	N	Y	3/5/2012	Severe Storm	Severe Winter Storm, Flooding, Landslides, Mudslides	1/14/ to 1/23/ 2012	PUD 3: \$507,645
1825	N	Y	3/2/2009	Severe Storm	Severe Winter Storm And Record And Near Record Snow	12/12/2008 to 1/5/ 2009	PUD 3: \$174,206

**Table 3-1
Disaster Declarations for Hazard Events in Mason County
1956-2022**

Disaster Number	Programs Declared		Declaration Date	Incident		Incident Date	Comments/ Dollar Losses (if available)
	IA	PA		Type	Title		
1817	N	Y	1/30/2009	Flood	Severe Winter Storm, Landslides, Mudslides, Flooding	1/6/ to 1/16/ 2009	PUD 3: \$61,239
1734	Y	Y	12/8/2007	Severe Storm	Severe Storms, Flooding, Landslides, Mudslides	12/1 to 12/17/ 2007	PUD 3: \$800,706
1682	N	Y	2/14/2007	Severe Storm	Severe Winter Storm, Landslides, Mudslides	12/14 to 12/15/ 2006	PUD 3: +\$1.4M
1641	N	Y	5/17/2006	Severe Storm	Severe Storms, Flooding, Tidal Surge, Landslides, Mudslides	1/27 to 2/4/2006	
1499	Y	Y	11/7/2003	Severe Storm	Severe Storms and Flooding	10/15 to 10/23/ 2003	Disaster also included Drought for some counties in state.
1361	Y	Y	3/1/2001	Earthquake	Earthquake	2/28/ to 3/16/ 2001	
1172	Y	Y	4/2/1997	Flood	Heavy Rains, Snow Melt, Flooding, Land- and Mud-slides	3/18/ to 3/28/ 1997	
1159	Y	Y	1/17/1997	Severe Storm	Severe Winter Storms, Land- & Mud-slides, Flooding	12/26/1996 to 2/10/ 1997	
1079	Y	Y	1/3/1996	Severe Storm	Severe Storms, High Wind, Flooding	11/7 to 12/18/ 1995	
981	N	Y	3/4/1993	Severe Storm	Severe Storms and High Wind	1/20 to 1/21/ 1993	
883	Y	Y	11/26/1990	Flood	Severe Storms and Flooding	11/9 to 12/20/ 1990	
623	Y	Y	5/21/1980	Volcano	Volcanic Eruption, Mt. St. Helens	5/21/ 1980	
612	Y	N	12/31/1979	Flood	Storms, High Tides, Mudslides, Flooding	12/31/ 1979	
492	Y	Y	12/13/1975	Flood	Severe Storms & Flooding	12/13/ 1975	

**Table 3-1
Disaster Declarations for Hazard Events in Mason County
1956-2022**

Disaster Number	Programs Declared		Declaration Date	Incident		Incident Date	Comments/ Dollar Losses (if available)
	IA	PA		Type	Title		
414	Y	Y	1/25/1974	Flood	Severe Storms, Snowmelt, Flooding	1/25/ 1974	
196	Y	Y	5/11/1965	Earth-quake	Earthquake	5/11/ 1965	
185	Y	Y	12/29/1964	Flood	Heavy Rains and Flooding	12/29/ 1964	
Additional Event Data							
NA				Snow	Snow Storm, Landslides	12/21-24/2012	
NA				Wild-fire	240 Acres burned by PUD 3 Headquarters	10/2014	
NA				Wind	Severe Wind Storm	3/10-13/2016	

Highlighted cells are events impacting the County and its partners but not declared.

The most common disasters to occur are severe storms and flooding. Those hazards are further broken down by month, year, recurrence intervals (not based on order of magnitude), probability of occurrence, and FEMA ranking as illustrated in Table 3-2. These are based on FEMA event typing. For these generalized purposes, recurrence intervals are determined by the number of events divided by the number of years to obtain an average. In some instances, recurrence intervals based on magnitude are contained within the hazard profiles. The recurrence intervals are not based on the order of magnitude (e.g., a 100-year storm), but rather on the fact that the event occurred, no matter what the magnitude. The Percent Probability of Occurrence is calculated by the dividing the number of events by years, and then multiplying that sum by 100 to create the percent probability of an event occurring in any given year.

Table 3-2
Storm Disaster History by Month, Recurrence, and Probability of occurrence

Hazard Type	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	Years of Occurrence	FEMA Rank	Recurrence / Years (No Order of Magnitude)	Probability/ (Percent risk that an event may occur)
Flood	2	1	1	2	0	0	0	0	0	0	1	3	10	64, 74, 75, 79, 90, 97, 09, 16, 20, 22	2	6.5	15.38
Severe Storm	3	1	4	1	1	0	0	0	0	0	1	1	12	93, 96, 97, 03, 06, 07 (x2), 09, 12, 16, 19, 21	1	5.4	18.46
TOTAL	5	2	5	3	1	0	0	0	0	0	2	4	22				

Based on FEMA designation and dates.

3.4 CRITICAL FACILITIES AND INFRASTRUCTURE

3.4.1 Definition

Critical facilities and infrastructure are those that are essential to the health and welfare of the population. Loss of a critical facility could also result in a severe economic or catastrophic impact, and have a cascading impact on the various community lifelines. These facilities become especially important after a hazard event. Critical facilities typically include police and fire stations, schools, and emergency operations centers. Critical infrastructure can include the roads and bridges that provide ingress and egress and allow emergency vehicles access to those in need, and the utilities that provide water, electricity, and communication services to the community. Also included are “Tier II” facilities and railroads, which hold or carry significant amounts of hazardous materials with a potential to impact public health and welfare in a hazard event.

For purposes of this planning effort, the Planning Team utilized a pre-existing definition of critical facilities which has historically been utilized throughout the County during various planning efforts. The previously developed list was reviewed and updated during this 2023 process, and encompasses the following:

- Police stations, fire stations, vehicle and equipment storage facilities, communication centers and towers, and emergency operations centers needed for disaster response before, during, and after hazard events
- Public and private utilities and infrastructure vital to maintaining or restoring normal services to areas damaged by hazard events. These include, but are not limited to:
 - Public and private water supply infrastructure, water and wastewater treatment facilities and infrastructure, potable water pumping, flow regulation, distribution and storage facilities and infrastructure.

- Public and private power generation (electrical and non-electrical), regulation and distribution facilities and infrastructure.
- Data and server communication facilities.
- Structures that manage or limit the impacts of natural hazards such as regional flood conveyance systems, potable water trunk main interconnect systems and redundant pipes crossing fault lines and reservoirs.
- Major road and rail systems including bridges, airports, and marine terminal facilities.
- Hospitals, nursing homes, and care facilities, including facilities that provide critical medical services.
- Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic, and/or water-reactive materials (e.g., hazmat facilities).
- Public gathering places used as evacuation centers during large-scale disasters.
- Governmental facilities central to governance and quality of life along with response and recovery actions taken as a result of a hazard event.

3.4.2 Critical Facilities Update

This process included an update of the critical facilities identified during the 2023 plan development. Limited development of critical facilities occurred for the County itself since completion of the last plan; however, several of the planning partners have acquired (purchased) facilities or infrastructure, or built new structures. This update includes those new facilities/structures. A total of 294 structures were identified for this update process, total in excess of \$281 million in structure value.

While all critical facilities identified are incorporated into this planning process, due to the sensitivity of this information, a detailed list of facilities is not provided. The list is on file with each planning partner. Table 3-3 provides a summary of the general types of critical facilities and infrastructure owned and operated by the planning team members. This list is not all encompassing by all planning partners. Deficiencies in this list has been identified as a strategy by the planning team to continue improving the data for use in future plan updates. All critical facilities/infrastructure identified in the plan were analyzed in the GIS platform to help rank risk and identify mitigation actions. The risk assessment for each hazard qualitatively discusses critical facilities with regard to that hazard.

Figure 3-3 illustrates the general location of critical facilities and infrastructure throughout Mason County.

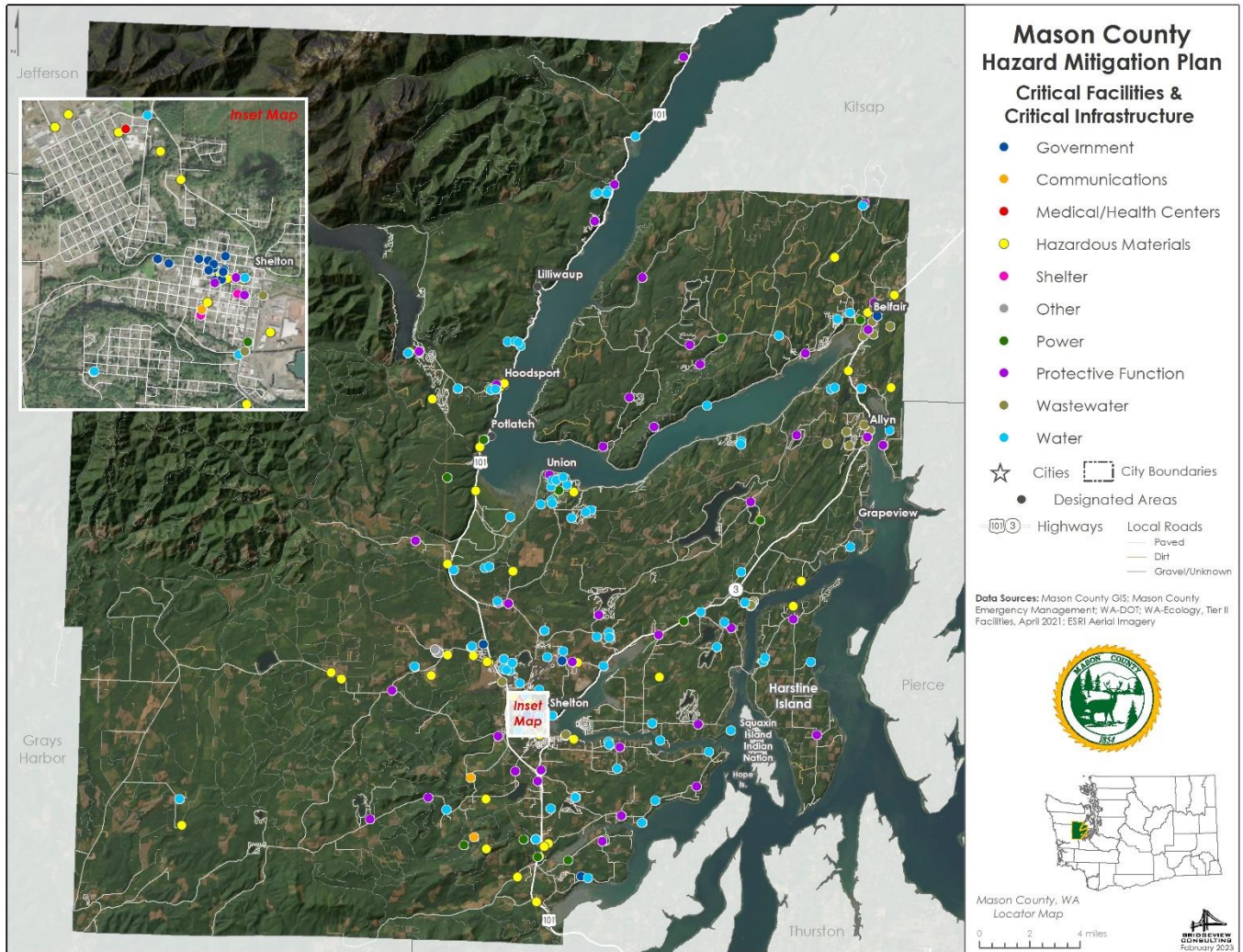


Figure 3-3 Planning Area Critical Facilities and Infrastructure

Table 3-3 Mason County Critical Facilities		
Critical Facility Type	Count	Building Values (Combined)
Communications	3	\$1,875,633
Government/Administration	19	\$7,896,230
Hazmat (Government Owned Facilities)	4	\$2,272,500
Medical (Mason General Hospital)	1	\$5,141,000
Other (Landfills)	5	\$810,000
Protective	47	\$20,076,114
Power	20	\$50,444,025
Shelters, Gym, Gathering Structures	2	\$5,803,612
Water	169	\$10,839,522
Wastewater	24	\$168,059,890
Totals	294	\$281,587,026

3.4.3 Community Lifelines

A community lifeline enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security.² They are the fundamental services which enable other aspects of society to function, supporting the reoccurring needs of a community, and enable other aspects of society to function. However, when any element of these lifelines are disrupted, that disruption can negatively impact other lifelines from functioning appropriately.

In serious but purely local incidents, interruptions of water service, electric power, and other community lifeline components are typically brief and can be mitigated more easily. However, severe and widespread incidents such as a Cascadia earthquake, severe flood or wildfire event can halt lifeline services for many weeks or months. Such disruptions are especially extensive in catastrophic incidents and may result in mass casualties and other cascading consequences. FEMA has identified seven community lifelines, identified in Table 3-4. Each lifeline depends on multiple infrastructure sectors, businesses, and supply chains to function. Focusing on community lifelines allows emergency managers and their partners to account for these complex interdependencies and prioritize response operations to achieve high-impact, multi-sector benefits.

² National Response Framework, 4th Edition. (2019)

Table 3-4 Community Lifeline Descriptions	
Community Lifeline	Description
Safety and Security	Law enforcement and government services, as well as the associated assets that maintain communal security, provide search and rescue, evacuations, and firefighting capabilities, and promote responder safety.
Food, Water, Shelter	Support systems that enable the sustainment of life, such as water treatment, transmission, and distribution systems; food retail and distribution networks; wastewater collection and treatment systems; as well as sheltering, and agriculture.
Health and Medical	Infrastructure and service providers for medical care, public health, patient movement, fatality management, behavioral health, veterinary support, and health or medical supply chains.
Energy	Service providers for electric power infrastructure, composed of generation, transmission, and distribution systems, as well as gas and liquid fuel processing, transportation, and delivery systems. Disruptions can have a limiting effect on the functionality of other community lifelines.
Communications	Infrastructure owners and operators of broadband Internet, cellular networks, landline telephony, cable services (to include undersea cable), satellite communications services, and broadcast networks (radio and television). Communication systems encompass a large set of diverse modes of delivery and technologies, often intertwined but largely operating independently. Services include elements such as alerts, warnings, and messages, as well as 911 and dispatch. Also includes accessibility of financial services.
Transportation	Multiple modes of transportation that often serve complementary functions and create redundancy, adding to the inherent resilience in overall transportation networks. Transportation infrastructure generally includes highway/roadways, mass transit, railway, aviation, maritime, pipeline, and intermodal systems.
Hazardous Material	Systems that mitigate threats to public health/welfare and the environment. This includes assessment of facilities that use, generate, and store hazardous substances, as well as specialized conveyance assets and efforts to identify, contain, and remove incident debris, pollution, contaminants, oil or other hazardous substances.

In an effort to help ensure the on-going functionality of those Community Lifelines, throughout this HMP update process, the County has been inclusive of the elements of the Community Lifelines, including planning partners and stakeholders, and identifying critical facilities which encompass the functionality of the various sectors. This includes local governments for continuity of government, energy (as well as other public utilities providing water and wastewater, etc.), entities providing communications, health and medical services, safety and security (including law enforcement, fire, corrections), transportation, and identification and assessment of hazardous materials locations. All of these elements are integrated into the various plan components, including by identification of the critical facilities making up the lifelines, through the risk assessment completed to identify potential impact from the various hazards of concern, and identification of mitigation action items which, when implemented, will help reduce the impact on those lifelines.

3.4.4 Hazardous Materials

Hazardous materials can be released for many reasons, including as a potential terrorist target, human error, or the structural integrity being compromised by a natural hazard event, such as an earthquake, tsunami, flood, or landslide (among others). Release of hazardous materials could cause significant damage to the environment and people. Figure 3-4 identifies the location of potential hazmat sites in Mason County as identified in Washington State Department of Ecology's Hazardous Materials Annual Report (2022). These facilities include both public and private structures required to report chemicals based on their quantity and type.

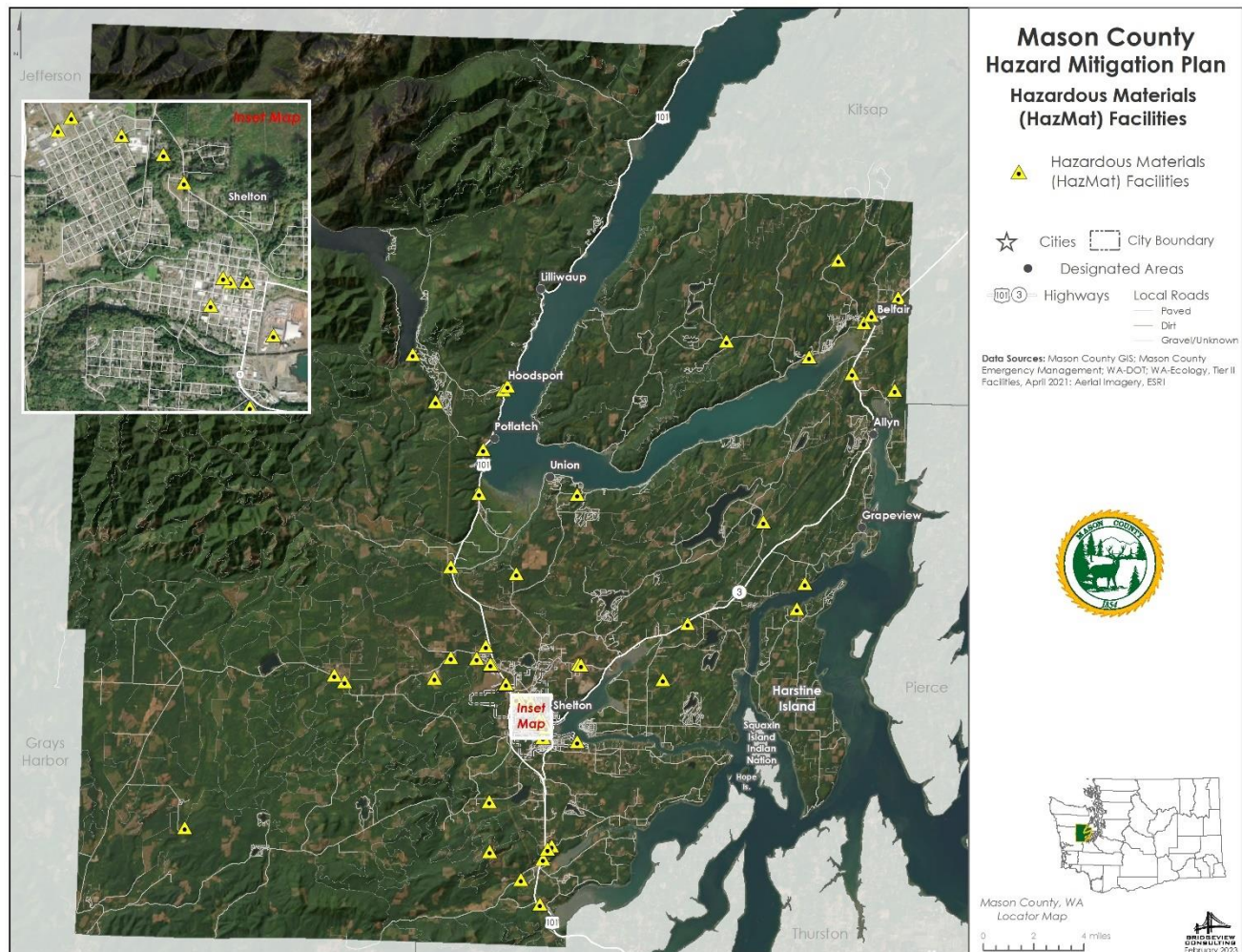


Figure 3-4 Hazardous Materials Facilities

3.5 POPULATION

Some populations are at greater risk from hazard events because of decreased resources or physical abilities. Elderly people, for example, may be more likely to require additional assistance. Research has shown that people living near or below the poverty line, the elderly (especially older single men), the disabled, women, children, ethnic minorities, and renters all experience, to some degree, more severe effects from disasters than the general population. These vulnerable populations may vary from the general population in risk perception, living conditions, access to information before, during

and after a hazard event, capabilities during an event, and access to resources for post-disaster recovery. Indicators of vulnerability—such as disability, age, poverty, and minority race and ethnicity—often overlap spatially and often in the geographically most vulnerable locations. Detailed spatial analysis to locate areas where there are higher concentrations of vulnerable community members would assist the County in extending focused public outreach and education to these most vulnerable citizens.

Knowledge of the composition of the population, how it has or may change in the future is needed for informed planning decisions. Information about population is a critical part of planning because it directly relates to land needs such as housing, industry, stores, public facilities and services, and transportation.

As of 2021, Mason County is the 29th most populous county in Washington, with 67,615 residents. Table 3-5 presents Mason County and the City of Shelton's population, area, and density data as established by the U.S. Census Bureau.

Table 3-5 2022 Population, Area, and Density Figures								
Geographic area	Population	Housing units	Persons Per Household	Area in square miles			Density per square mile of land area	
				Total area	Water area	Land area	Population	Housing units
Mason County	67,615	33,674	2.55	1,051.02	91.60	959.55	68.5	33.9
	60,699*	32,518*				959.42*	63.3*	
	+2.9% (percent increase)							
Shelton, City of	10,763		2.96	6.09	0.33	5.82	1,783.2	668.4
	9,834*	3,847*				5.76*	1,708.7*	
	+3.8% (percent increase)							

*Reflects 2017 data for comparison

3.5.1 Population Trends

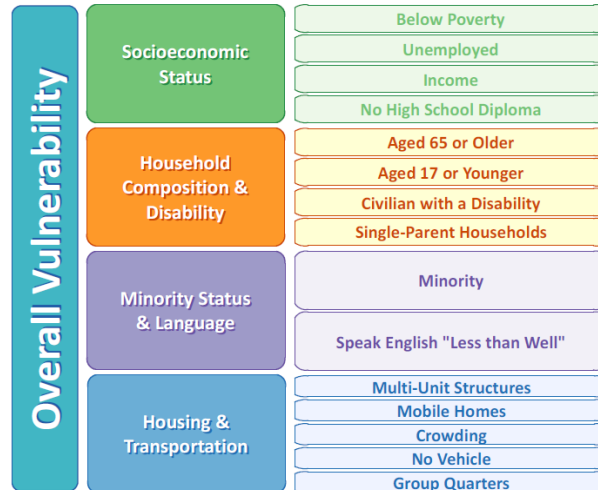
Population changes are useful socio-economic indicators. A growing population generally indicates a growing economy, while a decreasing population signifies economic decline.

Between 1970 and 1980 the County had a relatively large population boost; however, in the decades to follow the increases declined by more than half and continue to do so. Between 1970 and 1980, the County experienced a population increase of 49% percent (10,266 people), an average annual rate of 4.9%. The decade between 1980 and 1990 saw a reduction in population increases for Mason County of more than 50% going from 49% in 1980 to 23% in 1990. An increase in this percent was

seen in 2000. Since completion of the last plan, the population has increased ~11% within the County, and ~9.5% in the City of Shelton.

3.5.2 Social Vulnerability

Some populations are at greater risk from hazard events because of decreased resources or physical abilities. Elderly people may be more likely to require additional assistance during a disaster incident, or might be less able to provide such care during a crisis, finding the magnitude of the task of providing that care beyond their capability. Research has shown that people living near or below the poverty line, the elderly, the disabled, women, children, ethnic minorities, and renters all experience, to some degree, more severe effects from disasters than the general population.



These vulnerable populations may vary from the general population in risk perception, living conditions, access to information before, during and after a hazard event, capabilities during an event, and access to resources for post-disaster recovery. Indicators of vulnerability—such as disability, age, poverty, and minority race and ethnicity—often overlap spatially and often in the geographically most vulnerable locations. Detailed spatial analysis to locate areas where there are higher concentrations of vulnerable community members would help to extend focused public outreach and education to these most vulnerable citizens.

During emergencies, real-time evacuation information may not be provided to people with limited English proficiency, the hearing and visually impaired, and other special needs group. Many low-income people may be stranded because they have no personal transportation, and no mass transit (especially during emergencies) is available. For the poor, they are less likely to have the income, or assets needed to prepare for a possible disaster, or to recover after a disaster. Although the monetary value of their property may be less than that of other households, it likely represents a larger portion of the total household assets. As such, lost property is proportionately more expensive to replace, especially without insurance. Additionally, unemployed persons do not have employee benefits that provide health cost assistance. High-income populations who suffer higher household losses (absolute terms) find their overall position mitigated by insurance policies and other financial investments not available to lower income households.

3.5.3 Age Distribution

As a group, the elderly are more apt to lack the physical and economic resources necessary for response to hazard events and more likely to suffer health-related consequences making recovery slower. They are more likely to be vision, hearing, and/or mobility impaired, and more likely to experience mental impairment or dementia. Additionally, the elderly are more likely to live in assisted-living facilities where emergency preparedness occurs at the discretion of facility operators.

These facilities are typically identified as “critical facilities” by emergency managers because they require extra notice to implement evacuation. Figure 3-5 illustrates age distribution for Mason County (Washington State Department of Commerce).

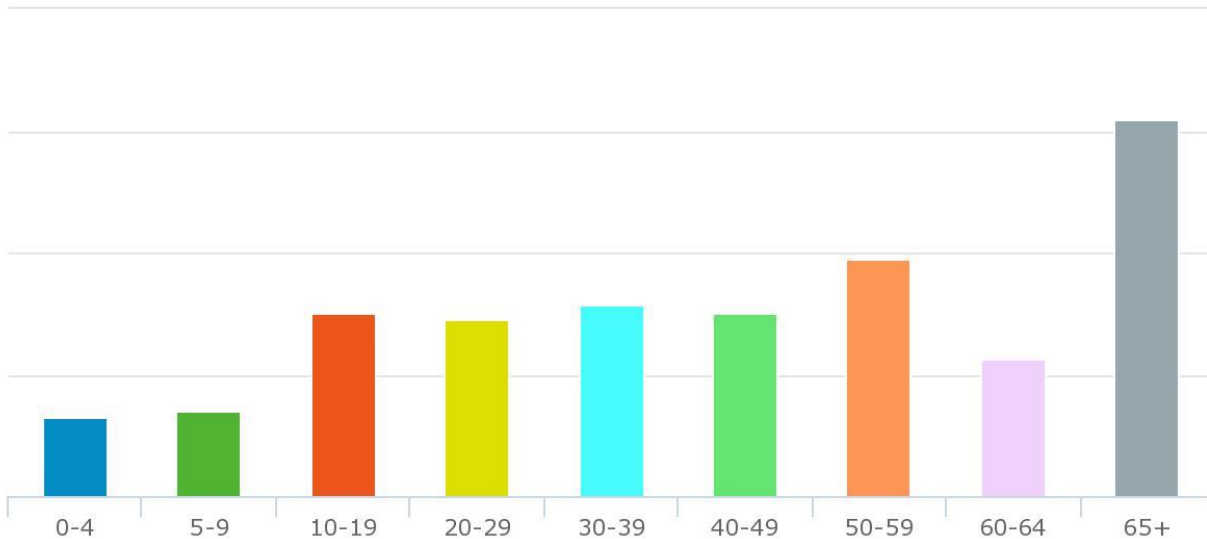


Figure 3-5 Mason County Age Distribution

Elderly residents may have more difficulty evacuating their homes and could be stranded in dangerous situations. This population group is more likely to need special medical attention, which may not be readily available during natural disasters due to isolation caused by the event. Specific planning attention for the elderly is an important consideration given the current aging of the American population.

Based on U.S. Census Data, Mason County is an older community compared to the State of Washington, with approximately 24% of its population 65 years and over compared to ~16 percent at the state level. 8.3 percent of the population are 75 and over. The median age in Mason County is 44.4 years, compared to 38.2 in Washington.

Children under 5 are particularly vulnerable to disasters because of their dependence on others for basic necessities. Very young children are additionally vulnerable to injury or sickness; this vulnerability can be worsened during a natural disaster because they may not understand the measures that need to be taken to protect themselves. Approximately 5% of the population is 5 years and under. Approximately 19.5 percent of county residents are younger than 18, which remains consistent with the previous plan.

3.5.4 Race, Ethnicity, and Language

Research shows that minorities are less likely to be involved in pre-disaster planning and experience higher mortality rates during a disaster event. Post-disaster recovery can be ineffective and is often characterized by cultural insensitivity. Since higher proportions of ethnic minorities live below the poverty line than the majority white population, poverty can compound vulnerability.

The County is less diverse than the state in terms of race and ethnicity. According to the 2021 U.S. Census Bureau's QuickFacts, racial makeup of the county was 86.9% white, 4.7% American Indian, 1.5% Asian, and 1.6% black or African American. Those of Hispanic or Latino origin made up 11.3% of the population. The County also had approximately 8,000 Veterans, higher than the state average. Approximately 8.1% of the County's population indicated a language other than English spoken in the home.

3.5.5 Disabled Populations

People with disabilities are more likely than the general population to have difficulty responding to a hazard event. As disabled populations are increasingly integrated into society, they are more likely to require assistance during the 72 hours after a hazard event, the period generally reserved for self-help. There is no "typical" disabled person, which can complicate disaster-planning processes that attempt to incorporate them. Disability is likely to be compounded with other vulnerabilities, such as age, economic disadvantage, and ethnicity, all of which mean that housing is more likely to be substandard.

Approximately 21.9 percent of the County's population is disabled, which is higher than the state's value of 13.1 percent. Of those disabled, 10.3 percent are due to ambulatory difficulties, followed by 7.8 percent with independent living difficulties, and 10.1 percent with hearing or vision difficulties.

3.6 ECONOMY

Knowing the economic characteristics of a community can assist in the analysis of the community's ability to prepare, respond, and rebuild safer after a natural hazard. Categorizing economic vulnerability can encompass many factors, including median household income, poverty rates, employment and unemployment rates, housing tenure, and community building inventory.

Natural resource industries currently support Mason County's economy and are expected to be as important in the future. The County is highly specialized in the production of forestry and aquaculture commodities. This specialization focuses on both raw materials and value-added products. Heavy construction and government service also anchor the County's economy.

Government is the County's largest employer. Over 22 percent of Mason County's total employment was provided by the government sector. The service industry was the largest private employer, followed closely by the retail industry.

3.6.1 Income and Employment

In the United States, individual households are expected to use private resources to prepare for, respond to, and recover from disasters to some extent. This means that households living in poverty are automatically disadvantaged when confronting hazards. Additionally, the poor typically occupy more poorly built and inadequately maintained housing. Mobile or modular homes, for example, are more susceptible to damage in earthquakes and floods than other types of housing. In urban areas, the poor often live in older houses and apartment complexes, which are more likely to be made of un-reinforced masonry, a building type that is particularly susceptible to damage during earthquakes. Furthermore, residents below the poverty level are less likely to have insurance to

compensate for losses incurred from natural disasters. This means that residents below the poverty level have a great deal to lose during an event and are the least prepared to deal with potential losses. Personal household economics also significantly impact people's decisions on evacuation. Individuals who cannot afford gas for their cars will likely decide not to evacuate.

Mason County's average annual wage in 2020 was \$47,038 below the state's average of \$76,801. The median hourly wage in 2020 was \$22.35, below the state's median hourly wage of \$29.28 and the state excluding King County median hourly wage of \$25.01. Personal income in 2020 lagged both the state and nation, as Mason County's per capita personal income was \$45,901, less than the state (\$67,126) and the nation's (\$59,510).³

The median household income in 2021 Mason County was \$78,587. The county's median was less than the state's (\$89,012). The County's poverty rate was 12.6 percent, which is higher than the state rate. Unemployment in the area was 7.7 percent, with distressed areas for the state incurring an unemployment rate greater than or equal to 7.2 percent (see Figure 3-6).⁴ The unemployment rate for the County has decreased since the 2017 plan was written, at which time the rate was 8.5 percent.

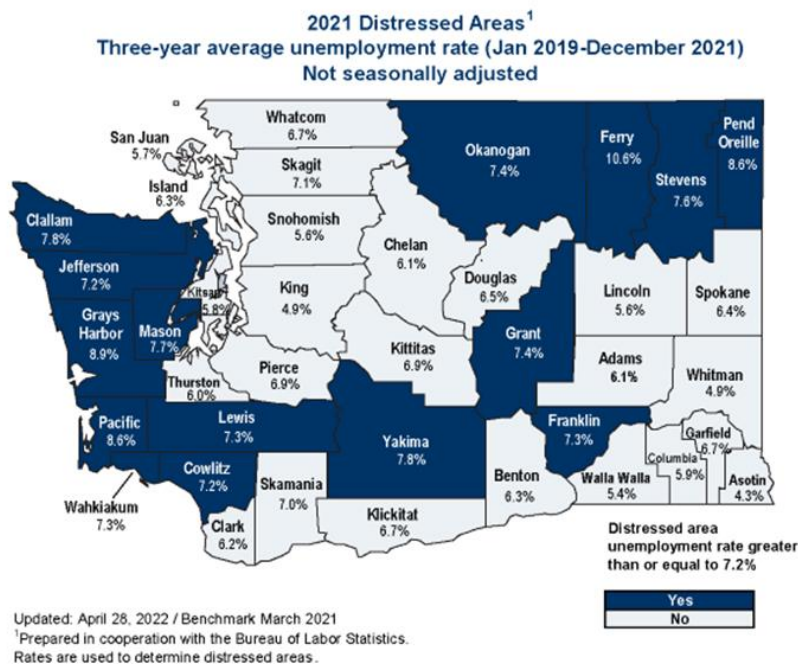


Figure 3-6 Mason County 2021 Unemployment Rates

³ US Census Bureau. Accessed 23 Jan 2023. Available online at: [Mason County, Washington - Census Bureau Profile](#)

⁴ Washington State Employment Security Division. Accessed 23 Jan 2023. Available online at: [ESDWAGOV - Distressed areas list](#)

Review of the Local Employment Dynamics data indicates that during 2020, the largest jobholder age group in Mason County was the 55 and older age category, making up 26.5 percent of employment across all industries. The next largest share was among persons aged 35-44 with 21.8 percent of employment.⁵ The four primary industries are: educational, health care and social assistance services; professional, scientific, management and waste management; public administration, and retail trade.

3.6.2 Housing Stock

According to *A Social Vulnerability Index for Disaster Management* (Journal of Homeland Security and Emergency Management, 2011), housing quality is an important factor in assessing disaster vulnerability. It is closely tied to personal wealth: people in lower income brackets often live in more poorly constructed homes that are especially vulnerable to strong storms or earthquakes. Mobile homes are not designed to withstand severe weather or flooding, and typically do not have basements. They are frequently found outside of metropolitan areas and, therefore, may not be readily accessible by interstate highways or public transportation. Also, because mobile homes are often clustered in communities, their overall vulnerability is increased. Rent in the area is considerably lower than statewide average.

The American Community Survey estimates that Mason County has in approximately 4,601 mobile homes (or other types of housing) within its boundaries, with 33,674 (as of July 2021) housing units (American Community Survey, 2023). The median value of housing stock was \$249,100 (US Census QuickFacts).

3.6.3 Building Stock Age

The age of a building in determining vulnerability is a significant factor, as it helps identify the building code to which a structure was built. Homes built prior to 1975 are considered pre-code since there was no statewide requirement to include specific standards to address the various hazards of concern (e.g., there were no seismic provisions contained within the building code). Structures built after 1975 are considered of moderate code. It was at that point in time in which all Washington jurisdictions were required to adhere to the provision of the most recently adopted version of the Uniform Building Code (UBC) (Noson et al., 1988). It should be noted that the data may be slightly skewed due to the fact that actual building code adoption dates vary slightly by jurisdiction. Structures may also have undergone remodel, or improvements which changed the building code classification, increasing the level of code applied. That data may not have been captured or applied in a manner which would reflect a change in the year of construction. Additionally, while building codes may not have been in place, houses may have been constructed to higher standards. As a result,

⁵ Washington State Employment Security Department – [Mason County] Community Profile. Accessed 23 Jan 2023. Available at: <https://esd.wa.gov/labormarketinfo/county-profiles/mason>

this data should be used for planning purposes only. Questions concerning actual structural integrity should be determined by appropriate subject matter experts in the field.

Based on data reviewed from the American Survey Fact Finder, Table 3-6 identifies the estimated number of structures in Mason County by year. Review of FEMA's 2017 Risk Map Report identifies that approximately 40 percent of buildings in the City of Shelton were built before 1960, meaning that a high percentage of Shelton buildings could be impacted by ground shaking during an earthquake (FEMA Risk Report, 2017). Further review of FEMA's 2017 Risk Map Report identifies that within the unincorporated areas of Mason County reported, a higher percentage of its buildings have been built after 1960, which is confirmed by the 2023 U.S. Census American Community Survey data.

Table 3-6		
Percent of Years Structures Built 1939-2021*		
Year	Percent Total	Estimated Number of Structures Per Year
1939 or Earlier	3%	1,052
1940-1959	5%	1,500
1960-1979	19%	6,302
1980-1999	27%	9,153
2000 or Later	46%	15,677
TOTAL	100%	33,674
Based on 2021 US Census – American Community Survey		

3.7 LAND USE PLANNING AND FUTURE DEVELOPMENT TRENDS

The County Comprehensive Plan includes components that help to guide the vision for the County: Planning Policies, Future Land Use Analysis, Critical Areas, and Capital Facilities. Within Washington State, the State Growth Management Act (GMA) requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans, and implementing those plans through capital investments and development regulations. Mason County is in compliance with GMA requirements and guidelines, and has developed regulatory authority which helps reduce the impact of the hazards of concern, including as they relate to critical areas.

Critical areas are environmentally sensitive natural resources that have been designated for protection and management in accordance with the requirements of the GMA. Protection and management of these areas are important to the preservation of ecological functions of our natural environment, as well as the protection of the public health, safety, and welfare of our community. Information from this mitigation plan will continue to help identify the critical areas throughout the county and its incorporated jurisdictions and UGAs. The information will also be used during update of the comprehensive plan.

The Community Development Director for Mason County was a planning team member during this update, and provide the current status and information for inclusion in this 2023 updated HMP. The County's Community Development Department includes the Planning Department, which is responsible for updating the Comprehensive Land Use Plan and for overseeing and regulating land use and development in unincorporated Mason County to protect the health, safety, and welfare of County residents. The County's Comprehensive Plan is currently under review and update, with the anticipated completion in December 2024.

The Community Department is also responsible for floodplain management in the County (with the most recent NFIP maps adopted in 2019) and adoption and implementation of the 2021 International Building Codes (which are in process of adoption as of this 2023 update).

The County's comprehensive plan governs its land use decision- and policy-making process in accordance with GMA guidelines. Data from this plan will continue to assist county programs that support wise land use in the future by providing vital information on the risk associated with natural hazards in Mason County. Table 3-7 identifies land use classifications, acres in such classification, and the percent of total land area within the County. With the on-going update of the Comprehensive Plan, these totals may change during the life cycle of this plan. Reviewers should contact the County for the most accurate information if necessary.

The Community Department works closely with other county and local-agency departments, the general public, land-owners, special interest groups, and businesses to oversee development in unincorporated Mason County, ensuring land use remains consistent with federal, state and county regulations.

Utilizing estimated population growth statistics, the county has estimated how the future growth in population will be distributed among the different districts created in the Comprehensive Plan. Figure 3-7 illustrates the future land use within Mason County as identified within its 2017 Comprehensive Plan update (most current as of this 2023 update, but will change with the update to the Comprehensive Plan). The future land use has three Urban Growth Areas (UGAs), three Rural Activity Centers, and eleven Hamlets.

The UGAs include the City of Shelton and the communities of Allyn and Belfair. The Rural Activity Centers include Union, Hoodsport, and Taylor Town. The Hamlets include Bayshore, Dayton, Deer Creek, Eldon, Grapeview, Lake Cushman, Lilliwaup, Matlock, Potlatch, Spencer Lake, and Tahuya.

Table 3-7 Present Land Use in Planning Area*		
Present Use Classification	Area (acres)	% of total
Agri/Aquaculture	15,375	1.7
Commercial	9,721	1.1
Forest	556,015	60.4
Governmental Services (includes land owned by Tacoma Public Utilities, which is leased to individuals for residential structures)	17,779	1.9
Mining	320	0.0
Parks	4,211	0.5

Table 3-7 Present Land Use in Planning Area*		
Present Use Classification	Area (acres)	% of total
Residential	82,010	8.9
Transportation	5,468	0.6
Utility/Easement/Right of Way	4,101	0.4
Uncategorized (includes vacant and resource lands)	225,362	24.5
Total	920,360	100

*Simultaneous with the update of this 2023 Hazard Mitigation Plan, the County is also in the process of updating its Comprehensive Land Use Plan, with anticipated completion in December 2024. Completion of that plan may impact the areas identified within this table.

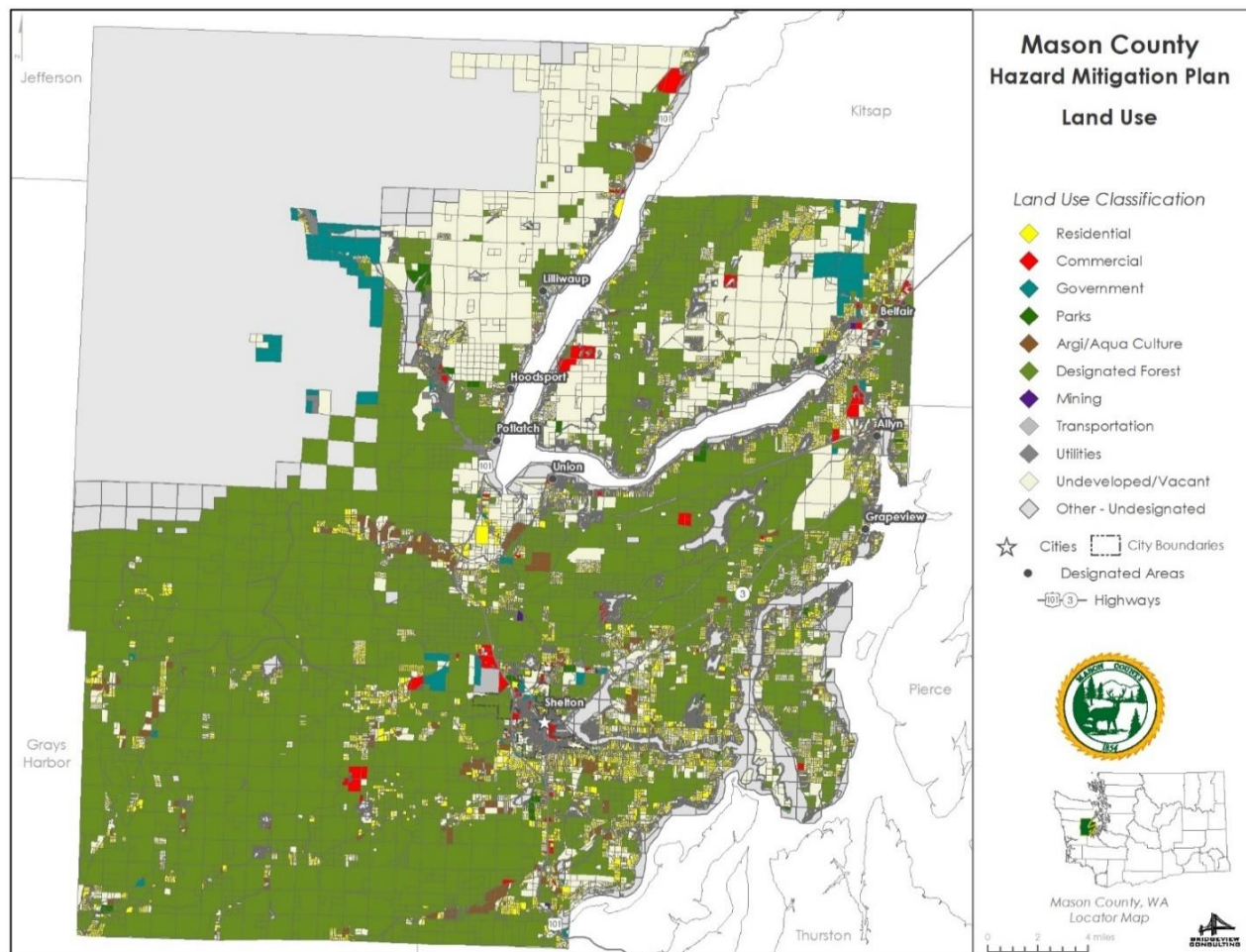


Figure 3-7 Mason County Land Use Classifications (2017)

Research in the area of growth management has demonstrated that communities experiencing economic growth who are able to invest in new development, including mitigation efforts, increase the resilience of both existing and new buildings and infrastructure. Newly constructed buildings and infrastructure are more resilient to hazards of concern and the associated impact by those hazards (e.g., ground shaking) as they are built to higher building code standards. The use of data within plans such as these play a significant role in education with respect to identifying those areas of concern addressed within Growth Management.

Since 2019, the County has continued to grow and expand, with permits issued to ensure regulatory compliance and building standards are met. Table 3-8 illustrates the types and numbers for some of the permits issued. This list is not all-inclusive of all permits issued, but rather those which would have a more significant impact on mitigation efforts to ensure appropriate building codes and standards are met, helping to reduce the impacts of new construction on the existing hazards of concern, and thereby helping to increase the County's resilience to future impacts.

Table 3-8 Permit Applications 2019-2022*					
Permit Type	2019	2020	2021	2022*	TOTAL
Accessory Dwelling Unit	14	13	14	16	57
Addition or Remodel	103	64	97	42	306
Bulkhead of Dock - Residential	30	39	31	23	123
Carport/ Deck Covered	45	36	38	23	142
Demo	63	61	66	50	240
Development Reg Variance	12	11	8	11	42
Flood Damage Prevention Review	15	18	35	45	113
Forest Practices	16	13	18	13	60
Garage/Storage	127	141	130	107	505
Geological Review	100	94	124	95	413
Grading	13	17	16	9	55
Large Lot Subdivision	5	3	2	3	13
Manufactured Home - Residential	110	140	160	107	517
Manufactured Home Replacement	24	8	0	0	32
Manufactured Modular Structure Commercial	2	2	2	0	6
Mason Environmental Permit	15	20	32	24	91
New Commercial Permit	76	77	59	65	277
New SFR	273	297	301	202	1073
Repair - Residential	10	16	21	9	56
Reroof	211	228	231	188	858
Resource Ordinance Variance	2	3	2	0	7
Retaining Wall, Deck Residential	14	6	11	14	45
SEPA	101	79	93	67	340
Shoreline Conditional Use	2	0	5	2	9
Shoreline Exemption	48	52	44	41	185

Table 3-8
Permit Applications 2019-2022*

Permit Type	2019	2020	2021	2022*	TOTAL
Shoreline Substantial Dev	6	7	17	12	42
Shoreline Variance	1	4	5	2	12
Short Subdivision	5	7	11	14	37
Site Pre Inspection	131	165	222	150	668
Solar Panel	5	9	16	46	76
Special Use Permits	1	1	0	7	9
Window Replacement	21	0	0	0	21
Total	1601	1631	1811	1387	6430
*Permit numbers are from January – October 31, 2023					

Since completion of the 2018 plan, the County saw a significant spike in new construction and remodel in 2021, which would be anticipated given the impact of COVID both on homeowners completing (significant) home repairs, as well as new construction projects from individuals moving out of urban centers.

The areas of Allyn and Belfair have both seen significant growth during that time period, with Allyn experiencing a larger number of new residential structures (~70 during 2021-2022, with an anticipated ~130 additional over the course of the next year). Both UGAs are equipped to handle the continued growth with respect to the ability to provide water and wastewater facilities (as well as other required infrastructure). Both areas have multiple water purveyors, both public and private, as well as some areas which are not serviced by public utilities having private wells. The City of Shelton provides municipal water and wastewater services to its residents within the city limits.

While these new structures will increase the overall potential impacts from hazards of concern, the standards to which these structures are built are such that increased vulnerability will be limited beyond the mere fact of increased numbers of structures and residents.

Inclusion of the vulnerability data identified in this plan will be utilized by all planning partners in their land use and development practices. This will help assure that all future development will be established with the benefits of the information on risk and vulnerability to natural hazards identified in this plan.

Each planning partner's specific annex to this plan (see Volume 2) includes an assessment of regulatory, technical, and financial capability to carry out proactive hazard mitigation. Refer to these annexes for a review of regulatory codes and ordinances applicable to each planning partner. In addition, Chapter 13 of this plan provides a general overview of the municipalities' regulatory authority.

3.8 CLIMATE CHANGE

Climate, consisting of patterns of temperature, precipitation, humidity, wind and seasons, plays a fundamental role in shaping natural ecosystems and the human economies and cultures that depend

on them. Climate change is a long-term shift in global or regional climate patterns. Often climate change refers specifically to the rise in global temperatures from the mid-20th century to present.

The warming trend and its related impacts are caused by increasing concentrations of carbon dioxide and other greenhouse gases in the earth's atmosphere. Greenhouse gases are gases that trap heat in the atmosphere, resulting in a warming effect. Carbon dioxide is the most commonly known greenhouse gas; however, methane, nitrous oxide and fluorinated gases also contribute to warming. Emissions of these gases come from a variety of sources, such as the combustion of fossil fuels, agricultural production, and changes in land use (see Figure 3-8).

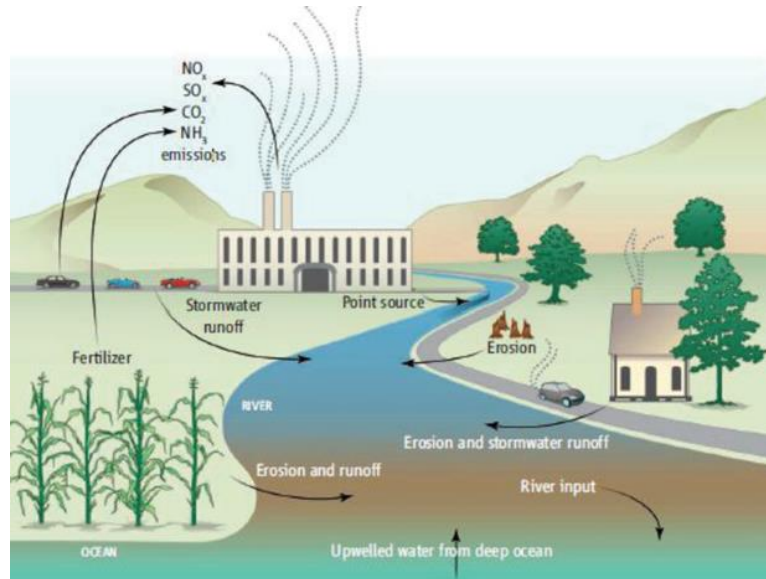


Figure 3-8 Climate Change Contributors

Climate change will affect the people, property, economy, and ecosystems of Mason County in a variety of ways. Some impacts will have negative consequences for the region and others may present opportunities. The most important effect for the development of this plan is that climate change will have a measurable impact on the occurrence and severity of natural hazards.

3.8.1 How Does Climate Change Affect Hazard Mitigation?

An essential aspect of hazard mitigation is predicting the likelihood of hazard events in a planning area. Typically, predictions are based on statistical projections from records of past events. This approach assumes that the likelihood of hazard events remains essentially unchanged over time. Thus, averages based on the past frequencies of, for example, floods are used to estimate future frequencies: if a river has flooded an average of once every five years for the past 100 years, then it can be expected to continue to flood an average of once every five years.

For hazards that are affected by climate conditions, the assumption that future behavior will be equivalent to past behavior is not valid if climate conditions are changing. As flooding is generally associated with precipitation frequency and quantity, for example, the frequency of flooding will not remain constant if broad precipitation patterns change over time. The risks of avalanche, landslide, severe weather, severe winter weather and wildfire are all affected by climate patterns as well.

For this reason, an understanding of climate change is pertinent to efforts to mitigate natural hazards. At present, the County has been unable to conduct a detailed assessment of climate impact in Mason County due to cost and staffing levels. However, with the completion of this plan, the County will continue eligibility for various grant programs, and may elect to pursue funding which will help develop an assessment to determine potential impacts on Mason County. As such, for this 2023 HMP update, the planning team elected to incorporate the impact of climate change on the specific hazards

of concern within each hazard's profile, enabling a more clear understanding of the potential impacts of climate change on the hazards of concern in a generalized manner.

Information about how climate patterns are changing provides insight on the reliability of future hazard projections used in mitigation analysis. Table 3-9 identifies the relationship between climate change risk and its influence on the various hazards of concern within the planning region.

Table 3-9 Relationship Between Climate Change and Identified County Hazards												
Hazards of Concern		Coastal Erosion	Drought	Earthquake	Flood	Landslide	Severe Weather			Wildfire	Tsunami	Volcano*
							Cold	Heat	Winter storms			
CLIMATE RISKS	Increased temperatures	X	P		X	X	X	X	X	P		
	Changes in Hydrology	X	P	X	P	P			X	X	X	
	Increased Wildfires		X		X	X				P		
	Increase in ocean temperatures and changes in ocean chemistry	P			X				P			
	Increased Drought		P									
	Increased Coastal Erosion	P									X	
	Changes in habitat	X	X		X	X				X		
	Increase in Invasive Species and Pests		X		X	X		X		P		
	Decrease in natural vegetation	X	X		P	P	X		X	P		
	Loss of Wetland ecosystems and services	X	P		P	X				X		
	Increased frequency of extreme precipitation events and flooding				P	P			X			
	Increased Landslides	X	X		X	P			X	X		
"P" identifies the primary relationship between the risk and the identified hazard. "X" identifies a secondary relationship												

According to the Mason County Shoreline Inventory and Characterization Report (2011, 2017), climate change is likely to have an impact on future water resources in the County. Over the next decades, increased regional temperatures are anticipated to lead to a reduction in snowpack and receding glaciers in the Olympic Mountains. Since many of the tributary streams in WRIA 16 and 22

depend upon snowmelt and glacier melt waters, these streams may be affected over time. Anticipated effects include decreased summer baseflows as snowpack and glaciers are reduced. Spring peak flows are also predicted to occur two to six weeks earlier than they do normally (CIG, 2009). Further, streams without snowmelt or headwaters in the mountains will also be affected (as in WRIA 14 and 15), perhaps more strongly, as streams currently have low in-stream flows.

Additionally, the communities in Mason County that are low-lying and located adjacent to South Puget Sound and Hood Canal could be affected by sea level rise. Sea levels in Puget Sound are projected to rise between 3.0 inches and 22.0 inches by Year 2050 (Mote, 2008). Sea level rise will allow high tides to reach farther into low-lying coastal areas and rise higher on existing flood control structures such as dikes and bulkheads. Coastal flooding will persist longer and could lead to faster rates of erosion on beaches and coastal bluffs (Shipman, 2009). As Washington State Department of Ecology previously directed local governments to consider preparing for sea level rise during the Shoreline Master Program update process, during Mason County's update of its plan, additional consideration was given in that respect. That data, as appropriate, was incorporated into this document.

CHAPTER 4.

RISK ASSESSMENT METHODOLOGY

4.1 OVERVIEW

The DMA requires measuring potential losses to critical facilities and property resulting from natural hazards. A hazard is an act or phenomenon that has the potential to produce harm or other undesirable consequences to a person or thing. Natural hazards can exist with or without the presence of people and land development. However, hazards can be exacerbated by societal behavior and practice, such as building in a floodplain, along a sea cliff, or on an earthquake fault. Natural disasters are inevitable, but the impacts of natural hazards can, at a minimum, be mitigated or, in some instances, prevented entirely.

The goal of the risk assessment is to determine which hazards present the greatest risk and what areas are the most vulnerable to hazards. Mason County and its planning partners are exposed to many hazards. The risk assessment and vulnerability analysis help identify where mitigation measures could reduce loss of life or damage to property in the planning region. Each hazard-specific risk assessment provides risk-based information to assist Mason County and its planning partners in determining priorities for implementing mitigation measures.

The risk assessment approach used for this plan entailed using geographic information system (GIS), Hazus hazard-modeling software, and hazard-impact data to develop vulnerability models for people, structures and critical facilities, and evaluating those vulnerabilities in relation to hazard profiles that model where hazards exist. This approach is dependent on the detail and accuracy of the data used. In all instances, this assessment used Best Available Science and data to ensure the highest level of accuracy possible.

The risk assessment is broken down into three phases, as follows:

The first phase, hazard identification, involves the identification of the geographic extent of a hazard, its intensity, and its probability of occurrence (discussed below). This level of assessment typically involves producing a map. The outputs from this phase can be used for land use planning, management, and development of regulatory authority; public awareness and education; identifying areas which require further study; and identifying properties or structures appropriate for mitigation efforts, such as acquisition or relocation.

The second phase, the vulnerability assessment, combines the information from the hazard identification with an inventory of the existing (or planned) property and population exposed to the hazard. It then attempts to predict how different types of property and population groups will be impacted or affected by the hazard of concern. This step assists in justifying changes to building codes or regulatory authority, property acquisition programs, such as those available through various granting opportunities; developing or modifying policies concerning critical or essential facilities, and public awareness and education.

The third phase, the risk analysis, involves estimating the damage, injuries, and costs likely to be incurred in the geographic area of concern over a period of time. Risk has two measurable components:

1. The magnitude of the harm that may result, defined through the vulnerability assessment; and
2. The likelihood or probability of harm occurring.

Utilizing those three phases of assessment, information was developed which identifies the hazards that affect the planning area, the likely location of natural hazard impact, the severity of the impact, previous occurrences, and the probability of future hazard events. That data, once complete, is utilized to complete the Risk Ranking process described in Chapter 12, which applies all of the data captured in the Calculated Priority Risk Index (CPRI).

The following is provided as the foundation for the standardized risk terminology:

- **Hazard:** Natural (or human caused) source or cause of harm or damage, demonstrated as actual (deterministic/historical events) or potential (probabilistic) events.
- **Risk:** The potential for an unwanted outcome resulting from a hazard event, as determined by its likelihood and associated consequences. For this plan, where possible, risk includes potential future losses based on probability, severity, and vulnerability, expressed in dollar losses when possible. In some instances, dollar losses are based on actual demonstrated impact, such as through the use of the Hazus model. In other cases, losses are demonstrated through exposure analysis due to the inability to determine the extent to which a structure is impacted.
- **Location:** The area of potential or demonstrated impact within the area in which the analysis is being conducted. In some instances, the area of impact is within a geographically defined area, such as a floodplain. In other instances, such as for severe weather, there is no established geographic boundary associated with the hazard, as it can impact the entire area.
- **Severity/Magnitude:** The extent or magnitude upon which a hazard is ranked, demonstrated in various means, e.g., Richter Scale.
- **Vulnerability:** The degree of damage, e.g., building damage or the number of people injured.
- **Probability of Occurrence and Return Intervals:** These terms are used as a synonym for likelihood, or the estimation of the potential of an incident to occur.

4.2 METHODOLOGY

The risk assessment for this hazard mitigation plan evaluates the risk of natural hazards prevalent in Mason County and meets requirements of the DMA (44 CFR Section 201.6(c)(2)). The methodology used to complete the risk assessment is described below.

4.2.1 Hazard Identification and Profiles

For this plan, the planning partners and stakeholders considered the full range of natural hazards that could impact the planning area and then listed hazards that present the greatest concern. The process incorporated review of state and local hazard planning documents, as well as information on the frequency, magnitude, and costs associated with hazards that have impacted or could impact the planning area. Anecdotal information regarding natural hazards and the perceived vulnerability of the planning area's assets to them was also used.

The Planning Team again reviewed the Tsunami hazard for consideration in this update, but elected to not do so. This decision was reached, in part, on the fact that there are currently no scenarios available on which to run analysis to determine vulnerability. However, with the inclusion of Tsunami in the newly-released Hazus model, it was suggested that this hazard be again reviewed during the next update cycle. It is hoped that developers will create a scenario on which potential impact can be determined. In the interim, review of FEMA's Risk Map data indicates that based on a M9.0 Cascadia Earthquake Scenario, FEMA and Washington State DNR estimate that a tsunami would arrive at Mason County approximately three (3) hours after the triggering incident, creating a 5-6-foot wave height, impacting Lynch Cove.

The Volcano hazard was also discussed, but the County had little historic impact from previous occurrences, and therefore the hazard was also tabled during this update, but will again be reviewed for inclusion in future updates.

The planning team further reviewed the hazards considered during the 2004, 2010, and 2018 plan update. Based on the review, the planning team confirmed the following natural hazards that this plan addresses as the hazards of concern, which are the same hazards addressed during the last update:

- Climate Change (Qualitative assessment now incorporated into impacted hazards rather than a stand-alone hazard)
- Drought
- Earthquake
- Flood
- Landslide
- Severe Weather
- Wildfire

Each planning partner was also advised that if they felt there were hazards specific to only their entity, that could also be included within their specific annex. The spreadsheet utilized to rank the hazards included a mechanism for the hazard to be included and ranked. No planning partner identified any additional hazards of concern.

The hazard profiles describe the risks associated with identified hazards of concern. Each chapter describes the hazard, the planning area's vulnerabilities, and, when possible, probable event scenarios. The following steps were used to define the risk of each hazard:

Identify and profile the following information for each hazard:

- General overview and description of hazard;
- Identification of previous occurrences;
- Geographic areas most affected by the hazard;
- Event frequency estimates;
- Severity estimates;
- Warning time likely to be available for response;
- Risk and vulnerability assessment, which includes identification of impact on people, property, economy, and the environment.

4.2.2 Risk Assessment Process and Tools

The hazard profiles and risk assessments contained in the hazard chapters describe the risks associated with each identified hazard of concern. Each chapter describes the hazard, the planning area's vulnerabilities, and probable event scenarios.

Once the profiles identified above were completed, the following steps were used to define the risk of each hazard:

- Determine exposure to each hazard—Exposure was determined by overlaying hazard maps with an inventory of structures, facilities, and systems to determine which of them would be exposed to each hazard.
- Assess the vulnerability of exposed facilities—Vulnerability of exposed structures and infrastructure was determined by interpreting the probability of occurrence of each event and assessing structures, facilities, and systems that are exposed to each hazard. Tools such as GIS and Hazus were used in this assessment.
- Where specific quantitative assessments could not be completed, vulnerability was measured in general, qualitative term, summarizing the potential impact based on past occurrences, spatial extent, and subjective damage and casualty potential. Those items were categorized utilizing the criteria established in the CPRI index.
- The final step in the process was to determine the cumulative results of vulnerability based on the risk assessment and Calculated Priority Risk Index (discussed below) scoring, assigning a final qualitative assessment based on the following classifications:
 - Extremely Low—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
 - Low—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
 - Medium—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
 - High—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.

- Extremely High—Very widespread with catastrophic impact.

4.2.3 Hazus and GIS Applications

Earthquake and Flood Modeling Overview

Hazus is a GIS-based software program used to support risk assessments, mitigation planning, and emergency planning and response. It provides a wide range of inventory data, such as demographics, building stock, critical facility, transportation and utility lifeline, and multiple models to estimate potential losses from natural disasters. The program maps and displays hazard data and the results of damage and economic loss estimates for buildings and infrastructure. Its advantages include the following:

- Provides a consistent methodology for assessing risk across geographic and political entities.
- Provides a way to save data so that it can readily be updated as population, inventory, and other factors change and as mitigation-planning efforts evolve.
- Facilitates the review of mitigation plans because it helps to ensure that FEMA methodologies are incorporated.
- Supports grant applications by calculating benefits using FEMA definitions and terminology.
- Produces hazard data and loss estimates that can be used in communication with local stakeholders.
- Is administered by the local government and can be used to manage and update a hazard mitigation plan throughout its implementation.

Building Inventory

The critical facilities list was again reviewed and updated for this 2023 edition of the HMP. Each planning partner was provided the opportunity to review the previous data, and update the information. For some partners, this included a significant increase in the number of structures analyzed, while for others, the number of structures did not change, or changed only minimally. In most instances, these were not newly constructed facilities, but rather facilities purchased from other entities or service providers, such as water purveyors, or existing buildings remodeled, such as the County's courthouse.

Hazus Application for this Plan

During the development of the 2018 plan, FEMA's RiskMap Program was developing new NFIP Flood Maps and other risk data for the County. That data remains the most current, and was utilized as appropriate for this update.

The following methods were used to assess specific hazards for this plan:

- **Flood**— Analysis was based on current FEMA regulatory 100- and 500-year flood hazard data based on the 2017 Flood Study. The updated critical facilities data was utilized at the exposure level for identify structures at risk.

- **Earthquake**— Earthquake shake maps and probabilistic data prepared by the U.S. Geological Survey (USGS) were used for the analysis of this hazard. A modified version of the National Earthquake Hazard Reduction Program (NEHRP) soils inventory was used.

GIS Application for this Plan

Drought, Dam, Landslide, Severe Weather, and Wildfire - For drought, dam, landslide, severe weather, and wildfire, historical data is not adequate to model future losses as no specific damage functions have been developed. However, GIS is able to map hazard areas and calculate exposure if geographic information is available with respect to the location of the hazard and inventory data. Areas and inventory susceptible to some of the hazards of concern were mapped and exposure was evaluated. For other hazards, a qualitative analysis was conducted using the best available data and professional judgment. Locally relevant information was gathered from a variety of sources. Frequency and severity indicators include past events and the expert opinions of geologists, staff, emergency management personnel and others. The primary data source was Mason County GIS data, augmented with state and federal data sets, including FEMA's RiskMap data. Additional data sources for specific hazards were as follows:

- **Drought**—The risk assessment methodologies used for this plan focus on damage to structures. Because drought does not impact structures, the risk assessment for drought was limited to a qualitative assessment.
- **Dam Failure**—Inundation data was unavailable for the high- or medium-hazard dams in the County (2018, 2023). Therefore, available dam data was used only to identify the location and hazard classification of dams located within the planning area.
- **Landslide**—Historic landslide hazard data was used to assess exposure to landslides using Washington DNR Landslide Susceptibility data. Landslide exposure is illustrated based on the number of structures which intersect a slope greater than or equal to 40 percent (or ≥ 21.8 degree).
- **Severe Weather**—Severe weather data was downloaded from the Natural Resources Conservation Service and the National Climatic Data Center, as well as other sources as cited.
- **Wildfire**—Information on wildfire analysis was captured from various sources, including Washington DNR Wildfire History data, Wildfire Protection data, US Forest Service data, LAND FIRE data, and Wildland Urban Interface Zone data, among other sources.

4.2.4 Calculated Priority Risk Index Scoring Criteria

Vulnerabilities are described in terms of critical facilities, structures, population, economic values, and functionality of government which can be affected by the hazard event. Hazard impact areas describe the geographic extent a hazard can impact a jurisdiction and are uniquely defined on a hazard-by-hazard basis. Mapping of the hazards, where spatial differences exist, allows for hazard analysis by geographic location. Some hazards can have varying levels of risk based on location. Other hazards cover larger geographic areas and affect the area uniformly. Therefore, a system must be established which addresses all elements (people, property, economy, continuity of government) in order to rate each hazard consistently. The use of the Calculated Priority Risk Index allows such application, based on established criteria of application to determine the risk factor. For

identification purposes, the six criteria on which the CPRI is based are probability, magnitude, geographic extent and location, warning time/speed of onset, and duration of the event. Those elements are further defined as follows:

Probability

Probability of a hazard event occurring in the future was assessed based on hazard frequency over a 100- year period (where available). Hazard frequency was based on the number of times the hazard event occurred divided by the period of record. If the hazard lacked a definitive historical record, the probability was assessed qualitatively based on regional history and other contributing factors. Probability of occurrence was assigned a 40% weighting factor, and was broken down as follows:

Rating	Likelihood	Frequency of Occurrence
1	Unlikely	Less than 1% probability in the next 100 years.
2	Possible	Between 1% and 10% probability in the next year, or at least one chance in the next 100 years.
3	Likely	Between 10% and 100% probability in next year, or at least one chance in the next 10 years.
4	Highly Likely	Greater than 1 event per year (frequency greater than 1).

Magnitude

The magnitude of potential hazard events was evaluated for each hazard. Magnitude is a measure of the strength of a hazard event, usually determined using specific technical measures. Magnitude was calculated for each hazard where property damage data was available, and was assigned a 25% weighting factor. (Magnitude calculation was determined using the following mathematical equation: $(\text{Property Damage} / \text{Number of Incidents}) / \$ \text{ of Building Stock Exposure} = \text{Magnitude}$.) Magnitude was broken down as follows:

Rating	Magnitude	Percentage of People and Property Affected
1	Negligible	Less than 5% Very minor impact to people, property, economy, and continuity of government at 90%.
2	Limited	6% to 24% Injuries or illnesses minor in nature, with only slight property damage and minimal loss associated with economic impact; continuity of government only slightly impacted, with 80% functionality.
3	Critical	25% to 49% Injuries result in some permanent disability; 25-49% of population impacted; moderate property damage ; moderate impact to economy, with loss of revenue and facility impact; government at 50% operational capacity with service disruption more than one week, but less than a month.
4	Catastrophic	More than 50% Injuries and illness resulting in permanent disability and death to more than 50% of the population; severe property damage greater than 50%; economy significantly impacted as a result of loss of buildings, content, inventory;

Rating	Magnitude	Percentage of People and Property Affected
		government significantly impacted; limited services provided, with disruption anticipated to last beyond one month.

Extent and Location

The measure of the percentage of the people and property within the planning area impacted by the event, and the extent (degree) to which they are impacted. Extent and location was assigned a weighting factor of 20%, and broken down as follows:

Rating	Magnitude	Percentage of People and Property Affected
1	Negligible	Less than 10% Few if any injuries or illness. Minor quality of life lost with little or no property damage. Brief interruption of essential facilities and services for less than four hours.
2	Limited	10% to 24% Minor injuries and illness. Minor, short term property damage that does not threaten structural stability. Shutdown of essential facilities and services for 4 to 24 hours.
3	Critical	25% to 49% Serious injury and illness. Major or long-term property damage, that threatens structural stability. Shutdown of essential facilities and services for 24 to 72 hours.
4	Catastrophic	More than 50% Multiple deaths Property destroyed or damaged beyond repair Complete shutdown of essential facilities and services for 3 days or more.

Warning Time/Speed of Onset

The rate at which a hazard occurs, or the time provided in advance of a situation occurring (e.g., notice of a cold front approaching or a potential hurricane, etc.) provides the time necessary to prepare for such an event. Sudden-impact hazards with no advanced warning are of greater concern. Warning Time/Speed of onset was assigned a 10% weighting factor, and broken down as follows:

Rating	Probable amount of warning time
1	More than 24 hours warning time.
2	12-24 hours warning time.
3	5-12 hours warning time.
4	Minimal or no warning time.

Duration

The time span associated with an event was also considered, the concept being the longer an event occurs, the greater the threat or potential for injuries and damages. Duration was assigned a weighting factor of 5%, and was broken down as follows:

Rating	Duration of Event
1	6-24 hours
2	More than 24 hours
3	Less than 1 week
4	More than 1 week

Chapter 11 summarizes all of the analysis conducted by way of completion of the Calculated Priority Risk Index (CPRI) for hazard ranking.

4.3 PROBABILITY OF OCCURRENCE AND RETURN INTERVALS

Natural hazard events with relatively long return periods, such as a 100-year flood or a 500- or 1,000-year earthquake, are often thought to be very unlikely. In reality, the probability that such events occur over the next 30 or 50 years is relatively high, having significant probabilities of occurring during the lifetime of a building:

- Hazard events with return periods of 100 years have probabilities of occurring in the next 30 or 50 years of about 26 percent and about 40 percent, respectively.
- Hazard events with return periods of 500 years have about a 6 percent and about a 10 percent chance of occurring over the next 30 or 50 years, respectively.
- Hazard events with return periods of 1,000 years have about a 3 percent chance and about a 5 percent chance of occurring over the next 30 or 50 years, respectively.

For life safety considerations, even natural hazard events with return periods of more than 1,000 years are often deemed significant if the consequences of the event happening are very severe (extremely high damage and/or substantial loss of life). For example, the seismic design requirements for new construction are based on the level of ground shaking with a return period of 2,475 years (2 percent probability in 50 years). Providing life safety for this level of ground shaking is deemed necessary for seismic design of new buildings to minimize life safety risk. Of course, a hazard event with a relatively long return period may occur tomorrow, next year, or within a few years. Return periods of 100 years, 500 years, or 1,000 years mean that such events have a 1 percent, a 0.2 percent or a 0.1 percent chance of occurring in any given year.

4.4 COMMUNITY VARIATIONS TO THE RISK ASSESSMENT

Each planning partner within their respective annex describes where or how their risk varies from what is described in the hazard profiles and risk ranking. Variations are documented in the risk assessment section in their annex to the plan, if appropriate. In some instances, declared disaster events may not have impacted a specific jurisdiction or entity. Similarly, there may have been

incidents of significance which did not rise to a level of a disaster declaration, but were nonetheless significant to the jurisdiction or entity. As such, those differences are noted where applicable.

4.5 LIMITATIONS

The models and information presented in this document does not replace or supersede any official document or product generated to meet the requirements of any state, federal, or local program, which may be much more detailed and encompassing beyond the scope of this project. The datasets presented in this document are the product of modeling and reprojection of existing data. As such, it carries an inherent degree of error and uncertainty. Users are strongly encouraged to read and fully comprehend the full reports of the data presented prior to data use. No warranty is made as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the Originator. No life safety measures should be based on this document.

This document is intended for planning purposes only and does not include any scientific analysis completed as a result of the document, as such far exceeds the intent of this document. This document and its contents have been prepared and are intended solely for Mason County and its planning partners' information and use with respect to hazard mitigation planning, incorporating other relevant data into other planning mechanisms as appropriate. While this process utilized best available science and scientific data, the planning team, consultant, nor any of the planning partners conducted any scientific analysis within this document, and none should be construed. In some instances, national data sets are the only source available, and are for the purpose of comparing relative risk. Data included is not intended to replace studies completed by engineers, geologists, hydrologists, or other subject matter experts. It is the responsibility of the user to be familiar with the value, assumptions, and limitations of this document. Reviewers must evaluate these data according to the scale and requirements specific to their needs. Our process only reproduced existing data in different ways to meet the guidelines and requirements of 44 CFR 201.6. All data layers utilized are identified within the various sections of this document should reviewers wish greater clarification and information.

Loss estimates, exposure assessments, and hazard-specific vulnerability evaluations rely on the best available data and methodologies. Uncertainties are inherent in any loss estimation methodology and arise in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from the following:

- Approximations and simplifications necessary to conduct a study
- Incomplete or outdated inventory, demographic or economic parameter data
- The unique nature, geographic extent, and severity of each hazard
- Mitigation measures already employed
- The amount of advance notice residents have to prepare for a specific hazard event.

These factors can affect loss estimates by a factor of two or more. Therefore, potential exposure and loss estimates are approximate. The results do not predict precise results and should be used only to understand relative risk. Over the long term, Mason County and its planning partners will collect additional data to assist in estimating potential losses associated with other hazards.

Some assumptions were made by the planning partnership in an effort to capture as much data as necessary to supplant any significant data gaps. One example of this is the valuation for structures within the assessed data, most commonly as it relates to the general building stock. For structures for which data was not provided, the missing information was determined using averages of similar types of structures, determining square footage and applying a multiplier. This process is identified in the Hazus User's Guide.

Some hazards, such as earthquake, are pre-loaded with scientifically determined scenarios which are used during the modeling process. This does not allow for manipulation of the data as with other hazards, such as flood. In the case of earthquake, greater reliance existed on the use of the Hazus default data, which is known to be less accurate, most often causing higher loss values. Therefore, while loss estimates are provided, they should be viewed with this flaw in mind. A much more in-depth scientific analysis is necessary to rely on this type of data with a high degree of accuracy. Readers should view this document as a baseline or starting point, and information should be further studied and analyzed by scientists and other subject matter experts in specific hazard fields.

CHAPTER 5.

DROUGHT

5.1 GENERAL BACKGROUND

Droughts originate from a deficiency of precipitation resulting from an unusual weather pattern. If the weather pattern lasts a short time (a few weeks or a couple of months), the drought is considered short-term. If the weather pattern becomes entrenched and the precipitation deficits last for several months or years, the drought is considered to be long-term. It is possible for a region to experience a long-term circulation pattern that produces drought, and to have short-term changes in this long-term pattern that result in short-term wet spells. Likewise, it is possible for a long-term wet circulation pattern to be interrupted by short-term weather spells that result in short-term drought.

Drought is a prolonged period of dryness severe enough to reduce soil moisture, water, and snow levels below the minimum necessary for sustaining plant, animal, and economic systems. Droughts are a natural part of the climate cycle. For this plan, the County has elected to use Washington's statutory definition of drought (RCW Chapter 43.83B.400), which is based on both of the following conditions occurring:

- The water supply for the area is below 75 percent of normal.
- Water uses and users in the area will likely incur undue hardships because of the water shortage.

DEFINITIONS

Drought—The cumulative impacts of several dry years on water users and agricultural producers. It can include deficiencies in surface and subsurface water supplies and cause impacts to health, well-being, and quality of life.

Hydrological Drought—Deficiencies in surface and subsurface water supplies.

Socioeconomic Drought—Drought impacts on health, well-being, and quality of life.

5.2 HAZARD PROFILE

5.2.1 Extent and Location

Drought can have a widespread impact on the environment and the economy, depending upon its severity, although it typically does not result in loss of life or damage to property, as do other natural disasters. The National Drought Mitigation Center uses three categories to describe likely drought impacts:

- **Agricultural**—Drought threatens crops that rely on natural precipitation, while also increasing the potential for infestation.
- **Water supply**—Drought threatens supplies of water for irrigated crops, for communities and for fish and salmon and other species of wildlife.
- **Fire hazard**—Drought increases the threat of wildfires from dry conditions in forest and rangelands.

In Washington, where hydroelectric power plants generate nearly three-quarters of the electricity produced, drought also threatens the supply of electricity. Unlike most disasters, droughts normally occur slowly but last a long time. Drought conditions occur every few years in Washington.

On average, the nationwide annual impacts of drought are greater than the impacts of any other natural hazard. They occur primarily in the agriculture, transportation, recreation and tourism, forestry, and energy sectors. Social and environmental impacts are also significant, although it is difficult to put a precise cost on these impacts.

Drought affects groundwater sources, but generally not as quickly as surface water supplies, although groundwater supplies generally take longer to recover. Reduced precipitation during a drought means that groundwater supplies are not replenished at a normal rate. This can lead to a reduction in groundwater levels and problems such as reduced pumping capacity or wells going dry. Shallow wells are more susceptible than deep wells. About 16,000 drinking water systems in Washington get water from the ground; these systems serve about 5.2 million people. Reduced replenishment of groundwater affects streams. Much of the flow in streams comes from groundwater, especially during the summer when there is less precipitation and after snowmelt ends. Reduced groundwater levels mean that even less water will enter streams when stream flows are lowest. Reduced water levels in wells also means that the wells are subject to saltwater intrusion.

Much of the area depends on well water, which currently supplies a large portion of Mason County residents with their drinking water. Drought conditions within the planning area increase pressure on local aquifers, with increased pumping potentially resulting in saltwater intrusion into freshwater aquifers. This, in turn, could cause restrictions on economic growth and development.

A drought directly or indirectly impacts all people in affected areas. A drought can result in farmers not being able to plant crops or the failure of planted crops. This results in loss of work for farm workers and those in related food processing jobs. Other water- or electricity-dependent industries are commonly forced to shut down all or a portion of their facilities, resulting in further layoffs. A drought can also harm recreational companies that use water (e.g., swimming pools, water parks, and river rafting companies) as well as landscape and nursery businesses because people will not invest in new plants if water is not available to sustain them. With much of Washington's energy coming from hydroelectric plants, a drought means less inexpensive electricity coming from dams and probably higher electric bills. All people would pay more for water if utilities increase their rates. This has become an issue within Washington State as a whole previously, when a lack of snow pack has decreased hydroelectric generating capacity, and raised the electric prices, impacting residents.

5.2.2 Previous Occurrences

The County has never been declared in a federal disaster declaration related to drought. As of this 2023 update, the County's water supply was above average (see Figure 5-1).⁶ However, in the past century, Washington has experienced a number of drought episodes, including several that lasted for more than a single season. Table 5-1 identifies drought occurrences within the State of Washington. Figure 5-1 identifies precipitation outlooks in Mason County as of this 2023 update. Figure 5-2 identifies drought instances during the period 2015 through 2022 in Mason County.

⁶ NOAA Drought.gov. Accessed 27 Jan 2023. Available online at: [Mason County Conditions | Drought.gov](#)

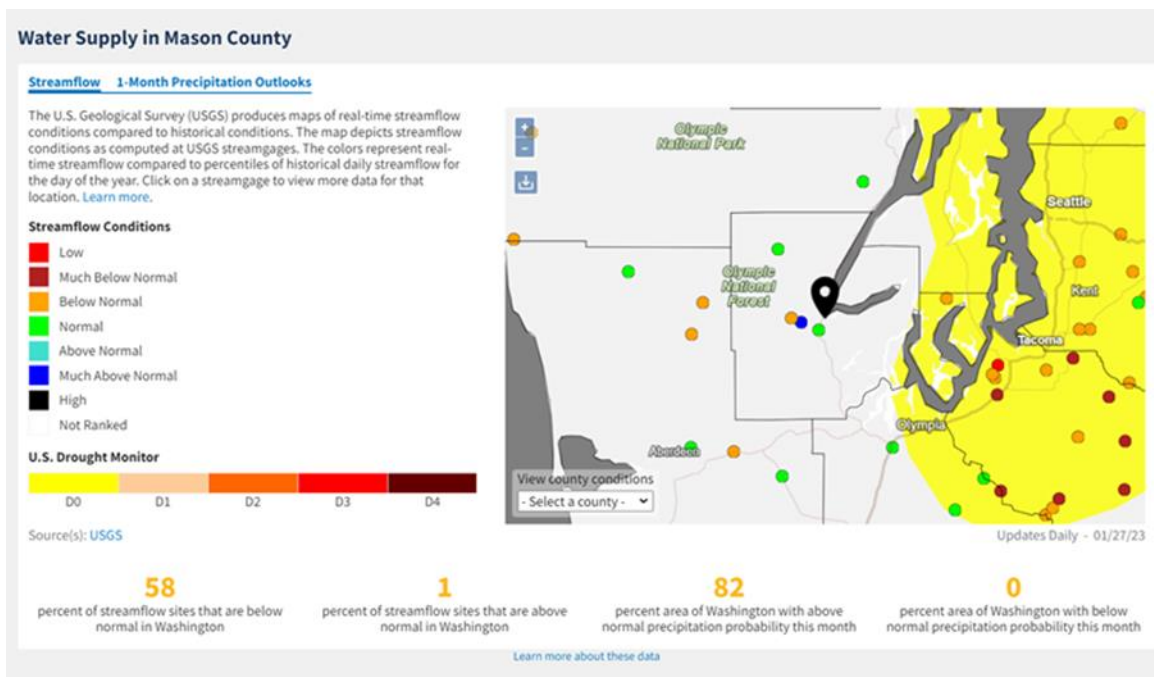


Figure 5-1 Water Supply in Mason County January 2023

U.S. Drought Monitor

- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

The U.S. Drought Monitor (USDM) is a national map released every Thursday, showing parts of the U.S. that are in drought. The USDM relies on drought experts to synthesize the best available data and work with local observers to interpret the information. The USDM also incorporates ground truthing and information about how drought is affecting people, via a network of more than 450 observers across the country, including state climatologists, National Weather Service staff, Extension agents, and hydrologists. [Learn more.](#)

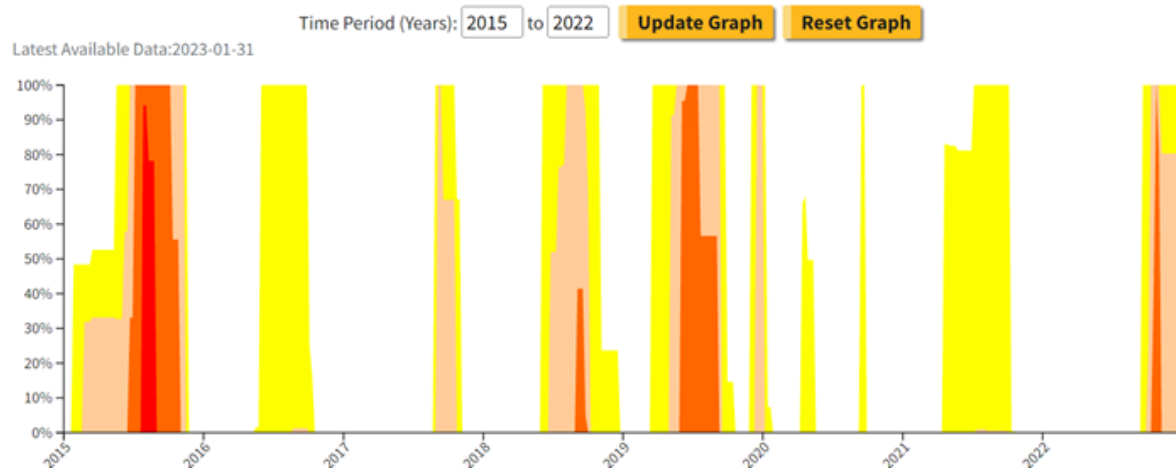


Figure 5-2 Historical Drought Conditions in Mason County 2015-2022

Table 5-1
Drought Occurrences

July-August 1902	No measurable rainfall in Western Washington
August 1919	Drought and hot weather occurred in Western Washington
July – August 1921	Drought in all agricultural sections.
June-August 1922	The statewide precipitation averaged 0.10 inches.
March – August 1924	Lack of soil moisture retarded germination of spring wheat.
July 1925	Drought occurred in Washington
July 21-August 25, 1926	Little or no rainfall was reported.
June 1928-March 1929	Most stations averaged less than 20 percent of normal rainfall for August and September and less than 60 percent for nine months.
July – August 1930	Drought affected the entire state. Most weather stations averaged 10 percent or less of normal precipitation.
April 1934-March 1937	The longest drought in the region's history – the driest periods were April-August 1934, September-December 1935, and July-January 1936-1937.
May – September 1938	Driest growing season in Western Washington.
1952	Every month was below normal precipitation except June. The hardest hit areas were Puget Sound and the central Cascades.
January – May 1964	Drought covered the southwestern part of the state. Precipitation was less than 40 percent of normal.
Spring 1966	Drought throughout Washington
June – August 1967	Drought throughout Washington
January – August 1973	Dry in the Cascades.
October 1976 – September 1977	Worst drought in Pacific Northwest history. Below normal precipitation in Olympia, Seattle, and Yakima. Crop yields were below normal and ski resorts closed for much of the 1976-77 season.
2001 Governor Declared Drought	Governor declared statewide Stage 2 drought in response to severe dry spell.
June – September 2003	Federal disaster number 1499 assigned to 15 counties. The original disaster was for flooding but several jurisdictions were included because of previous drought conditions.

**Table 5-1
Drought Occurrences**

March 10, 2005 Governor Declared Drought	Precipitation levels was below or much below the average from November through February, with extremely warm fall and winter months, adversely affecting the state's mountain snow pack. A warm mid-January removed much of the remaining snow pack, with March projections at 66 percent of normal, indicating that Washington might be facing a drought as bad as, or worse, than the 1977 drought. Late March rains filled reservoirs to about 95 percent. State legislature approved \$12 million supplemental budget that provided funds to buy water, improve wells, and implement other emergency water supply projects. Wildfires numbers was about 75 percent of previous five years, but acreage burned was three times greater.
2015	2015 was the year of the "snowpack drought." Washington State had normal or near-normal precipitation over the 2014-2015 winter season. However, October through March the average statewide temperature was 40.5 degrees Fahrenheit, 4.7 degrees above the 20th century long-term average and ranking as the warmest October through March on record. Washington experienced record low snowpack because mountain precipitation that normally fell as snow instead fell as rain. The snowpack deficit then was compounded as precipitation began to lag behind normal levels in early spring and into the summer. With record spring and summer temperatures, and little to no precipitation over many parts of the state, the snowpack drought morphed into a traditional precipitation drought, causing injury to crops and aquatic species. Many rivers and streams experienced record low flows.
2019 Governor Declared Drought	On May 20, 2019, Governor Jay Inslee issued an emergency drought declaration in 24 watersheds statewide. According to the Washington State Department of Ecology, very dry conditions over several months and a diminished snowpack impacted streamflow, which were identified to be well below normal conditions across most of the state. ⁷ Watersheds west of the Cascades crest, which are more rain dependent than rivers on the east side, flowed at much below normal levels. Some rivers set record daily lows for historic May flows. Statewide, at the time the declaration was ordered, only four (4) percent of rivers were flowing at levels above normal. While stream flows were strong in the southeast corner of the state, 27 out of 62 watersheds were declared for drought as of May 20, 2019.
2020	Several months in a row of below-average precipitation brought drought to the Pacific Northwest in spring 2020, with only the northwestern corner of Washington, around Seattle, free of any kind of drought or abnormal dryness. As the region's dry summer approached, the winter and spring

⁷ Source: <https://waterwatch.usgs.gov/?m=real&r=wa>

Table 5-1 Drought Occurrences	
	precipitation deficits pose a threat to livestock operators, farmers, and fish, and heighten the risk of wildfires. In this event, while precipitation falling as snow was initially at normal levels, the higher-than-average temperatures caused rapid snow melt, with runoff coming earlier in the year causing high rates of soil moisture evaporation.
2021 Dept. of Ecology issued Emergency Drought Declaration	The spring of 2021 was the second driest on record, and then an unprecedented late-June heatwave smashed temperature records across the state. In response, Washington State Department of Ecology issued an emergency drought declaration in July 2021 covering 96 percent of the state. Only Seattle, Everett, and Tacoma – cities with ample water storage – escaped the designation.
2022	Historically low water levels in several areas closed most recreational fishing on most streams of the Olympic Peninsula.

5.2.3 Severity

Droughts impact individuals (farm owners, tenants, and farm laborers), the agricultural industry, and other agriculture-related sectors. Lack of snow pack has forced ski resorts into bankruptcy. There is increased danger of forest and wildland fires. Millions of board feet of timber have been lost. Loss of forests and trees increases erosion, causing serious damage to aquatic life, irrigation, and power development by heavy silting of streams, reservoirs, and rivers.

The severity of a drought depends on the degree of moisture deficiency, the duration, and the size and location of the affected area. The longer the duration of the drought and the larger the area impacted, the more severe the potential impacts. Droughts are not usually associated with direct impacts on people or property, but they can have significant impacts on agriculture, wildlife, and fishing, which can impact people indirectly. When measuring the severity of droughts, analysts typically look at economic impacts.

The National Oceanic and Atmospheric Administration (NOAA) has developed several indices to measure drought impacts and severity to map their extent and locations.

- The **Palmer Crop Moisture Index** measures short-term drought on a weekly scale and is used to quantify drought's impacts on agriculture during the growing season.
- The **Palmer Z Index** measures short-term drought on a monthly scale. Figure 5-3 shows this index for August 2022.
- The hydrological impacts of drought (e.g., reservoir levels, groundwater levels, etc.) take longer to develop and it takes longer to recover from them. The **Palmer Hydrological Drought Index**, another long-term index, was developed to quantify hydrological effects. This index responds more slowly to changing conditions than the Palmer Drought Index.
- While the Palmer indices consider precipitation, evapotranspiration and runoff, the **Standardized Precipitation Index** considers only precipitation. In this index, a value of zero indicates the median precipitation amount; the index is negative for drought and positive for wet conditions. The Standardized Precipitation Index is computed for time scales ranging from one month to 24 months.

- The **Palmer Drought Index** measures the duration and intensity of long-term drought-inducing circulation patterns. Long-term drought is cumulative, so the intensity of drought during a given month is dependent on the current weather patterns plus the cumulative patterns of previous months. Weather patterns can change quickly from a long-term drought pattern to a long-term wet pattern, and this index can respond fairly rapidly.

These indices change very frequently. The data contained in this profile frequently changes, and is meant to provide only a brief overview. Reviewers wishing additional or more current data should check NOAA's website at [Historical Palmer Drought Indices | National Centers for Environmental Information \(NCEI\) \(noaa.gov\)](https://www.noaa.gov/data/monitoring-assessments/palmer-drought-indices)

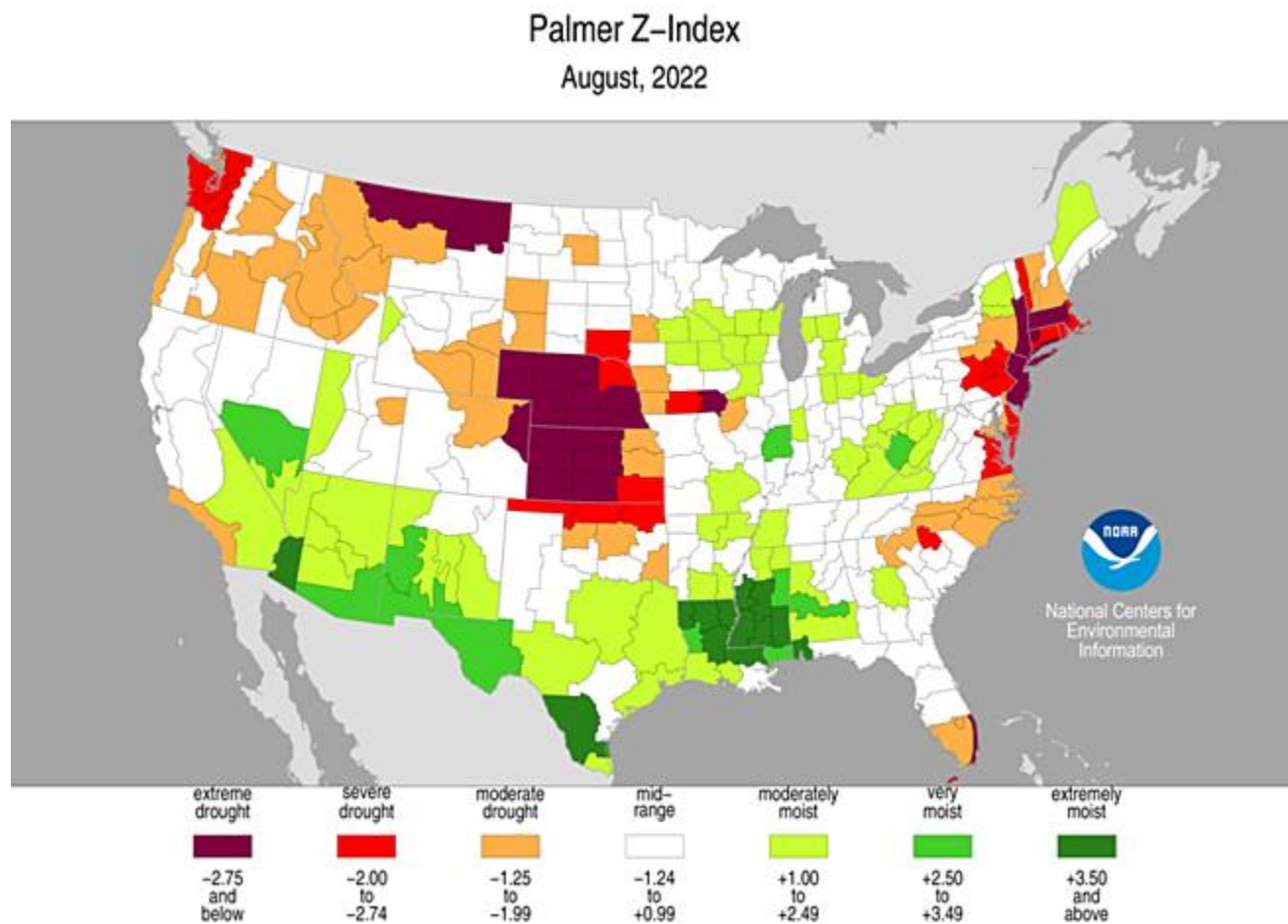


Figure 5-3 Palmer Z Index Short-Term Drought Conditions (August 2022)

5.2.4 Frequency

Empirical studies conducted over the past century have shown that meteorological drought is never the result of a single cause. It is the result of many causes, often synergistic in nature; these include global weather patterns that produce persistent, upper-level high-pressure systems along the West Coast with warm, dry air resulting in less precipitation.

In temperate regions, including Washington, long-range forecasts of drought have limited reliability. In the tropics, empirical relationships have been demonstrated between precipitation and El Niño events, but few such relationships have been demonstrated above 30° north latitude. Meteorologists do not believe that reliable forecasts are attainable at this time a season or more in advance for temperate regions.

A great deal of research has been conducted in recent years on the role of interacting systems in explaining regional and even global patterns of climatic variability. These patterns tend to recur periodically with enough frequency and with similar characteristics over a sufficient length of time that they offer opportunities to improve the ability for long-range climate prediction. However, too many variables exist in determining the frequency with which a drought will occur.

Reliable forecasts of drought are not attainable for temperate regions of the world more than a season in advance. However, based on a 100-year history with drought, the state as a whole can expect severe or extreme drought at least 5 percent of the time in the future, with most of eastern Washington experiencing severe or extreme drought about 10 to 15 percent of the time.” (EMD, 2012). With changing climatic conditions, the State’s 2018 Hazard Mitigation Plan indicates that the “state may likely experience one or two major drought events,” impacting 75 percent of the State area, and approximately 21 percent of the State’s population, which resides in areas with medium or high drought exposure. Based on the State’s 2018 HMP, Mason County has a low exposure rate (WA EMD HMP, 2018).

5.3 VULNERABILITY ASSESSMENT

5.3.1 Overview

Drought produces a complex web of impacts that spans many sectors of the economy and reaches well beyond the area experiencing physical drought. This complexity exists because water is integral to the ability to produce goods and provide services. Drought can affect a wide range of economic, environmental, and social activities. The vulnerability of an activity associated with the effects of drought usually depends on its water demand, how the demand is met, and what water supplies are available to meet the demand.

All people, property and environments in the planning area could be exposed to some degree to the impacts of moderate to extreme drought. Areas densely wooded, especially areas in parks throughout the County which host campers, increase the exposure to forest fires. Additional exposure comes in the form of economic impact should a prolonged drought occur that would impact fishing, recreation, agriculture, and timber harvesting—primary sources of income in the planning area. Prolonged drought would also decrease capacity within the watersheds, thereby reducing fish runs and, potentially, spawning areas.

Warning Time

A drought is not a sudden-onset hazard. Droughts are climatic patterns that occur over long periods, providing for some advance notice. In many instances, annual situations of low water levels are identified months in advance (e.g., snow pack at lower levels are identified during winter months), allowing for advanced planning for water conservation.

Meteorological drought is the result of many causes, including global weather patterns that produce persistent, upper-level high-pressure systems along the West Coast resulting in less precipitation. Only general warning can take place, due to the numerous variables that scientists have not pieced together well enough to make accurate and precise predictions. It is often difficult to recognize a drought before being in the middle of it. Droughts do not occur spontaneously, they evolve over time as certain conditions are met.

Scientists do not know how to predict drought more than a month in advance for most locations. Predicting drought depends on the ability to forecast precipitation and temperature. Weather anomalies may last from several months to several decades. How long they last depend on interactions between the atmosphere and the oceans, soil moisture and land surface processes, topography, internal dynamics, and the accumulated influence of weather systems on the global scale. In temperate regions such as Washington, long-range forecasts of drought have limited reliability. Meteorologists do not believe that reliable forecasts are attainable at this time a season or more in advance for temperate regions.

5.3.2 Impact on Life, Health, and Safety

Wildfires are often associated with drought. A prolonged lack of precipitation dries out vegetation, which becomes increasingly susceptible to ignition as the duration of the drought extends. This increases the risk to the health and safety of the residents within the planning area, especially those in wildland-urban interface areas. Smoke and particles embedded within the smoke are of significant concern for the elderly and very young, especially those with breathing problems.

The County and its jurisdictions have the ability to minimize impacts on residents and water consumers within the planning area should several consecutive dry years occur.

5.3.3 Impact on Property

No structures will be directly affected by drought conditions, though some may become vulnerable to wildfires, which are more likely following years of drought. Droughts can also have significant impacts on landscapes, which could cause a financial burden to property owners. However, these impacts are not considered critical in planning for impacts from the drought hazard.

5.3.4 Impact on Critical Facilities and Infrastructure

Critical facilities will continue to be operational during a drought unless impacted by fire. Critical facility elements such as landscaping may not be maintained due to limited resources, but the risk to the planning area's critical facilities inventory will be largely aesthetic. For example, when water conservation measures are in place, landscaped areas will not be watered and may die. These aesthetic impacts are not considered significant.

5.3.5 Impact on Economy

Economic impact from a drought is associated with different aspects, including potential loss of agri- and aqua-cultural production. The County's economy relies heavily on aquaculture. Also ranking high with respect to agricultural dependency is Christmas trees and short rotation woody crops, ranking fourth statewide. Combined, the impact from a drought situation on the County's agri- and aqua-cultural markets for economic sustainability could be high. One of Mason County's largest employers, Taylor Shellfish, Inc., is also one of the largest producers of aquaculture shellfish. Drought situations such that have previously occurred statewide which impacted the fishing industry could

have a negative impact on both Christmas tree production – another of the County’s leading economic industries, and the shellfish industry.

Additional economic impact stems from the potential loss of critical infrastructure due to fire damage and impacts on industries that depend on water for their business, such as fishing industries, water-based recreational activities, and public facilities and recreational areas.

Problems of domestic and municipal water supplies have historically been corrected by building another reservoir, a larger pipeline, new well, or some other facility. With drought conditions increasing pressure on aquifers and increased pumping, which can result in saltwater intrusion into fresh water aquifers, resultant reductions or restrictions on economic growth and development could occur. Given potential political issues, a drought situation, if prolonged, could restrict building within specific areas due to lack of supporting infrastructure, thereby impacting the tax base and economy of the region by limiting growth. In addition, impact to or the lack of hydroelectric generating capacity associated with drought conditions as a result of reduced precipitation levels could raise electric prices throughout the region.

5.3.6 Impact on Environment

Environmental losses from drought are associated with aquatic life, plants, animals, wildlife habitat, air and water quality, forest fires, landscape quality, biodiversity, and soil erosion. Some effects are short-term and conditions quickly return to normal after the drought. Other effects linger or even become permanent. Wildlife habitat, for example, may be degraded through the loss of wetlands, lakes, and vegetation, but many species will eventually recover from this effect. Degraded landscape quality, including soil erosion, may lead to a more permanent loss of biological productivity. Life-cycles for fish spawning in the area would have environmental impacts years into the future.

Public awareness and concern for environmental quality has led to greater attention to these effects. Drought conditions within the planning area could increase the demand for water supplies. Water shortages would have an adverse impact on the environment, relied upon by the planning partnership, causing social and political conflicts. If such conditions persisted for several years, the economy of Mason County could experience setbacks, especially in water dependent industries.

5.3.7 Impact from Climate Change

The impact from climate change on drought will be significant. With historic records demonstrating increased temperature rise, the results will only further exacerbate drought stations. Ocean acidification has also been noted. Drought also plays a significant role in the wildfire system, fire behavior, ignitions, fire management, and vegetation fuels. Hot dry spells create the highest fire risk. Increased temperatures may intensify wildfire danger by warming and drying out vegetation. Climate change will further change the use of water available for fish spawning due to increased temperatures. It will also impact availability for agricultural growers for their crops; with decreased precipitation in the form of snow, water levels will fall, creating water shortages for use by consumers as drinking water, irrigation and watering of livestock, and firefighters to control and fight fires.

5.4 FUTURE DEVELOPMENT TRENDS

Mason County and the City of Shelton have a relatively high amount of land available for future construction. With the anticipated increase in population, the rezoning of land from agricultural to residential would have the propensity to increase water demands, as well as increase demands on

other infrastructure, and increase the potential for wildfires. The City of Shelton and Mason County have established comprehensive plans that include policies directing land use and dealing with issues of water supply and the protection of water resources, as well as fire regulations. These plans provide the capability at the local municipal level to protect future development from the impacts of drought. All planning partners reviewed their general plans under the capability assessments performed for this effort. Deficiencies identified by these reviews can be identified as mitigation actions to increase the capability to deal with future trends in development.

The planning area continues to move forward in developing policies directing land use and dealing with zoning, density and permitting for any new development. This will provide the capability to protect future development from the impacts of drought.

5.5 ISSUES

An extreme drought could impact the region with little warning. Combinations of low precipitation and unusually high temperatures could occur over several consecutive years, especially in response to climate change. Intensified by such conditions, extreme wildfires could break out throughout the area, increasing the need for water. Surrounding communities, also in drought conditions, could increase their demand for water, causing social and political conflicts. Low water tables could increase issues of life, safety, and health, while also impacting the economy both for loss of potential agricultural income, but also with respect to decreased ability to construct new housing due to lack of ability to provide water. If such conditions persisted for several years, the economy of the region could experience setbacks, especially in water dependent industries.

The planning team has identified the following drought-related issues:

- The need for alternative water sources should a prolonged drought occur;
- Use of groundwater recharge to stabilize the groundwater supply;
- The probability of increased drought frequencies and durations due to climate change;
- The promotion of active water conservation even during non-drought periods;
- The potential impact on businesses in the area;
- The potential impact on the livelihood of those employed in industries that could be impacted by drought, such as agriculture, fishing, forestry, and tourism.

5.6 RESULTS

Based on review and analysis of the data, the Planning Team has determined that the probability for impact from Drought throughout the area is highly likely. The area has previously experienced drought conditions. As of this 2023 update, the State has experienced some of its driest summers on record, as well as setting high-temperature records. With anticipated increase in temperatures as a result of climate change expected to continue, drought situations will only intensify. With the planning area's dependence on aqua- and agri-culture, there is a significant potential economic loss in the region. In addition, higher temperatures anticipated with climate change would increase vulnerability of the population due to excessive heat, while also potentially impacting power supplies at the hydro-dams in the area. With a higher number of aged population than that of the remaining state, as well as older residential structures that may not have air conditioning or air purification

systems in place, this would increase the potential vulnerability. Based on the potential impact, the Planning Team determined the CPRI score to be 2.6, with overall vulnerability determined to be a medium level.

CHAPTER 6.

EARTHQUAKE

An earthquake is the vibration of the earth's surface following a release of energy in the earth's crust. This energy can be generated by a sudden dislocation of the crust or by a volcanic eruption. Its epicenter is the point on the earth's surface directly above the hypocenter of an earthquake. The location of an earthquake is described by the geographic position of its epicenter and by its focal depth. Earthquakes many times occur along a fault, which is a fracture in the earth's crust.

6.1 GENERAL BACKGROUND

Most destructive quakes are caused by dislocations of the crust. The crust may first bend and then, when the stress exceeds the strength of the rocks, break and snap to a new position. In the process of breaking, vibrations called "seismic waves" are generated. These waves travel outward from the source of the earthquake at varying speeds.

Earthquakes tend to reoccur along faults, which are zones of weakness in the crust. Even if a fault zone has recently experienced an earthquake, there is no guarantee that all the stress has been relieved. Another earthquake could still occur.

Geologists classify faults by their relative hazards. Active faults, which represent the highest hazard, are those that have ruptured to the ground surface during the Holocene period (about the last 11,000 years). Potentially active faults are those that displaced layers of rock from the Quaternary period (the last 1,800,000 years). Determining if a fault is "active" or "potentially active" depends on geologic evidence, which may not be available for every fault.

Faults are more likely to have earthquakes on them if they have more rapid rates of movement, have had recent earthquakes along them, experience greater total displacements, and are aligned so that movement can relieve accumulating tectonic stresses. A direct relationship exists between a fault's length and location and its ability to generate damaging ground motion at a given site. In some areas, smaller, local faults produce lower magnitude quakes, but ground shaking can be strong, and damage can be significant as a result of the fault's proximity to the area. In contrast, large regional faults can generate great magnitudes but, because of their distance and depth, may result in only moderate shaking in the area.

It is generally agreed that three source zones exist for Pacific Northwest quakes: a shallow (crustal) zone; the Cascadia Subduction Zone; and a deep, intraplate "Benioff" zone. These are shown in Figure 6-1. More than 90 percent of Pacific Northwest earthquakes occur along the boundary between the Juan de Fuca plate and the North American plate.

DEFINITIONS

Earthquake—The shaking of the ground caused by an abrupt shift of rock along a fracture in the earth or a contact zone between tectonic plates.

Epicenter—The point on the earth's surface directly above the hypocenter of an earthquake. The location of an earthquake is commonly described by the geographic position of its epicenter and by its focal depth.

Fault—A fracture in the earth's crust along which two blocks of the crust have slipped with respect to each other.

Focal Depth—The depth from the earth's surface to the hypocenter.

Hypocenter—The region underground where an earthquake's energy originates

Liquefaction—Loosely packed, water-logged sediments losing their strength in response to strong shaking, causing major damage during earthquakes.

An earthquake will generally produce the strongest ground motions near the epicenter (the point on the ground above where the earthquake initiated) with the intensity of ground motions diminishing with increasing distance from the epicenter. The intensity of ground shaking at a given site depends on four main factors:

- Earthquake magnitude
- Earthquake epicenter
- Earthquake depth
- Soil or rock conditions at the site, which may amplify or de-amplify earthquake ground motions.

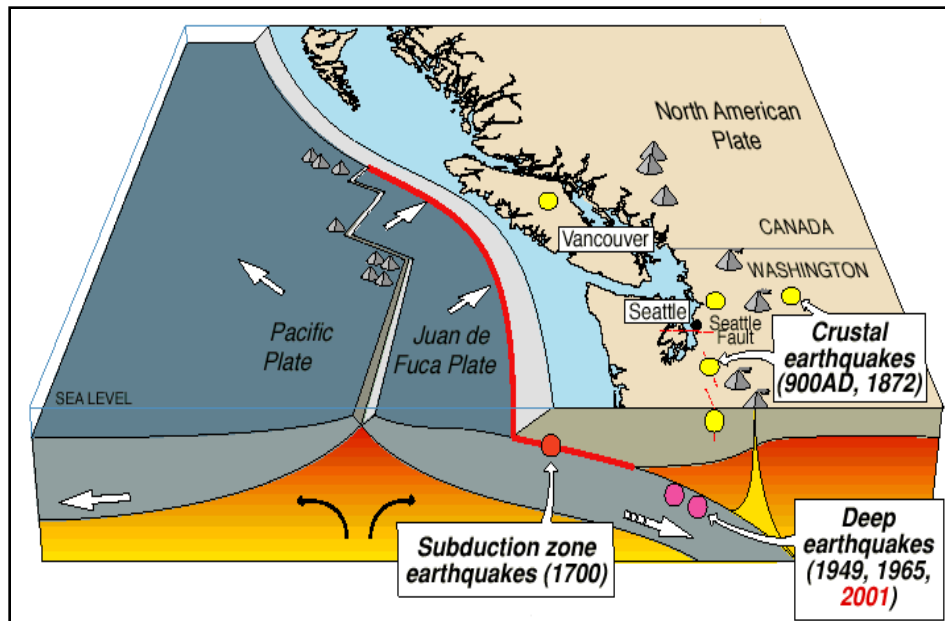


Figure 6-1 Earthquake Types in the Pacific Northwest

For any given earthquake, there will be contours of varying intensity of ground shaking with distance from the epicenter. The intensity will generally decrease with distance from the epicenter, and often in an irregular pattern, not simply in concentric circles. The irregularity is caused by soil conditions, the complexity of earthquake fault rupture patterns, and directionality in the dispersion of earthquake energy.

6.1.1 Earthquake Classifications

Earthquakes are typically classified in one of two ways: By the amount of energy released, measured as **magnitude** (size or power based on the Richter Scale); or by the impact on people and structures, measured as **intensity** (based on the Mercalli Scale). Magnitude is related to the amount of seismic energy released at the hypocenter of an earthquake. It is determined by the amplitude of the earthquake waves recorded on instruments. Magnitude is represented by a single, instrumentally determined value for each earthquake event. Intensity indicates how the earthquake is felt at various distances from the earthquake epicenter.

Magnitude

Currently the most commonly used magnitude scale is the moment magnitude (M_w) scale, with the follow classifications of magnitude:

- Great— $M_w \geq 8$
- Major— $M_w = 7.0\text{—}7.9$
- Strong— $M_w = 6.0\text{—}6.9$
- Moderate— $M_w = 5.0\text{—}5.9$
- Light— $M_w = 4.0\text{—}4.9$
- Minor— $M_w = 3.0\text{—}3.9$
- Micro— $M_w < 3$

Estimates of moment magnitude roughly match the local magnitude scale (ML) commonly called the Richter scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. That is, there is no value beyond which all large earthquakes have about the same magnitude. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes.

Intensity

There are many measures of the severity or intensity of earthquake ground motions. The Modified Mercalli Intensity scale (MMI) (Table 6-1) was widely used beginning in the early 1900s. MMI is a descriptive, qualitative scale that relates severity of ground motions to the types of damage experienced. MMI values range from I to XII (USGS, 1989).

Table 6-1 Modified Mercalli Intensity (MMI) Scale Descriptions	
MMI VALUE	DESCRIPTION
I	Not felt except by a very few under especially favorable conditions
II	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it is an earthquake. Standing cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like a heavy truck striking building. Standing cars rocked noticeably.
V	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Felt by all; many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.

Table 6-1 Modified Mercalli Intensity (MMI) Scale Descriptions	
MMI VALUE	DESCRIPTION
VII	Damage negligible in buildings of good design and construction; slight in well-built ordinary structures; considerable in poorly built or badly designed structures. Some chimneys broken.
VIII	Damage slight in specially designed structures; considerable damage in ordinary buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
XI	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
X	Damage total. Lines of sight and level are distorted. Objects thrown into the air.

More accurate, quantitative measures of the intensity of ground shaking have largely replaced the MMI and are used in this mitigation plan. These scales use terms that can be physically measured with seismometers, such as the acceleration, velocity, or displacement (movement) of the ground. The intensity may also be measured as a function of the frequency of earthquake waves propagating through the earth. In the same way that sound waves contain a mix of low-, moderate- and high-frequency sound waves, earthquake waves contain ground motions of various frequencies. The behavior of buildings and other structures depends substantially on the vibration frequencies of the building or structure versus the frequency of earthquake waves. Earthquake ground motions also include both horizontal and vertical components.

Ground Motion

Earthquake hazard assessment is also based on expected ground motion. This involves determining the probability that certain ground motion accelerations will be exceeded over a time period of interest. A common physical measure of the intensity of earthquake ground shaking, and the one used in this mitigation plan, is peak ground acceleration (PGA). PGA is a measure of the intensity of shaking relative to the acceleration of gravity (g). For example, an acceleration of 1.0 g PGA is an extremely strong ground motion, which does occur near the epicenter of large earthquakes. With a vertical acceleration of 1.0 g, objects are thrown into the air. With a horizontal acceleration of 1.0 g, objects accelerate sideways at the same rate as if they had been dropped from the ceiling. A PGA equal to 10% g means that the ground acceleration is 10 percent that of gravity, and so on.

Damage levels experienced in an earthquake vary with the intensity of ground shaking and with the seismic capacity of structures. The following generalized observations provide qualitative statements about the likely extent of damage for earthquakes with various levels of ground shaking (PGA) at a given site:

- Ground motions of only 1% g or 2% g are widely felt by people; hanging plants and lamps swing strongly, but damage levels, if any, are usually very low.
- Ground motions below about 10% g usually cause only slight damage.
- Ground motions between about 10% g and 30% g may cause minor to moderate damage in well-designed buildings, with higher levels of damage in more vulnerable buildings. At this level of ground shaking, some poorly built buildings may be subject to collapse.
- Ground motions above about 30% g may cause significant damage in well-designed buildings and very high levels of damage (including collapse) in poorly designed buildings.
- Ground motions above about 50% g may cause significant damage in most buildings, even those designed to resist seismic forces.

PGA is the basis of seismic zone maps that are included in building codes such as the International Building Code. Building codes that include seismic provisions specify the horizontal force due to lateral acceleration that a building should be able to withstand during an earthquake. PGA values are directly related to these lateral forces that could damage “short period structures” (e.g. single-family dwellings). Longer period response components determine the lateral forces that damage larger structures with longer natural periods (apartment buildings, factories, high-rises, bridges). The amount of earthquake damage and the size of the geographic area affected generally increase with earthquake magnitude:

- Earthquakes below M5 are not likely to cause significant damage, even near the epicenter.
- Earthquakes between about M5 and M6 are likely to cause moderate damage near the epicenter.
- Earthquakes of about M6.5 or greater (e.g., the 2001 Nisqually earthquake in Washington) can cause major damage, with damage usually concentrated fairly near the epicenter.
- Larger earthquakes of M7+ cause damage over increasingly wider geographic areas with the potential for very high levels of damage near the epicenter.
- Great earthquakes with M8+ can cause major damage over wide geographic areas.
- An M9 mega-quake on the Cascadia Subduction Zone could affect the entire Pacific Northwest from British Columbia, through Washington and Oregon, and as far south as Northern California, with the highest levels of damage nearest the coast.

Table 6-2 lists damage potential and perceived shaking by PGA factors, compared to the Mercalli scale.

Table 6-2 Comparison Of Mercalli Scale and Peak Ground Acceleration				
Modified		Potential Structure Damage		Estimated PGA ^a
Mercalli Scale	Perceived Shaking	Resistant Buildings	Vulnerable Buildings	(%g)
I	Not Felt	None	None	<0.17%
II-III	Weak	None	None	0.17%—1.4%
IV	Light	None	None	1.4%—3.9%
V	Moderate	Very Light	Light	3.9%—9.2%
VI	Strong	Light	Moderate	9.2%—18%
VII	Very Strong	Moderate	Moderate/Heavy	18%—34%
VIII	Severe	Moderate/Heavy	Heavy	34%—65%
IX	Violent	Heavy	Very Heavy	65%—124%
X—XII	Extreme	Very Heavy	Very Heavy	>124%

a. PGA measured in percent of g, where g is the acceleration of gravity

Sources: USGS, 2008; USGS, 2010

6.1.2 Effect of Soil Types

Liquefaction is a secondary effect of an earthquake in which soils lose their shear strength and flow or behave as liquid, thereby damaging structures that derive their support from the soil. Liquefaction generally occurs in soft, unconsolidated sedimentary soils. The National Earthquake Hazard Reduction Program (NEHRP) creates maps based on soil characteristics to help identify locations subject to liquefaction. Table 6-3 summarizes NEHRP soil classifications. NEHRP Soils B and C typically can sustain ground shaking without much effect, dependent on the earthquake magnitude. Areas that are commonly most affected by ground shaking and susceptible to liquefaction have NEHRP Soils D, E and F.

Table 6-3 NEHRP Soil Classification System		
NEHRP Soil Type	Description	Mean Shear Velocity to 30 Meters (m/s)
A	Hard Rock	1,500
B	Firm to Hard Rock	760-1,500
C	Dense Soil/Soft Rock	360-760
D	Stiff Soil	180-360
E	Soft Clays	< 180
F	Special Study Soils (liquefiable soils, sensitive clays, organic soils, soft clays >36 m thick)	

Table 6-4 Acres of NEHRP Soil Classification by Type Countywide						
NEHRP Soil Type	Description	Mean Shear Velocity to 30 Meters (m/s)	# of Acres w/n Mason County	# of Acres w/in Shelton	# of Acres w/in Allyn	# of Acres w/in Belfair
A	Hard Rock	1,500	0	0	0	0
B	Firm to Hard Rock	760-1,500	220,707.8	0.0	0.0	0.0
C	Dense Soil/Soft Rock	360-760	259,940.8	1,659.1	869.9	1,513.8
D	Stiff Soil	180-360	108,100.7	1,813.2	216.8	746.3
E	Soft Clays	< 180	34,397.0	236.8	216.8	32.8
F	Special Study Soils (liquefiable soils, sensitive clays, organic soils, soft clays >36 m thick)		0.0	0.0	0.0	0.0

6.1.3 Fault Classification

The U.S. Geologic Survey defines four fault classes based on evidence of tectonic movement associated with large-magnitude earthquakes during the Quaternary period, which is the period from about 1.6 million years ago to the present:

- Class A—Geologic evidence demonstrates the existence of a Quaternary fault of tectonic origin, whether the fault is exposed by mapping or inferred from liquefaction or other deformational features.
- Class B—Geologic evidence demonstrates the existence of Quaternary deformation, but either (1) the fault might not extend deep enough to be a potential source of significant earthquakes, or (2) the currently available geologic evidence is too strong to confidently assign the feature to Class C but not strong enough to assign it to Class A.
- Class C—Geologic evidence is insufficient to demonstrate (1) the existence of tectonic faulting, or (2) Quaternary slip or deformation associated with the feature.
- Class D—Geologic evidence demonstrates that the feature is not a tectonic fault or feature; this category includes features such as joints, landslides, erosional or fluvial scarps, or other landforms resembling fault scarps but of demonstrable non-tectonic origin.

6.2 HAZARD PROFILE

Seismic-related hazards in Mason County include ground motion from shallow (less than 20 miles deep) or deep faults; liquefaction and differential settling of soil in areas with saturated sand, silt, or gravel; and tsunamis that result from seismic activities. Earthquakes also can cause damage by

triggering landslides or bluff failure. The Puget Sound region is entirely within Seismic Risk Zone 3, requiring that buildings be designed to withstand major earthquakes measuring 7.5 in magnitude. It is anticipated, however, that earthquakes caused from subduction plate stress can reach a magnitude greater than 8.0.

High-magnitude earthquakes are possible in Mason County when the Juan de Fuca slips beneath the North American plates. Deep zone or Benioff zone quakes have occurred within the San De Fuca plate (1949, 1965, and 2001) and can be expected in the future.

6.2.1 Extent and Location

Washington State as a whole is one of the most seismically active states in United States. There are a number of faults running near or through Mason County (see Figure 6-2), including the Saddle Mountain East Fault, Frigid Creek Fault, and Canyon Creek Fault, which are located north and west of Hoodspport near the Olympic National Forest (USGS, 2015a). The Saddle Mountain fault was first recognized in the early 1970's. Drowned trees and trench excavations demonstrate that the fault produced a MW 6.5-7.0 earthquake 1,000-1,300 years ago, likely occurring with the MW 7.5 Seattle fault earthquake 1,100 years ago.

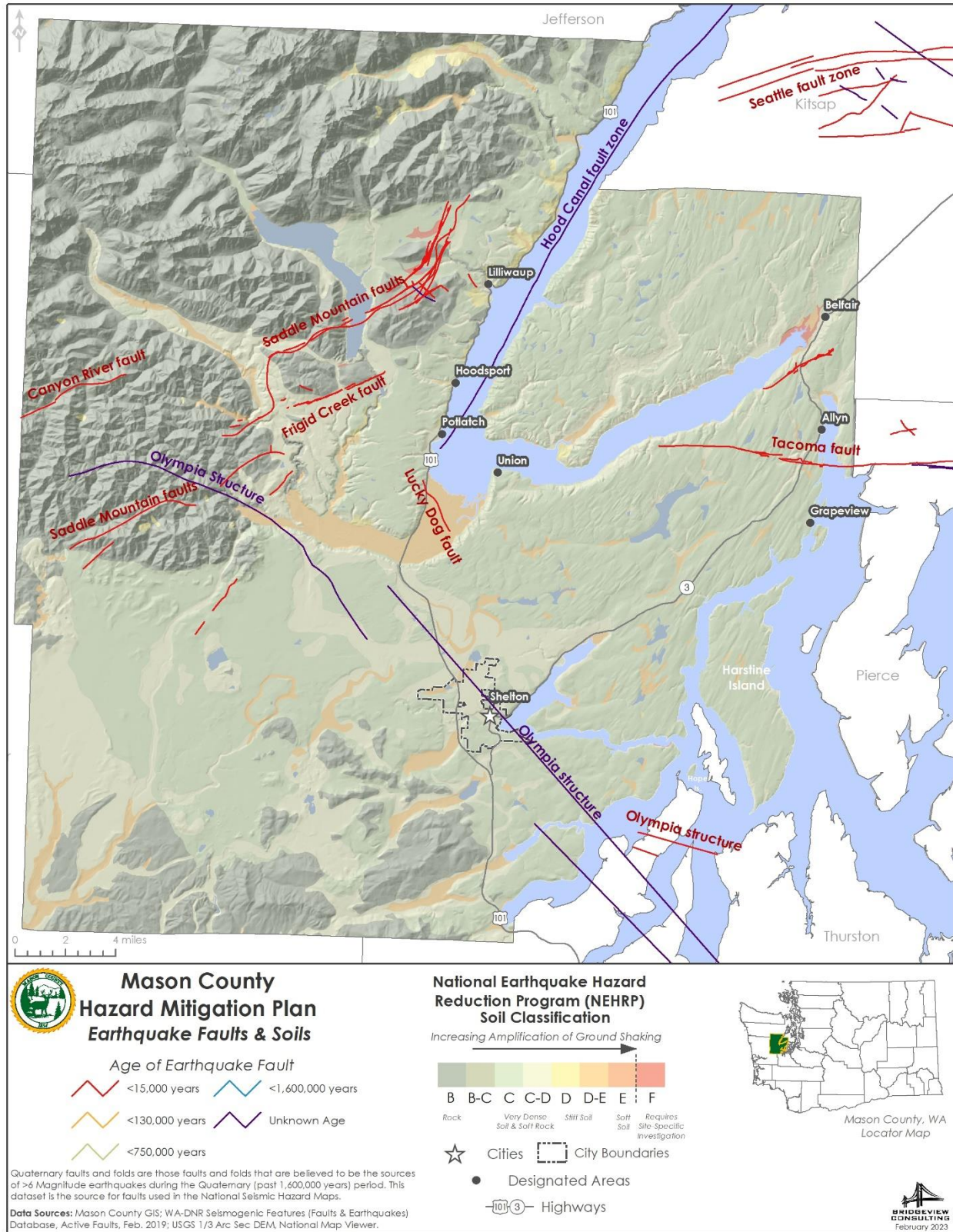


Figure 6-2 Mason County Faults

Hazard Mapping

Identifying the extent and location of an earthquake is not as simple as it is for other hazards such as flood, landslide, or wildfire. The impact of an earthquake is largely a function of the following factors:

- Ground shaking (ground motion accelerations)
- Liquefaction (soil instability)
- Distance from the source (both horizontally and vertically).

Mapping that shows the impacts of these components was used to assess the risk of earthquakes within the planning area. While the impacts from each of these components can build upon each other during an earthquake event, the mapping looks at each component individually. The mapping used in this assessment is described below.

Shake Maps

A shake map is a representation of ground shaking produced by an earthquake (Peak Ground Acceleration). The information it presents is different from the earthquake magnitude and epicenter that are released after an earthquake because shake maps focus on the ground shaking resulting from the earthquake, rather than the parameters describing the earthquake source. An earthquake has only one magnitude and one epicenter, but it produces a range of ground shaking at sites throughout the region, depending on the distance from the earthquake, the rock and soil conditions at sites, and variations in the propagation of seismic waves from the earthquake due to complexities in the structure of the earth's crust. A shake map shows the extent and variation of ground shaking in a region immediately following significant earthquakes.

Ground motion and intensity maps are derived from peak ground motion recorded on seismic sensors, with interpolation where data are lacking and site-specific corrections. Color-coded intensity maps are derived from empirical relations between peak ground motions and Modified Mercalli intensity. Two types of shake map are typically generated from the data:

- A probabilistic seismic hazard map shows the hazard from earthquakes that geologists and seismologists agree could occur. The maps are expressed in terms of probability of exceeding a certain ground motion, such as the 10 percent probability of exceedance in 50 years. This level of ground shaking has been used for designing buildings in high seismic areas. Hazard maps for the 100-year and 500-year probabilistic earthquakes are shown on Figure 6-3 and 6-4, and are carried over from the 2018 plan.
- Earthquake scenario maps describe the expected ground motions and effects of hypothetical large earthquakes for a region. Maps of these scenarios can be used to support all phases of emergency management. Three scenarios were carried forward from the 2018 plan:
 - Canyon River (Price Lake) Scenario (see Figure 6-5)
 - Nisqually Fault Scenario (see Figure 6-6)
 - Cascadia Subduction Zone Earthquake (see Figure 6-7).

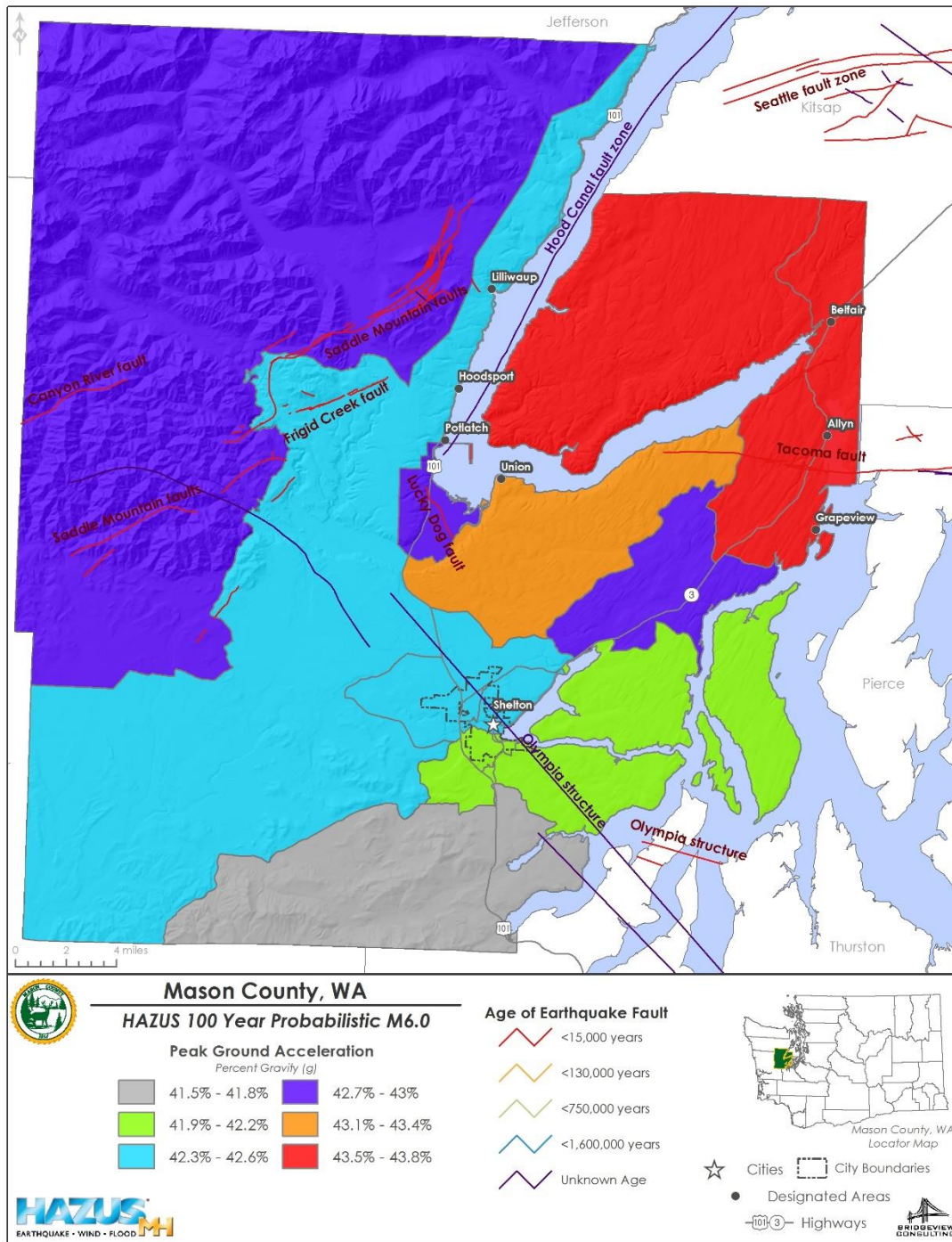


Figure 6-3 100-Year Probabilistic Earthquake Event

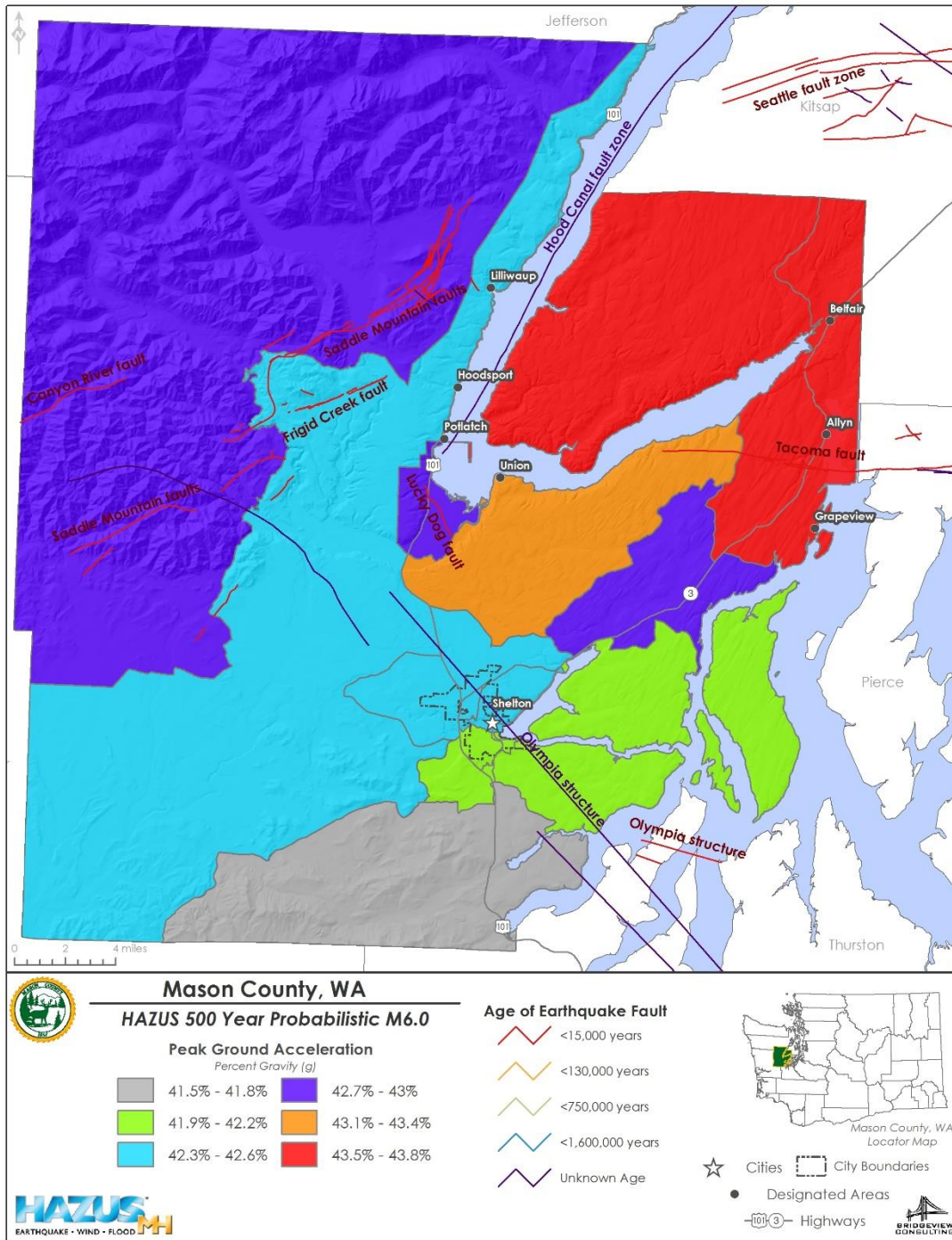


Figure 6-4 500-Year Probabilistic Earthquake Event

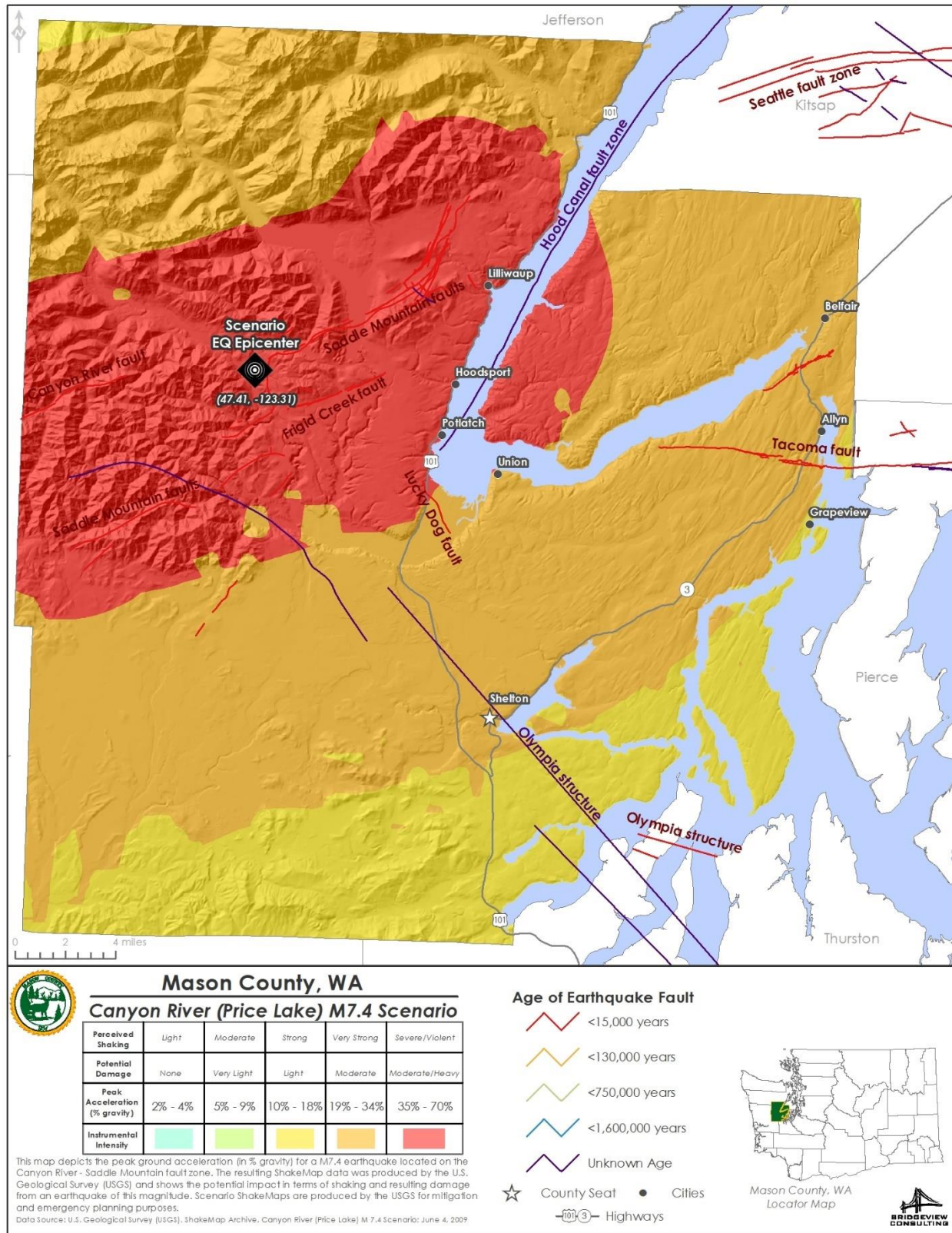


Figure 6-5 Canyon River (Price Lake) Scenario

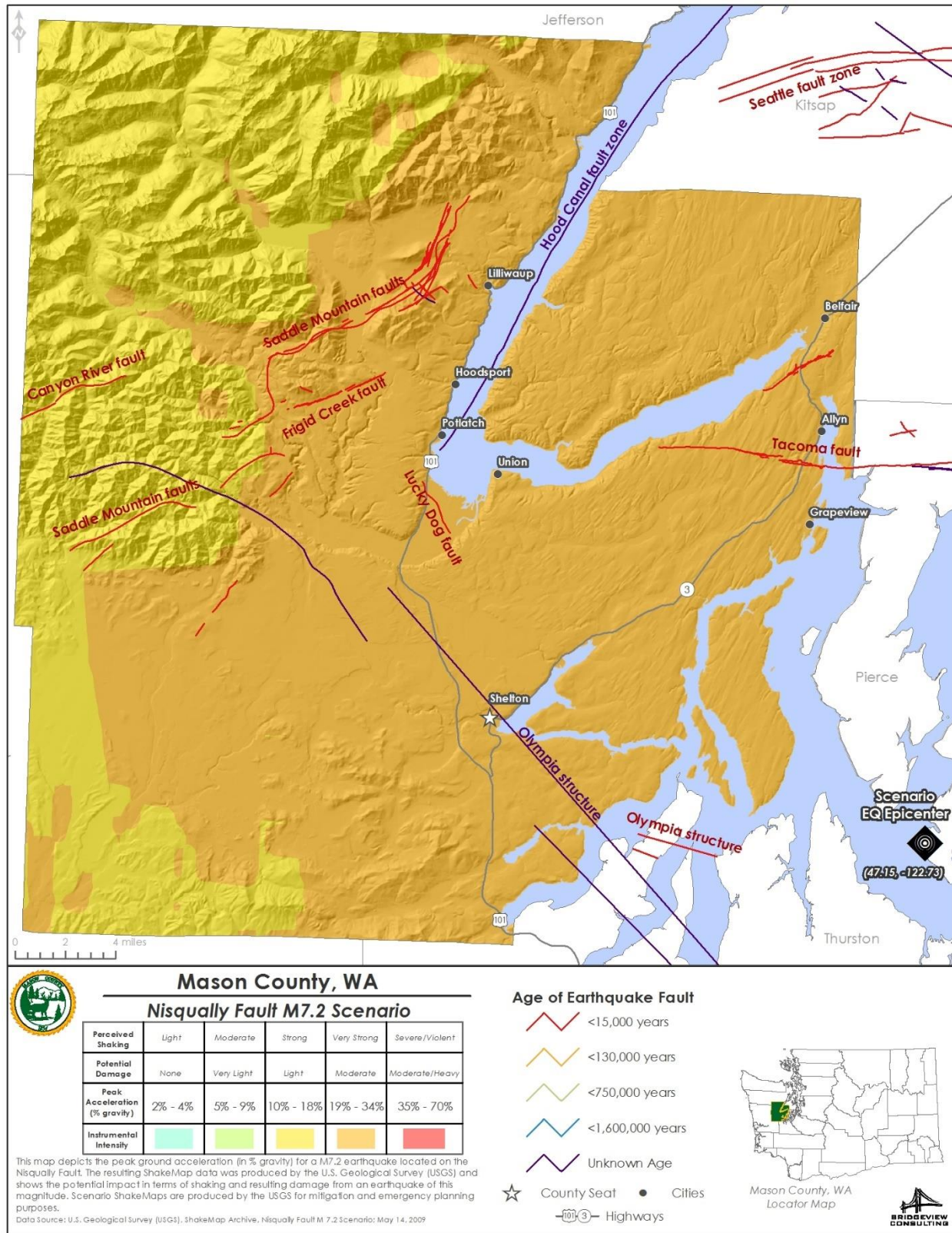


Figure 6-6 Nisqually Fault Scenario

SHAKEMAP

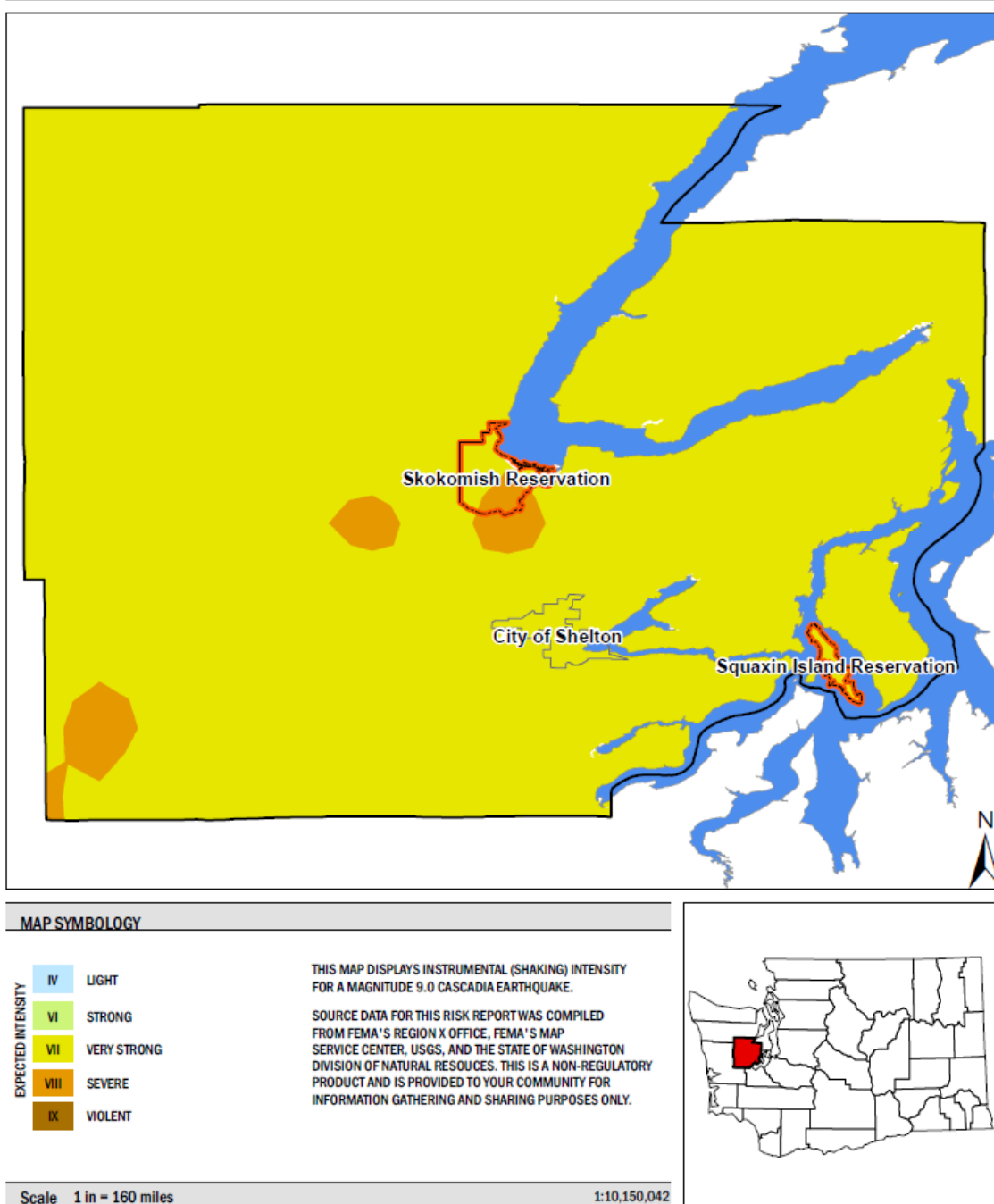


Figure 6-7 Cascadia M9.0 Fault Scenario (Source: FEMA Risk Map, 2017)

NEHRP Soil Maps

NEHRP soil types define the locations that will be significantly impacted by an earthquake. NEHRP Soils B and C typically can sustain low-magnitude ground shaking without much effect. The areas that are most commonly affected by ground shaking have NEHRP Soils D, E, and F. Figure 6-8 shows NEHRP soil classifications in Mason County.

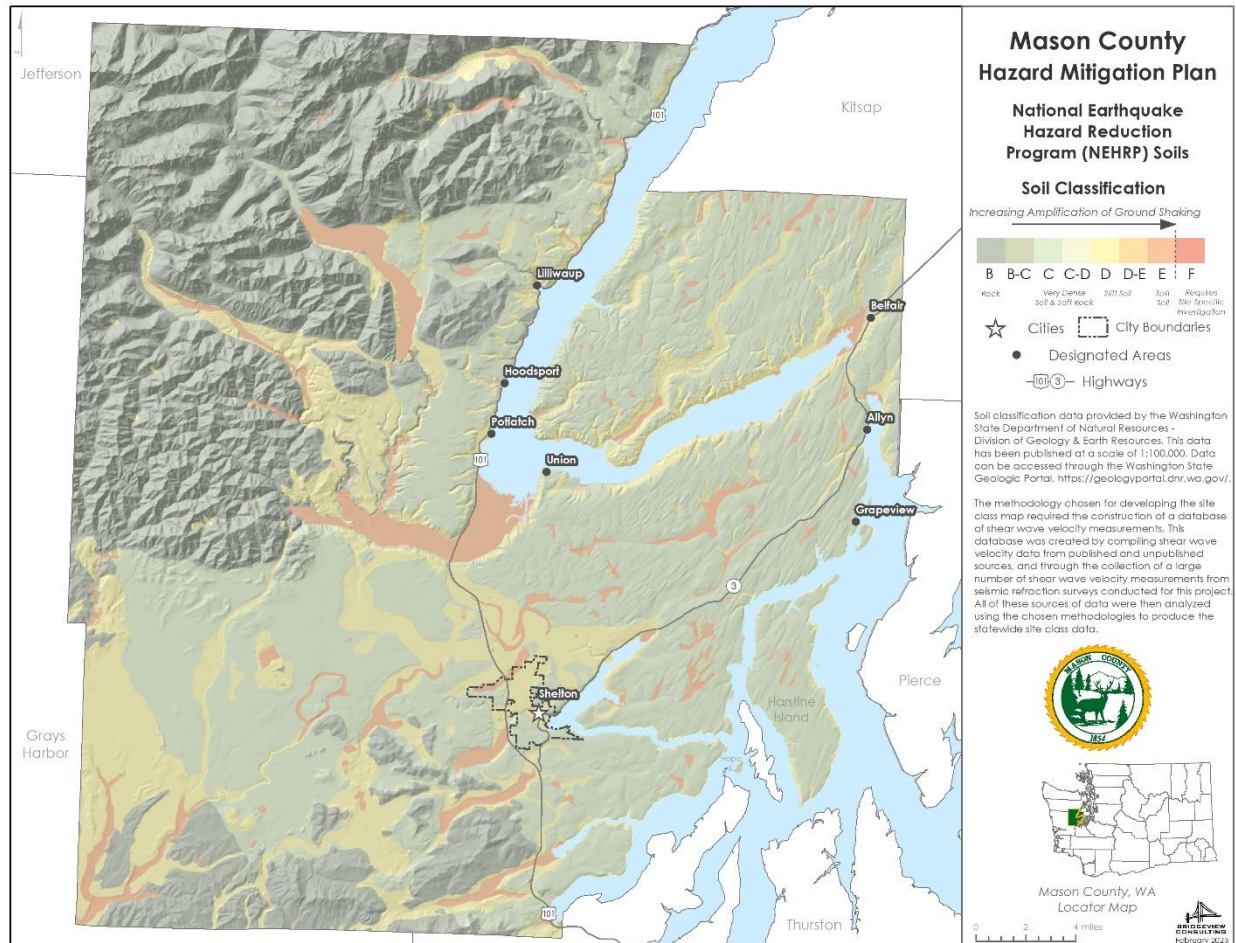


Figure 6-8 NEHRP Soils

Liquefaction Maps

Soil liquefaction maps are useful tools to assess potential damage from earthquakes. When the ground liquefies, sandy or silty materials saturated with water behave like a liquid, causing pipes to leak, roads and airport runways to buckle, and building foundations to be damaged. In general, areas with NEHRP Soils D, E and F are susceptible to liquefaction. If there is a dry soil crust, excess water will sometimes come to the surface through cracks in the confining layer, bringing liquefied sand with it and creating sand boils. Figure 6-9 shows liquefaction susceptibility throughout the County. Table 6-5 identifies the acres of the various susceptible liquefiable soil types countywide. Potential structure losses associated with the various liquefaction zones in Mason County are identified in Table 6-6.

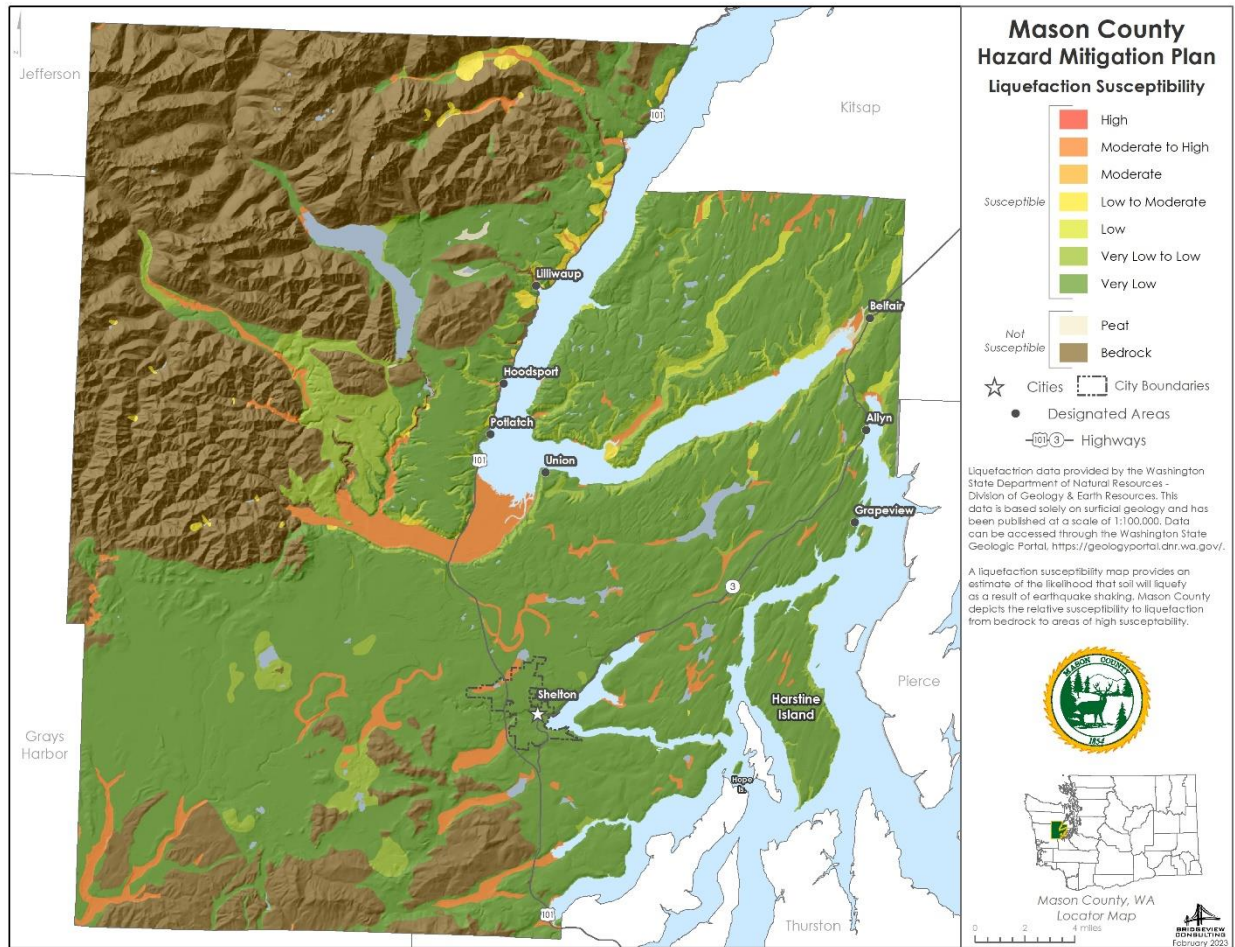


Figure 6-9 Liquefaction Susceptibility Zones

Table 6-5 Liquefiable Soils By Acres						
Liquefaction Susceptibility Type/Zone		# of Acres w/n Mason County	# of Acres within Unincorporated Mason County	# of Acres w/n Shelton	# of Acres w/n Allyn	# of Acres w/n Belfair
Susceptible	High	0.0	0.0	0.0	0.0	0.0
	Moderate to High	25,547.2	25,301.8	215.6	34.3	0.0
	Moderate	0.0	0.0	0.0	0.0	0.0
	Low to Moderate	4,910.2	4,910.2	0.0	0.0	0.0
	Low	3,651.1	3,405.2	0.0	118.9	127.0
	Very Low to Low	36,906.2	36,189.0	0.0	97.9	619.3
	Very Low	322,574.0	316,687.9	3,441.2	869.9	1,513.8
Not Susceptible	Peat	786.0	753.1	0.0	0.0	32.8
	Bedrock	220,707.8	220,707.8,	0.0	0.0	0.0

Table 6-6
Potential Critical Facility Impact From Liquefaction Zones

Liquefaction Susceptibility Zones	Government Function	Communications	Medical	Hazardous Materials	Protective Services	Power	Shelter	Other (Landfill)	Water	Wastewater	Total
High	0	0	0	0	0	0	0	0	0	0	0
Moderate to High	0	0	0	0	2	1	0	0	17	0	20
Moderate	0	0	0	0	0	0	0	0	0	0	0
Low to Moderate	0	0	0	0	0	0	0	0	3	0	3
Low	0	0	0	0	2	0	0	0	1	1	4
Very Low to Low	1	0	0	0	2	1	0	0	9	3	16
Very Low	19	1	1	4	41	16	2	5	138	20	247
Not Susceptible to Liquefaction											
Bedrock	0	1	0	0	0	0	0	0	1	0	2
Peat	0	0	0	0	0	0	0	0	0	0	0

6.2.2 Previous Occurrences

Mason County is subject to Modified Mercalli Intensity VII or IX from several sources: the Canyon River-Price Lake fault zone (Walsh and Logan, 2007; Barnett and others, 2012), which generated earthquakes about 1,000, 1,800, and 3,500 years ago; the Seattle and Tacoma faults, which generated large earthquakes about 1,000 years ago (Nelson and others, 2003; Sherrod and others, 2004); and the Cascadia subduction zone, which generated large magnitude earthquakes as recently as a few hundred years ago. Abundant physical evidence for an earthquake in AD 1700 on the Cascadia subduction zone includes evidence for abrupt tectonic subsidence. This event was probably about an M9 and is the largest earthquake in the Pacific Northwest in the historic or paleoseismic record. The evidence for this earthquake is documented in Atwater and others (2005) and Goldfinger and others (2012). This fault has an average recurrence interval of approximately 500 years for earthquakes of about M9, making it the most active fault that can affect Mason County. Significant losses would also result from repeat of a Benioff Zone earthquake such as the Nisqually earthquake. These earthquakes can be larger than the M6.8 Nisqually earthquake, and the project team modeled an M7.2 scenario in about the same place (FEMA Risk Report, 2017).

Based on geologic evidence along the Washington coast, the Cascadia Subduction Zone has ruptured and created tsunamis at least seven times in the past 3,500 years and has a considerable range in recurrence intervals, from as little as 140 years between events to more than 1,000 years. The last Cascadia Subduction Zone-related earthquake is believed to have occurred on January 26, 1700, and researchers predict a 10 to 14 percent chance that another could occur in the next 50 years. Table 6-

7 lists past seismic events that have affected the areas in and around Mason County.⁸ Those which directly impacted Mason County are highlighted. No major earthquakes have occurred in the County since completion of the 2018 plan. The County has received two disaster declarations as a result of earthquake damage – the Nisqually Earthquake, which occurred on February 28, 2001, and the May 11, 1965 earthquake.

⁸ PNSN, 2017

Table 6-7 Historical Earthquakes Impacting The Planning Area			
Year	Magnitude	Epicenter	Type
2/28/2001 (DR 1361)	6.8	Olympia (Nisqually)	Benioff
6/10/2001	5.0	Matlock	Benioff
7/3/1999	5.8	8.0 km N of Satsop	Benioff
6/23/1997	4.7	Bremerton	Shallow Crustal
5/3/1996	5.5	Duvall	Shallow Crustal
1/29/1995	5.1	Seattle-Tacoma	Shallow Crustal
2/14/1981	5.5	Mt. St. Helens (Ash)	Crustal
9/9/76	4.5	Union	Benioff Zone (28 miles deep)
5/11/1965 (DR 196)	6.6	18.3 KM N of Tacoma	Benioff
4/29/1965	6.5	12 miles North of Tacoma	Benioff
1/13/1949	7.0	12.3 KM ENE of Olympia	Benioff
6/23/1946	7.3	Strait of Georgia	Benioff
2/14/1946	6.3	Puget Sound	Benioff
4/1945	5.7	Northbend (8 miles south/southeast)	Unknown
1939	5.8	Puget Sound – Near Vashon Island	Unknown
1932	5.3	Central Cascades	Unknown
1/23/1920	5.5	Puget Sound	Unknown
12/6/1918	7.0	Vancouver Island	Unknown
8/18/1915	5.6	North Cascades	Unknown
1/11/1909	6.0	Puget Sound	Unknown
4/30/1882	5.8	Olympia area	Unknown
12/15/1872	6.8	Pacific Coast	Unknown

6.2.3 Severity

Earthquakes can last from a few seconds to over five minutes; they may also occur as a series of tremors over several days. The actual movement of the ground in an earthquake is seldom the direct cause of injury or death. Casualties generally result from falling objects and debris, because the shocks shake, damage or demolish buildings and other structures. Disruption of communications, electrical power supplies and gas, sewer and water lines should be expected. Earthquakes may trigger fires, dam failures, landslides, or releases of hazardous material, compounding their disastrous effects.

Small, local faults produce lower magnitude quakes, but ground shaking can be strong, and damage can be significant in areas close to the fault. In contrast, large regional faults can generate earthquakes of great magnitudes but, because of their distance and depth, they may result in only moderate shaking in an area.

USGS ground motion maps based on current information about fault zones show the PGA that has a certain probability (2 or 10 percent) of being exceeded in a 50-year period. The PGA is measured in %g. Figure 6-10 shows the PGA with a 2 percent exceedance chance in 50 years in Washington.

Effects of a major earthquake in the Puget Sound basin area could be catastrophic, providing the worst-case disaster short of drought-induced wild fire sweeping through a suburban area. Hundreds of residents could be killed, and a multitude of others left homeless.

Although recorded damage sustained to date in Mason County has been relatively minor and has been restricted to some incidence of cracked foundations, walls and chimneys, and damage to private wells, depending on the time of day and time of year, a catastrophic earthquake could cause hundreds of injuries, deaths, and hundreds of thousands of dollars in property damage.

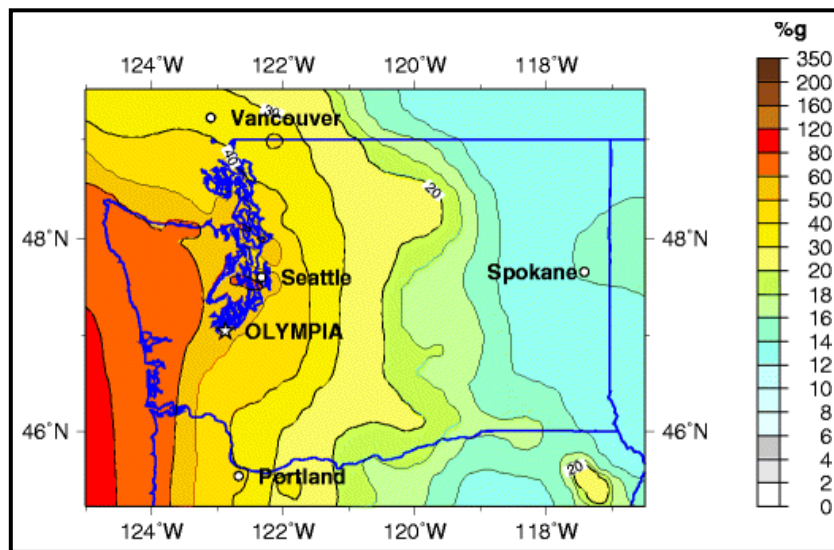


Figure 6-10 PGA with 2-Percent Probability of Exceedance in 50 Years, Northwest Region

6.2.4 Frequency

Scientists are currently developing methods to more accurately determine when an earthquake will occur. Recent advancements in determining the probability of an earthquake in a given period use a log-normal, Brownian Passage Time, or other probability distribution in which the probability of an event depends on the time since the last event. Such time-dependent models produce results broadly consistent with the elastic rebound theory of earthquakes. The USGS and others are beginning to develop such products as new geologic and seismic information regarding the dates of previous events along faults becomes more and more available (USGS, 2015a).

Scientists currently estimate that a Magnitude-9 earthquake in the Cascadia Subduction Zone occurs about once every 500 years. The last one was in 1700. Paleoseismic investigations have identified 41 Cascadia Subduction Zone interface earthquakes over the past 10,000 years, which corresponds to one earthquake about every 250 years. About half were M9.0 or greater earthquakes that represented full rupture of the fault zone from Northern California to British Columbia. The other half were M8+ earthquakes that ruptured only the southern portion of the subduction zone.

The 300+ years since the last major Cascadia Subduction Zone earthquake is longer than the average of about 250 years for M8 or greater and shorter than some of the intervals between M9.0 earthquakes.

Scientists currently estimate the frequency of deep earthquakes similar to the 1965 Magnitude-6.5 Seattle-Tacoma event and the 2001 Magnitude-6.8 Nisqually event as about once every 35 years. The USGS estimates an 84-percent chance of a Magnitude-6.5 or greater deep earthquake over the next 50 years.

Scientists estimate the approximate recurrence rate of a Magnitude-6.5 or greater earthquake anywhere on a shallow fault in the Puget Sound basin to be once in about 350 years. There have been four earthquakes of less than Magnitude 5 in the past 20 years.

Earthquakes on the Seattle Faults have a 2-percent probability of occurrence in 50 years. A Benioff zone earthquake has an 85 percent probability of occurrence in 50 years, making it the most likely of the three types.

6.3 VULNERABILITY ASSESSMENT

6.3.1 Overview

Several faults within the planning region have the potential to cause direct impact. The area also is vulnerable to impact from an event outside the County, although the intensity of ground motions diminishes with increasing distance from the epicenter. As a result, the entire population of the planning area is exposed to both direct and indirect impacts from earthquakes. The degree of direct impact (and exposure) is dependent on factors including the soil type on which homes are constructed, the proximity to fault location, the type of materials used to construct residences and facilities, etc. Indirect impacts are associated with elements such as the inability to evacuate the area as a result of earthquakes occurring in other regions of the state as well as impact on commodity flow for goods and services into the area, many of which are serviced only by one roadway in or out. Impact from other parts of the state could require shipment of supplies via a barge. Evacuation points of potential concern include:

- Landslides associated with an earthquake occurring along Highway 101 and
- Impact on State Route 3, which connects to Highway 101.

Warning Time

There is currently no reliable way to predict the day or month that an earthquake will occur at any given location. Research has developed warning systems that use the low energy waves that precede major earthquakes. These potential warning systems give approximately 40 seconds notice that a major earthquake is about to occur. The warning time is very short, but it could allow for someone to get under a desk, step away from a hazardous material they are working with, or shut down a computer system. Mason County is a licensed operator for the USGS ShakeAlert® project. MyShake delivers ShakeAlert-powered alerts across California, Oregon, and Washington for magnitude 4.5 or greater quakes to users in the areas of light to severe shaking.

6.3.2 Impact on Life, Health, and Safety

The entire population of the planning area is potentially exposed to direct and indirect impacts from earthquakes. Two of the most vulnerable populations to a disaster incident such as this are the young and the elderly. Mason County has a fairly high population of retirees and individuals with disabilities, both higher than the state averages. The need for increased rescue efforts and/or to provide assistance to such a large population base could tax the first-responder resources in the area during an event. Although many injuries may not be life-threatening, people will require medical attention and, in many cases, hospitalization. Potential life-threatening injuries and fatalities are expected; these are likely to be at an increased level if an earthquake happens during the afternoon or early evening.

The degree of exposure is dependent on many factors, including the soil type their homes are constructed on, quality of construction, their proximity to fault location, etc. Whether impacted directly or indirectly, the entire population will have to deal with the consequences of earthquakes to some degree. Business interruption could keep people from working, road closures could isolate populations, and loss of functions of utilities could impact populations that suffered no direct damage from an event itself.

The number of people without power or water will be high, especially given the number of wells on which the County relies to supply water to individuals who most likely do not have generators to run pumps on the wells. This need will increase the number of individuals seeking shelter assistance.

For the 2023 update, due to structure and time constraints, and the relatively limited growth within the area (both population and structure), the Planning Team determined that the Hazus model runs for the various scenarios and probabilistic events developed in 2018 would be utilized for this update. As such, based on the 2018 Hazus outputs, analysis for the 100-year probabilistic earthquake indicates that 21 people will seek temporary shelters, while 31 households will be displaced due to the earthquake. Analysis for the 500-year probabilistic earthquake indicates that 207 people will seek temporary shelters, while 302 households will be displaced due to the earthquake. For the Cascadia M9.0 scenario, the model indicates that 155 households will be displaced, with 113 individuals seeking temporary shelter. It should be noted that the 100- and 500-year probabilistic events utilized Hazus 4.0. For the Cascadia event, Hazus 3.2 was utilized, which is presumed to be less accurate than Hazus 4.0. It is important to remember that these are planning numbers only based on impact to structures. In many instances, people will shelter with family and friends after such an event, and therefore the numbers may be significantly off.

6.3.3 Impact on Property

There are over 33,680 buildings in the planning area, with an estimated total replacement value over \$4.0 billion. Most of the buildings are residential, and most of the building stock is of considerable age and not supported by building codes which increase resilience to seismic events. Portions of these buildings are constructed out of unreinforced masonry; many have chimneys that may be in need of repair, and many, because of the age of the building stock, may contain some level of asbestos in building components such as the boiler room, ceiling tiles, carpeting, or glue. Since all structures in the planning area are susceptible to earthquake impacts to varying degrees (including liquefaction and landslides), these figures represent total numbers region-wide for property exposure to seismic events.

Property losses were estimated through the analysis for the 100- and 500-year probabilistic events, as well as the Cascadia, Canyon River, and Nisqually earthquake scenarios events (utilizing the 2017 structure data, USGS/Washington State Department of Natural Resources scenario catalog data, and FEMA GIS datasets). A summary of the total potential building-related losses are identified below, and in Table 6-8. These figures represent structure loss only. It should be noted that in some instances, such as with pump houses, no separate content value is associated with the structures, as the structure value is inclusive of the mechanisms affixed to the ground within those structures.

TABLE 6-8 BUILDING STRUCTURE VALUES IMPACTED BY EARTHQUAKE SCENARIOS					
Community	Total Estimated Building Value	Total Number of Buildings	Canyon River M7.4 Earthquake	Nisqually M7.2 Earthquake	Cascadia M9.0 Earthquake
Unincorporated Mason County	\$3.3B	25,632	\$221.2M	\$9.8M	\$464.4M
Allyn	\$158.5M	1,007	\$3.0M	\$175.0K	\$9.6M
Belfair	\$68.9M	456	\$2.0M	\$88.4K	\$7.6M
City of Shelton	\$422.7M	3,279	\$11.4M	\$460.3K	\$74.0M
Skokomish Indian Reservation*	\$36.5M	381	\$5.7M	\$121.7K	\$7.0M
Total	\$4.0B	30,755	\$243.3M	\$10.6M	\$562.6M
*The Skokomish Tribe was not a participant in the planning process as they were developing their own plan simultaneous with the County's effort. Data incorporated in this assessment was derived from FEMA's Risk Map data. *Direct Economic and Social Losses utilize demographic and building square footage data to determine losses. In some instances, square footage of structures was estimated due to the lack of data. This deficiency is identified as a strategy for future plan updates.					

When reviewing analysis from the 100-year probabilistic event, Hazus estimates that 2,825 buildings will be at least moderately damaged. This is over 9.00 % of the buildings in the region. There are an estimated 34 buildings that will be damaged beyond repair.

When reviewing analysis from the 500-year probabilistic event, Hazus estimates that about 10,939 buildings will be at least moderately damaged. This is over 33.00 % of the buildings in the region. There are an estimated 1,278 buildings that will be damaged beyond repair.

For the Cascadia M9.0 event, Hazus estimates that about 8,268 buildings will be at least moderately damaged. This is over 25 % of the buildings in the region. There are an estimated 385 buildings that

will be damaged beyond repair. Figure 6-11 illustrates FEMA's output based on the 2017 RiskMap project.

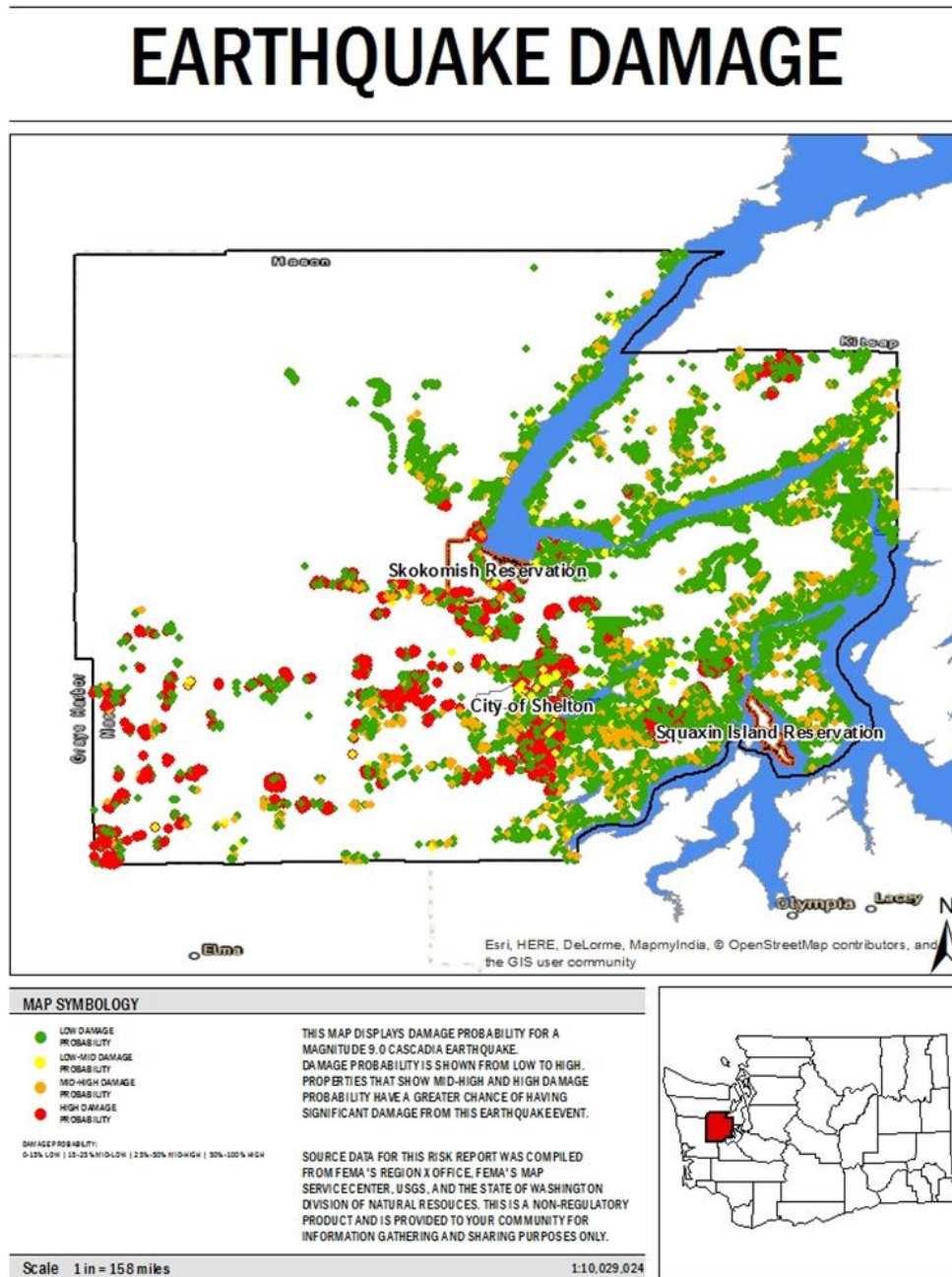


Figure 6-11 Mason County Earthquake Damage Based on M9.0 Cascadia Event (FEMA 2017)

Building Age

Structures that are in compliance with the Uniform Building Code (UBC) of 1970 or later are generally less vulnerable to seismic damage because 1970 was when the UBC started including seismic construction standards based on regional location. This stipulated that all structures be constructed to at least seismic risk Zone 2 standards.

The State of Washington adopted the UBC as its state building code in 1972, so it is assumed that buildings in the planning area built after 1972 were built in conformance with UBC seismic standards and have less vulnerability. Issues such as code enforcement and code compliance could impact this assumption. Construction material is also important when determining the potential risk to a structure. However, for planning purposes, establishing this line of demarcation can be an effective tool for estimating vulnerability. In 1994, seismic risk Zone 3 standards of the UBC went into effect in Washington, requiring all new construction to be capable of withstanding the effects of 0.3 g. More recent housing stock is in compliance with Zone 3 standards. In July 2004, the state again upgraded the building code to follow International Building Code Standards. While the “zones” are still referenced, they are, in large part, no longer used in the capacity they once were as there can be different zones within political subdivisions, making it difficult to apply. For instance, within Washington, there are both Seismic Zones 2B and 3. Table 6-9 further discusses the timelines of the various building code standards. Chapter 3, Section 3.6.3 discusses the age of the existing building stock in place as of this 2023 update.

Table 6-9 Timeline of Building Code Standards	
Time Period	Code Significance for Identified Time Period
Pre-1974	No standardized earthquake requirements in building codes. Washington State law did not require the issuance of any building permits, or require actual building officials
1975-2003	UBC seismic construction standards were adopted in Washington.
1994-2003	Seismic Risk Zone 3 was established within the Uniform Building Code in 1994, requiring higher standards.
2004-Present	Washington State upgrades its building codes to follow the International Building Code Standard. As upgrades occur, the State continues to adopt said standards.

6.3.4 Impact on Critical Facilities and Infrastructure

All critical facilities in Mason County are exposed to the earthquake hazard. Additionally, hazardous materials releases can occur during an earthquake from fixed facilities or transportation-related incidents. Transportation corridors can be disrupted during an earthquake, leading to the release of materials to the surrounding environment. Facilities holding hazardous materials are of particular concern because of possible isolation of residences surrounding them. During an earthquake, structures storing these materials could rupture and leak into the surrounding area or an adjacent waterway, having a disastrous effect on the environment. As a portion of the county is a coastal community, this is of particular concern as spills into water bodies, including the coastline or significant rivers in the area, could have devastating impact. Additionally, the potential for landslide-

induced roadway closure is of significant concern. Closure of major arterials could require increased evacuation periods in some instances by several hours.

Level of Damage

The Hazus model classifies the vulnerability of facilities to earthquake damage in five categories: no damage, slight damage, moderate damage, extensive damage, or complete damage. The model was used to assign a vulnerability category to selected occupancy types in the planning area except hazmat facilities and “other infrastructure” facilities, for which there are no established damage functions. The analysis (based on 2017 structure data) was performed for the 100- and 500-year probabilistic events. Those results are summarized in Table 6-10 and Table 6-11.

Table 6-10					
Expected Building Damage By Occupancy From 100-Year Probabilistic Earthquake					
Category	No Damage	Slight Damage	Moderate Damage	Extensive Damage	Complete Damage
Agriculture	65	16	8	2	0
Commercial	698	180	122	32	4
Government Functions	28	7	4	1	0
Industrial	237	65	48	13	1
Other Residential	3,121	1,518	1,368	311	21
Single Family	19,545	4,549	835	28	8
Schools	30	7	5	1	0

Table 6-11					
Expected Building Damage By Occupancy From 500-Year Probabilistic Earthquake					
Category	No Damage	Slight Damage	Moderate Damage	Extensive Damage	Complete Damage
Agriculture	26	23	23	13	7
Commercial Functions	220	218	310	186	102
Government	9	8	12	8	4
Industrial	68	72	112	72	40
Other Residential	296	758	2,044	2,219	1,023
Single Family	10,779	9,488	4,245	361	82
Schools	11	10	12	7	4

Debris

The 2018 Hazus analysis also estimated the amount of earthquake-caused debris in the planning area for the various earthquake events as summarized in Table 6-12.

Table 6-12
Estimated Earthquake Caused Debris

Event	Amount of Debris to be Removed
100-Year Earthquake (M6)	28 million tons or 1,200 truckloads*
500- Year Probabilistic Earthquake (M6)	230 million tons or 9,200 truckloads*
<p>Note: Values in this table are accurate only for purposes of comparison among results presented in this plan. Data limitations exist as defined. Analysis for the 100- and 500-year probabilistic events utilized Hazus 4.0; the Cascadia Shake Map was not updated to a useable format in Hazus 4.0 at the time the analysis was conducted, and therefore is not included in this table.</p> <p>*Truck loads are determined for 25 tons/truck.</p>	

6.3.5 Impact on Economy

Economic losses due to earthquake damage include damage to buildings, including the cost of structural and non-structural damage, damage to contents, and loss of inventory, loss of wages and loss of income. Loss of tax base both from revenue and lack of improved land values will increase the economic loss to the County and its planning partners. In addition, loss of goods and services may hamper recovery efforts, and even preclude residents from rebuilding within the area. No specific loss data is available with respect to loss of inventory, wages, or loss of income; however, economic loss with respect to building impact is the same as identified above.

6.3.6 Impact on Environment

Earthquake-induced landslides can significantly impact habitat. It is also possible for streams to be rerouted after an earthquake. This can change water quality, possibly damaging habitat and feeding areas. There is a possibility of streams fed by groundwater drying up because of changes in underlying geology.

6.3.7 Impact from Climate Change

The impacts of global climate change on earthquake probability are unknown. Some scientists say that melting glaciers could induce tectonic activity. As ice melts and water runs off, tremendous amounts of weight are shifted on the earth's crust. As newly freed crust returns to its original, pre-glacier shape, it could cause seismic plates to slip and stimulate volcanic activity, according to research into prehistoric earthquakes and volcanic activity. Sea level rise is not anticipated to impact the earthquake hazard, as the normal tidal flows mimic a similar increase.

Secondary impacts of earthquakes could be magnified by climate change. Soils saturated by repetitive storms could experience liquefaction or an increased propensity for slides during seismic activity due to the increased saturation. Dams storing increased volumes of water due to changes in the hydrograph could fail during seismic events. There are currently no models available to estimate these impacts.

6.4 FUTURE DEVELOPMENT TRENDS

Mason County continues to utilize the International Building Code, which requires structures to be built at a level which supports soil types and earthquake hazards (ground shaking). As existing buildings are renovated, provisions are in place which require reconstruction at higher standards.

6.5 ISSUES

While the area has a high probability of an earthquake event occurring within its boundaries, an earthquake does not necessarily have to occur in the planning area to have a significant impact as such an event would disrupt transportation to and from the region as a whole and impact commodity flow. As such, any seismic activity of 6.0 or greater on faults in or near the planning area would have significant impact. Potential warning systems could give approximately 40 seconds notice that a major earthquake is about to occur. This would provide limited time for preparation. Earthquakes of this magnitude or higher would lead to massive structural failure of property on NEHRP C, D, E, and F soils. Levees and revetments built on these poor soils would likely fail, representing a loss of critical infrastructure. These events could cause secondary hazards, including landslides and mudslides that would further damage structures. River valley hydraulic-fill sediment areas are also vulnerable to slope failure, often as a result of loss of cohesion in clay-rich soils. Soil liquefaction would occur in water-saturated sands, silts, or gravelly soils.

Earthquakes can cause large and sometimes disastrous landslides and mudslides. River valleys are vulnerable to slope failure, often as a result of loss of cohesion in clay-rich soils. Soil liquefaction occurs when water-saturated sands, silts or gravelly soils are shaken so violently that the individual grains lose contact with one another and float freely in the water, turning the ground into a pudding-like liquid. Building and road foundations lose load-bearing strength and may sink into what was previously solid ground. Unless properly secured, hazardous materials can be released, causing significant damage to the environment and people. Earthen dams and levees are highly susceptible to seismic events and the impacts of their eventual failures can be considered secondary risks for earthquakes. Earthquakes at sea can generate destructive tsunamis. Important issues associated with an earthquake include, but are not limited to the following:

- More information is needed on the exposure and performance of construction within the planning area. Much information on the age, type of construction, or updated work on facilities is not readily available in a useable format for a risk assessment of this type.
- It is presently unknown to what standards portions of the planning area's building stock were constructed or renovated.
- Based on the modeling of critical facility performance for FEMA's 2017 RiskMap Report, a high number of facilities in the planning area are expected to have complete or extensive damage from scenario events. These facilities should be considered for structural retrofits.
- Geotechnical standards should continue to take into account the probable impacts from earthquakes in the design and construction of new or enhanced facilities.
- Dam failure warning, evacuation plans and procedures should be updated (and maintained) to reflect dam risk potential associated with earthquake activity in the

region, with said information being distributed to the County and its planning partners to allow for appropriate planning to occur.

- Earthquakes could trigger other natural hazard events such as a tsunami, which would have far-reaching impacts.

6.6 RESULTS

Based on review and analysis of the data, the Planning Team has determined that the probability for impact from an Earthquake throughout the area is highly likely. A Cascadia-type event, such as that utilized as one of the scenarios modeled for this update, has a high probability of occurring within the region, while also generating the largest amount of damage. The losses related to earthquake scenarios are largely due to the proximity to the faults. In addition, the Unincorporated Areas of Mason County have large percentage of buildings located in the moderate-high liquefaction zone. Due to the age of many buildings throughout the planning area, there are large amounts of pre-code structures. With the absence of building codes at time of construction, the structures would undoubtedly be impacted and perform poorly when compared to structures built after code implementation. Based on the potential impact, the Planning Team determined the CPRI score to be 3.6, with overall vulnerability determined to be a high level.

CHAPTER 7. FLOOD

Floods are one of the most common natural hazards in the U.S. They can develop slowly over a period of days or develop quickly, with disastrous effects that can be local (impacting a neighborhood or community) or regional (affecting entire river basins, coastlines and multiple counties or states) (FEMA, 2010). Most communities in the U.S. have experienced some kind of flooding, after spring rains, heavy thunderstorms, coastal storms, or winter snow thaws. Floods are one of the most frequent and costly natural hazards in terms of human hardship and economic loss, particularly to communities that lie within flood-prone areas or floodplains of a major water source.

7.1 GENERAL BACKGROUND

Flooding is a general and temporary condition of partial or complete inundation on normally dry land from the following:

- Riverine flooding, including overflow from a river channel, flash floods, alluvial fan floods, dam-break floods, and ice jam floods;
- Local drainage or high groundwater levels;
- Fluctuating lake levels;
- Coastal flooding;
- Coastal erosion;
- Unusual and rapid accumulation or runoff of surface waters from any source;
- Mudflows (or mudslides);
- Collapse or subsidence of land along the shore of a lake or similar body of water that result in a flood, caused by erosion, waves or currents of water exceeding anticipated levels (Floodsmart.gov, 2012);
- Sea level rise;
- Climate Change.

DEFINITIONS

Flood—The inundation of normally dry land resulting from the rising and overflowing of a body of water.

Floodplain—The land area along the sides of a river that becomes inundated with water during a flood.

100-Year Floodplain—The area flooded by a flood that has a 1-percent chance of being equaled or exceeded each year. This is a statistical average only; a 100-year flood can occur more than once in a short period of time. The 1-percent annual chance flood is the standard used by most federal and state agencies.

Floodway—The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

7.1.1 Flooding Types

Many floods fall into one of three categories: riverine, coastal, or shallow (urban flooding) (FEMA, 2005). Other types of floods include alluvial fan floods, dam failure floods, and floods associated with local drainage or high groundwater. For this hazard mitigation plan and as deemed appropriate by the County, riverine/stormwater flooding are the main flood types of concern for the planning area.

Riverine

Riverine floods are the most common flood type. They occur along a channel, and include overbank and flash flooding. Channels are defined ground features that carry water through and out of a watershed. They may be called rivers, creeks, streams, or ditches. When a channel receives too much water, the excess water flows over its banks and inundates low-lying areas.

Flash Floods

A flash flood is a rapid, extreme flow of high water into a normally dry area, or a rapid water level rise in a stream or creek above a predetermined flood level, beginning within six hours of the causative event (e.g., intense rainfall, dam failure, ice jam). The time may vary in different areas. Ongoing flooding can intensify to flash flooding in cases where intense rainfall results in a rapid surge of rising floodwaters (NWS, 2009).

Coastal Flooding

Coastal flooding is the flooding of normally dry, low-lying coastal land, primarily caused by severe weather events along the coast, estuaries, and adjoining rivers. These flood events are some of the more frequent, costly, and deadly hazards that can impact coastal communities. Factors causing coastal flooding include:

- Storm surges, which are rises in water level above the regular astronomical tide caused by a severe storm's wind, waves, and low atmospheric pressure. Storm surges are extremely dangerous, because they are capable of flooding large coastal areas.
- Large waves, whether driven by local winds or swell from distant storms, raise average coastal water levels and individual waves roll up over land.
- High tide levels are caused by normal variations in the astronomical tide cycle.
- Other larger scale regional and ocean scale variations are caused by seasonal heating and cooling and ocean dynamics.

Coastal floods are extremely dangerous, and the combination of tides, storm surge, and waves can cause severe damage. Coastal flooding is different from river flooding, which is generally caused by severe precipitation. Depending on the storm event, in the upper reaches of some tidal rivers, flooding from storm surge may be followed by river flooding from rain in the upland watershed. This increases the flood severity. Within the National Flood Insurance Flood Maps (discussed below), coastal flood zones identify special flood hazard areas (SFHA) which are subject to waves with heights of between 1.5 and 3 feet during a 1-percent annual chance storm (100-year event). Figure 7-1 illustrates the various SFHA zones.

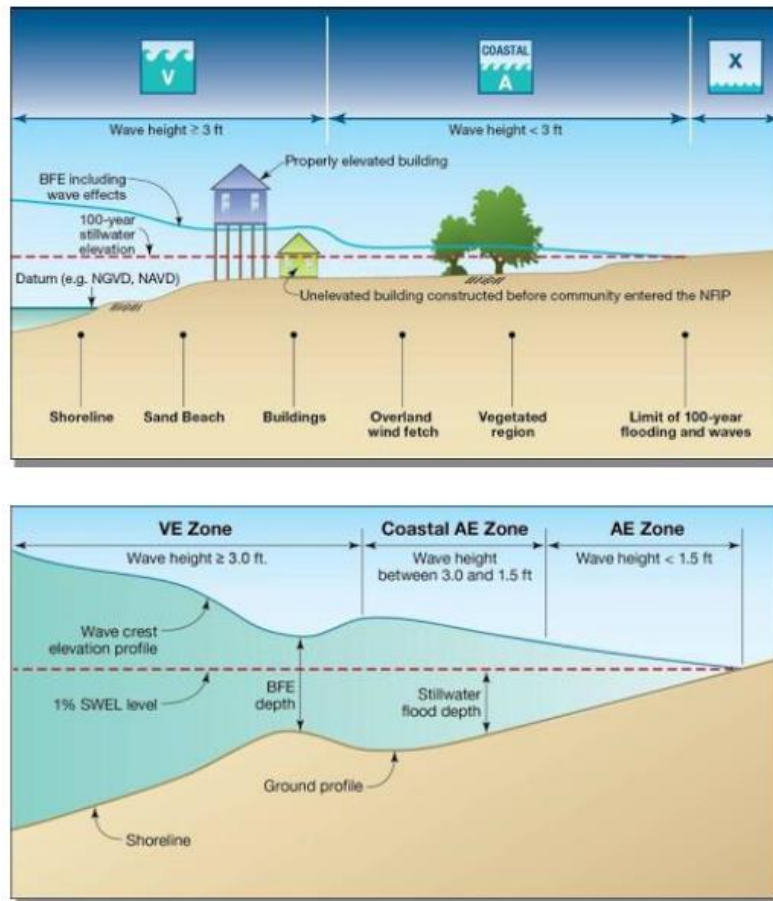


Figure 7-1 Schematic of Coastal Flood Zones within the National Flood Insurance Program

7.1.2 Dam Failure

Dam failures in the United States typically occur in one of four ways (Association of State Dam Safety Officials, 2012):

- Overtopping of the primary dam structure, which accounts for 34 percent of all dam failures, can occur due to inadequate spillway design, settlement of the dam crest, blockage of spillways, and other factors.
- Foundation defects due to differential settlement, slides, slope instability, uplift pressures, and foundation seepage can also cause dam failure. These account for 30 percent of all dam failures.
- Failure due to piping and seepage accounts for 20 percent of all failures. These are caused by internal erosion due to piping and seepage, erosion along hydraulic structures such as spillways, erosion due to animal burrows, and cracks in the dam structure.
- Failure due to problems with conduits and valves, typically caused by the piping of embankment material into conduits through joints or cracks, constitutes 10 percent of all failures.

The remaining 6 percent of U.S. dam failures are due to miscellaneous causes. Many dam failures in the United States have been secondary results of other disasters. The prominent causes are earthquakes, landslides, extreme storms, massive snowmelt, equipment malfunction, structural damage, foundation failures, and sabotage. The most likely disaster-related causes of dam failure in Mason County are earthquakes.

Poor construction, lack of maintenance and repair, and deficient operational procedures are preventable or correctable by a program of regular inspections. Terrorism and vandalism are serious concerns that all operators of public facilities must plan for; these threats are under continuous review by public safety agencies.

The potential for catastrophic flooding due to dam failures led to passage of the National Dam Safety Act (Public Law 92-367). The National Dam Safety Program requires a periodic engineering analysis of every major dam in the country. The goal of this FEMA-monitored effort is to identify and mitigate the risk of dam failure so as to protect the lives and property of the public.

Washington Department of Ecology Dam Safety Program

The Dam Safety Office (DSO) of the Washington Department of Ecology regulates over 1,000 dams in the state that impound at least 10 acre-feet of water. The DSO has developed dam safety guidelines to provide dam owners, operators, and design engineers with information on activities, procedures, and requirements involved in the planning, design, construction, operation, and maintenance of dams in Washington. The authority to regulate dams in Washington and to provide for public safety is contained in the following laws:

- State Water Code (1917)—RCW 90.03
- Flood Control Act (1935)—RCW 86.16
- Department of Ecology (1970)—RCW 43.21A .

Where water projects involve dams and reservoirs with a storage volume of 10 acre-feet or more, the laws provide for the Department of Ecology to conduct engineering review of the construction plans and specifications, to inspect the dams, and to require remedial action, as necessary, to ensure proper operation, maintenance, and safe performance. The DSO was established within Ecology's Water Resources Program to carry out these responsibilities.

The DSO provides reasonable assurance that impoundment facilities will not pose a threat to lives and property, but dam owners bear primary responsibility for the safety of their structures, through proper design, construction, operation, and maintenance. The DSO regulates dams with the sole purpose of reasonably securing public safety; environmental and natural resource issues are addressed by other state agencies. The DSO neither advocates nor opposes the construction and operation of dams.

U.S. Army Corps of Engineers Dam Safety Program

The U.S. Army Corps of Engineers is responsible for safety inspections of some federal and non-federal dams in the United States that meet the size and storage limitations specified in the National Dam Safety Act. The Corps has inventoried dams; surveyed each state and federal agency's capabilities, practices and regulations regarding design, construction, operation, and maintenance of the dams; and developed guidelines for inspection and evaluation of dam safety (U.S. Army Corps of Engineers, 1997).

Federal Energy Regulatory Commission Dam Safety Program

The Federal Energy Regulatory Commission (FERC) cooperates with a large number of federal and state agencies to ensure and promote dam safety. There are over 3,000 dams that are part of regulated hydroelectric projects in the FERC program. Two-thirds of these are more than 50 years old. As dams age, concern about their safety and integrity grows, so oversight and regular inspection are important. FERC staff inspects hydroelectric projects on an unscheduled basis to investigate the following:

- Potential dam safety problems;
- Complaints about constructing and operating a project;
- Safety concerns related to natural disasters;
- Issues concerning compliance with the terms and conditions of a license.

Every five years, an independent engineer approved by the FERC must inspect and evaluate projects with dams higher than 32.8 feet, or with a total storage capacity of more than 2,000 acre-feet.

FERC staff monitors and evaluates seismic research and applies it in investigating and performing structural analyses of hydroelectric projects. FERC staff also evaluates the effects of potential and actual large floods on the safety of dams. During and following floods, FERC staff visits dams and licensed projects, determines the extent of damage, if any, and directs any necessary studies or remedial measures the licensee must undertake. The FERC publication *Engineering Guidelines for the Evaluation of Hydropower Projects* guides the FERC engineering staff and licensees in evaluating dam safety. The publication is frequently revised to reflect current information and methodologies.

The FERC requires licensees to prepare emergency action plans and conducts training sessions on how to develop and test these plans. The plans outline an early warning system if there is an actual or potential sudden release of water from a dam due to failure. The plans include operational procedures that may be used, such as reducing reservoir levels and reducing downstream flows, as well as procedures for notifying affected residents and agencies responsible for emergency management. These plans are frequently updated and tested to ensure that everyone knows what to do in emergency situations.

Hazard Ratings

The DSO classifies dams and reservoirs in a hazard rating system based solely on the potential consequences to downstream life and property that would result from a failure of the dam and sudden release of water. The following codes are used as an index of the potential consequences in the downstream valley if the dam were to fail and release the reservoir water:

- 1A = Greater than 300 lives at risk (High hazard);
- 1B = From 31 to 300 lives at risk (High hazard);
- 1C = From 7 to 30 lives at risk (High hazard);
- 2 = From 1 to 6 lives at risk (Significant hazard);
- 3 = No lives at risk (Low hazard).

The Corps of Engineers developed the hazard classification system for dam failures shown in Table 7-1. The Washington and Corps of Engineers hazard rating systems are both based only on the

potential consequences of a dam failure; neither system takes into account the probability of such failures.

Table 7-1 Corps of Engineers Hazard Potential Classification				
Hazard Category ^a	Direct Loss of Life ^b	Lifeline Losses ^c	Property Losses ^d	Environmental Losses ^e
Low	None (rural location, no permanent structures for human habitation)	No disruption of services (cosmetic or rapidly repairable damage)	Private agricultural lands, equipment, and isolated buildings	Minimal incremental damage
Significant	Rural location, only transient or day-use facilities	Disruption of essential facilities and access	Major public and private facilities	Major mitigation required
High	Certain (one or more) extensive residential, commercial, or industrial development	Disruption of essential facilities and access	Extensive public and private facilities	Extensive mitigation cost or impossible to mitigate
<p>a. Categories are assigned to overall projects, not individual structures at a project.</p> <p>b. Loss of life potential based on inundation mapping of area downstream of the project. Analyses of loss of life potential should take into account the population at risk, time of flood wave travel, and warning time.</p> <p>c. Indirect threats to life caused by the interruption of lifeline services due to project failure or operational disruption; for example, loss of critical medical facilities or access to them.</p> <p>d. Damage to project facilities and downstream property and indirect impact due to loss of project services, such as impact due to loss of a dam and navigation pool, or impact due to loss of water or power supply.</p> <p>e. Environmental impact downstream caused by the incremental flood wave produced by the project failure, beyond what would normally be expected for the magnitude flood event under which the failure occurs.</p> <p>Source: U.S. Army Corps of Engineers, 1995</p>				

As of 2023, Mason County has 23 dams within its boundaries identified by the Washington State Department of Ecology Dam Safety Program. That is an increase in one dam since completion of the last pan, the North Ranch Storage Lagoon, a Class 2 dam, owned by Bio-Recycling Corp. The 23 dams within the county are illustrated in Figure 7-2.⁹ The entire list is available for review at the Washington State Department of Ecology's website at [Inventory of Dams Report for Selected Washington Counties and Selected Dam Hazard Categories](https://fortress.wa.gov/ecy/publications/documents/94016.pdf).

Based on review of the data, Mason County has eight (8) high hazard dams (one being the spillway head for Cushman Dam) within its boundary. One of those high-hazard dams is owned by the County, the Mason County Belfair Wastewater Treatment Plant Water Storage facility. The County also owns

⁹ <https://fortress.wa.gov/ecy/publications/documents/94016.pdf>

one Hazard Class 2 dam – the North Bay Water Reclamation Pond, and one Hazard Class 3 dam – the Haven Lake Dam on the Tahuya River.

The dams are utilized for many different purposes, and in most cases serve several functions. Of the 23 dams in the county:

- 17 are utilized for recreational purposes
- two for hydro-electric generation
- three for flood control purposes
- two for fish and wildlife protection, and
- three for water quality purposes.

The surface area measured for the dams encompasses the reservoirs at their normal operating levels. Combined, there are in excess of 5,175 acres of surface area protected by the dams, with the Cushman Dam No. 1 being the largest, at 4,010 acres. In addition to the normal surface area, there is an additional 240 square miles of downstream drainage area, which is the combined area of the tributary watershed and the reservoir surface that can contribute runoff to the dam and reservoir.

Inundation

The owner of a dam is responsible for developing an inundation map, which is used in determining exposure to a potential dam failure or breach during development of dam response plans. As of this 2023 update, limited data is available for public use for many of the dams in Mason County.

Mason County does have two FERC regulated hydro dams within its boundaries which are owned by the City of Tacoma, both of which are high-hazard dams (Cushman 1 and 2). In addition, it also has the Cushman Dam spillway, which is also considered a high-hazard dam. Inundation maps are not available for those dams.

Two dams owned by Mason County - the Belfair Water Reclamation Facility Dam (Hazard Class 2E) and the North Bay/Case Inlet Water Reclamation Facility Dam (Hazard Class 2E) maintain Emergency Action Plans (EAP). Review of the EAPs indicate that there are approximately 16 parcels at risk (depth unknown) for the Belfair Facility. Review of the North Bay/Case Inlet EAP indicates there is no inundation impact should the dam fail.

For the remaining dams, it is not possible to estimate the population living within the inundation zone beyond the information designated in the dam classification analysis. Based on the dam classification category identified above (e.g., high, significant or low hazard), were failure of all dams to occur, the potential lives at risk is in excess of 1,600 individuals. This number would be dependent on the level of failure or breach. This number also does not take into account the actual number of structures in place, nor the number of individuals living in or making use of those structures.

Without the ability to perform an inundation study, it is not possible to estimate property losses from a dam failure which could ultimately affect the planning area. In some instances, however, dam inundation areas may coincide with flood hazard areas. Further review of the flood profile may provide a general concept of structures at risk, although, based on the size of the dams, damage would

vary. As development occurs downstream of dams, it is necessary to review the dams' emergency action plans and inundation maps to determine whether the dams require reclassification based on the established standards. The County and its planning partners will continue to work with dam owners in the area to gain information for high-hazard dams.

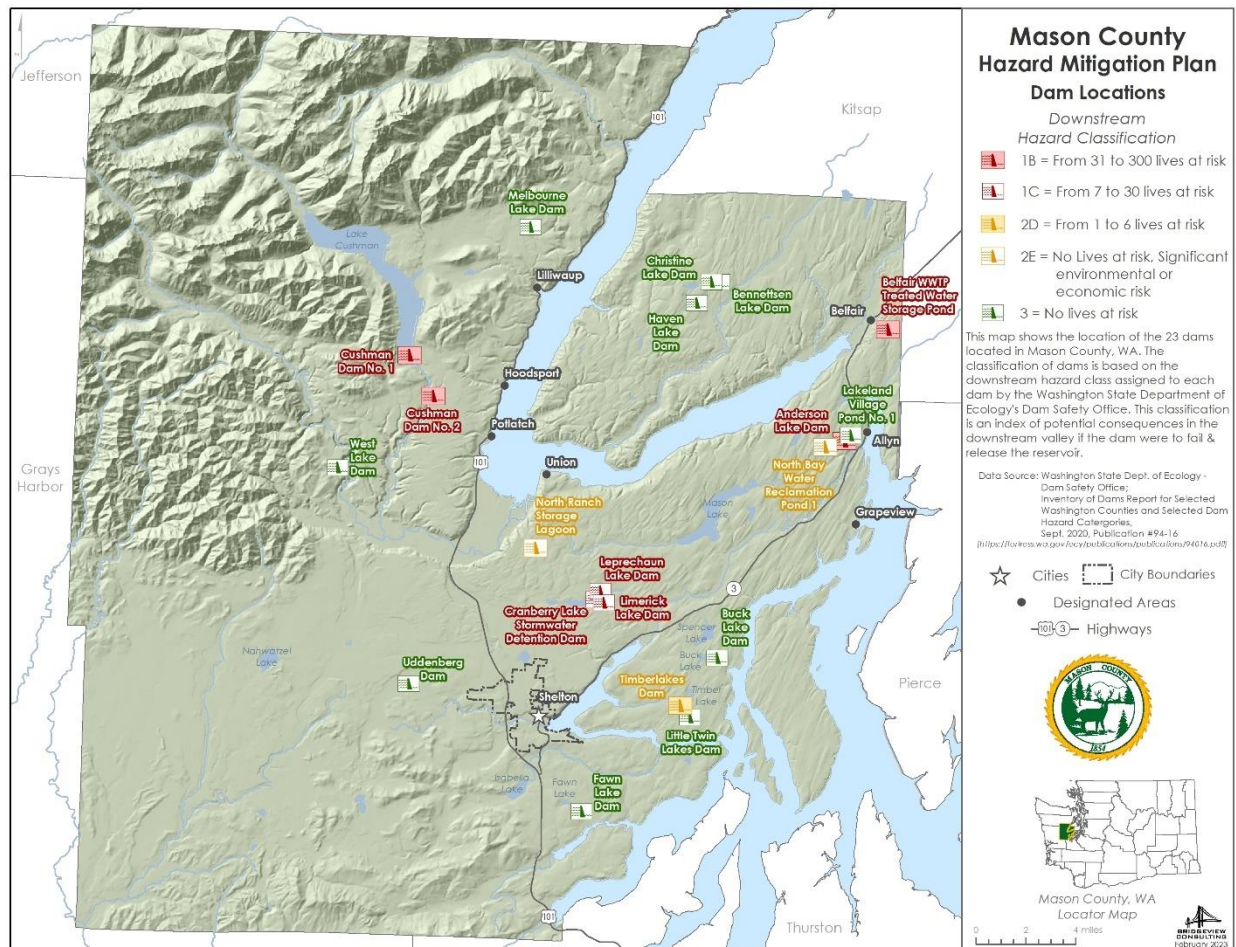


Figure 7-2 Select Mason County Dams and Hazard Classification

7.1.3 Measuring Floods and Floodplains

A floodplain is the area adjacent to a river, creek or lake that becomes inundated during a flood. Floodplains may be broad, as when a river crosses an extensive flat landscape, or narrow, as when a river is confined in a canyon. Connections between a river and its floodplain are most apparent during and after major flood events. These areas form a complex physical and biological system that not only supports a variety of natural resources but also provides natural flood and erosion control. When a river is separated from its floodplain with levees and other flood control facilities, natural, built-in benefits can be lost, altered, or significantly reduced.

In the case of riverine or flash flooding, once a river reaches flood stage, the flood extent or severity categories used by the NWS include minor flooding, moderate flooding, and major flooding. Each category has a definition based on property damage and public threat (NWS, 2011):

- Minor Flooding—Minimal or no property damage, but possibly some public threat or inconvenience.
- Moderate Flooding—Some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations are necessary.
- Major Flooding—Extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.

7.1.4 Flood Insurance Rate Maps

According to FEMA, flood hazard areas are defined as areas that are shown to be inundated by a flood of a given magnitude on a map (see Figure 7-3). These areas are determined using statistical analyses of records of river flow, storm tides, and rainfall; information obtained through consultation with the community; floodplain topographic surveys; and hydrologic and hydraulic analyses. Three primary areas make up the flood hazard area: the floodplains, floodways, and floodway fringes. Figure 7-4 depicts the relationship among the various designations, collectively referred to as the special flood hazard area.

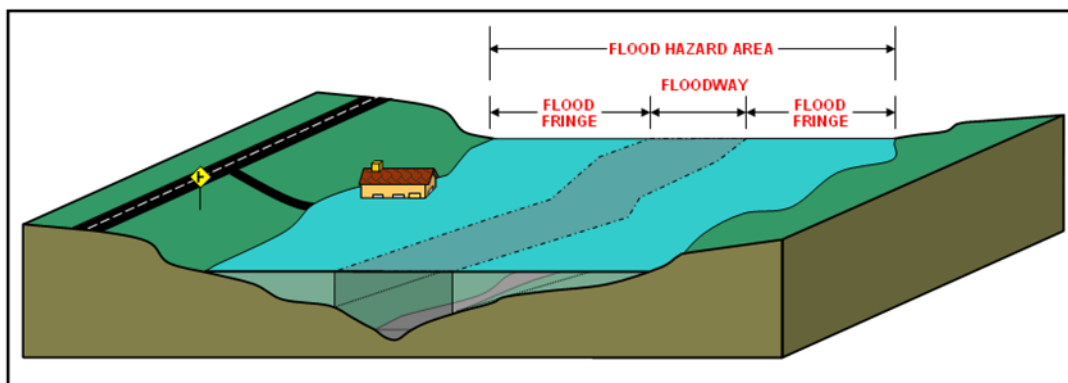


Figure 7-3 Flood Hazard Area Referred to as a Floodplain

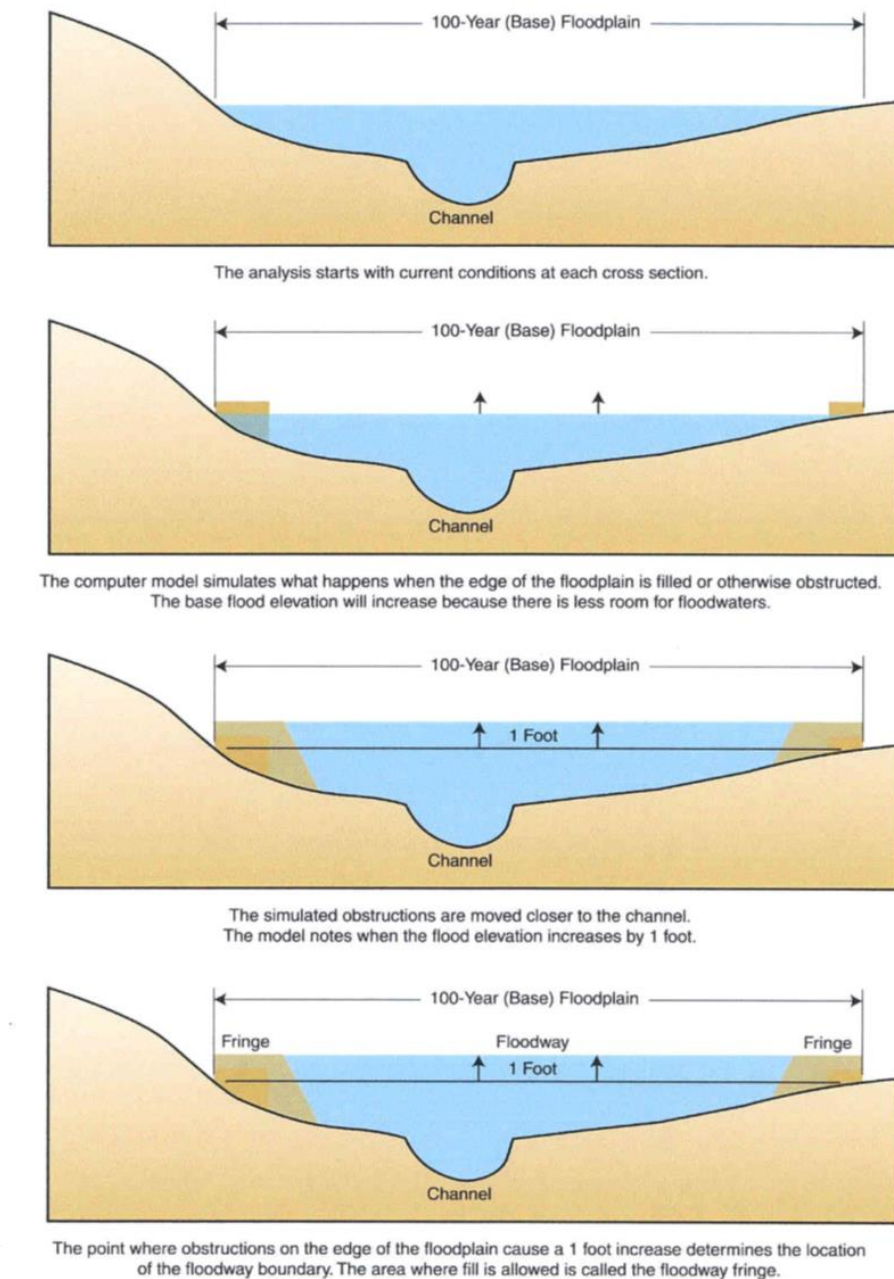


Figure 7-4 Special Flood Hazard Area

Flood hazard areas are delineated on FEMA's Flood Insurance Rate Maps (FIRM), which are official maps of a community on which the Federal Insurance and Mitigation Administration has indicated both the special flood hazard areas and the risk premium zones applicable to the community. These maps identify the special flood hazard areas; the location of a specific property in relation to the special flood hazard area; the base (100-year) flood elevation at a specific site; the magnitude of a flood hazard in a specific area; and undeveloped coastal barriers where flood insurance is not available. The maps also locate regulatory floodways and floodplain boundaries—the 100-year and 500-year floodplain boundaries (FEMA, 2003; FEMA, 2005; FEMA, 2008).

The frequency and severity of flooding are measured using a discharge probability, which is a statistical tool used to define the probability that a certain river discharge (flow) level will be equaled or exceeded within a given year. Flood studies use historical records to determine the probability of occurrence for the different discharge levels.

The extent of flooding associated with a 1-percent annual probability of occurrence (the base flood or 100-year flood) is used as the regulatory boundary by many agencies. Also referred to as the special flood hazard area, this boundary is a convenient tool for assessing vulnerability and risk in flood-prone communities. Many communities have maps that show the extent and likely depth of flooding for the base flood. Corresponding water-surface elevations describe the elevation of water that will result from a given discharge level, which is one of the most important factors used in estimating flood damage.

A structure located within a 1 percent (100-year) floodplain has a 26 percent chance of suffering flood damage during the term of a 30-year mortgage. The 100-year flood is a regulatory standard used by federal agencies and most states to administer floodplain management programs. The 1 percent (100-year) annual chance flood is used by the NFIP as the basis for insurance requirements nationwide. FIRMs also depict 500-year flood designations, which is a boundary of the flood that has a 0.2-percent chance of being equaled or exceeded in any given year. It is important to recognize, however, that flood events and flood risk are not limited to the NFIP delineated flood hazard areas.

7.1.5 National Flood Insurance Program (NFIP)

The NFIP is a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damage. The U.S. Congress established the NFIP with the passage of the National Flood Insurance Act of 1968 (FEMA's 2002 *National Flood Insurance Program (NFIP): Program Description*). There are three components to the NFIP: flood insurance, floodplain management and flood hazard mapping. Nearly 20,000 communities across the U.S. and its territories participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Community participation in the NFIP is voluntary.

For most participating communities, FEMA has prepared a detailed Flood Insurance Study (FIS), which identifies the principal flood problems in the area, among other data. The study presents water surface elevations for floods of various magnitudes, including the 1-percent annual chance flood and the 0.2-percent annual chance flood (the 500-year flood). Base flood elevations and the boundaries of the 100- and 500-year floodplains are shown on Flood Insurance Rate Maps (FIRMs), which are the principle tool for identifying the extent and location of the flood hazard. FIRMs are the most detailed and consistent data source available, and for many communities they represent the minimum area of oversight under their floodplain management program.

NFIP Participants must regulate development in floodplain areas in accordance with NFIP criteria. Before issuing a permit to build in a floodplain, participating jurisdictions must ensure that three criteria are met:

- New buildings and those undergoing substantial improvements must, at a minimum, be elevated to protect against damage by the 100-year flood.

- New floodplain development must not aggravate existing flood problems or increase damage to other properties.
- New floodplain development must exercise a reasonable and prudent effort to reduce its adverse impacts on threatened salmonid species.

Mason County maintains active participation in the National Flood Insurance Program (NFIP) and implements the NFIP regulations through Chapter 14.22 of the Mason County Code. Within Section 14.22.040 MCC there are definitions for “substantial damage” and “substantial improvement” as follows:

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during a ten-year period, in which the cumulative cost equals or exceeds fifty percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed.

The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a “historic structure”; provided, that the alteration will not preclude the structure’s continued designation as a “historic structure.”

Elsewhere in that same Chapter, the requirements of the Chapter—including development permits, elevation certificates, floodproofing, elevation above base flood elevation, structure anchoring, and so on—are applied to all new construction and buildings undergoing substantial improvements, including those damaged as a result of flood events.

The County regularly inspects and enforces all building codes and construction regulations to ensure compliance with the established County codes.

NFIP Status and Severe Loss/Repetitive Loss Properties

As indicated, Mason County is a member in good standing in the NFIP, and does incorporate regulatory authority within its land use planning, as does the City of Shelton (see City of Shelton Annex in Volume 2 for additional compliance information). Table 7-2 presents the NFIP policy status as of January 31, 2017. Table 7-3 illustrates the number of policies in force in 2022 (last full year of reporting).

Comparison of the 2017 data to that of 2023 shows a reduced number of policies for both the County and the City of Shelton. For the County, coverage fell by 53 policies from 421 to 368, a loss of approximately 14 percent. Insurance in force rose slightly, which would demonstrate the increased

cost in real estate values, particularly since the premiums in force fell. The City of Shelton lost approximately 50 percent of their policies in force, falling from 22 in 2017 to 11 in 2022.

Table 7-2 NFIP Insurance Policies in Force in 2017			
Community Name	Policies In-Force	Insurance In-Force	Premiums In-Force
Mason County	421	100,439,800	412,997
Shelton, City of	22	4,157,000	37,590
Skokomish Indian Tribe	5	1,387,800	11,076
Source: FEMA NFIP Policy Information (2017)			

Table 7-3 NFIP Insurance Policies in Force in 2022			
Community Name	Policies In-Force	Insurance In-Force	Premiums In-Force
Mason County	368	\$108,073,600	\$273,853
Shelton, City of	11	\$3,620,000	\$12,876
Skokomish Indian Tribe	7	\$4,102,600	\$26,698
Source: FEMA NFIP Policy Information (November 2022) (Most current data available as of update.)			

Repetitive Flood Claims

Residential or non-residential (commercial) properties that have received one or more NFIP insurance payments are identified as repetitive flood properties under the NFIP. Such properties are eligible for funding to help mitigate the impacts of flooding through various FEMA programs, subject to meeting certain criteria and based on the State's Hazard Mitigation Plan maintaining a Repetitive Loss Strategy. Washington State's 2018 Hazard Mitigation Plan does contain such a strategy. Specifically, the Repetitive Loss Strategy must identify the specific actions the State has taken to reduce the number of repetitive loss properties, which must include severe repetitive loss properties, and specify how the State intends to reduce the number of such repetitive loss properties. In addition, the hazard mitigation plan must describe the State's strategy to ensure that local jurisdictions with severe repetitive loss properties take actions to reduce the number of these properties, including the development of local hazard mitigation plans.

Repetitive flood claims provide funding to reduce or eliminate the long-term risk of flood damage to structures insured under the NFIP that have had one or more claim payments for flood damages.

Severe Repetitive Loss Program

The severe repetitive loss program is authorized by Section 1361A of the National Flood Insurance Act (42 U.S.C. 4102a), with the goal of reducing flood damages to residential properties that have experienced *severe* repetitive losses under flood insurance coverage and that will result in the

greatest savings to the NFIP in the shortest period of time. A severe repetitive loss property is a residential property that is covered under an NFIP flood insurance policy and:

- a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the referenced claims must have occurred within any 10-year period, and must be greater than 10 days apart.

The Community Rating System

The Community Rating System (CRS) is a voluntary program within the NFIP that encourages floodplain management activities that exceed the minimum NFIP requirements. Flood insurance premiums are discounted to reflect the reduced flood risk resulting from community actions.

Flood claim, repetitive loss, and severe repetitive loss property data varies from availability from the 2016 plan, which data is indicated in Table 7-4, which also identifies the CRS Community Status in the County. Table 7-5 identifies similar data for the 2023 update, with 2022 being the most current.¹⁰ At present, the planning partnership does not feel the level of effort to become a CRS community is warranted, nor within the capacity of the present staffing levels to facility such an endeavor. Of those structures identified in Table 7-5, all but one structure (at the Skokomish Tribe) were residential in nature, with the Tribe's impacted structure being a business.

Table 7-4 Community Status and Claims (2016)						
Community Name	CRS Community	Flood Claims	Total Losses Paid	Repetitive Loss Properties*	Severe Repetitive Loss (SRL) Properties	(SRL) Losses Paid
City of Shelton	N	8	\$133K	3	2	\$185K
Unincorporated Areas of County	N	192	\$3.7M	27	1	\$82K
Squaxin Island Tribe	N	--	--	--	--	--

¹⁰ * Table 7-4 is data reflected from 2016.

Table 7-4 Community Status and Claims (2016)						
Community Name	CRS Community	Flood Claims	Total Losses Paid	Repetitive Loss Properties*	Severe Repetitive Loss (SRL) Properties	(SRL) Losses Paid
TOTAL	--	200	\$3.7M	30	3	\$267K
Note: Repetitive Loss (12/2016) and Severe Repetitive Loss Data (2/2016) from State and FEMA sources (variations exist, but worst-case scenario presented) (Mason County FEMA Risk Report).						

Table 7-5 Community Status and Claims (2023)				
Community Name	CRS Community	Building Value*	Repetitive Loss Properties*	Severe Repetitive Loss (SRL) Properties*
City of Shelton	N	\$44.11M	22	3
Unincorporated Areas of County	N	\$522K	3	2
Skokomish Tribe	N	\$176k	1	0
Squaxin Island Tribe	N	--	--	--
TOTAL	--	\$44.8M	26	5
*Updated data varies by type available based on FEMA release. Data provided by Washington State Emergency Management Division and FEMA sources. Data is not publicly available.				

7.2 HAZARD PROFILE

7.2.1 Extent and Location

Flooding is the most common hazard occurring in Mason County, and is mostly due to riverine and urban flooding. Riverine flooding is seen on all main rivers and tributaries in the rural portions of the county. Urban flooding generally occurs within the boundaries of the City of Shelton, and the Belfair and Allyn urban growth areas. In addition, the County is also subject to coastal flooding.

FEMA Flood Maps

FEMA performed a new flood study for Mason County that resulted in the creation of new flood maps in March 2017, and adopted by the County thereafter, with an effective date of June 2019 (FEMA FIS). The project updated flood modeling along the Mason County coastline, as well as multiple riverine and lake analyses throughout the county. In addition to FIRMs, FEMA also developed the flood risk assessment products used in their Risk Report, which supports much of the flood data utilized throughout this HMP update. Mason County's 100- and 500-year flood areas are illustrated in Figure 7-5. It should be noted that only a very small area, or 0.3863 square miles of land fall within the 500-year flood hazard area based on FEMA's FIRMs.

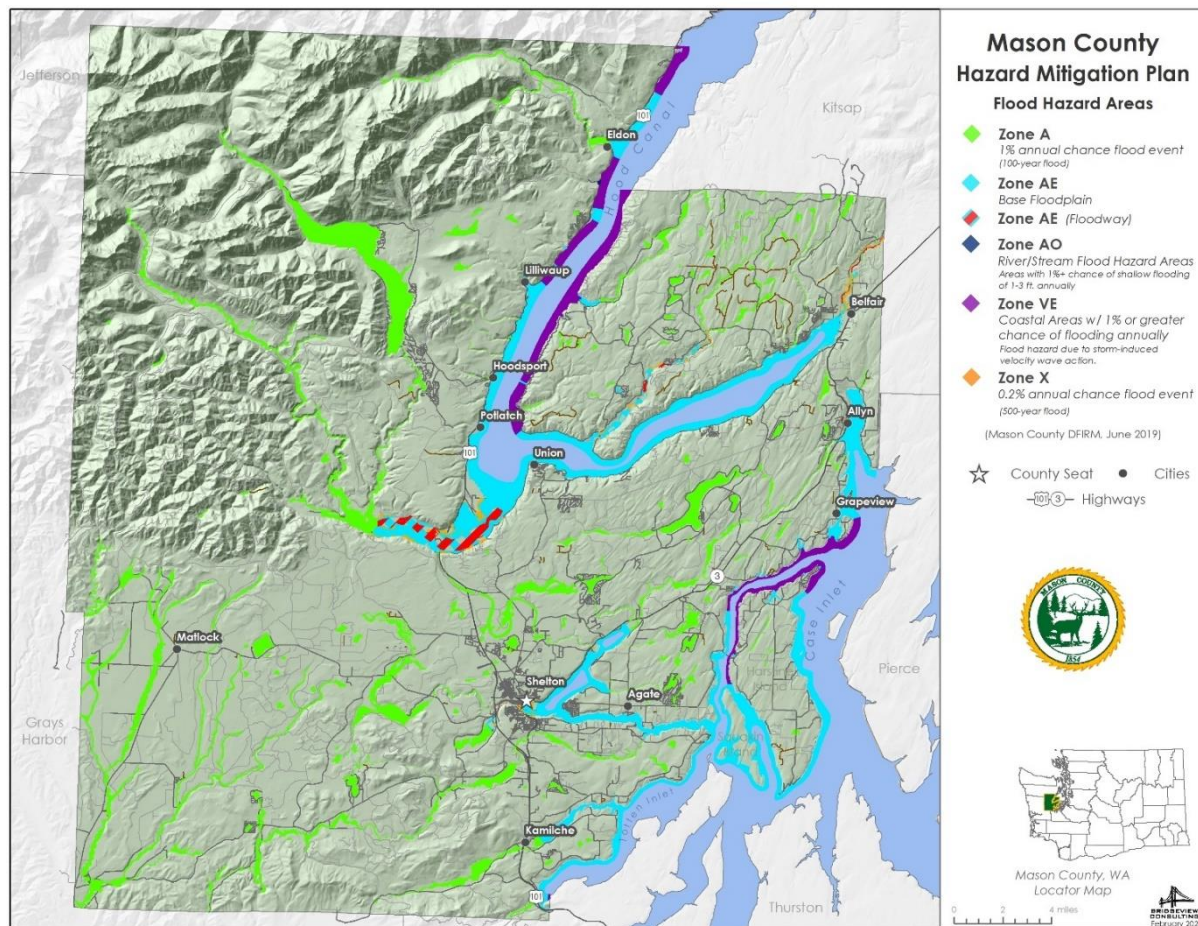


Figure 7-5 Mason County 100-and 500-Year Flood Hazard Areas¹¹

¹¹ FEMA Flood Insurance Study (2019). Available at: [FEMA Flood Map Service Center | Search All Products](https://www.fema.gov/flood-map-service-center/search-all-products)
(Also available from Mason County Emergency Management)

As a result of the FIS and associated FIRMS, FEMA developed depth grids for the 1-percent-annual-chance flood for the coastal and riverine areas, as well as 2-percent and 0.2-percent-annual-chance flood depth grids for Union River, Tahuya River, Coffee Creek, and Goldsborough Creek. FEMA also generated the depth grids from the flood model, which show the level of flooding in feet. The project team used the depth grids in the risk assessment to determine which properties are affected by flooding. The 1-percent-annual-chance depth grid for the City of Shelton area is shown Figure 7-6. Detailed information containing all data in the report is available for download from FEMA's website, or available for viewing from the County's Floodplain Manager.

FLOOD DEPTH GRID



MAP SYMBOLOLOGY

DEPTH GRID		FLOOD DEPTH: 3' OR LOWER
		FLOOD DEPTH: 3' TO 5'
		FLOOD DEPTH: 5' TO 10'
		FLOOD DEPTH: 10' OR HIGHER
		CITY BOUNDARY

THIS MAP DISPLAYS FLOOD DEPTH FOR A 1% FLOOD EVENT FOR THE CITY OF SHELTON.

SOURCE DATA FOR THIS RISK REPORT WAS COMPILED FROM FEMA'S REGION X OFFICE, FEMA'S MAP SERVICE CENTER, USGS, AND THE STATE OF WASHINGTON DIVISION OF NATURAL RESOURCES. THIS IS A NON-REGULATORY PRODUCT AND IS PROVIDED TO YOUR COMMUNITY FOR INFORMATION GATHERING AND SHARING PURPOSES ONLY.



Scale 1 in = 158 miles

1:10,029,024

Figure 7-6 100-Year Flood Hazard Depth Grid for the City of Shelton (FEMA 2017 Risk Report)

Principal Flooding Sources

Most flooding in Mason County is due to river and urban flooding. Riverine flooding is seen on all main rivers and tributaries in the rural portions of the county. Urban flooding generally occurs within the boundaries of the Shelton, Belfair, and Allyn urban growth areas.

Based on review of FEMA's Flood Insurance Study (2019) and input from the planning team members, principal flooding sources in Mason County are influenced by several rivers, including the Satsop, Tahuya, Union, Goldsborough Creek, and Skokomish Rivers.¹² Flooding in the first three rivers can effectively cut off pockets of residents due to mudslides and water over the roadways. The primary flood concern in Mason County is the Skokomish River. While previous flooding on the Skokomish River regularly caused closure of U. S. Highway 101, the main north-south route through Mason County, since completion of the last plan, that flooding was alleviated by improvements done to the Purdy Creek Bridge by WSDOT, and the removal of the Nally Farm dike. However, flooding does continue to close the Skokomish Valley Road and Bourgault Road several times annually.

The Skokomish River Basin, located on the Great Bend of Hood Canal, is a natural fjord-like arm of the Puget Sound and water of national significance identified by the U.S. Environmental Protection Agency (EPA).

The Skokomish River is the largest source of freshwater to Hood Canal and of critical importance to the overall health of Hood Canal, draining approximately 240 square miles of forested terrain into Hood Canal. According to a 2015 study conducted by the US Army Corps of Engineers (USACE), the ecosystem in the Skokomish River Basin, which includes the Skokomish Indian Reservation, has been significantly degraded, with high sediment load, reduced flows, and encroachment on the floodplain by human-made structures causing continued degradation of natural ecosystem structures, functions, and processes throughout the basin. Channel capacity of the mainstem and South Fork Skokomish Rivers, as well as Vance Creek have been significantly reduced due to sediment accumulation. The mainstem has lost about 10,000 cfs of flow capacity since 1941 (USACE, 2015, p. 77). Aggradation is suspected to have been occurring since 1912 as a result of flooding evidence experienced at that time. During storms, gravel eroded from landslides deposits and is transported to lower channels as bedload. As floodwaters recede, the streams and rivers do not have enough stream energy to transport the bedload, causing accumulation in channels, increasing the level of floodwaters over the banks due to lower stream capacity. Over the course of time, this has, and will continue to increase flooding both in frequency and size in the area. But one example is the December 2007 storm event, which impacted several small creeks along US Highway 101 between Hoodport and Lilliwaup that previously had not had a significant documented history of flooding. These creeks include Finch, Clark, Miller, and Sund Creeks (see Figure 7-7 below).

Areas of the Tahuya Peninsula have been severely impacted by flooding from both the Tahuya and Union Rivers, in addition to the majority of the smaller creeks. Incidents such as the December 2007

¹² FEMA Flood Insurance Study (2019). Available at: [FEMA Flood Map Service Center | Search All Products](https://www.fema.gov/flood-map-service-center/search-all-products)

severe storm event impacted several small creeks along US Highway 101 between Hoodsport and Lilliwaup. The December 2007 storm event resulted in large quantities of alluvial material being deposited in the lower stream reaches. These streams now exhibit significant aggradation, which has elevated the streambeds and consequently will likely continue to cause flooding. Finch Creek experienced severe bank erosion. At least six property owners required bank armoring in order to protect homes and septic systems. Several homes in the Holiday Beach area (Miller Creek) also experienced flooding.

Tidal changes from Hood Canal combined with increased runoff from the Olympics have also exacerbated the frequency of flooding in Mason County. The December 2022 King Tide event caused significant flooding issues within the County as a whole, with reports of damage and flooding from several areas of the county.

One of the hardest hit areas fell within North Mason Fire Authority (see cover photo). The King Tides did extensive damage to numerous homes along the North Shore and South Shore of the Hood Canal. Rain caused water tributaries to back up and flood numerous residences along both shores. In addition, the high tides over-topped numerous beachfront bulkheads, flooding and eroding yards as well as homes. The Fire Authority estimated the number of homes impacted to be in excess of 50, with the estimate of homes significantly impacted by flood damage to be in excess of 20. Two families on the Southshore were trapped in their homes due to the rising flood waters and required Fire Authority rescue/evacuation. The Union River also swelled, making vehicle passage on Highway 300 impossible. Several cars attempted to travel through the flood waters but were unable to maneuver through the floodwaters. Two vehicle owners required Fire Authority assistance for evacuation from their cars.



Figure 7-7 Finch, Clark, Miller and Sund Creeks

7.2.2 Previous Occurrences

Major floods in the planning area have resulted from intense rainstorms customarily between October and April. In addition to events discussed above, Table 7-6 highlights some of the historical flood events occurring in the area. It should be noted that due to the disaster typing which occurs at the FEMA level, there are other types of events which also include flooding, but due to the typing, those are not referenced within this chapter. Specific examples of this include Severe Weather events which include flooding as a hazard of impact. Viewers should also review the Severe Weather hazard profile for additional information.

**Table 7-6
Flood Events Impacting Planning Area 1956-2016**

Disaster Number	Declaration Date	Disaster Type	Incident Type	Title	Incident Begin Date	Incident End Date	PA Dollars Obligated or Losses (State)
4539	4/23/2020	DR	Flood	Severe Storm, Flooding, Landslides, and Mudslides	1/20/2020	2/10/2020	\$10.6M statewide
Several days of heavy rain in January 20, 2020 resulted in widespread flooding of roadways, homes, and property. On April 23, 2020, a Federal disaster aid was made available to the State of Washington to supplement state, tribal, and local recovery efforts in the Mason County and other areas affected by the flooding.							
4253	2/2/2016	DR	Flood	Severe Winter Storm, Straight-Line Winds, Flooding, Landslides, and Tornado	12/1/2015	12/14/2015	\$3,166,346
Several days of heavy rain in December 2015 resulted in widespread flooding of roadways, homes, and property. On February 2, 2016, Federal disaster aid was made available to the State of Washington to supplement state, tribal, and local recovery efforts in the Mason County and other areas affected by the flooding.							
1817	1/30/2009	DR	Flood	Severe Winter Storm, Landslides, Mudslides, & Flooding	1/6/2009	1/16/2009	
January 2009- Washington State was hit with severe winter storms that brought heavy rains and warmer temperatures, resulting in snow melting causing flooding, land- and mudslides. ~12 county roads were impacted by flooding; three homes were destroyed; two had major damage; three had minor damage; and 12 more were affected. Costs for damages due to flooding were estimated at \$750,000. Mason County received \$65,000 of HMGP funds to update their HMP.							
1172	4/2/1997	DR	Flood	Heavy Rains, Snow Melt, Flooding, Land Slides	3/18/1997	3/28/1997	\$50,889,413
A week of torrential rain in late March 1997 created flooding and landslides in multiple places in Washington State. In Mason County, multiple roads were closed and five homes were posted for evacuation.							
883	11/26/1990	DR	Flood	Severe Storms & Flooding	11/9/1990	12/20/1990	\$2.9 million
Two individuals died as a result of this incident statewide. Over the Thanksgiving weekend, between 8 and 15 inches of rain fell. County road damage, including replacement costs for a bridge over Mission Creek, totaled \$260,000. Several homes were extensively damaged in the Skokomish Valley and two homes were uninhabitable. Twenty-five people were evacuated from the Skokomish Valley. Highways and roads were closed. Residents lost power. On November 26, 1990, Federal disaster aid was made available. Mason County received \$754,238 of HMGP funds for the East Bourgault Road area property acquisition project.							
612	12/31/1979	DR	Flood	Storms, High Tides, Mudslides & Flooding	12/31/1979	12/31/1979	
Heavy rains and snowmelt caused floods, mudslides, and road washouts. Twenty-eight Skokomish Valley residents were evacuated. Damage to county roads was estimated at \$375,000 to \$515,000 and damage to other property was estimated at \$160,000.							

Table 7-6
Flood Events Impacting Planning Area 1956-2016

492	12/13/1975	DR	Flood	Severe Storms & Flooding	12/13/1975	12/13/1975	
Damage to county roads totaled ~ \$185,000. Flooding in Skokomish Valley damaged a number of levees. Numerous residences had water damage. Several persons were evacuated from their homes by boat. The total estimate of damage to private and farm land was \$300,000.							
414	1/25/1974	DR	Flood	Severe Storms, Snowmelt & Flooding	1/25/1974	1/25/1974	Unknown
Impacts included roadway closures resulting from flooding and landslides in the area.							
185	12/29/1964	DR	Flood	Heavy Rains & Flooding	12/29/1964	12/29/1964	
In December 1964, snow and heavy rains caused slides and run-off knocking two houses 12 feet off of their foundations, covering half of Hwy 21 above Alderbrook. One house was unoccupied. The other residents were not injured. Slides and running water closed the Purdy Cut-Off Road. Snow accumulation amounted to 20 inches in Union and Hoodsport areas, 19 inches at Lilliwaup, 16 inches at Dayton, 20 inches in the Matlock area, and 36 inches at the upper end of Lake Cushman. Shelton, Kamilche, and Mary M. Knight schools were closed for 1 day. Falling branches and the weight of the snow caused numerous power outages. Numerous reports were received of roofs of barns, sheds, carports, and garages collapsing under the weight of the snow. Snow (4 ½ feet deep) closed logging operations at Camps Grisdale and Govey. Dairymen in the Skokomish Valley couldn't operate milking machines or water cattle due to power outages. At the height of the storm only 150 of the 1600 PUD customers had electricity. Cost of the storm damage was estimated between \$25,000 and \$30,000.							

7.2.3 Severity

The severity of a flood depends not only on the amount of water that accumulates in a period of time, but also on the land's ability to manage this water. One element is the size of rivers and streams in an area; but an equally important factor is the land's absorbency. When it rains, soil acts as a sponge. When the land is saturated or frozen, infiltration into the ground slows and any more water that accumulates must flow as runoff (Harris, 2001).

The principal factors affecting flood damage are flood depth and velocity. The deeper and faster flood flows become, the more damage they can cause. Shallow flooding with high velocities can cause as much damage as deep flooding with slow velocity. This is especially true when a channel migrates over a broad floodplain, redirecting high velocity flows and transporting debris and sediment. Flood severity is often evaluated by examining peak discharges. Figure 7-8 and Figure 7-9 illustrates the December 3, 2007 Severe Storm event (DR-1734), when U.S. Highway 101 was inundated due to approximately four feet of floodwaters crossing the roadway.

These types of incidents indicate that more areas are becoming prone to flooding. As of 2017, there are approximately 58.67 square miles of land within the 100-year and 0.3863 sq. miles of land within the 500-year flood hazard areas based on the identified flood hazard area within the 2017 FIRMs. In 2010, during the last HMP update process, there were approximately 23 square miles of land within the flood hazard area.

One of the County's identified action items in the 2010 plan was to work with the USGS and other agencies to install river gauges or other technology on rivers other than the Skokomish. The County is aware of a number of repetitive flood loss properties within the Tahuya River watershed, but without accurate frequency determinations it is extremely difficult to develop cost-effective mitigation solutions. The County itself has installed additional gauges on the Skokomish since

completion of the 2018 plan. This 2010 project was brought forward to the 2018 plan update, and will remain as a strategy in this 2023 update.

7.2.4 Frequency

Mason County experiences some level of flooding on an annual basis. What customarily constituted the “normal” flood season of October through April in Western Washington does not necessarily apply to the Skokomish River, which has received Flood Warnings issued by the National Weather Service during the month of July.

Large floods that have caused property damage have occurred 10 times during the time period 1956 through 2022, with the first recorded flood occurring in 1964. Frequency for this calculation was based on the period covering 1956 to 2022, and the number of events averaged based on years and number of floods. It should be noted that this does not reflect the recurrence interval, as that calculation is specific on varying factors, such as the incident type, discharge rate, etc., and that type of analysis was not included in this process. Based on this method of assessment, the return interval is 6.5 years, or a 15 percent chance of some level of a flood event occurring every year.



Figure 7-8 December 3, 2007 Incident Highway 101 North of Shelton



Figure 7-9 Belfair-Tahuya Bridge on the Tahuya River December 2007 (DR 1734)

7.3 VULNERABILITY ASSESSMENT

To understand risk, a community must evaluate what assets are exposed or vulnerable in the identified hazard area. For this planning purpose, the flood hazard areas identified include the 1-percent (100-year) floodplain and the coastal floodplain. The following text evaluates and estimates the potential impact of flooding in Mason County.

7.3.1 Overview

All types of flooding can cause widespread damage throughout rural and urban areas, including but not limited to: water-related damage to the interior and exterior of buildings; destruction of electrical and other expensive and difficult-to-replace equipment; injury and loss of life; proliferation of disease vectors; disruption of utilities, including water, sewer, electricity, communications networks and facilities; loss of agricultural crops and livestock; placement of stress on emergency response and healthcare facilities and personnel; loss of productivity; and displacement of persons from homes and places of employment.

Methodology

The 1 percent (100-year) annual chance Riverine flood and the 1 percent (100-year) Coastal events were examined to evaluate Mason County's risk and vulnerability to the flood hazard. These events are generally those considered by planners and evaluated under federal programs such as the NFIP.

As indicated, the County's FIRMs were developed and later adopted during the 2017 HMP planning cycle. During this 2023 update, WA DOE, as the responsible state agency charged with the RiskMap

flood analysis, was queried if other updated data for flood determination was available. The Planning Team was advised that the 2017 data remains the most current and determined to be the best available science for use in this update. During the HMP update, the planning team developed a new list of critical facilities, which was utilized to supplement the 2017 critical facilities list throughout the various processes to identify exposure to the flood-prone areas.

Warning Time

Due to the sequential pattern of meteorological conditions needed to cause serious flooding, it is unusual for a flood to occur without some warning. Warning times for floods can be between 24 and 48 hours. Flash flooding can be less predictable, but potential hazard areas can be warned in advanced of potential flash flooding danger.

7.3.2 Impact on Life, Health, and Safety

The impact of flooding on life, health and safety is dependent upon several factors including the severity of the event and whether or not adequate warning time is provided to residents. Exposure represents the population living in or near floodplain areas that could be impacted should a flood event occur. Additionally, exposure should not be limited to only those who reside in a defined hazard zone, but everyone who may be affected by the effects of a hazard event (e.g., people are at risk while traveling in flooded areas, or their access to emergency services is compromised during an event). The degree of that impact will vary and is not measurable.

Of significant concern within the planning area is the number of tourists who can be impacted during periods of flooding. Tourism is a fairly large economy within the planning area (the Olympic National Forest, water sports, large recreational camping locations, Little Creek Casino), with many tourists traveling through the area to other areas of the state. Tourism also fluctuates based on season.

To estimate the population exposed to the 1 percent and 0.2 percent annual chance (100- and 500-year) flood events, the DFIRM floodplain boundaries were intersected with residential parcels (based off of Mason County 2017 Assessor data) whose centers intersect the floodplain. Total population was estimated by multiplying the number of residential structures by the average Mason County household size of 2 persons per household. Table 7-7 identifies the estimated population located within these flood zones by municipality or census designated place.

Table 7-7
Population Exposed within Flood Hazard Areas

Jurisdiction	Population in the 1% annual chance event (100- Year) Flood Boundary	Population in the 0.2% annual chance (500-Year) Flood Boundary
Unincorporated Mason County	1,818	742
Shelton, City of	486	512
Allyn	0	0
Belfair	22	0
Total	2,326	1,254

**Based on 2017 Assessor's data for residential structures within the 100-year and 500-year floodplains and an estimate of 2 persons per residential structure*

Of the population exposed, the most vulnerable include the economically disadvantaged and the population over the age of 65. Economically disadvantaged populations are more vulnerable because they are likely to evaluate their risk and make decisions to evacuate based on the net economic impact on their family. The population over the age of 65 is also more vulnerable because they are more likely to seek or need medical attention which may not be available due to isolation during a flood event and they may have more difficulty evacuating.

The number of injuries and casualties resulting from flooding is generally limited based on advance weather forecasting, blockades, and warnings. Therefore, injuries and deaths generally are not anticipated if proper warning and precautions are in place. Ongoing mitigation efforts should help to avoid the most likely cause of injury, which results from persons trying to cross flooded roadways or channels during a flood.

7.3.3 Impact on Property

Table 7-8 identifies the number of acres within the 100- and 500-year flood hazard areas. Table 7-9 summarizes the total number of structures and losses by coastal and riverine hazards, and number of structures in the SFHAs which would be inundated by the 1-percent-annual-chance flood. Figure 7-10 illustrates the general building stock at risk as determined during FEMA's 2017 flood study.

Table 7-8 Acres in 100 and 500 Year Flood Hazard Areas for Jurisdiction's Boundary					
Flood Zone	Mason County, WA	Unincorporated Mason Co.	City of Shelton	Town of Allyn	Town of Belfair
100 Year Flood Zone - (Includes Zones A, AE, AH, AO, VE)	37,458	37,161.0	186.9	85.5	24.4
500-Year Flood Zone	247	223.6	22.0	0.0	1.2

Table 7-9
Structures At Risk

Community	Total Estimated Building (Bldg) Value	Total Number Of Bldgs.	Bldg. Dollar Loss For A 1% Annual Chance Coastal Flood Event	Loss Ratio (Dollar Losses/ Total Bldg. Value)	Bldg. Dollar Loss For A 1% Annual Chance Riverine Flood Event	Loss Ratio (Dollar Losses/ Total Bldg. Value)	Number Of Bldgs. Within The VE Zone	Number Of Bldgs. within the AE or A Zones	Number of Bldgs. within the SFHA	Per-Cent Of Bldgs. in the SFHA
City of Shelton	\$422.6M	3,279	-	-	\$1.4M	<1%	0	93	93	2.8%
Skokomish Indian Reservation	\$36.4M	381	\$69.7k	<1%	<\$3.1k	<1%	0	31	31	8.1%
Unincorporated Mason County	\$3.5B	\$27,118	\$13.2M	<1%	\$22.0M	<1%	135	1986	2121	7.8%
Total	\$4.0B	30,778	\$13.3M	<1%	\$23.5M	<1%	135	2110	2245	7.3%

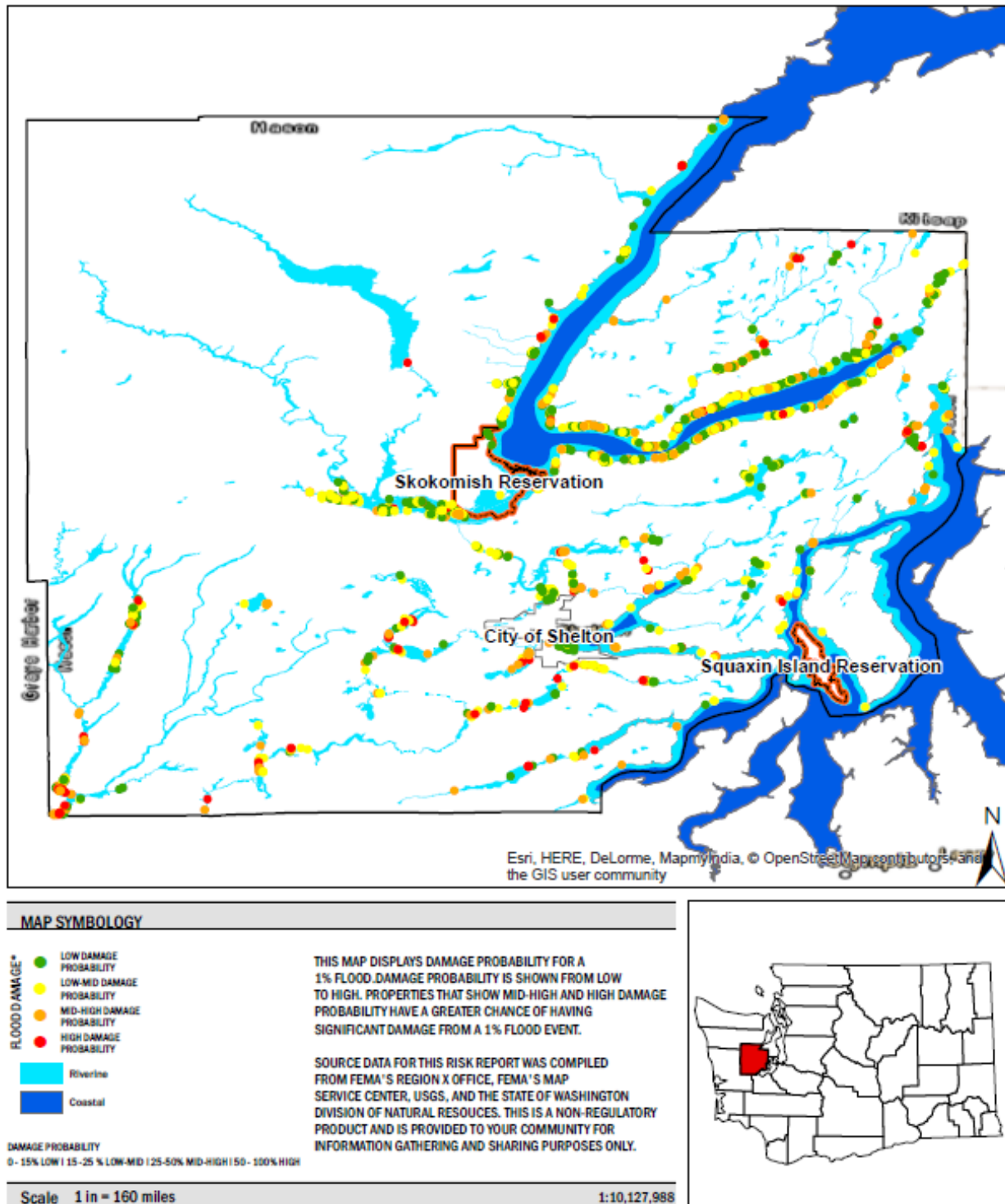


Figure 7-10 FEMA Coastal and Riverine Flood Damage in Mason County (2017 Risk Map)

7.3.4 Impact on Critical Facilities and Infrastructure

In addition to considering general building stock at risk, the risk of flood to critical facilities and utilities was evaluated. Exposure analysis was utilized based on FEMA's 2017 flood maps and the 2023 critical facilities identified for this update.

Table 7-10 and Table 7-11 identify the critical facilities and infrastructure located in the FEMA 100-year flood hazard area. No critical facilities are identified within the 500-year flood zone; however, there are a total of 15 structures in very close proximity (within 100-500 feet) of the 500-year flood zone. Figure 7-11 illustrates all critical facilities and proximity to the 100- and 500-year flood zones.

Table 7-10 Critical Facilities in the 100-Year Floodplain						
Jurisdiction	Medical and Health Services	Government Function	Protective	Hazardous Materials	Shelter	Total
Unincorporated	0	0	2	0	0	2
Shelton, City	0	0	1	0	1	2
Total	0	0	3	0	1	4

Table 7-11 Critical Infrastructure in the 100-Year Floodplain						
Jurisdiction	Water Supply	Wastewater	Power	Communications	Other	Total
Unincorporated	22	1	0	0	0	23
Shelton, City	1	0	1	0	0	2
Total	23	1	1	0	0	25

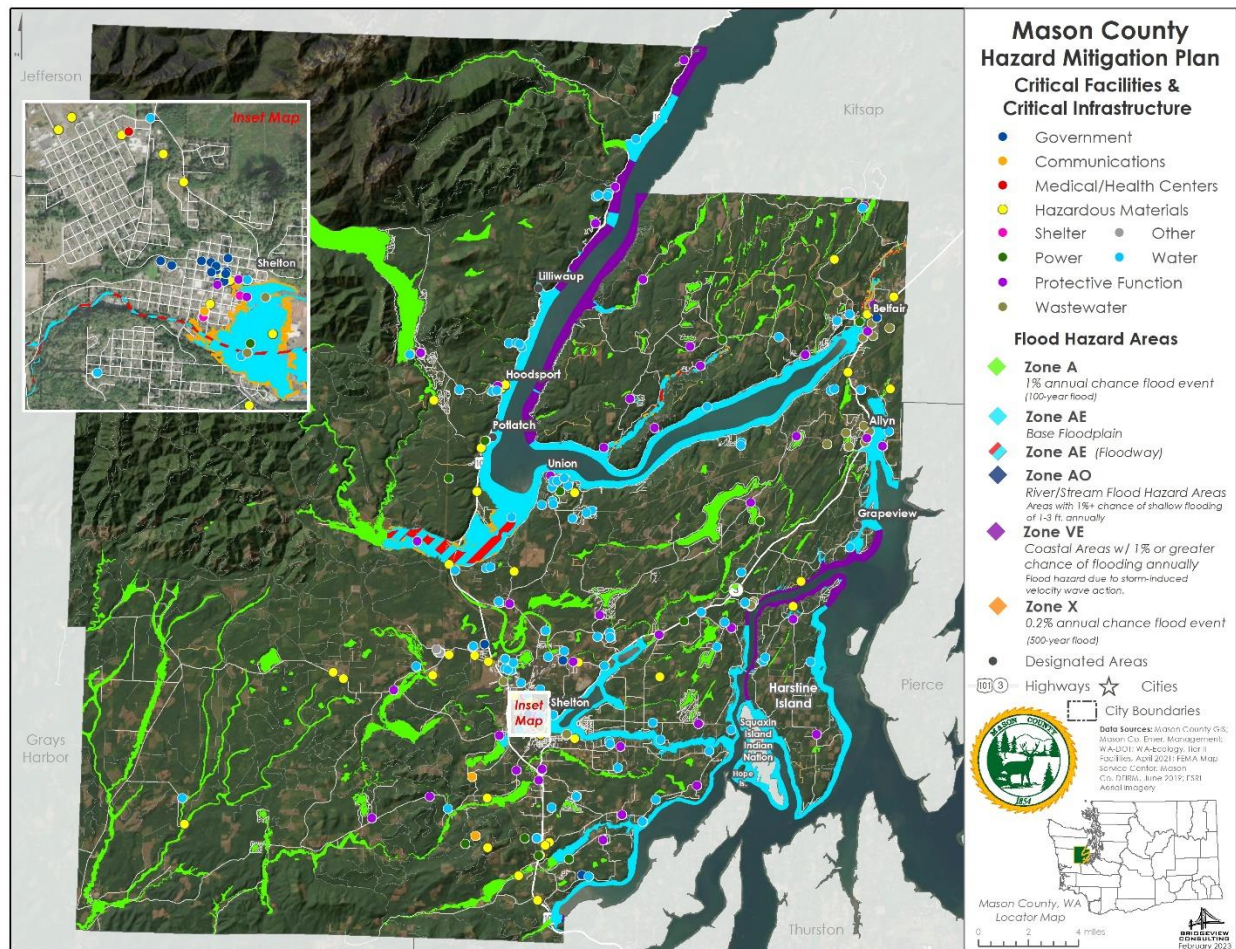


Figure 7-11 Critical Facility Proximity to 100- and 500-Year Flood Hazard Areas

In cases where short-term functionality is impacted by a hazard, other facilities of neighboring municipalities may need to increase support response functions during a disaster event. Mitigation planning should consider means to reduce impact on critical facilities and ensure sufficient emergency and school services remain when a significant event occurs.

7.3.5 Impact on Economy

Impact on the economy related to a flood event in Mason County would include loss of property, associated tax revenue (real estate), as well as potential loss of businesses and the associated revenues generated from those businesses, both in taxes and on individual income loss of spending. Depending on the duration between onset of the event and recovery, businesses within the area may not be able to sustain the economic loss of their business being disrupted for an extended period of time. Historical data has demonstrated that those businesses impacted by a disaster are less likely to reopen after an event.

7.3.6 Impact on Environment

Flooding is a natural event, and floodplains provide many natural and beneficial functions. Nonetheless, with human development factored in, flooding can impact the environment in negative ways.

Because they border water bodies, floodplains have historically been popular sites to establish settlements. Human activities tend to concentrate in floodplains for a number of reasons: water is readily available; land is fertile and suitable for farming; transportation by water is easily accessible; and land is flatter and easier to develop. But human activity in floodplains frequently interferes with the natural function of floodplains. It can affect the distribution and timing of drainage, thereby increasing flood problems. Human development can create local flooding problems by altering or confining drainage channels. This increases flood potential in two ways: it reduces the stream's capacity to contain flows, and it increases flow rates or velocities downstream during all stages of a flood event. Migrating fish can wash into roads or over dikes into flooded fields, with no possibility of escape.

Pollution from roads, such as oil, and hazardous materials can wash into rivers and streams. During floods, these can settle onto normally dry soils, polluting them for agricultural uses. Human development such as bridge abutments and levees, and logjams from timber harvesting can increase stream bank erosion, causing rivers and streams to migrate into non-natural courses. In 2014, the US Army Corp of Engineers developed an Integrated Feasibility Report and Environmental Impact Statement specifically for the Skokomish River Basin. Review of the report identifies the fact that high sediment load, reduced flows, and encroachment on the floodplain by human-made structures have, and continue to degrade the natural ecosystem structures, functions, and processes throughout the basin. That degradation has caused a significant decline in populations of four anadromous fish species under the Endangered Species Act (ESA) (e.g., Chinook salmon, chum salmon, steelhead, and bull trout) that use the river as their primary habitat. The impaired ecosystem has also adversely affected critical riverine, wetland, and estuarine habitats used by other wildlife species such as bears, bald eagles, and river otters to name a few.

Floodplains can support ecosystems that are rich in quantity and diversity of plant and animal species. A floodplain can contain 100 or even 1000 times as many species as a river. Wetting of the floodplain soil releases an immediate surge of nutrients: those left over from the last flood, and those that result from the rapid decomposition of organic matter that has accumulated since then. Microscopic organisms thrive and larger species enter a rapid breeding cycle. Opportunistic feeders (particularly birds) move in to take advantage. The production of nutrients peaks and falls away quickly; however, the surge of new growth endures for some time. This makes floodplains particularly valuable for agriculture. Species growing in floodplains are markedly different from those that grow outside floodplains. For instance, riparian trees (trees that grow in floodplains) tend to be very tolerant of root disturbance and very quick-growing compared to non-riparian trees.

7.3.7 Impact from Climate Change

Global climate change is expected to result in warmer and wetter winters and are projected to increase flooding frequency in most Western Washington river basins. Future floods are expected to exceed the capacity and protective abilities of many existing flood protection facilities, threatening lives, property, major transportation corridors, communities, and regional economic centers.

Changes in Hydrology

Use of historical hydrologic data has long been the standard of practice for designing and operating water supply and flood protection projects. For example, historical data are used for flood forecasting models and to forecast snowmelt runoff for water supply. This method of forecasting assumes that the climate of the future will be similar to that of the period of historical record. However, the hydrologic record cannot be used to predict changes in frequency and severity of extreme climate events such as floods. Going forward, model calibration or statistical relation development must happen more frequently, new forecast-based tools must be developed, and a standard of practice that explicitly considers climate change must be adopted. Climate change in many areas is already impacting water resources, and resource managers have observed the following:

- Historical hydrologic patterns can no longer be solely relied upon to forecast the water future.
- Precipitation and runoff patterns are changing, increasing the uncertainty for water supply and quality, flood management and ecosystem functions.
- Extreme climatic events will become more frequent, necessitating improvement in flood protection, drought preparedness, and emergency response.

The amount of snow is critical for water supply and environmental needs, but so is the timing of snowmelt runoff into rivers and streams. Rising snowlines caused by climate change will allow more mountain area to contribute to peak storm runoff. High frequency flood events (e.g. 10-year floods) in particular will likely increase with a changing climate. Along with reductions in the amount of the snowpack and accelerated snowmelt, scientists project greater storm intensity, resulting in more direct runoff and flooding. Changes in watershed vegetation and soil moisture conditions will likewise change runoff and recharge patterns. As stream flows and velocities change, erosion patterns will also change, altering channel shapes and depths, increased sedimentation will occur, and affecting habitat and water quality. With potential increases in the frequency and intensity of wildfires due to climate change, there is potential for more floods following fire, which increase sediment loads and water quality impacts. Mason County has already experienced such influences such as with the 2007 flooding, and with the 2023 King Tide events. Sediment movement is influencing the banks of the waterways, increasing flooding events in areas where typical flooding has not occurred.

As hydrology changes, what is currently considered a 100-year flood may strike more often, leaving many communities at greater risk. Planners will need to factor a new level of safety into the design, operation, and regulation of flood protection facilities such as dams, bypass channels and levees, as well as the design of local wastewater treatment facilities and storm drains. For Mason County, this also includes the availability of additional stream flow gauges along the various waterways.

Dams

Dams are designed partly based on assumptions about a river's flow behavior, expressed as hydrographs. Changes in weather patterns can have significant effects on the hydrograph used for the design of a dam. If the hydrograph changes, it is conceivable that the dam can lose some or all of its designed margin of safety, also known as freeboard. If freeboard is reduced, dam operators may be forced to release increased volumes earlier in a storm cycle in order to maintain the required margins of safety. Such early releases of increased volumes can increase flood potential downstream.

Throughout the west, communities downstream of dams are already experiencing increases in stream flows from earlier releases from dams.

Dams are constructed with safety features known as “spillways.” Spillways are put in place on dams as a safety measure in the event of the reservoir filling too quickly. Spillway overflow events, often referred to as “design failures,” result in increased discharges downstream and increased flooding potential. Although climate change will not increase the probability of catastrophic dam failure, it may increase the probability of design failures.

Sea Level Rise

Sea level and temperature are interrelated (U.S. EPA, 2016). Warmer temperatures result in the melting of glaciers and ice sheets. This melting means that less water is stored on land and, thus, there is a greater volume of water in the oceans. Water also expands as it warms, and the heat content of the world’s oceans has been increasing over the last several decades. The impacts of sea level rise could include increased coastal community flooding, coastal erosion and landslides, seawater well intrusion, acidification of waters, and lost wetlands and estuaries.

7.4 FUTURE DEVELOPMENT TRENDS

Mason County and its planning partners are subject to the provisions of the Washington State Growth Management Act (GMA), which regulates identified critical areas. Mason County critical areas regulations include frequently flooded areas, defined as the FEMA 100-year mapped floodplain. The GMA establishes review and evaluation programs that monitor commercial, residential, and industrial development and the densities at which this development has occurred under each jurisdiction’s GMA comprehensive plan and development regulations. An evaluation is required at least every five years of the sufficiency of remaining land within urban growth areas to accommodate projected residential, commercial, and industrial growth at development densities observed since the adoption of GMA plans. This buildable lands report compares planned versus actual urban densities in order to determine whether original plan assumptions were accurate. In addition, the County also is required to develop shoreline management practices, which also support mitigation efforts with respect to reduced flooding and building more resilient communities. Section 3 of this plan discusses the County’s land use designations, including identification of critical areas. Since completion of the 2018 HMP, the County has updated its Shoreline plan, and is currently in the process of updating its Comprehensive Land Use Plan.

The floodplain portions of the planning area are regulated under the GMA and the NFIP. Development will occur in the floodplain; however, it will be regulated such that the degree of risk will be reduced through building standards and performance measures. As NFIP map updates have occurred, those updates will continue to be utilized to further expand, modify, and enhance planning efforts occurring within the County.

7.5 ISSUES

A large portion of the planning area has the potential to flood, generally in response to a succession of winter rainstorms. Storm patterns of warm, moist air are normal events, usually occurring between October and April can cause severe flooding in the planning area, although flooding can occur at any time. The issue of high tides, particularly in light of anticipated sea level rise, will

continue to be of issue. Such issues would be of even greater concern if the high tide occurs in conjunction with a wind-driven event.

A worst-case scenario for a flood event within the County would be a series of storms that result in high accumulations of runoff surface water within a relatively short time period. This could overwhelm response capabilities within Mason County. Major roads could be blocked as has previously occurred, preventing critical access for residents and critical functions in portions of the planning region. High in-channel flows could cause watercourses to scour, possibly washing out roads or impacting bridges, creating more isolation problems, and further exacerbating erosion along the coastline. In the case of multi-basin flooding, repairs could not be made quickly enough to restore critical facilities and infrastructure. While human activities influence the impact of flooding events, human activities can also interface effectively with a floodplain as long as steps are taken to mitigate the activities' adverse impacts on floodplain functions.

The following flood-related issues are relevant to the planning area:

- While flooding on the Skokomish River is well documented, there are limited river gauges available.
- Additional rivers in the County, such as the Tahuya River in North Mason, also regularly experience flooding. There are currently no USGS river gauges outside the Skokomish watershed, which significantly impacts the County's ability to monitor and develop effective mitigations actions. The county has installed several gauges additional gauges on the Skokomish River in an attempt to capture data, but additional gauges are needed on the additional rivers.
- The risk associated with the flood hazard overlaps the risk associated with other hazards such as severe storm events, high tides, earthquake, and landslide. This provides an opportunity to seek mitigation goals with multiple objectives to reduce the risk of multiple hazards.
- Climate change will impact flood conditions throughout the County. The County lacks the resources to complete any type of climate change impact study.
- More information is needed on flood risk with respect to structure type, year built, elevation, etc., to support the concept of risk-based analysis of capital projects.
- There needs to be a sustained effort to gather historical damage data, such as high-water marks on structures and damage reports, to measure the cost-effectiveness of future mitigation projects.
- Ongoing flood hazard mitigation will require funding from multiple sources.
- There needs to be a coordinated hazard mitigation effort between the County, the City of Shelton, the Skokomish and Squaxin Island Tribes, and the Washington Department of Transportation as it relates to flooding and flood induced issues and the potential for areas to experience isolation as a result of limited ingress and egress to certain areas of the County during storm/flooding events.
- Floodplain residents need to continue to be educated about flood preparedness and the resources available during and after floods.

- The promotion of flood insurance as a means of protecting property from the economic impacts of frequent flood events should continue. Since completion of the last plan, the County and the City of Shelton have experienced a reduction in the number of policies in force.
- Existing floodplain-compatible uses such as agricultural and open space need to be maintained.

7.6 RESULTS

Based on review and analysis of the data, the Planning Team has determined that the probability for impact from Flood throughout the area is highly likely. The area experiences some level of flood almost annually. While structural damage may vary due to flood depths and existing floodplain management regulations, there is a fairly high rate of property ownership that does not have flood insurance. Based on the potential impact, the Planning Team determined the CPRI score to be 3.25, with overall vulnerability determined to be a high level.

CHAPTER 8. LANDSLIDE

A landslide is defined as the sliding movement of masses of loosened rock and soil down a hillside or slope. Such failures occur when the strength of the soils forming the slope is exceeded by the pressure acting upon them, such as weight or saturation. Earthquakes provide many times more energy than needed to initiate soil liquefaction, enhancing not only the probability of a landslide, but also its magnitude. Washington State climate, topography, and geology create a perfect setting for landslides, which occur in the state every year.

In Western Washington, most landslides are triggered during fall and winter after storms dump large amounts of rain or snow (Washington Department of Natural Resources, 2015). Landslides can be shallow or deep. Shallow landslides typically occur in winter in Western Washington and summer in Eastern Washington, but are possible at any time. They often form as slumps along roadways or fast-moving debris flows down valleys or concave topography. They are commonly called “mudslides” by the news media. Deep-seated landslides are often slow moving, but can cover large areas and devastate infrastructure and housing developments.

A mudslide or debris flow is a fast-moving fluid mass of rock fragments, soil, water, and organic material with more than half of the particles being larger than sand size. Generally, these types of movement occur on steep slopes or in gullies and can travel long distances. Typically, debris flows result from unusually high rainfall, or rain-on-snow events.

A rock fall is the fall of newly detached segments of bedrock of any size from a cliff or steep slope. The rock descends by free fall, bouncing, or rolling. Movements are very rapid to extremely rapid, and may not be preceded by minor movements.

DEFINITIONS

Landslide—The movement of masses of loosened rock and soil down a hillside or slope. Such failures occur when the strength of the soils forming the slope is exceeded by the pressure, such as weight or saturation, acting upon them.

Mass Movement—A collective term for landslides, debris flows, falls and sinkholes.

Mudslide (or Mudflow or Debris Flow)—A river of rock, earth, organic matter and other materials saturated with water.

8.1 GENERAL BACKGROUND

A landslide, or a mass of rock, earth or debris moving down a slope, may be minor or very large, and can move at slow to very high speeds. They can be initiated by storms, earthquakes, fires, volcanic eruptions, or human modification of the land.

Mudslides (or mudflows or debris flows) are rivers of rock, earth, organic matter, and other soil materials saturated with water. They develop in the soil overlying bedrock on sloping surfaces when water rapidly accumulates in the ground, such as during heavy rainfall or rapid snowmelt. Water pressure in the pore spaces of the material increases to the point that the internal strength of the soil is drastically weakened. The soil’s reduced resistance can then easily be overcome by gravity, changing the earth into a flowing river of mud or “slurry.” A debris flow or mudflow can move rapidly down slopes or through channels, and can strike with little or no warning at avalanche speeds. The slurry can travel miles from its source, growing as it descends, picking up trees, boulders, cars, and anything else in its path. Although these slides behave as fluids, they pack many times the hydraulic

force of water, due to the mass of material included in them. Locally, they can be some of the most destructive events in nature.

All mass movements are caused by a combination of geological and climate conditions, as well as the encroaching influence of urbanization. Vulnerable natural conditions are affected by human residential, agricultural, commercial, and industrial development and the infrastructure that supports it.

The occurrence of a landslide is dependent on a combination of site-specific conditions and influencing factors. Most commonly, the factors that contribute to landslides fall into four broad categories:

- Climatic or hydrologic (rainfall or precipitation);
- Geomorphic (slope form and conditions, e.g., slope, shape, height, steepness, vegetation, and underlying geology);
- Geologic/geotechnical/hydrogeological (groundwater);
- Human activity.

Change in slope of the terrain, increased load on the land, shocks and vibrations, change in water content, groundwater movement, frost action, weathering of rocks, and removing or changing the type of vegetation covering slopes are all contributing factors. In general, landslide hazard areas are where the land has characteristics that contribute to the risk of the downhill movement of material, such as the following:

- Areas identified as having slopes greater than 33 percent;
- A history of landslide activity or movement during the last 10,000 years;
- Stream or wave activity, which has caused erosion, undercut a bank, or cut into a bank to cause the surrounding land to be unstable;
- The presence of an alluvial fan, indicating vulnerability to the flow of debris or sediments;
- The presence of impermeable soils, such as silt or clay, which are mixed with granular soils such as sand and gravel.

Flows and slides are commonly categorized by the form of initial ground failure. Common types of slides are shown on Figure 8-1 through Figure 8-4 (Washington State Department of Ecology, 2014). The most common is the shallow colluvial slide, occurring particularly in response to intense, short-duration storms, where antecedent conditions are prevalent (Baum, et. al, 2000). The largest and most destructive are deep-seated slides, although they are less common.

Deep-seated landslides are much larger than shallow landslides and can occur at any time of the year. Soil degradation can happen over years, decades, and centuries with little to no warning to people above ground. The most notable and deadliest deep-seated landslide event in the United States was SR 530 (also known as the Oso Landslide) that took the lives of 43 people in Oso, Washington, in 2014.

Slides and earth flows can pose serious hazard to property in hillside terrain. They tend to move slowly and thus rarely threaten life directly. When they move—in response to such changes as increased water content, earthquake shaking, addition of load, or removal of downslope support—

they deform and tilt the ground surface. The result can be destruction of foundations, offset of roads, breaking of underground pipes, or overriding of downslope property and structures.

Erosion is the process by which material is removed from a region of the earth's surface. It can occur by weathering and transport of solids (sediment, soil, rock, and other particles) in the natural environment. This also leads to the deposition of these materials elsewhere, which can increase the impacts from flood events. Erosion usually occurs as a result of transport of solids by wind, water or ice, and by down-slope creep of soil and other material under the force of gravity, similar to landslides. It can also be caused by animals burrowing, reducing soil stability.

Although erosion is a natural process, as with landslides, human land use policies have an effect on erosion, especially industrial agriculture, deforestation, and urban sprawl. Land that is used for industrial agriculture generally experiences a significantly greater rate of erosion than land with natural vegetation or land used for sustainable agricultural. This is particularly true if tillage is used in farm practices, which reduces vegetation cover on the surface of the soil and disturbs both soil structure and plant roots that would otherwise hold the soil in place.

Improved land use practices can limit erosion, using techniques such as terracing or terrace-building, no or limited tilling, limited logging or replanting after logging, and the planting of vegetation to limit erosion through ground cover.

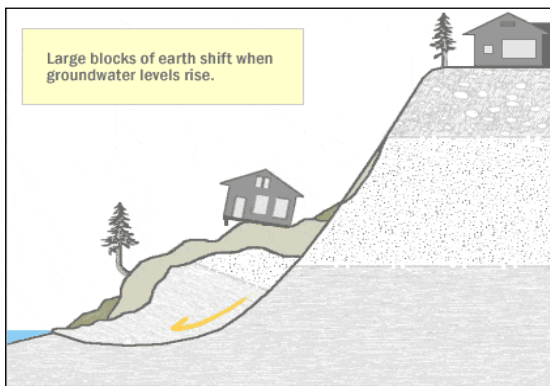


Figure 8-1 Deep Seated Slide

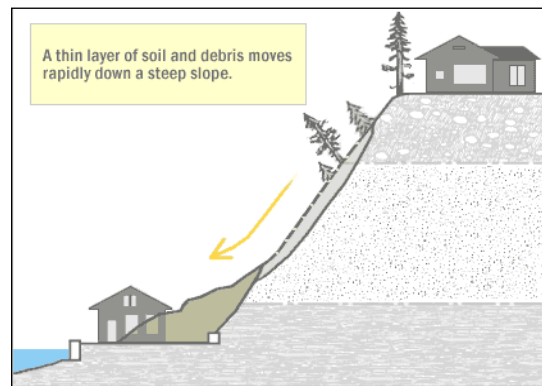


Figure 8-2 Shallow Colluvial Slide

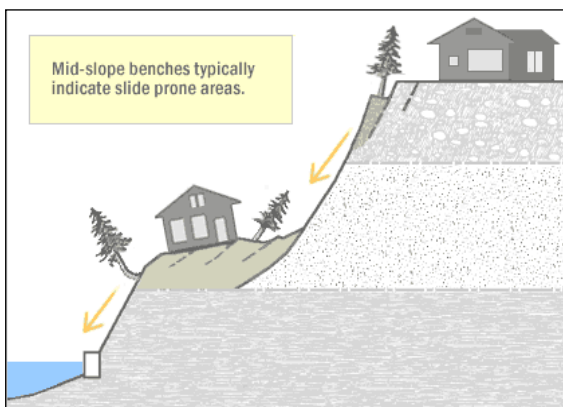


Figure 8-3 Bench Slide

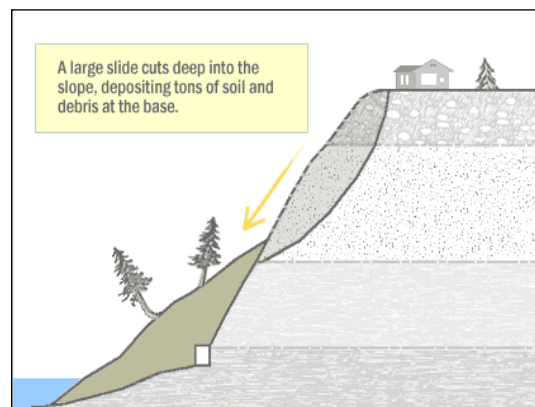


Figure 8-4 Large Slide

While a certain amount of erosion is natural and healthy for an ecosystem—such as gravel continuously moving downstream in watercourses—excessive erosion causes serious problems, such as receiving water sedimentation, ecosystem damage and loss of soil and slope stability. Erosion can cause a loss of forests and trees, which causes serious damage to aquatic life, irrigation, and power development by heavy silting of streams, reservoirs, and rivers. Concentrated surface water runoff in drainages and swales can lead to channel-confined slope failures, involving the rapid transport of fluidized debris, known as debris flows.

Mason County Classified Landslide Hazard Areas:

Within Mason County's Resource Ordinance (revised October 2017)¹³, the following are classified as Landslide Hazard Areas:

- a) Areas with any indications of earth movement such as debris slides, earthflows, slumps, and rock falls;
- b) Areas with artificial over-steepened or un-engineered slopes, i.e. cuts or fills.
- c) Areas with slopes containing soft or potentially liquefiable soils.
- d) Areas over-steepened or otherwise unstable as a result of stream incision, stream bank erosion, and undercutting by wave action.
- e) Slopes greater than 15% (8.5 degrees) and having the following:
 - 1. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock (e.g. sand overlying clay); and
 - 2. Springs or groundwater seepage.
- f) Any area with a slope of forty percent or steeper and with a vertical relief of ten or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical relief.

8.2 HAZARD PROFILE

8.2.1 Extent and Location

The best predictor of where slides and earth flows might occur is the location of past movements. Past landslides can be recognized by their distinctive topographic shapes, which can remain in place for thousands of years. Most landslides recognizable in this fashion range from a few acres to several square miles. Most show no evidence of recent movement and are not currently active. A small portion of them may become active in any given year. The recognition of ancient dormant mass movement sites is important in the identification of areas susceptible to flows and slides because they can be reactivated by earthquakes or by exceptionally wet weather. Also, because they consist of broken materials and frequently involve disruption of groundwater flow, these dormant sites are vulnerable to construction-triggered sliding.

¹³ Mason County Resource Ordinance. Accessed 8 Feb 2023. Available online at: [Microsoft Word - Resource Ordinance 10-02-2017.docx \(masoncountywa.gov\)](#)

Mason County is subject to landslides and soil erosion due to wind, water, and flooding at all times of the year; the landslides and soil erosion are largely concentrated on coastal bluffs on a fairly large percent of the total marine shoreline within the County (Washington State Department of Ecology, 1980).

Much of Mason County encompasses coastal communities or coastal areas (see Figure 8-5).¹⁴ Mason County's shorelines include approximately 700 linear miles, which are composed of 217 miles of marine shoreline, 330 miles of river shoreline, and 150 miles of lakeshore (Mason County Cumulative Impact Analysis, 2017). Of those 96 miles, or 44 percent, were categorized as unstable (Mason County 2010 HMP; Washington State Department of Ecology Coastal Atlas, 1980). This equates to approximately 60 percent of the total marine shoreline (Washington Department of Ecology, 1980).

Areas of the County are subject to beach erosion of feeder bluffs, which is a coastal bluff that delivers sediment to the beach over an extended period time, and contributes sediment. Feeder Bluffs consist of actively eroding bluffs which provide sediments to nearby beaches. Bluff retreat by erosion can be more than 2 feet per year or can be less than 1 inch per year, but can be punctuated by landslides that can set a bluff back by more than 20 feet in a few hours (Thorsen and Shipman, 1998).

¹⁴ Ibid.

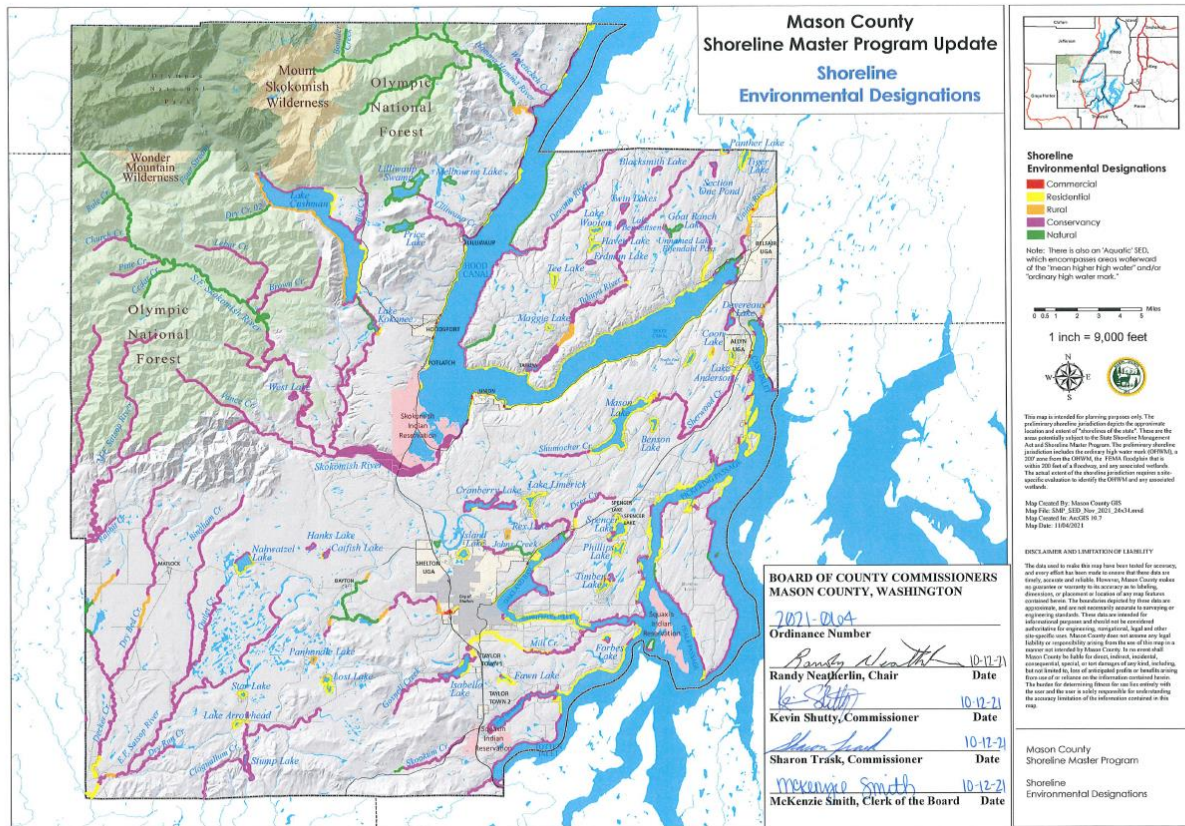


Figure 8-5 Mason County Shoreline Environmental Designations (2021)

The Hood Canal area has experienced significant slides in the past, with major efforts occurring to stabilize the landslides with drainage and structural improvements.

Approximately 10% of the landscape in Mason County (excluding Olympic National Forest and Park areas) has a slope of 15-30%; approximately 3% has steeper slopes of 30-45% (Mason County COMP Plan, 2017). Within Mason County, slides may occur in association with fine grained lakebed or fluvial sediments Figure 8-6 illustrates a slide occurring within the County (photo courtesy of the Dept. of Ecology (5/8/1999, #99-25-2). Figure 8-7 illustrates the landslide hazard Critical Areas identified within the County's Comprehensive Plan (for reference purposes only) (Mason County Comprehensive Plan, 2017).



Figure 8-6 House destroyed by landslide in Lilliwaup Winter 1998-1999

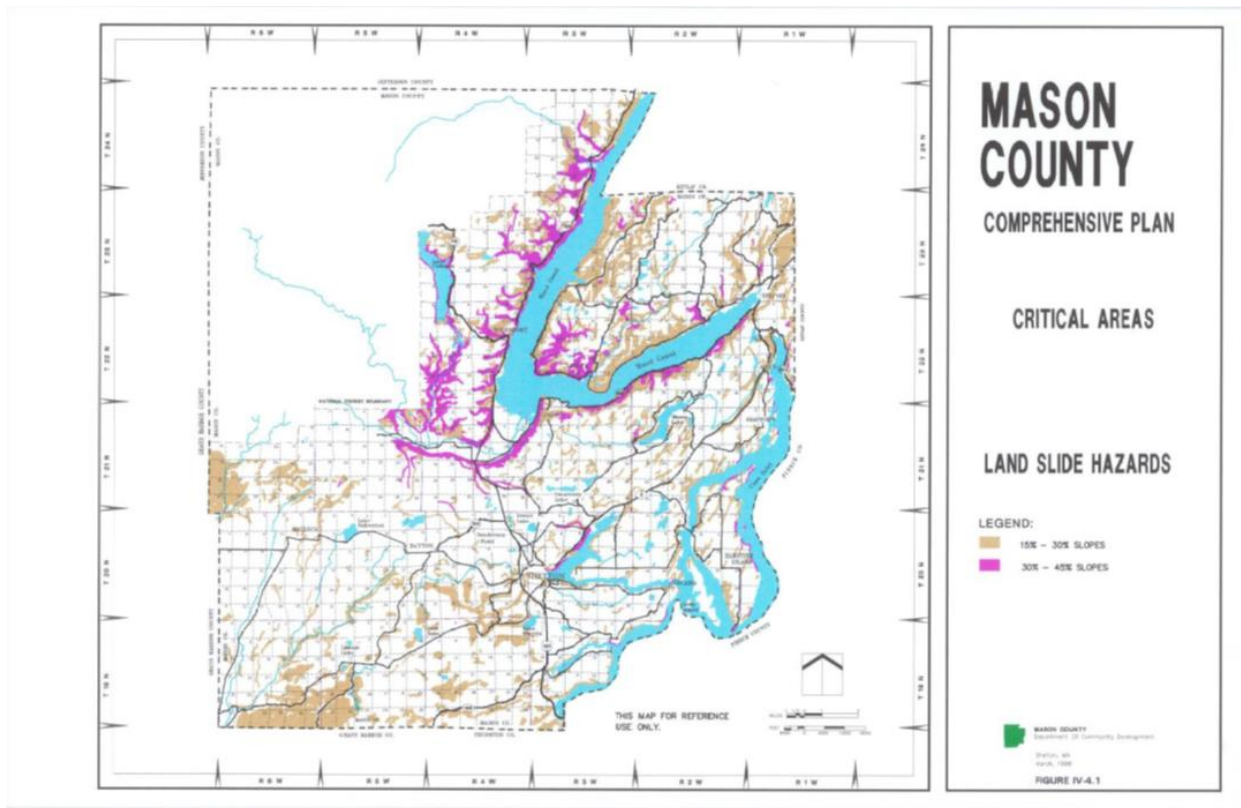


Figure 8-7 Comprehensive Plan Identified Critical Areas - Landslide Hazard Area

8.2.2 Previous Occurrences

Landslides within the planning area are fairly common, with landslides associated with disaster declarations for severe storms and flooding events in Mason County, as listed in Chapter 3, Table 3-1. The County has never received a disaster declaration specifically typed *Landslide* by FEMA. There is one record of a fatality due to landslide in the County. This occurred when a landslide struck a residence during the 2007 storm event.

Since 1956, within Mason County, a total of 13 severe weather events have occurred, 11 of which have included impact from landslides. One landslide event has occurred since completion of the last plan in 2020, for which approximately \$11 million dollars in PA funding has been distributed statewide. 2022 again saw some slides occurring, impacting roadways throughout the county.

The recorded landslide history to state highways in Mason County dates as far back as 1925. Impact to the highway system from landslide is one of the most significant issues with respect to the landslide hazard for the County, as it restricts ingress and egress in areas, causing isolation and, in some instances, suspending emergency response. The following synopsis identifies some historic landslide events impacting the County, as well as mitigation activities taken to correct issues. Thereafter are a series of photographs which illustrate some of the impact.

- Episodically active for decades followed by severe deformation and retrogression in 1997–8 and 1998–99, resulted in 5 month highway closure along SR 3 on the Allyn Curves. Realignment in 1993 and stabilization in 1999 costs totaled around \$5 million.

- Winter storms of February 1999 caused the Jorstad Creek landslide at MP 322, impacting a 500 ft. long and 1,000 ft. wide section of US 101 (see Figure 8-8).¹⁵
- Winter storm February 1999 also impacted a 500 ft. long and 1,800 ft. wide section of US 101 at Lilliwaup, resulting in extensive drainage and retaining wall construction to stabilize the slope.
- October 2003 Heavy rainfall caused severe flooding and landslides in 15 counties. Landslides or ground failure caused temporary closures on nine state highways, with a debris flow blocking US 101 in Jefferson and Mason Counties.
- December 3, 2007 (DR 1734), which caused both Highways 101 and 106 to close several times in the vicinity of Lilliwaup, Eldon and Union. The Tahuya Peninsula was severely impacted by landslides. Landslides and erosion during this storm caused millions of dollars in damage.
 - As a result of the 2007 storm event, in Mason and Jefferson Counties, there were 214 landslides recorded. Of these slides, there were 80 shallow undifferentiated landslides, 23 debris flows, 108 debris slides, 1 deep-seated landslide, and two hyper-concentrated flows.
 - At least 12 houses were damaged during the storm.
 - U.S. Highway 101 was damaged or blocked by 16 slides.
 - State Route 106 was damaged or blocked by two (2) slides, and five (5) slides blocked or damaged various other roads.
 - In the aftermath of the December 2007 storm, 581 people applied for Individual and Household Assistance with FEMA. The amount approved for Mason County was \$1,128,094.
- Winter 2009 - The incident was not a declared disaster event, but caused landslides throughout the planning area. Figure 8-9 illustrates a head scarp of a landslide which had approximately 4 feet of vertical movement and 2 feet of horizontal movement in sandy glacial till at Lake Kokanee. The head scarp was approximately 60 feet above the lake level. The crevasse formed by the scarp was approximately 3 feet deep, and based on the lack of forest debris and ravel in place at the time, it was estimated that the formation had been very recent, occurring within a few weeks of the photo being taken in April 2009.
- As a result of continued unstable slopes adjacent to US 101 in the Purdy Canyon area, in 2013, WSDOT removed 76,000 cubic yards (~7,600 dump truck loads) of dirt and material to reshape the slope of the adjacent hillside with the intent of slope stabilization. The area had been plagued with falling rocks and slope destabilization.
- Heavy rains during the week of December 8, 2014 washed out approximately 75 feet of the northbound US 101 shoulder 2.2 miles south of Beacon Point Road. Crews working for

¹⁵ Photo Source: Department of Ecology 5/8/1999, #99-25-7

WSDOT built a large retaining wall and repaired a broken culvert on US 101 at milepost 316.5 to help stabilize a steep slope below the highway. By installing the retaining wall and repairing the broken culvert, the State reduced the potential for future slides. See Figure 8-10 for the before and after illustrations of the project.

- Figure 8-11 illustrates a portion of SR 302 (North of East Victor Road) that has been repeatedly damaged as a result of erosion under the surface of the highway. New culverts and replacement of the structure was completed in 2017. The culverts running under this section of SR 302 were moving downslope.
- January 2022 – Heavy rains caused several landslides along a 1.5 mile stretch of roadway along the Purdy Canyon Road south of the Skokomish Tribal Center.
- Heavy rains in February 2022 again impacted the county with road closures when Highway 302 east of Victor was again closed after sloughing of land beneath the roadway led to an 80-foot section to settle more than six inches (see Figure 8-12). While open to some local travelers, the roadway was closed to all travelers at attempting to connect between Highways 3 and 16, requiring a 22-mile detour via Highway 16 in Gorst. A WDOT spokesperson reported to the Kitsap Sun that portions of the highway are frequently impacted by a slow-moving “ancient” landslide (Kitsap Sun).¹⁶



Figure 8-8 Highway Closure at Jorstad Landslide – Winter 1998-1999

¹⁶ Kitsap Sun. Highway 302 in Mason County Closed. March 1, 2022. Accessed 8 Feb 2023. Available online at: [Highway 302 in Mason County closed following heavy rains \(kitsapsun.com\)](https://www.kitsapsun.com/story/news/local/2022/03/01/highway-302-in-mason-county-closed-following-heavy-rains/7044444002/)



Figure 8-9 Lake Kokanee Landslide, South of Lake Cushman

Photo Courtesy of Washington State Division of Geology and Earth Resources Geologists, taken April 9, 2009



Figure 8-10 Before and After Pictures of SR 101/ 2.2 miles South of Beacon Pt. Road



Figure 8-11 SR 302 Slope Erosion Near Victor



Figure 8-12 Highway 302 Landslide East of Victor (2022)

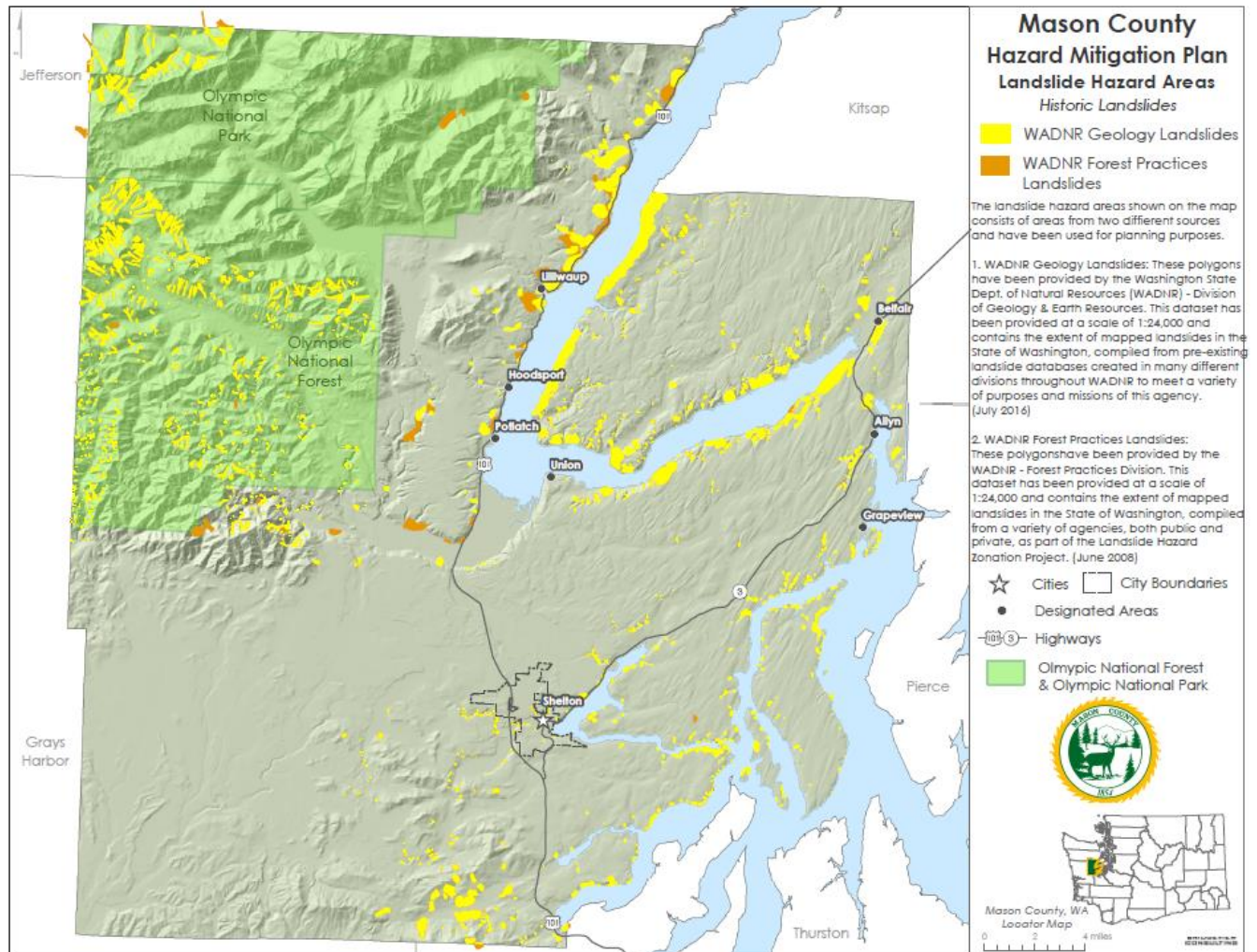


Figure 8-13 Washington DNR Recorded Landslide Data (2017)

Figure 8-13 illustrates WA DNR landslide data as of 2017. Figure 8-14 illustrates the areas of previous landslides, as well as areas of steep slopes of 40 percent or greater based on Washington State Department of Natural Resources data (2017, 2022). Figure 8-15 illustrates the landslide hazard areas with an aerial imagery background.

Information contained in Table 8-1 was captured from Washington State Department of Transportation (WDOT) sources, identifying some of the projects which have been completed in Mason County by WDOT in an effort to rectify on-going landslide issues. The table is not all inclusive of all efforts taken to restore roadways in the County.

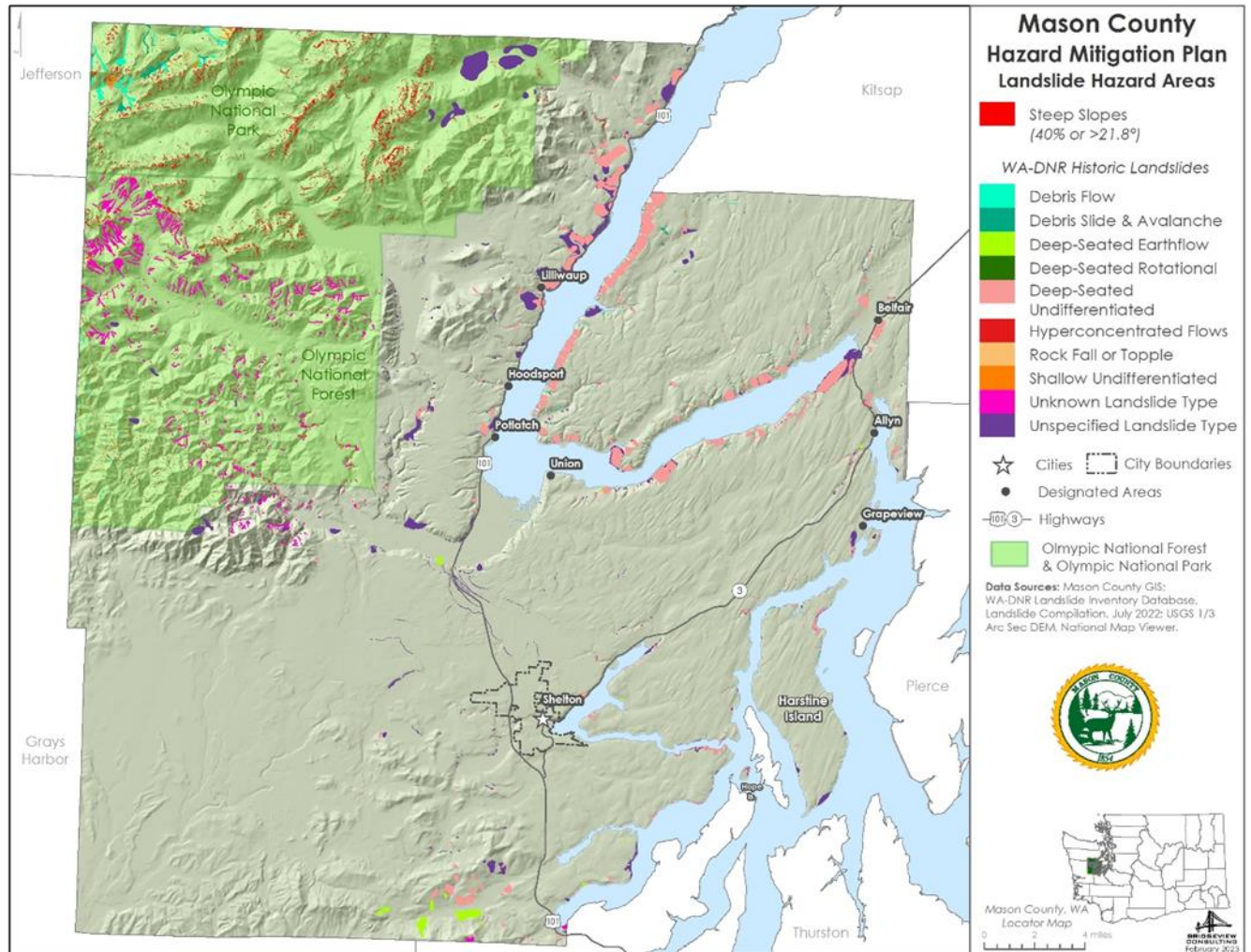


Figure 8-14 Steep Slope Landslide Hazard Areas (2023)

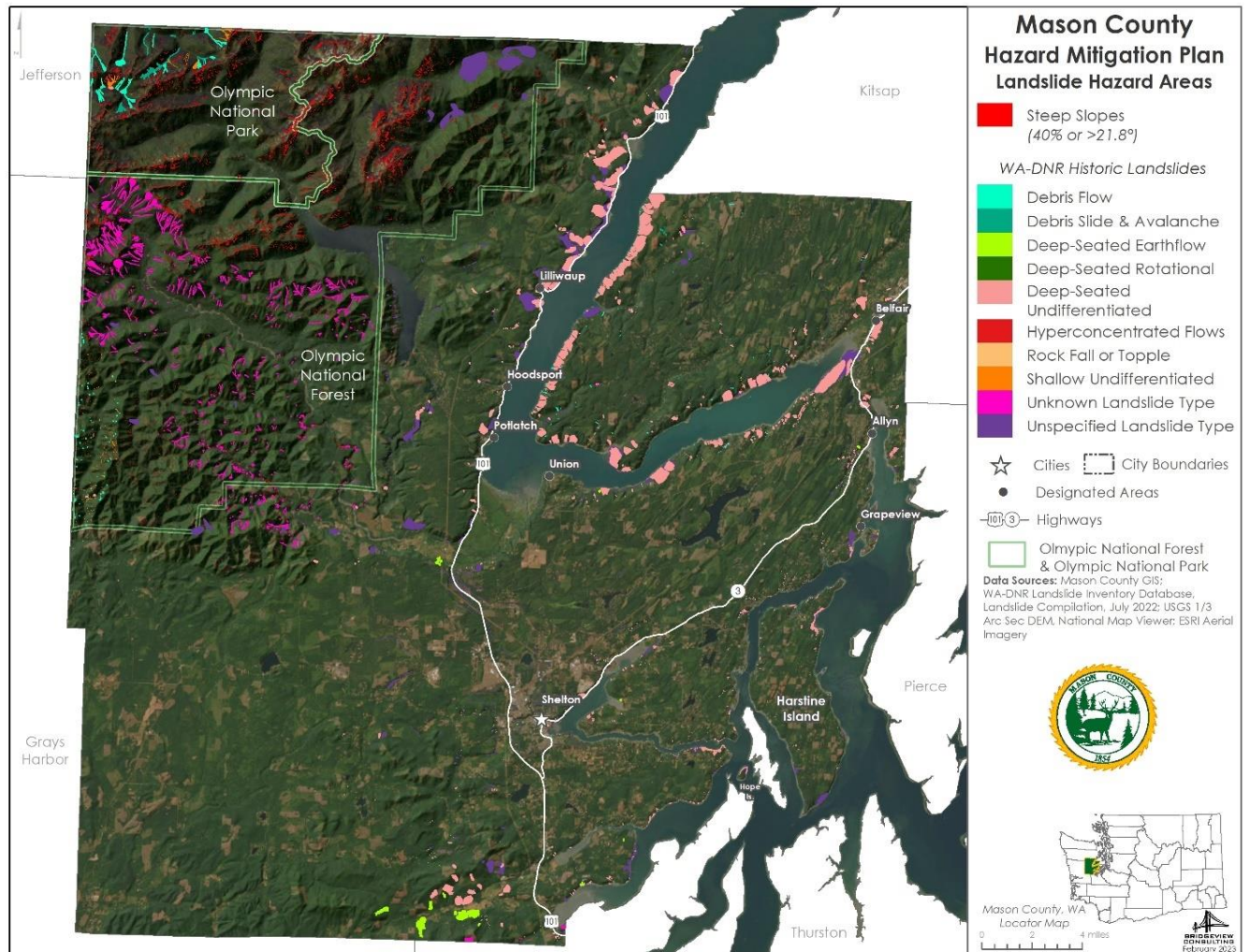


Figure 8-15 Landslide Hazard Area with Aerial Imagry

Table 8-1 Mason County State Highways Slide Repair Costs (1925-2009)			
Route	Date	Project	Cost*
US 101	1925	Hoodsport/Duckabush Slides	\$10,594.00
US 101	8/31/1965	Lilliwaup Slope Stabilization	\$45,353.00
SR 3	5/13/1970	Belfair Vicinity Slide	\$106,153.00
US 101	1/27/1975	Jorstad Creek Slide	\$95,391.00
US 101	7/19/1999	Hoodsport Slide	\$296,203.00
SR 3	11/29/2001	Allyn Vicinity Slide	\$2,746,402.00
US 101	7/27/2000	Lilliwaup Vicinity Slide	\$733,831.00
US 101	8/1/2000	MP 322.3 Slide	\$576,067.00
US 101	2/5/2001	MP 321 and 322 vicinity slides	\$3,371,919.00
US 101	1/28/2008	Lilliwaup Vicinity Slide	\$940,916.00
US 101	8/1/2008	Sunnyside Slope	\$420,659.00
US 101	2008	Holiday Hills	\$463,095.00
US 101	2009	Hoodsport Vicinity Slope	\$179,973.00
SR 108	2009	Slide Repair .8 miles West of Eich Road	\$150,000.00
Total			\$10,136,556.00
Figures represent estimated contract costs from WSDOT files; design and construction oversight was additional; figures represent costs incurred at time of construction – not inflated.			

*

8.2.3 Severity

Landslides destroy property and infrastructure, and can have a long-lasting effect on the environment and can take the lives of people. Nationally, landslides account for more than \$2 billion in losses annually and result in an estimated 25 to 50 deaths a year (Spiker and Gori, 2003; Schuster and Highland, 2001; Schuster, 1996).

Washington is one of seven states listed by the Federal Emergency Management Agency as being especially vulnerable to severe land stability problems. Topographic and geologic factors cause certain areas of Mason County to be highly susceptible to landslides. Ground saturation and variability in rainfall patterns are also important factors affecting slope stability in areas susceptible to landslides. Strong earthquake shaking can cause landslides on slopes that are otherwise stable.

8.2.4 Frequency

Landslides are often triggered by other natural hazards such as earthquakes, heavy rain, floods, or wildfires, so landslide frequency is often related to the frequency of these other hazards. Landslides

typically occur during and after major storms, so the potential for landslides largely coincides with the potential for sequential severe storms and flood events that saturate steep, vulnerable soils.

While the County has not received a disaster declaration specifically for a landslide, there have been 11 disaster declarations which have included mud- or land-slides which occurred in conjunction with severe storm events since 1956. However, some type of landslide event occurs almost annually within the planning region, in some cases, more than 10 slides in the planning area have been reported as a result of a single weather event. A specific recurrence interval has not been established by geologists, but historical data indicates several successive years of slide activities, followed by dormant periods.

Landslides are most likely to occur during periods of higher than average rainfall. The ground in many instances is already saturated prior to the onset of a major storm, which increases the likelihood of significant landslides to occur.

Precipitation influences the timing of landslides on three scales: total annual rainfall, monthly rainfall, and single precipitation events. In general, landslides are most likely during periods of higher than average rainfall.

The ground must be saturated prior to the onset of a major storm for significant landslides to occur. Studies conducted by the USGS have identified two precipitation thresholds to help identify when landslides are likely (USGS, 2007):¹⁷

- Cumulative Precipitation Threshold —A measure of precipitation over the last 18 days, indicating when the ground is wet enough to be susceptible to landslides. Rainfall of 3.5 to 5.3 inches is required to exceed this threshold, depending on how much rain falls in the last 3 days.
- Intensity Duration Threshold —A measure of rainfall during a storm, indicating when it is raining hard enough to cause multiple landslides if the ground is already wet.

These thresholds are most likely to be crossed during the rainy season. The 2007 USGS study indicates that by comparing recent and forecast rainfall amounts to the thresholds, meteorologists, geologists, and city officials can help people know when to be prepared for landslides. The thresholds as developed and tested are accurate, but imperfect indicators of when landslides may occur. During the study, statistical analysis of landslides that occurred between 1978 and 2003 showed that 85% occurred when the Cumulative Precipitation Threshold was exceeded. “While the thresholds are felt to work best in areas along the east side of Puget Sound, from Tacoma to Everett....they can also give preliminary guidance in the eastern part of Mason County” (USGS, 2007).

Review of historic disasters provides the following breakdown: January experienced five (5) landslides - the month in which most landslides historically have occurred, followed by

¹⁷ USGS Landslide Hazards in the Seattle, Washington, Area. Accessed 1 March 2023. Available at: https://pubs.usgs.gov/fs/2007/3005/pdf/FS07-3005_508.pdf

December, with four (4) disaster-level recorded weather events which included landslide. March and November each recorded one (1) weather event which included landslide. It should be noted that while it is recorded as a single incident, there are most often many landslides associated with each event.

8.3 VULNERABILITY ASSESSMENT

8.3.1 Overview

Historical occurrences, combined with analysis of the slope and the type of soil, are the most effective indicator of areas at risk to landslide. The Washington Department of Natural Resources collects data for local municipalities to use in determining historical events and, to some extent, landslide vulnerability. At present, for Mason County, it serves as the most reliable source available for planning purposes.

Landslides have the potential to cause widespread damage throughout both rural and urban areas. While some landslides are more of a nuisance-type event, even the smallest of slides has the potential to injure or kill individuals and damage infrastructure. Given Mason County's relatively steep slopes in certain areas, the various types of soils, and its historical patterns of previous slide occurrences, the landslide hazard is a significant concern for the planning partners.

Review of the DNR data illustrates high areas of vulnerability in the Hood Canal area, as well as in the Olympic National Forest. Areas within Lilliwaup, Hoodspport, Potlatch, and Belfair all have a high number of previously reported landslides.

Landslide hazard areas are those identified by Washington State DNR as having previous landslide events, and includes areas of slopes with a slope greater than or equal to 40 percent (or 21.8 degrees).

It should be noted that this data is for mitigation planning purposes only, and should not be considered for life safety matters. No landslide hazard analysis was conducted, but rather, only reprojection of existing data. Additional landslide data is available at: [Landslides | WA - DNR](#)

Warning Time

Unlike flood hazards which often are predictable, mass movements or landslides are generally unpredictable, with little or no advanced warning. The speed of onset and velocity associated with a slide event can have devastating impacts. While some methods used to monitor mass movements can provide an idea of the type of movement and provide some indicators (potentially) with respect to the amount of time prior to failure, exact science is not available.

Mass movements can occur suddenly or slowly. The velocity of movement may range from a slow creep of inches per year to many feet per second, depending on slope angle, material, and water content. Generally accepted warning signs for landslide activity include:

- Springs, seeps, or saturated ground in areas that have not typically been wet before;
- New cracks or unusual bulges in the ground, street pavements or sidewalks;
- Soil moving away from foundations;
- Ancillary structures (decks or patios) tilting or moving relative to the main house;

- Tilting or cracking of concrete floors and foundations;
- Broken water lines and other underground utilities;
- Leaning telephone poles, trees, retaining walls or fences;
- Offset fence lines;
- Sunken or down-dropped road beds;
- Rapid increase in creek water levels, possibly accompanied by increased turbidity;
- Sudden decrease in creek water levels though rain is still falling or just recently stopped;
- Sticking doors and windows, and visible open spaces indicating frames out of plumb;
- A faint rumbling sound that increases in volume as the landslide nears;
- Unusual sounds, such as trees cracking or boulders knocking together.

It is possible, based on historical occurrences, to determine what areas are at a higher risk. Assessing the geology, vegetation, and amount of predicted precipitation for an area can help in these predictions; such an analysis is beyond the scope of this planning effort. However, there is no practical warning system for individual landslides. Historical events remain the best indicators of potential landslide activity, but it is generally impossible to determine with precision the size of a slide event or when an event will occur. Increased precipitation in the form of snow or rain increases the potential for landslide activity. Steep slopes also increase the potential for slides, especially when combined with specific types of soil.

Within Washington State, in a partnership with the National Oceanic and Atmospheric Administration (NOAA) and the National Weather Service, Washington State Department of Natural Resources (WDNR) monitors conditions that could produce shallow landslides. Landslide warning information can be viewed at WDNR's website.

8.3.2 Impact on Life, Health, and Safety

Population vulnerable to landslides in the area would include not only the individuals living in the landslide prone areas, but also those traveling through the area given the high level of tourism, particularly when considering seasonal increases in tourism to the area, and the high number of vacation homes.

Also to be taken into account when determining affected population are the area-wide impacts on transportation systems and the isolation of residents who may not be directly impacted, but whose ability to ingress and egress is restricted, such as areas along Highway 101 in the Hood Canal Area (among others) which have a high transient population of tourists, especially during summertime months. Finally, Mason County's high population of retirees (higher than state average), may increase the level of first-responder requirements for residents whose structures were not directly impacted but who were affected by power outages or lack of logistical support, etc. Landslides can also damage water and wastewater treatment facilities, potentially harming water quality, and disrupt communication lines.

8.3.3 Impact on Property

Landslides affect private property and public infrastructure and facilities. The predominant land use in the planning area is single-family residential, much of it supporting multiple families. In addition, there are many small businesses in the area as well as large commercial industries and government facilities. Development in landslide hazard area is guided by building code and the critical area ordinance to prevent the acceleration of manmade and natural geological hazards, and to neutralize or reduce the risk to the property owner or adjacent properties from development activities.

The Mason County Resource Ordinance requires, at a minimum, a geological assessment for development within 300 feet of slopes between 15% and 40%, and a geotechnical report for slopes over 40% (see [Microsoft Word - Resource Ordinance 10-02-2017.docx \(masoncountywa.gov\)](#)). The ordinance also requires a 50-foot vegetated buffer at the top or toe of a slope.

For mitigation planning purposes only, and not specific to the County's ordinance, the Washington State Department of Natural Resources Landslide Dataset was utilized to identify areas of historic events. In addition, slopes identified as being forty (40) percent or steeper were included in this analysis. The acres of the planning area exposed to the landslide hazard in the planning area are summarized in Table 8-2. Data presented in these maps and tables are not a substitute for site-specific investigations by qualified practitioners.

Table 8-2
Acres of Landslide Hazard Areas by Slope or Type

Jurisdiction	No Slope (< 15% or < 8.53°)	Gentle Slopes (15% - 40% or 8.53° - 21.8°)	Steep Slopes (40% or > 21.8°)	Unknown Landslide Type	Type Not Specified/Blank	Shallow Undifferentiated Landslides	Hyperconcentrated Flows	Debris Flow	Debris Slide & Avalanches	Rock Fall or Topple	Deep-Seated Undifferentiated Landslides	Deep-Seated Earthflow Landslides	Deep-Seated Rotational Landslides
Mason County, WA	493,720	124,246	4,119	1,904	10,142	359	3.9	363	198	0.3	15,310.9	466	2.9
Unincorporated Mason Co.	486,609	124,189	4,119	1,900	8,516	359	3.9	363	198	0.3	7,998	386	1.5
City of Shelton	3,688	43.7	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	9.7	0.0	0.0
Town of Allyn	1,151	5.7	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	9.3	4.8	0.0
Town of Belfair	2,271	14.6	0.0	0.0	18.3	0.0	0.0	0.0	0.0	0.0	179.5	0.0	0.0

8.3.4 Impact on Critical Facilities and Infrastructure

Table 8-3 and Table 8-4 illustrate the critical facilities and infrastructure at risk within the various hazard areas as identified. Loss of these structures would have the potential to impact not only loss of services, but in some instances, loss of continuity of government due to the type of structure lost.

Table 8-3 Critical Facilities in Proximity to Historic Landslide or Unstable Slope Zones										
Hazard Zone	Government Function	Communications	Medical	Hazardous Materials	Protective Services	Power	Other	Water	Wastewater	Total
Within Historic Landslide or Unstable Slope	0	0	0	0	0	0	0	6	0	6
Within 500 ft. of Historic Landslide or Unstable Slope	0	0	0	0	6	0	0	22	0	28
Within 1,000 ft. of Historic Landslide or Unstable Slope	1	0	0	0	5	2	0	16	2	26

Table 8-4 Critical Facilities within Proximity of Landslide Gentle & Steep Slope Zones										
Hazard Zone	Government Function	Communications	Medical	Hazardous Materials	Protective Services	Power	Other	Water	Wastewater	Total
No Slope (< 15% or < 8.53°)	20	2	1	4	47	20	7	168	24	293
Gentle Slopes (15% - 40% or 8.53° - 21.8°)	0	0	0	0	0	0	0	0	0	0
Steep Slopes (40% or >21.8°)	0	0	0	0	0	0	0	1	0	0
Within 1,000 ft of Gentle Slopes (15% - 40% or 8.53° - 21.8°)	11	2	0	4	19	9	0	59	12	116

Several types of infrastructure are exposed to mass movements, including transportation facilities, airports, bridges, and water, sewer, and power infrastructure. Highly susceptible areas include mountain and coastal roads and transportation infrastructure. All infrastructure and transportation falling within the hazard areas are considered vulnerable until more information becomes available. Significant infrastructure in the planning region exposed to mass movements includes the following:

- **Roads**—Access to major roads is crucial to life-safety after a disaster event and to response and recovery operations. Landslides can block egress and ingress on roads, causing isolation for neighborhoods, traffic problems and delays for public and private transportation. This can result in economic losses for businesses.
- **Bridges and Boat/Ferry Docks**—Landslides can significantly impact road bridges and boat/ ferry docks. Mass movements can knock out bridge and dock abutments, causing significant misalignment and restricting access and usages, as well as significantly weaken the soil supporting the structures, making them hazardous for use.
- **Power Lines**—Power lines are generally elevated above steep slopes, but the towers supporting them can be subject to landslides. A landslide could trigger failure of the soil beneath a tower, causing collapse and ripping down the lines. Power and communication failures due to landslides can create problems for vulnerable populations and businesses.

8.3.5 Impact on Economy

A landslide can have catastrophic impact on the private sector and governmental agencies. Economic losses include damage costs and lost revenue and taxes. Damaged bridges, roadways, marinas, boat docks, municipal airports all can have a significant impact on the economy. Damages in this capacity could have a significant economic impact on not only Mason County, but also other areas of the state.

The impact on commodity flow from a significant landslide shutting down major access routes would not only limit the resources available for citizens' use, but also would cause economic impact on businesses in the area. Debris could impact cargo staging areas and lands needed for business operations. With highway 101 serving as a primary transportation route in the area, use of the highway reduces travel time between the inland Puget Sound area and the peninsula region, compared to requiring vehicles to travel much greater distances around the sound on land. Impacts would also significantly reduce the tourism industry within the County.

8.3.6 Impact on Environment

Environmental problems as a result of mass movements are numerous. Landslides that fall into water bodies, wetlands or streams may significantly impact fish and wildlife habitat, as well as affecting water quality. Hillsides that provide wildlife habitat can be lost for prolonged periods of time due to landslides. With impact already occurring due to increased sediment loads in the floodplain, landslides could cause additional impact within the Skokomish River (and other) watersheds.

8.3.7 Impact from Climate Change

Climate change may impact storm patterns, increasing the probability of more frequent, intense storms with varying duration. Increase in global temperature could affect the snowpack and its ability to hold and store water, raise sea levels, and increase beach. Warming temperatures also could increase the occurrence and duration of droughts, which would increase the probability of

wildfire, reducing the vegetation that helps to support steep slopes. All of these factors would increase the probability for landslide occurrences.

8.4 FUTURE DEVELOPMENT TRENDS

Under the Growth Management Act, the County is required to address geologic hazards within its Critical Areas Ordinance, which it does. Continued application of land use and zoning regulations, as well as implementation of the International Building Codes, will assist in reducing the risk of impact from landslide hazards. Certain areas of the County, such as Allyn, have experienced a higher than normal growth when compared to other areas of the County over the course of the last two years (post-COVID).

Mason County is also attempting to expand its business base, which will increase economic vitality by providing businesses that stimulate retail sales and services, and increased tourism. As a relatively high retirement and tourist destination for Washington, continued land use supported by regulatory authority which supports economic growth but practices smart planning will be vital. All planning partners are committed to assessing the landslide risk and developing mitigation efforts to reduce impact or enhance resiliency. There are four basic strategies to mitigate landslide risk:

- Stabilization
- Protection
- Avoidance
- Maintenance and monitoring.

Stabilization seeks to counter one or more key failure mechanisms necessary to prevent slope failure. The other three strategies seek to avoid, protect against or limit associated impacts. Development of this mitigation plan creates an opportunity to enhance and develop wise land use decision-making policies. It allows for the expansion of capital improvement plans to sustain future growth through the use of these four basic strategies.

Climate change may impact storm patterns, increasing the probability of more frequent, intense storms with varying duration which can saturate soils beyond capacity. Increase in global temperature could further exacerbate this by affecting the snowpack and its ability to hold and store water, further raising sea levels, and increasing beach erosion along the County's coastline. Warming temperatures also could increase the occurrence and duration of droughts, which would increase the probability of wildfire, reducing the vegetation that helps to support steep slopes. As parts of the County maintain fairly dense forested areas, such an incident would be significant. All of these factors would increase the probability of landslides.

8.5 ISSUES

Landslides throughout the County occur as a result of soil conditions that have been affected by severe storms, groundwater, or human development. The worst-case scenario for landslide hazards in the planning area would generally correspond to a severe storm that had heavy rain and caused flooding. Landslides are most likely during late fall or early spring —months when the water tables are high. After heavy rains during October to April, soils become saturated with water. As water seeps downward through upper soils that may consist of permeable sands and gravels and accumulates on

impermeable silt, it will cause weakness and destabilization in the slope. A short intense storm could cause saturated soil to move, resulting in landslides. As rains continue, the groundwater table rises, adding to the weakening of the slope. Gravity, a small tremor or earthquake, poor drainage, steep bank cutting, a rising groundwater table, and poor soil exacerbate hazardous conditions.

Mass movements are becoming more of a concern as development moves outside of urban centers and into areas less developed in terms of infrastructure. While most mass movements would be isolated events affecting specific areas, the areas impacted can be very large. It is probable that private and public property, including infrastructure, will be affected. Mass movements could affect bridges that pass over landslide prone ravines and knock out ferry services. Road obstructions caused by mass movements would create isolation problems for residents and businesses in sparsely developed areas, and impact commodity flows. Property owners exposed to steep slopes may suffer damage to property or structures. Landslides carrying vegetation such as shrubs and trees may cause a break in utility lines, cutting off power and communication access to residents; they may block ingress and egress to areas of the County, especially for areas with limited roadways.

Important issues associated with landslides throughout Mason County include the following:

- There are existing structures in landslide risk areas throughout the County. The degree of vulnerability of these structures depends on the codes and standards the structures were constructed to. Information to this level of detail is not currently available.
- Future development could lead to more homes in landslide risk areas.
- Portions of the County are surrounded by fairly steep banks and cliffs. Coastal erosion causes landslides as the ground washes away.
- Mapping and assessment of landslide hazards are constantly evolving. As new data and science become available, assessments of landslide risk should be re-evaluated. LiDAR data would greatly enhance the ability to determine landslide hazards, as well as other hazards.
- While the impact of climate change on landslides in general is uncertain, the impact of sea level rise caused by increased temperatures has already enhanced coastal erosion within the planning area. As climate change continues to impact atmospheric conditions, the exposure to landslide risks is likely to increase.
- Landslides cause many negative environmental consequences, including water quality degradation, degradation of fish spawning areas, and destruction of vegetation along waterways, ultimately impacting the flow of water bodies.
- The risk associated with the landslide hazard overlaps the risk associated with other hazards such as earthquake, flood, and wildfire. This provides an opportunity to seek mitigation goals with multiple objectives that can reduce risk for multiple hazards.

8.6 RESULTS

Based on review and analysis of the data, the Planning Team has determined that the probability for impact from Landslide throughout the area is highly likely, but the impact is more limited with respect to geographic extent. The area experiences some level of landslides annually. The coastal bluff areas, and areas within the unincorporated areas of the County have identifiable landslide risk.

While there are areas where no landslide risk is identified, landslides can nonetheless occur on fairly low slopes, and areas with no slopes can be impacted by slides at a distance. Construction in critical areas, which includes geologically sensitive areas such as landslide areas, is regulated; however, beyond the structural impact, secondary impact to infrastructure causing isolation or commodity shortages also has the potential to impact the region. Based on the potential impact, the Planning Team determined the CPRI score to be 2.95, with overall vulnerability determined to be a high level.

CHAPTER 9. SEVERE WEATHER

Severe weather refers to any dangerous meteorological phenomena with the potential to cause damage, serious social disruption, or loss of human life. It includes thunderstorms, downbursts, wind, tornadoes, waterspouts, and snowstorms. Severe weather differs from extreme weather, which refers to unusual weather events at the extremes of the historical distribution.

General severe weather covers wide geographic areas; localized severe weather affects more limited geographic areas. The severe weather event that most typically impacts the planning area is a damaging windstorm, which causes storm surges exacerbating coastal erosion. Flooding associated with severe weather is discussed in Chapter 8.

9.1 GENERAL BACKGROUND

Mason County has a predominantly maritime climate, influenced by the Olympic Mountain Range.

9.1.1 Semi-Permanent High- and Low-Pressure Areas Over the North Pacific Ocean

During summer and fall, the circulation of air around a high-pressure area over the north Pacific brings a prevailing westerly and northwesterly flow of comparatively dry, cool, and stable air into the Pacific Northwest. As the air moves inland, it becomes warmer and drier, resulting in a dry season. In the winter and spring, the high pressure is further south and low pressure prevails in the northeast Pacific. Circulation of air around both pressure centers brings a prevailing southwesterly and westerly flow of mild, moist air into the Pacific Northwest. Condensation occurs as the air moves inland over the cooler land and rises along the windward slopes of the mountains. This results in a wet season beginning in late October or November, reaching a peak in winter, and gradually decreasing by late spring.

DEFINITIONS

Freezing Rain—The result of rain occurring when the temperature is below the freezing point. The rain freezes on impact, resulting in a layer of glaze ice up to an inch thick. In a severe ice storm, an evergreen tree 60 feet high and 30 feet wide can be burdened with up to six tons of ice, creating a threat to power and telephone lines and transportation routes.

Hail Storm—Any thunderstorm which produces hail that reaches the ground is known as a hailstorm. Hail has a diameter of 0.20 inches or more. Hail is composed of transparent ice or alternating layers of transparent and translucent ice at least 0.04 inches thick. Although the diameter of hail is varied, in the United States, the average observation of damaging hail is between 1 inch and golf ball-sized 1.75 inches. Stones larger than 0.75 inches are usually large enough to cause damage.

Severe Local Storm—"Microscale" atmospheric systems. These storms may cause a great deal of destruction and even death, but their impact is generally confined to a small area. Typical impacts are on transportation infrastructure and utilities.

Thunderstorm—A storm featuring heavy rains, strong winds, thunder and lightning, typically about 15 miles in diameter and lasting about 30 minutes. Hail and tornadoes are also dangers associated with thunderstorms. Lightning is a serious threat to human life. Heavy rains over a small area in a short time can lead to flash flooding.

Tornado—Most tornadoes have wind speeds less than 110 miles per hour are about 250 feet across, and travel a few miles before dissipating. The most extreme tornadoes can attain wind speeds of more than 300 miles per hour, stretch more than two miles across, and stay on the ground for dozens of miles. They are measured using the Enhanced Fujita Scale, ranging from EF0 to EF5.

Windstorm—A storm featuring violent winds. Southwesterly winds are associated with strong storms moving onto the coast from the Pacific Ocean. Southern winds parallel to the coastal mountains are the strongest and most destructive winds. Windstorms tend to damage ridgelines that face into the winds.

Winter Storm—A storm having significant snowfall, ice, and/or freezing rain; the quantity of precipitation varies by elevation.

West of the Cascade Mountains, summers are cool and relatively dry while winters are mild, wet, and generally cloudy. Measurable rainfall occurs on 150 days each year in interior valleys and on 190 days in the mountains and along the coast.

Thunderstorms occur up to 10 days each year over the lower elevations and up to 15 days over the mountains. Damaging hailstorms are rare in western Washington. During July and August, the driest months, two to four weeks can pass with only a few showers; however, in December and January, the wettest months, precipitation is frequently recorded on 25 days or more each month. Snowfall is light in the lower elevations and heavier in the mountains. During the wet season, rainfall is usually of light to moderate intensity and continuous over a long period rather than occurring in heavy downpours for brief periods; heavier intensities occur along the windward slopes of the mountains.

9.1.2 Atmospheric Phenomenon

Atmospheric rivers (see Figure 9-1) are relatively long, narrow regions in the atmosphere – like rivers in the sky – that transport most of the water vapor outside of the tropics. These columns of vapor move with the weather, carrying an amount of water vapor roughly equivalent to the average flow of water at the mouth of the Mississippi River. When the atmospheric rivers make landfall, they often release this water vapor in the form of rain or snow. Those that contain the largest amounts of water vapor, and the strongest winds can create extreme rainfall and floods, often by stalling over watersheds vulnerable to flooding. These events can disrupt travel, induce mudslides, and cause catastrophic damage to life and property. A well-known example is the “Pineapple Express,” a strong atmospheric river that is capable of bringing moisture from the tropics near Hawaii over to the U.S. West Coast.¹⁸

El Niño-Southern Oscillation (ENSO) cycle is a scientific term that describes the fluctuations in temperature between the ocean and atmosphere in the east-central Equatorial Pacific. ENSO is one of the most important climate phenomena on Earth due to its ability to change the global atmospheric circulation, which in turn, influences temperature and precipitation across the globe. Though ENSO is a single climate phenomenon, it has three states, or phases, it can be in. The two opposite phases, “El Niño” and “La Niña,” require certain changes in both the ocean and the atmosphere because ENSO is a coupled climate phenomenon. “Neutral” is in the middle of the continuum.

- La Nina (translated from Spanish as “little girl”) is a natural ocean-atmospheric phenomenon marked by cooler-than-average sea surface temperatures across the central and eastern Pacific Ocean near the equator. La Nina typically brings above-average precipitation and colder-than-average temperatures along the northern tier of the U.S., along with below-average precipitation and above-average temperatures across the South.

¹⁸ NOAA. What are atmospheric rivers? Accessed 9 Feb 2023. Available online at: <https://www.noaa.gov/stories/what-are-atmospheric-rivers>

- An El Niño (translated from Spanish as “little boy”) is marked by warmer-than-average sea surface temperatures in the region. Typical El Niño effects are likely to develop over North America during the upcoming winter season. Those include warmer-than-average temperatures over western and central Canada, and over the western and northern United States. Wetter-than-average conditions are likely over portions of the U.S. Gulf Coast and Florida, while drier-than-average conditions can be expected in the Ohio Valley and the Pacific Northwest. The presence of El Niño can significantly influence weather patterns, ocean conditions, and marine fisheries across large portions of the globe for an extended period of time.

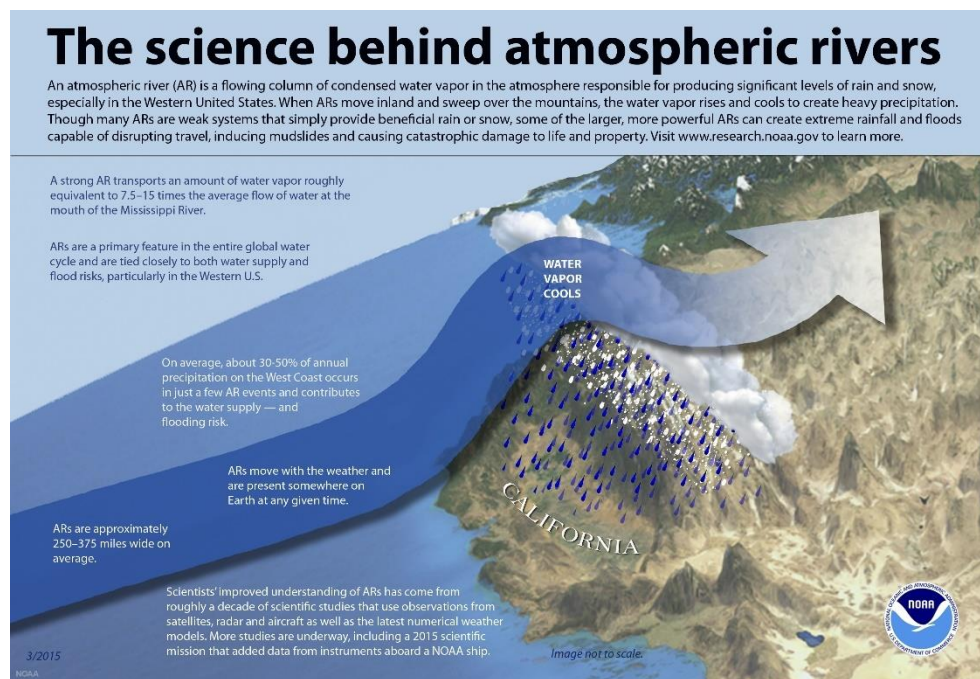


Figure 9-1 Atmospheric Rivers

9.1.3 Thunderstorms

A thunderstorm is a rain event that includes thunder and lightning. A thunderstorm is classified as “severe” when it contains one or more of the following: hail with a diameter of three-quarter inch or greater, winds gusting in excess of 50 knots (57.5 mph), or tornado. Thunderstorms have three stages (see Figure 9-2):

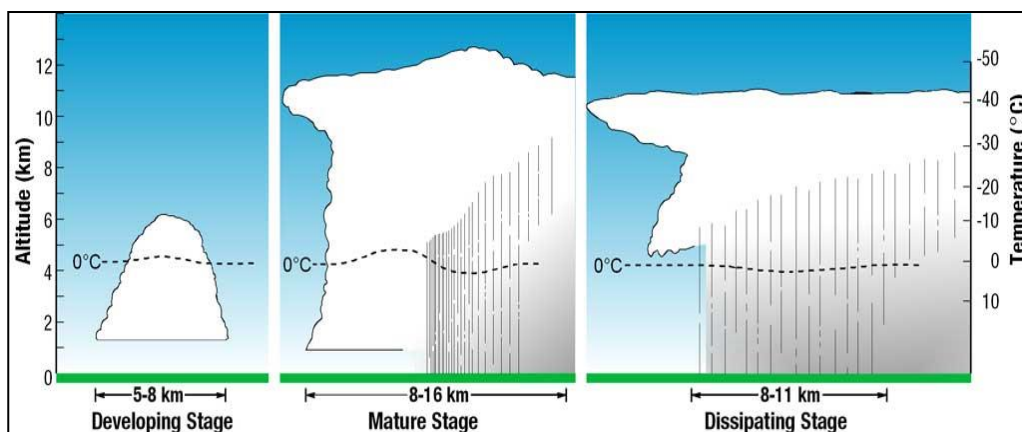


Figure 9-2 The Thunderstorm Life Cycle

Three factors cause thunderstorms: moisture, rising unstable air (air that keeps rising once disturbed), and a lifting mechanism to provide the disturbance. The sun heats the surface of the earth, which warms the air above it. If this warm surface air is forced to rise (hills or mountains can cause rising motion, as can the interaction of warm air and cold air or wet air and dry air) it will continue to rise as long as it weighs less and stays warmer than the air around it. As the air rises, it transfers heat from the earth surface to the upper atmosphere (the process of convection). The water vapors it contains begins to cool and it condenses into a cloud. The cloud eventually grows upward into areas where the temperature is below freezing. Some of the water vapor turns to ice and some of it turns into water droplets. Both have electrical charges. Ice particles usually have positive charges, and rain droplets usually have negative charges. When the charges build up enough, they are discharged in a bolt of lightning, which causes the sound heard as thunder. There are four types of thunderstorms:

- **Single-Cell Thunderstorms**—Single-cell thunderstorms usually last 20 to 30 minutes. A true single-cell storm is rare, because the gust front of one cell often triggers the growth of another. Most single-cell storms are not usually severe, but a single-cell storm can produce a brief severe weather event. When this happens, it is called a pulse severe storm.
- **Multi-Cell Cluster Storm**—A multi-cell cluster is the most common type of thunderstorm. The multi-cell cluster consists of a group of cells, moving as one unit, with each cell in a different phase of the thunderstorm life cycle. Mature cells are usually found at the center of the cluster and dissipating cells at the downwind edge. Multi-cell cluster storms can produce moderate-size hail, flash floods and weak tornadoes. Each cell in a multi-cell cluster lasts only about 20 minutes; the multi-cell cluster itself may persist for several hours. This type of storm is usually more intense than a single cell storm.
- **Multi-Cell Squall Line**—A multi-cell line storm, or squall line, is a long line of storms with a continuous well-developed gust front at the leading edge. The storms can be solid, or have gaps and breaks in the line. Squall lines can produce hail up to golf-ball size, heavy rainfall, and weak tornadoes, but they are best known as the producers of strong downdrafts. Occasionally, a strong downburst will accelerate a portion of the squall line ahead of the rest of the line. This produces what is called a bow echo. Bow echoes can develop with isolated cells as well as squall lines. Bow echoes are easily detected on radar but are difficult to observe visually.

- **Super-Cell Storm**—A super-cell is a highly organized thunderstorm that poses a high threat to life and property. It is similar to a single-cell storm in that it has one main updraft, but the updraft is extremely strong, reaching speeds of 150 to 175 miles per hour. Super-cells are rare. The main characteristic that sets them apart from other thunderstorms is the presence of rotation. The rotating updraft of a super-cell (called a mesocyclone when visible on radar) helps the super-cell to produce extreme weather events, such as giant hail (more than 2 inches in diameter), strong downbursts of 80 miles an hour or more, and strong to violent tornadoes.

As of 2021 (last full year reported) Washington ranked 48th nationwide for lightning strikes with 55,779 recorded (down five from 2020). For lightning strike density (by area), Washington ranked 50th. During 2021, NOAA reported 11 fatalities, below the previously recorded low of 16 deaths in 2017 (see Figure 9-3). None of the fatalities occurred in Washington State. Based on an analysis updated in 2021 by John Jensenius, Jr., of the National Lightning Safety Council, victims of lightning fatalities were again most often engaged in leisure activities (eight), followed by work-related activities (three). Of the 11 fatalities, all but one was male. On average, lightning strikes start 14 percent of wildfires annually in the United States, with those fires resulting in 58 percent of the acreage burned each year (Vaisala, 2021). 2021 also saw historic severe weather outbreaks impact central and eastern portions of the United States in mid-December, a month during which thunderstorms are customarily low.

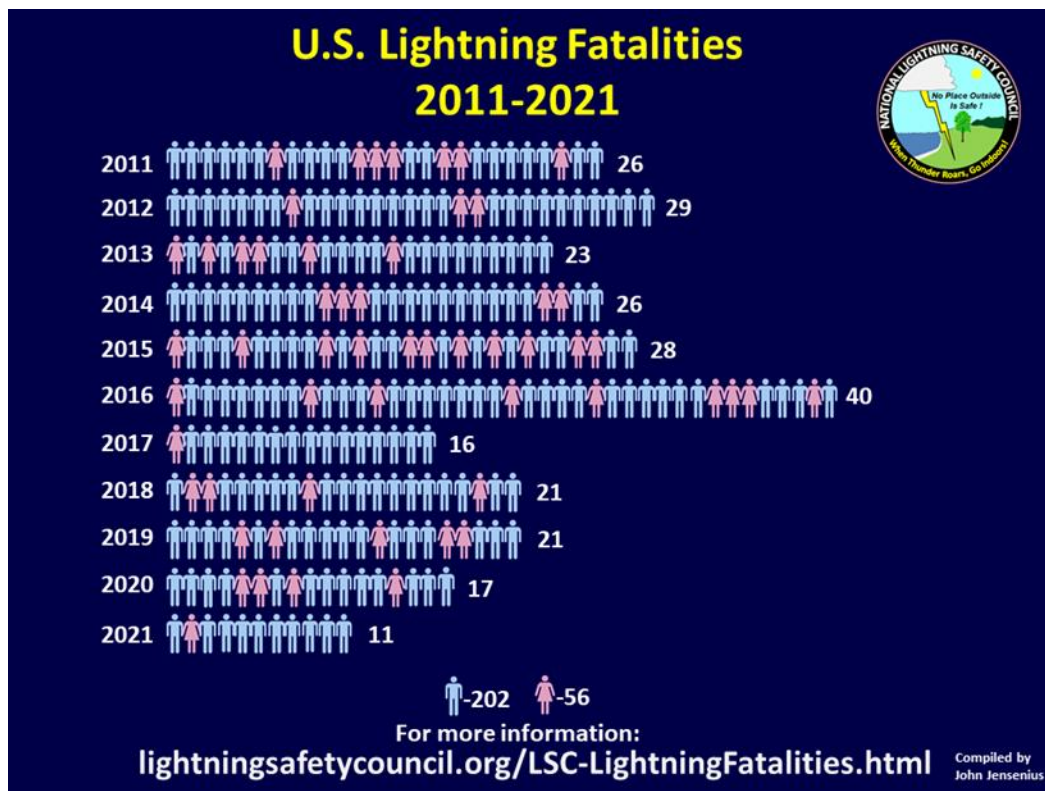


Figure 9-3 Lightning Fatalities 2011-2021

9.1.4 Damaging Winds

Damaging winds are classified as those exceeding 60 mph. Damage from such winds accounts for half of all severe weather reports in the lower 48 states and is more common than damage from tornadoes. Wind speeds can reach up to 100 mph and can produce a damage path extending for hundreds of miles. There are seven types of damaging winds:

- **Straight-line winds**—Any thunderstorm wind that is not associated with rotation; this term is used mainly to differentiate from tornado winds. Most thunderstorms produce some straight-line winds as a result of outflow generated by the thunderstorm downdraft.
- **Downdrafts**—A small-scale column of air that rapidly sinks toward the ground.
- **Downbursts**—A strong downdraft with horizontal dimensions larger than 2.5 miles resulting in an outward burst or damaging winds on or near the ground. Downburst winds may begin as a microburst and spread out over a wider area, sometimes producing damage similar to a strong tornado. Although usually associated with thunderstorms, downbursts can occur with showers too weak to produce thunder.
- **Microbursts**—A small concentrated downburst that produces an outward burst of damaging winds at the surface. Microbursts are generally less than 2.5 miles across and short-lived, lasting only 5 to 10 minutes, with maximum wind speeds up to 168 mph. There are two kinds of microbursts: wet and dry. A wet microburst is accompanied by heavy precipitation at the surface. Dry microbursts, common in places like the high plains and the intermountain west, occur with little or no precipitation reaching the ground.
- **Gust front**—A gust front is the leading edge of rain-cooled air that clashes with warmer thunderstorm inflow. Gust fronts are characterized by a wind shift, temperature drop, and gusty winds out ahead of a thunderstorm. Sometimes the winds push up air above them, forming a shelf cloud or detached roll cloud.
- **Derecho**—A derecho is a widespread thunderstorm wind caused when new thunderstorms form along the leading edge of an outflow boundary (the boundary formed by horizontal spreading of thunderstorm-cooled air). The word “derecho” is of Spanish origin and means “straight ahead.” Thunderstorms feed on the boundary and continue to reproduce. Derechos typically occur in summer when complexes of thunderstorms form over plains, producing heavy rain and severe wind. The damaging winds can last a long time and cover a large area.
- **Bow Echo**—A bow echo is a linear wind front bent outward in a bow shape. Damaging straight-line winds often occur near the center of a bow echo. Bow echoes can be 200 miles long, last for several hours, and produce extensive wind damage at the ground.

There are four main types of windstorm tracks that impact the Pacific Northwest as identified in Figure 9-4. These four tracks are distinguished by two basic windstorm patterns that have emerged in the Puget Sound Region: the South Wind Event and the East Wind Event. South wind events are generally large-scale events that affect large portions of Western Washington and possibly Western Oregon. On occasional cases, they have reached as far south as Northern California.

Source: Oregon Climate Service, 2015

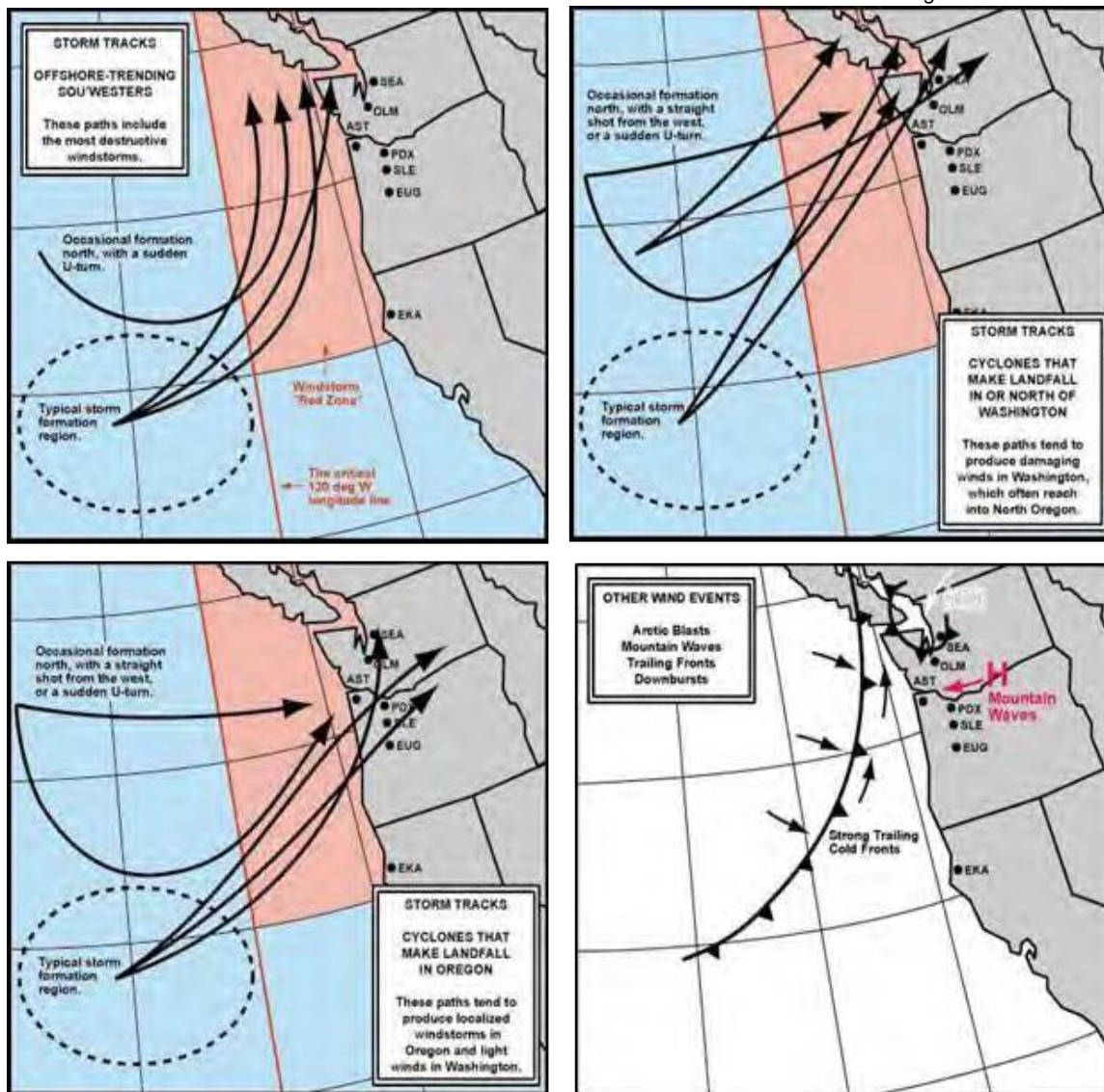


Figure 9-4 Windstorm Tracks Impacting the Pacific Northwest

In contrast, easterly wind events are more limited. High pressure on the east side of the Cascade Mountain Range creates airflow over the peaks and passes, and through the funneling effect of the valleys, the wind increases dramatically in speed. As it descends into these valleys and then exits into the lowlands, the wind can pick up enough speed to damage buildings, rip down power lines, and destroy fences. Once it leaves the proximity of the Cascade foothills, the wind tends to die down rapidly.

All of Mason County is in an 85-mph wind zone. Within this zone there are four (4) zones of exposure, three (3) of which are identified in Mason County and that are utilized to guide structure development (2006 International Building Code). These exposure zones further identify areas that are at higher risk from impacts of high winds. The closer development is to open waters and on top of steep cliffs, the higher the design criteria that is required through building code. Based on the

International Building Code, the zones are broken down into surface roughness categories and are defined as follows:

- Surface Roughness B. Urban and suburban areas, wooded areas or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.
- Surface Roughness C. Open terrain with scattered obstructions having heights generally less than 30 feet (9144 mm). This category includes flat open country, grasslands, and all water surfaces in hurricane-prone regions.
- Surface Roughness D. Flat, unobstructed areas, and water surfaces outside hurricane-prone regions. This category includes smooth mud flats, salt flats and unbroken ice.

Windstorms impact all of Mason County on a regular basis. The strongest winds are generally from the south or southwest and occur during fall and winter. Some are much more damaging than others. For those like the Hanukkah Eve Windstorm of 2006 (see Figure 9-5), the impact on the public can be severe.

Mason County was significantly impacted. Torrential rains overwhelmed sewage treatment plants, and when plants lost power, raw sewage flooded into Puget Sound in Mason County.



Figure 9-5 Hanukkah Eve Peak Wind Gusts

The strongest windstorm was the 1962 Columbus Day Storm, which was the strongest non-tropical windstorm to hit the lower 48 states. It traveled about 40 mph from Northern California to the Canadian border and east as far as Montana. The storm killed 46 people, destroyed more than 50,000 homes, left another 469,000 without power, caused \$235 million in property damage and flattened 15 billion board feet of timber worth an estimated \$750 million. Severe winds also occurred during the Inauguration Day storm of 1993 (see Figure 9-6). Other severe storms that have severely impacted Mason County have occurred in 1971, 1973, 1979, 1980, 1985, 1986, 2006, 2007, 2009, 2012, 2015 (2 events), 2020, and 2021.

9.1.5 Hail Storms

Hail occurs when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice. Recent studies suggest that super-cooled water may accumulate on frozen particles near the back side of a storm as they are pushed forward across and above the updraft by the prevailing winds near the top of the storm. Eventually, the hailstones encounter downdraft air and fall to the ground.

Hailstones grow two ways: by wet growth or dry growth. In wet growth, a tiny piece of ice is in an area where the air temperature is below freezing, but not super cold. When the tiny piece of ice collides with a super-cooled drop, the water does not freeze on the ice immediately. Instead, liquid water spreads across tumbling hailstones and slowly freezes. Since the process is slow, air bubbles can escape, resulting in a layer of clear ice. Dry growth hailstones grow when the air temperature is well below freezing and the water droplet freezes immediately as it collides with the ice particle. The air bubbles are “frozen” in place, leaving cloudy ice.

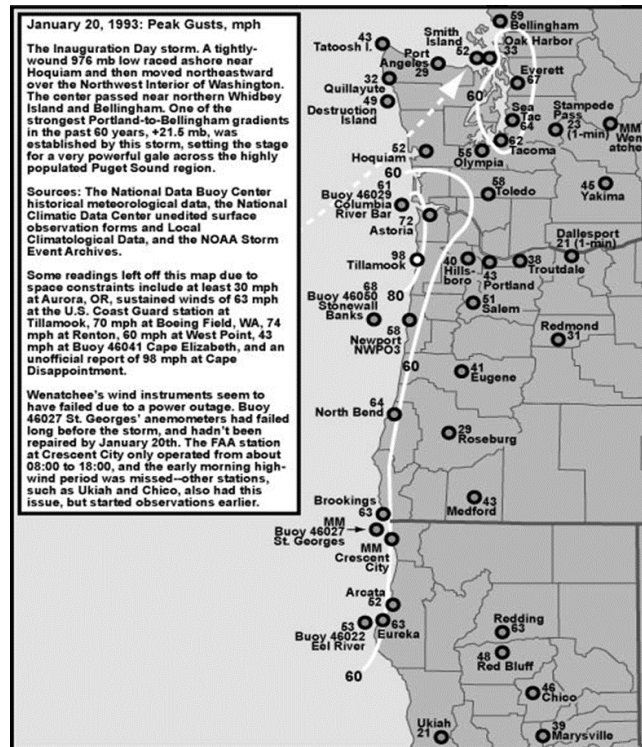


Figure 9-6 Inauguration Day Storm Peak Wind Gusts

9.1.6 Ice Storms

The National Weather Service defines an ice storm as a storm that results in the accumulation of at least 0.25 inches of ice on exposed surfaces. Ice storms occur when rain falls from a warm, moist, layer of atmosphere into a below freezing, drier layer near the ground. The rain freezes on contact with the cold ground and exposed surfaces, causing damage to trees, utility wires, and structures (see Figure 9-7).

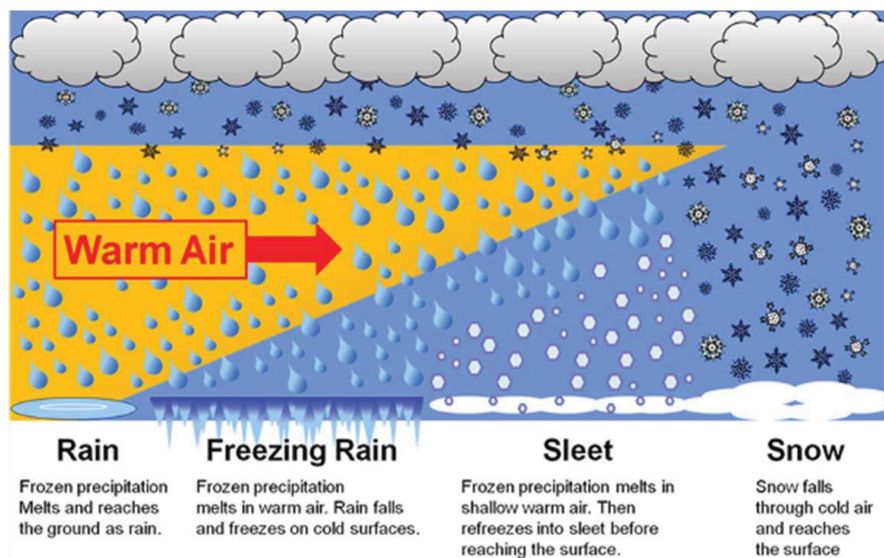


Figure 9-7 Types of Precipitation

9.1.7 Extreme Temperatures

Extreme temperature includes both heat and cold events, which can have a significant impact on human health, commercial/agricultural businesses and primary and secondary effects on infrastructure (e.g., burst pipes and power failure). What constitutes “extreme cold” or “extreme heat” can vary across different areas of the country, based on what the population is accustomed to within the region (CDC, 2014).

Extreme Cold

Extreme cold events are when temperatures drop well below normal in an area. In regions relatively unaccustomed to winter weather, near freezing temperatures are considered “extreme cold.” Extreme cold can often accompany severe winter storms, with winds exacerbating the effects of cold temperatures by carrying away body heat more quickly, making it feel colder than is indicated by the actual temperature (known as wind chill). Figure 9-8 demonstrates the value of wind chill based on the ambient temperature and wind speed.

Exposure to cold temperatures, whether indoors or outside, can lead to serious or life-threatening health problems such as hypothermia, cold stress, frostbite or freezing of the exposed extremities such as fingers, toes, nose, and ear lobes. Hypothermia occurs when the core body temperature is <95°F. If persons exposed to excessive cold are unable to generate enough heat (e.g., through shivering) to maintain a normal core body temperature of 98.6°F, their organs (e.g., brain, heart, or kidneys) can malfunction. Extreme cold also can cause emergencies in susceptible populations, such as those without shelter, those who are stranded, or those who live in a home that is poorly insulated or without heat. Infants and the elderly are particularly at risk, but anyone can be affected.

Extremely cold temperatures often accompany a winter storm, so individuals may have to cope with power failures and icy roads. Although staying indoors can help reduce the risk of injury on the ice, individuals may also face indoor hazards. Many homes will be too cold—either due to a power failure or because the heating system is not adequate for the weather. The use of space heaters and fireplaces to keep warm increases the risk of household fires and carbon monoxide poisoning.

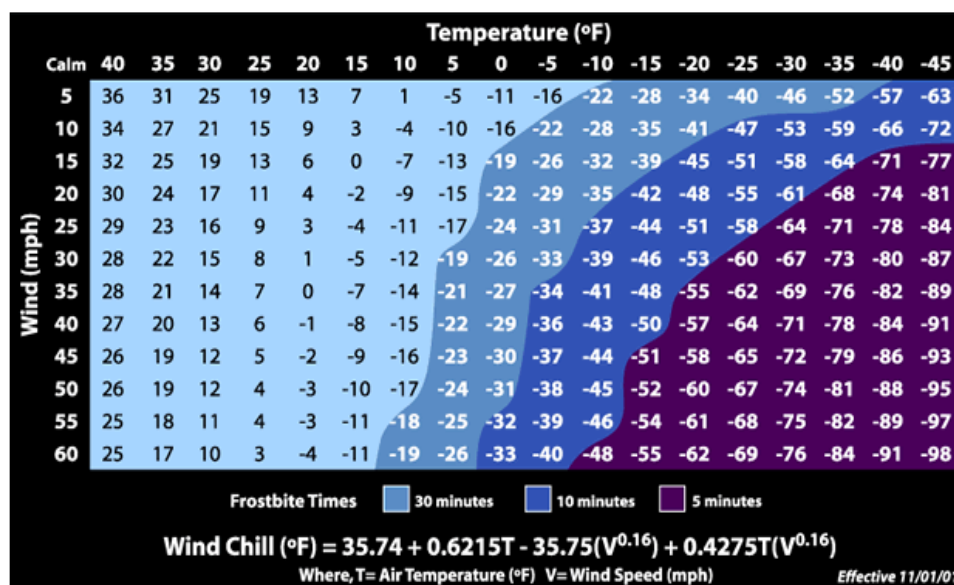


Figure 9-8 NWS Wind Chill Index

During cold months, carbon monoxide may be high in some areas because the colder weather makes it difficult for car emission control systems to operate effectively. Carbon monoxide levels are typically higher during cold weather because the cold temperatures make combustion less complete and cause inversions that trap pollutants close to the ground (USEPA, 2009).

Extreme Heat

Temperatures that hover 10 degrees or more above the average high temperature for the region and last for several days or weeks are defined as extreme heat (FEMA, 2006; CDC, 2006). An extended period of extreme heat of three or more consecutive days is typically called a heat wave and is often accompanied by high humidity (Ready America, Date Unknown; NWS, 2005). There is no universal definition of a heat wave because the term is relative to the usual weather in a particular area. The term heat wave is applied both to routine weather variations and to extraordinary spells of heat which may occur only once a century (Meehl and Tebaldi, 2004). A basic definition of a heat wave implies that it is an extended period of unusually high atmosphere-related heat stress, which causes temporary modifications in lifestyle and which may have adverse health consequences for the affected population (Robinson, 2000). Figure 9-9 identifies some of those consequences and associated temperatures.¹⁹

Certain populations are considered vulnerable or at greater risk during extreme heat events. These populations include, but are not limited to the following: the elderly age 65 and older, infants and young children under five years of age (see Figure 9-10), pregnant woman, the homeless or poor, the overweight, and people with mental illnesses, disabilities, and chronic diseases (NYS HMP, 2008).

¹⁹ NCDC, 2000

		Temperature (°F)																
Relative Humidity (%)		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	
	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136	
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137		
	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137			
	55	81	84	86	89	93	97	101	106	112	117	124	130	137				
	60	82	84	88	91	95	100	105	110	116	123	129	137					
	65	82	85	89	93	98	103	108	114	121	128	136						
	70	83	86	90	95	100	105	112	119	126	134							
	75	84	88	92	97	103	109	116	124	132								
	80	84	89	94	100	106	113	121	129									
	85	85	90	96	102	110	117	126	135									
	90	86	91	98	105	113	122	131										
	95	86	93	100	108	117	127											
	100	87	95	103	112	121	132											
Category		Heat Index					Health Hazards											
Extreme Danger		130 °F – Higher					Heat Stroke / Sunstroke is likely with continued exposure.											
Danger		105 °F – 129 °F					Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.											
Extreme Caution		90 °F – 105 °F					Sunstroke, muscle cramps, and/or heat exhaustions possible with prolonged exposure and/or physical activity.											
Caution		80 °F – 90 °F					Fatigue possible with prolonged exposure and/or physical activity.											

Figure 9-9 Heat Stress Index

Wind-Chill Factor Chart (in Fahrenheit)

		Wind Speed in mph									
Air Temperature		Calm	5	10	15	20	25	30	35	40	
	40	40	36	34	32	30	29	28	28	27	
	30	30	25	21	19	17	16	15	14	13	
	20	20	13	9	6	4	3	1	0	-1	
	10	10	1	-4	-7	-9	-11	-12	-14	-15	
	0	0	-11	-16	-19	-22	-24	-26	-27	-29	
	-10	-10	-22	-28	-32	-35	-37	-39	-41	-43	

Comfortable for out door play

Caution

Danger

Heat Index Chart (in Fahrenheit %)

		Relative Humidity (Percent)												
Air Temperature (F)		40	45	50	55	60	65	70	75	80	85	90	95	100
	80	80	80	81	81	82	82	83	84	84	85	86	86	87
	84	83	84	85	86	88	89	90	92	94	96	98	100	103
	90	91	93	95	97	100	103	105	109	113	117	122	127	132
	94	97	100	103	106	110	114	119	124	129	135			
	100	109	114	118	124	129	130							
	104	119	124	131	137									

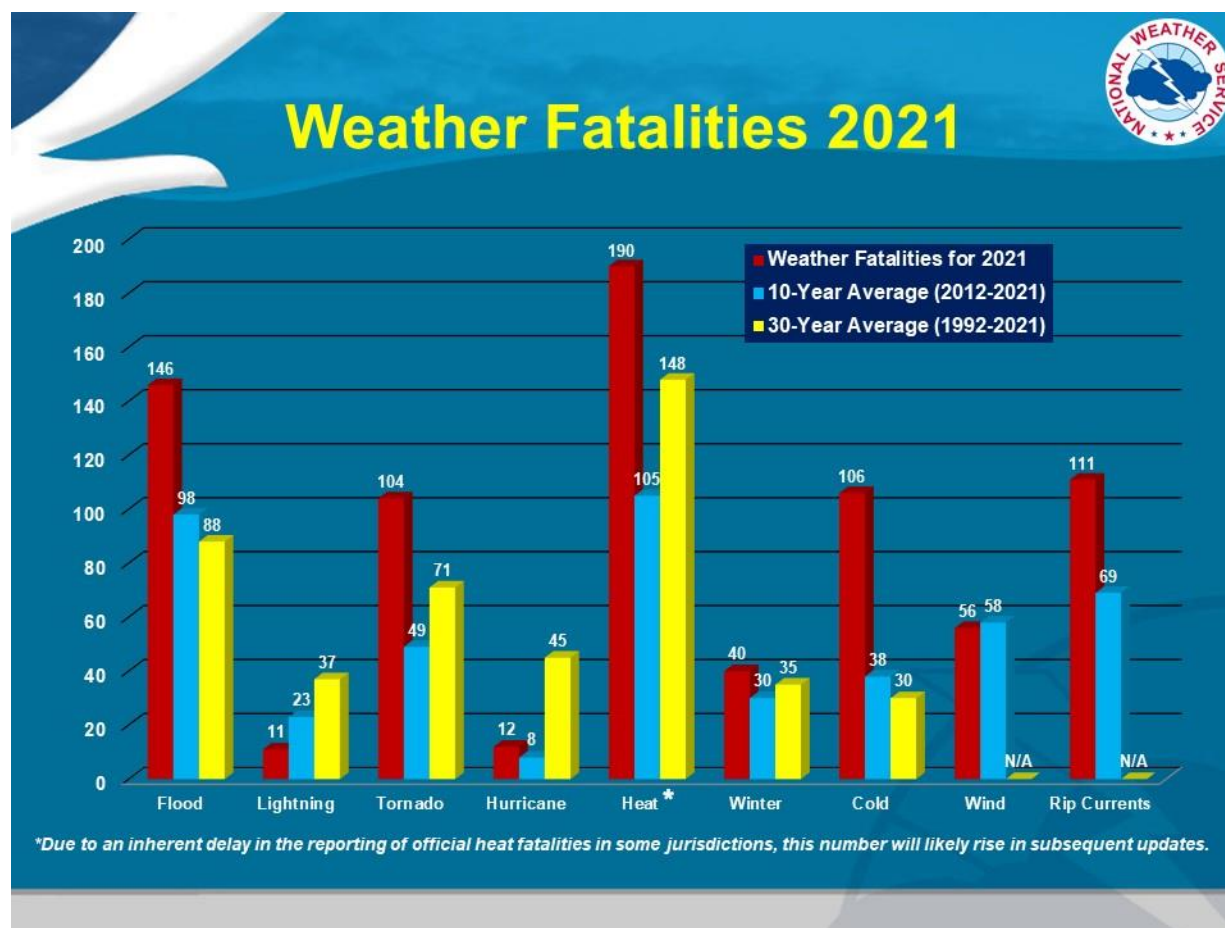


Figure 9-11 Weather Fatalities

Figure 9-11 illustrates the number of weather fatalities based on 10-year and 30-year averages.²⁰ Extreme heat is the number one weather-related cause of death in the U.S. over the 30-year average, followed by flood.

Depending on severity, duration, and location; extreme heat events can create or provoke secondary hazards including, but not limited to, dust storms, droughts, wildfires, water shortages and power outages (FEMA, 2006; CDC, 2006). This could result in a broad and far-reaching set of impacts throughout a local area or entire region. Impacts could include significant loss of life and illness; economic costs in transportation, agriculture, production, energy, and infrastructure; and losses of ecosystems, wildlife habitats and water resources (Adams, Date Unknown; Meehl and Tebaldi, 2004; CDC, 2006; NYSDPC, 2008).

²⁰ NOAA, 2023 (<http://www.nws.noaa.gov/om/hazstats.shtml>) (Most recently available at time of update.)

9.2 HAZARD PROFILE

9.2.1 Extent and Location

The entire planning area is susceptible to the impacts of severe weather. Severe weather events customarily occur during the months of October to April, although they have occurred year-round. The County has been impacted by strong winds, rain, snow, or other precipitation, and often are accompanied by thunder or lightening (Mason County, 2010). Considerable snowfall does not customarily occur throughout the region.

Communities in low-lying areas next to coastlines, rivers, streams, or lakes are more susceptible to flooding as a result of storm surge. Wind events are most damaging to areas of Mason County. Winds coming off of the Pacific Coast can have a significant impact on the planning region as a result of both the wind and associated storm surge (Hood Canal area). For the planning region as a whole, wind events are one of the most common weather-related incidents to occur, often times leaving the area without power, although customarily not for long, extended periods.

Severe storms and weather affect transportation and utilities. Access across certain parts of the County is unpredictable as roads are vulnerable to damage from severe storms, storm surges, and landslide/erosion. Severe storms and storm surges can also cause flooding and channel migration.

9.2.2 Previous Occurrences

Types of severe weather occurring within Mason County vary due to the topography of the area encompassing the planning area, but some level of severe weather or storm event impacts the area at least once annually, although not to the level of a disaster declaration. Events include thunderstorms, hailstorms, heavy precipitation, straight line winds, and damaging downburst winds. Less frequent severe weather phenomena include ocean squalls (along the coastal areas), heavy snowstorms, and ice storms, although all have occurred in the planning area. The most recent snow event occurred in December 2021 (County declared an emergency event due to snow, ice/freezing temperatures and rain combination impacting several mobile homes, collapsing car ports, etc.), which was ultimately declared as a presidential declaration in December 2022. The County has not experienced any tornado events, although there have been reported tornadoes in the surrounding counties.

Since 1956, 12 severe weather events have been declared in the County. This equates to one declared incident every 5.4 years, with a probability of occurrence per year of 18.46 percent. One fatality has occurred, as a result of a severe storm event causing a landslide which struck a residence. Severe storms or weather events are the hazard which has impacted the county most frequently since 1956, followed by Flood events. FEMA ranks Severe Storms as the hazard of highest priority in the county.

9.2.3 Severity

The most common problems associated with severe storms are immobility and loss of utilities. As indicated, the County has experienced one fatality as a result of a severe weather event.

During severe storms, roads may become impassable due to flooding, downed trees, ice or snow, or a landslide, which regularly occurs as a result of ground saturation from heavy rains often associated with severe weather events.

Power lines may also be downed due to high winds or ice accumulation, and services such as water or phone may not be able to operate without power. Lightning can cause severe damage and injury. Physical damage to homes and facilities caused by wind, or by accumulation of snow or ice can also occur. Due to the limited amount of snow customarily received in the region, even a small accumulation of ice or snow can, and has, caused havoc on transportation systems due to hilly terrain, the level of experience of drivers to maneuver in snow and ice conditions, and the lack of snow clearing equipment and resources within the region, which is more rural in nature in many areas.

Ice storms, especially when accompanied by high winds, can have an especially destructive impact within the planning region, with both being able to close major transportation corridors and bridges. Accumulation of ice on trees, power lines, communication towers and wiring, or other utility services can be crippling, and create additional hazards for residents, motorists and pedestrians.

During the last 30 years, Western Washington has had an average annual snowfall of 11.4 inches per year, with the snowfall customarily occurring during November through March, although snow has fallen as late as April. Within Mason County, snowfall ranges an average of 3-5 inches, with approximately 2 days (averaged) per year with snow depths of 1 inch or more.²¹ Historical records in Western Washington are as follows:

- January 1950 – One-day record for snow accumulation – 21 inches
- January 1950 – One-month record for snow accumulation – 57 inches
- 1968-1969 – Winter season record for snow accumulation – 67 inches

Windstorms are common in the planning area, occurring many times throughout the year within Mason County. They are especially concerning for PUDs 1 and 3. The predicted wind speed given for wind warnings issued by the National Weather Service is for a one-minute average, during which gusts may be 25 to 30 percent higher.

Tornadoes are potentially the most dangerous of local storms, but they are not common in the planning area. If a major tornado were to strike within the planning area, damage could be widespread. As a result of building stock age, fatalities could be high, with many people homeless for an extended period of time. Routine services such as telephone or power could be disrupted. Businesses could be forced to close for an extended period, impacting commodities available for citizens. As a result of the heavily forested areas, debris accumulations would be high, causing additional difficulties with access along major arterials connecting the area to other parts of the state, further impacting logistical support and commodities.

The extent (severity or magnitude) of extreme cold temperatures are generally measured through the wind chill temperature index. Wind Chill Temperature is the temperature that people and animals feel when outside and it is based on the rate of heat loss from exposed skin by the effects of wind and cold. As the wind increases, the body is cooled at a faster rate causing the skin's temperature to drop (NWS, 2009).

²¹ USA.Com Mason County Weather: <http://www.usa.com/mason-county-wa-weather.htm#>

9.2.4 Frequency

Of the 12 severe weather events for Mason County identified in Chapter 3 (Table 3-1 and Table 3-2), most are related to high winds and associated other winter storm-type events such as heavy rains and landslides, and to a much lesser extent, snow. The planning area can expect to experience exposure to some type of severe weather event at least annually, with declared events occurring on average every 5.4 years. The probability of a severe weather event of some type occurring on an annual basis is 18.46 percent.

Washington State Department of Ecology has estimated frequency intervals for wind speed as follows:

WIND SPEEDS EXCEED	FREQUENCY
55 MPH	Annually
76 MPH	~ 5 years
83 MPH	~10 years
92 MPH	~25 years
100 MPH	~50 years
108 MPH	~100 years

9.3 VULNERABILITY ASSESSMENT

9.3.1 Overview

Severe weather incidents can and regularly do occur throughout the entire planning area. Similar events impact areas within the planning region differently, even though they are part of the same system. While in some instances some type of advanced warning is possible, as a result of climatic differences, topographic and relative distance to the coastline, the same system can be much more severe in certain areas of the County. Therefore, preparedness plays a significant contributor in the resilience of the citizens to withstand such events.

A lack of data separating severe weather damage from flooding, windstorms, and landslide damage prevent a detailed analysis for exposure and vulnerability. For planning purposes, it is assumed that the entire planning area is exposed to some extent to severe weather. Certain areas are more exposed due to geographic location and local weather patterns, as well as the response capabilities of local first responders.

Warning Time

Meteorologists can often predict the likelihood of some severe storms. In some cases, this can give several days of warning time. However, meteorologists cannot predict the exact time of onset or severity of the storm, and the rapid changes which can also occur significantly increasing the impact of a weather event.

9.3.2 Impact on Life, Health and Safety

The entire planning area is susceptible to severe weather events. Populations living at higher elevations with large stands of trees or above-ground power lines may be more susceptible to wind damage and black out conditions, while populations in low-lying areas are at risk for possible flooding and landslides associated with the flooding as a result of heavy rains. Increased levels of precipitation in the form of snow also vary by area, with higher elevations being more susceptible to increased accumulations. Resultant secondary impacts from power outages during cold weather event, when combined with the high population of retired and elderly residents significantly impacts response capabilities and the risk factor associated with such weather incidents. Within the densely wooded areas, increased fire danger during extreme heat conditions increases the likelihood of fire, which increases fire danger.

Particularly vulnerable populations are the elderly and very young, low income, linguistically isolated populations, people with life-threatening illnesses, and residents living in areas that are isolated from major roads. Extreme temperature variations, either heat or cold, are of significant concern on both the elderly and the young, increasing vulnerability of those populations.

A number of storm events have cut off primary access routes to areas of the County for days at a time, in some instances for over six months. These storm events include both declared and non-declared incidents, as even minor incidents have the potential to impact ingress and egress. Such issues are of concern as a result of limited access for evacuation purposes by first responder if vital ALS is required, as well as for general evacuation purposes during a period where power is out, and individuals attempt to leave the area. Travel time can be increased significantly if alternate routes are used.

PUDs 1 and 3 provide electricity to the planning area. Severe weather events can and have disrupted electricity in the planning area, on average though only a few times each year. When most power outages occur, they last for only a few hours, except in extreme outlying areas. The most significant event which caused power to be out for in excess of seven days was as a result of the 1996 ice storm. Since completion of the 2018 HMP, the area has been impacted by some form of severe winter storm or snow storm which have caused power outages lasting 12 hours or more. The December 2021-January 2022 Severe Winter Storm impacted the most number of residents, with power in some areas not restored for four days.

The large population of retirees and the higher rate of disabled individuals living in the area are of significant concern to the planning partners throughout the region when severe weather events occur due to the higher levels of vulnerable populations.

9.3.3 Impact on Property

Currently data identifies that there are in excess of 33,600 buildings in the planning area. Most of these buildings are residential. Within Mason County, approximately 58 percent of structures were built after 1980; however, in the City of Shelton, only 34 percent of structures were built after 1980, meaning a high percentage of structures in Shelton could be impacted by significant weather events as many were built without the influence of a structural building code with provisions for wind loads.

For planning purposes, all properties and buildings within the planning area are considered to be exposed to the severe weather hazard, but structures in poor condition or in particularly vulnerable locations (hilltops or exposed open areas) may be at risk for the most damage. The frequency and

degree of damage will depend on specific locations and severity of the weather pattern impacting the region. It is improbable to determine the exact number of structures susceptible to a weather event, and therefore emergency managers and public officials should establish a maximum threshold, or worst-case scenario, of susceptible structures.

9.3.4 Impact on Critical Facilities and Infrastructure

All critical facilities are vulnerable to some degree. As many of the severe weather events include multiple hazards, information such as that identifying facilities exposed to flooding or landslides (see Flood and Landslide profiles) are also likely exposed to severe weather. Additionally, facilities on higher ground may also be exposed to wind damage or damage from falling trees. The most common problems associated with severe weather are loss of utilities. Downed power lines can cause blackouts, leaving large areas without power. Such was the case experienced as a result of the 1996 ice storm, which left much of the area without power for several days. The most recent long-term power outage was caused by the December 2021-January 2022 Severe Winter Storm.

As a result of historical events, the local utility providers continue their practice of tree-trimming operations to reduce the potential impact from wind, ice and snow events. In addition to power loss, the area can also experience a loss of phone (cell and land-line), water and sewer systems, which may not function properly during severe weather events. Loss of electricity and phone connection could also result in some residents being unable to call for emergency assistance as needed. Roads may also become impassable due to ice or snow, or from secondary hazards such as landslides. Within the planning region, Tacoma Public Utilities has two hydroelectric dams which produce a significant amount of power to areas well outside of the planning area. Major power lines travel from the various dams through a large swath of Mason County. As such, wind events occurring in Mason County also have the potential to impact power supplies in large metropolitan areas well outside of Mason County.

Incapacity and loss of roads are the primary transportation failures, most of which are associated with secondary hazards such as landslides. Landslides that block roads are caused by heavy prolonged rains, and often times reoccur in areas previously impacted. High winds can cause significant damage to trees and power lines, with obstructing debris blocking roads, incapacitating transportation, isolating populations, and disrupting ingress and egress. Snowstorms at higher elevations can impact the transportation system and the availability of public safety services. Of particular concern are roads providing access to isolated areas and to the elderly.

9.3.5 Impact on Economy

Prolonged obstruction of major routes due to severe weather can disrupt the shipment of goods and other commerce. Severe windstorms, downed trees, and ice can create serious impacts on power and above-ground communication lines. Freezing rain/snow on power and communication lines can cause them to break, disrupting electricity and communication, further impacting business within the region. Prolonged outages would impact consumer and tax base as a result of lost revenue, (food) spoilage, lack of production, etc. The County does have a fairly large forest harvesting industry as well as large shellfish farms which would be negatively impacted by severe weather events. Large, prolonged storms can have negative economic impacts for an entire region. All severe weather events have the potential to also impact tourism, an industry on which much of the planning region is dependent.

9.3.6 Impact on Environment

The environment is highly exposed to severe weather events. Natural habitats such as streams and trees are exposed to the elements during a severe storm and risk major damage and destruction. Prolonged rains can saturate soils and lead to slope failure. Flooding events caused by severe weather or snowmelt can produce river channel migration or damage riparian habitat, also impacting spawning grounds and fish populations for many years. Within the planning area, there are four fish hatcheries, which, if impacted, could result in decreased numbers of salmon and trout in the area, as the hatcheries release the fish annually. Should this occur, this would impact the area for years to come due to the life-cycle of the returning salmon. Storm surges can erode beachfront bluffs and redistribute sediment loads. Extreme heat can raise temperatures of rivers, impacting oxygen levels in the water, threatening aquatic life.

9.3.7 Impact from Climate Change

Climate change presents a challenge for risk management associated with severe weather. The frequency of severe weather events has increased steadily over the last century. The number of weather-related disasters during the 1990s was four times that of the 1950s, and cost 14 times as much in economic losses. Historical data shows that the probability for severe weather events increases in a warmer climate.

The last several years, and in particular 2021 and 2022, have seen record temperatures, with meteorologists predicting continued increase. This increase in average surface temperatures can also lead to more intense heat waves that can be exacerbated in urbanized areas by what is known as urban heat island effect. Additionally, the changing hydrograph caused by climate change could have a significant impact on the intensity, duration, and frequency of storm events. All of these impacts could have significant economic consequences.

With the increase in average ambient temperatures, since the 1980s, unusually cold temperatures have become less common in the contiguous 48 states. This trend is expected to continue, and the frequency of winter cold spells will likely decrease. As ambient temperatures increase, more water evaporates from land and water sources. The timing, frequency, duration, and type of precipitation events will be affected by these changes. In general, more precipitation will fall as rain rather than snow.

9.4 FUTURE DEVELOPMENT TRENDS

All future development will be affected by severe storms. The ability to withstand impacts lies in sound land use practices and consistent enforcement of codes and regulations for new construction. The County does have land use regulations in place, which includes implementation of the International Building Codes as well as additional land use authority. These codes are equipped to deal with the impacts of severe weather incidents by identifying construction standards which address wind speed, roof load capacity, elevation and setback restrictions.

While under the Growth Management Act public power utilities are required by law to supply safe, cost effective and equitable service to everyone in the service area requesting service, most lines in the area are above-ground, causing them to be more susceptible to high winds or other severe weather hazards. However, growth management is also a constraint, which could possibly lead to increased outages or even potential shortages, as while most new development expects access to

electricity, they do not want to be in close proximity to sub stations. The political difficulty in sighting these sub-stations makes it difficult for the utility to keep up with regional growth.

Land use policies currently in place, when coupled with informative risk data such as that established within this mitigation plan and such other projects like FEMA's new flood maps, will also address the severe weather hazard. With the land use tools currently in place, the County and its planning partners will be well-equipped to deal with future growth and the associated impacts of severe weather.

9.5 ISSUES

Important issues associated with a severe weather in the planning area include the following:

- Older building stock in the planning area is built to low code standards or none at all. These structures could be highly vulnerable to severe weather events such as windstorms.
- Redundancy of power supply must be evaluated and increased region-wide in order to more fully understand the vulnerabilities in this area.
- The capacity for backup power generation is limited and should be enhanced, especially in areas of potential isolation due to impact on major thoroughfares or evacuation routes.
- Isolated population centers exist.
- Climate change may increase the frequency and magnitude of winter flooding or storm surges, thus exacerbating severe winter events.
- Proximity to coastline enhances flooding potential through storm surges, as well as severe storms in general.

9.6 RESULTS

Based on review and analysis of the data, the Planning Team has determined that the probability for impact from a severe weather event throughout the area is highly likely. The area experiences some severe storm event annually, albeit not to the level of a disaster declaration, but nonetheless significant. While snow and ice do occur, impact historically has been somewhat limited. The more significant issue would be a severe storm which causes a landslide or flood event (particularly if occurring simultaneous with high-tide), isolating areas or blocking ingress and egress. Wind is also a significant factor, which can cause power outages. While the PUDs maintain excellent records for low incidents of long-term power outages, the possibility does exist. Based on the potential impact, the Planning Team determined the CPRI score to be 3.0, with overall vulnerability determined to be a high level.

CHAPTER 10. WILDFIRE

A wildfire is any uncontrolled fire occurring on undeveloped land that requires fire suppression. Wildfires can be ignited by lightning or by human activity such as smoking, campfires, equipment use, and arson. The wildfire season in Washington usually begins in April, picks up in early July, and generally ends in late September; however, wildfires have occurred every month of the year. Drought, snow pack, and local weather conditions can expand the length of the fire season.

People start most wildfires; major causes include arson, recreational fires that get out of control, smoker carelessness, debris burning, and children playing with fire. Wildfires started by lightning burn more state-protected acreage than any other cause. Fires during the early and late shoulders of the fire season usually are associated with human-caused fires; fires during the peak period of July, August and early September often are related to thunderstorms and lightning strikes.

As of this 2023 update, the County has applied for and is awaiting notification for a grant to develop a countywide CWPP. Should the award be received, the CWPP will take the place of the wildfire chapter of the HMP to reduce redundancy of effort as the CWPP will be much more encompassing.

10.1 GENERAL BACKGROUND

Wildland-Urban Interface Areas

The wildland urban-interface (WUI) is the area where development meets wildland areas. This can mean structures built in or near natural forests, or areas next to active timber and rangelands. The federal definition of a WUI community is an area where development densities are at least three residential, business, or public building structures per acre. For less developed areas, the wildland-intermix community has development densities of at least one structure per 40 acres.

In 2001, Congress mandated the establishment of a Federal Register which identifies all urban wildland interface communities within the vicinity of Federal lands, including Indian trust and restricted lands that are at high-risk from wildfire. The list assimilated information provided from States and Tribes, and is intended to identify those communities considered at risk. Review of the Federal Registry lists in excess of 10 communities within Mason County at high-risk within the vicinity of Federal lands.²²

When identifying areas of fire concern, in addition to the Federal Register, the Washington Department of Natural Resources and its federal partners, the U.S. Forest Service, also determine communities at risk based on fire behavior potential, fire protection capability, and risk to social, cultural and community resources. These risk factors include areas with fire history, the type and density of vegetative fuels, extreme weather conditions, topography, number and density of

²² <https://www.federalregister.gov/documents/2001/01/04/01-52/urban-wildland-interface-communities-within-the-vicinity-of-federal-lands-that-are-at-high-risk-from>

structures and their distance from fuels, location of municipal watersheds, and likely loss of housing or business. Based on these criteria, the wildfire risk for Mason County is illustrated in Figure 10-1 based on U.S. Forest Service analysis.

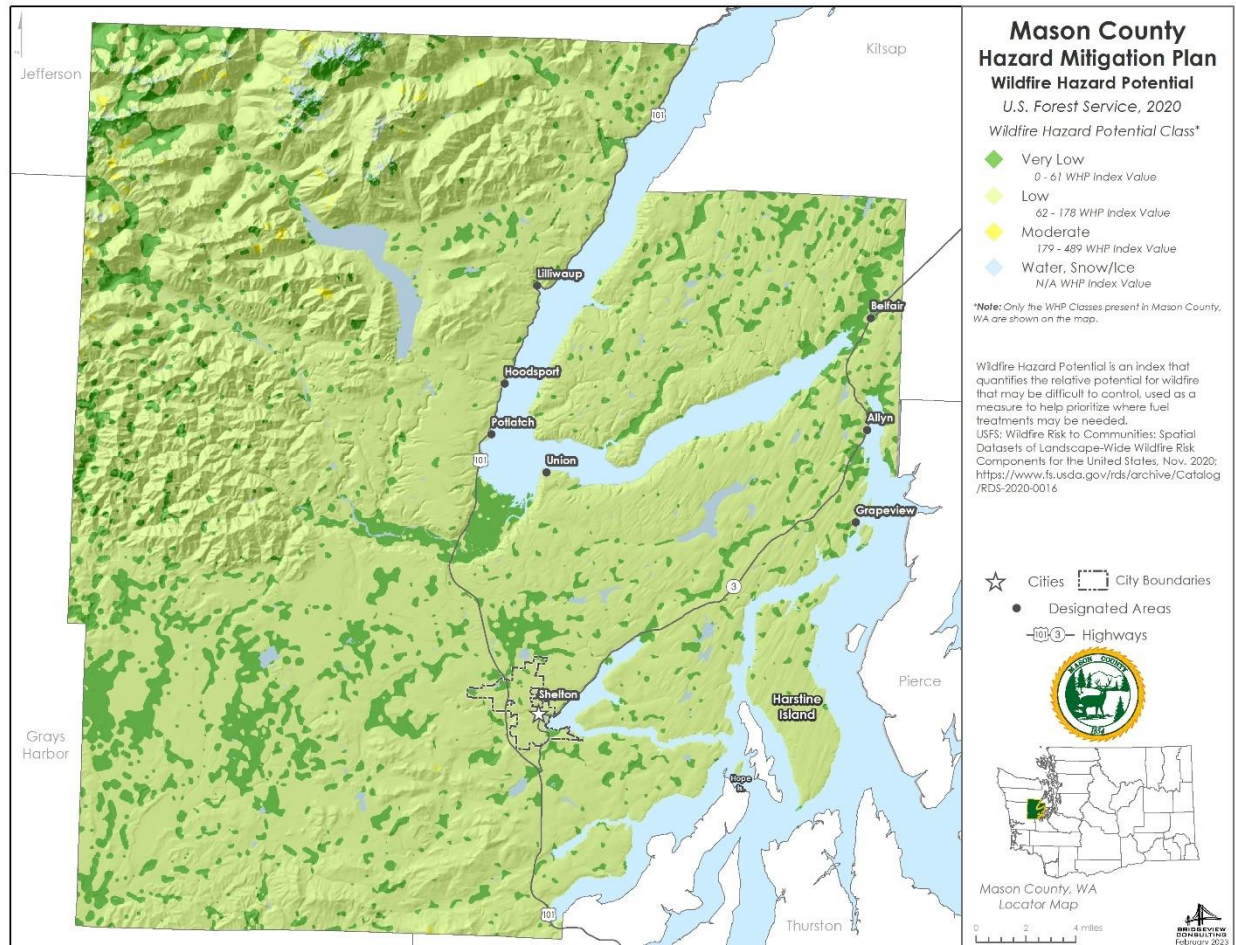


Figure 10-1 Wildfire Hazard Potential

The wildfire triangle (see Figure 10-2; DeSisto et al., 2009) is a simple graphic used in wildland firefighter training courses to illustrate how the environment affects fire behavior. Each point of the triangle represents one of three main factors that drive wildfire behavior: weather, vegetation type (which firefighters refer to as “fuels”), and topography. The sides represent the interplay between the factors. For example, drier and warmer weather combined with dense fuel loads (e.g., logging slash) and steeper slopes will cause more hazardous fire behavior than light fuels (e.g., short grass fields) on flat ground.

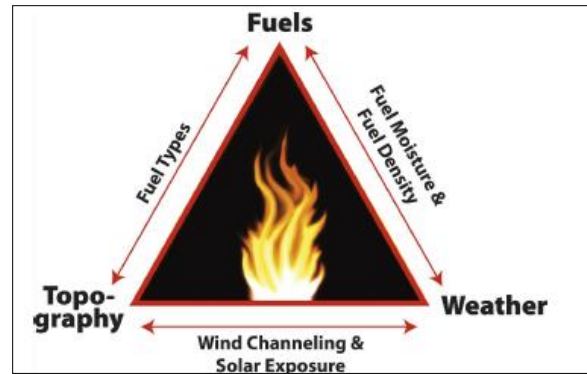


Figure 10-2 Wildfire Behavior Triangle

The following are key factors affecting wildfire behavior:

- **Fuel**—Lighter fuels such as grasses, leaves and needles quickly expel moisture and burn rapidly, while heavier fuels such as tree branches, logs and trunks take longer to warm and ignite. Snags and hazard trees—those that are diseased, dying, or dead—are larger but less prolific west of the Cascades than east of the Cascades. In 2002, about 1.8 million acres of the state’s 21 million acres of forestland contained trees killed or defoliated by forest insects and diseases.
- **Weather**— Relevant weather conditions include temperature, relative humidity, wind speed and direction, cloud cover, precipitation amount and duration, and the stability of the atmosphere. Of particular importance for wildfire activity are wind and thunderstorms:
 - Strong, dry winds produce extreme fire conditions. Such winds generally reach peak velocities during the night and early morning hours. East wind events can persist up to 48 hours, with wind speed reaching 60 miles per hour. Being a coastal community, the County experiences significant winds on a fairly regular basis during all times of the year.
 - The thunderstorm season typically begins in June with wet storms, and turns dry with little or no precipitation reaching the ground as the season progresses into July and August.
- **Topography**—Topography includes slope, elevation and aspect. The topography of a region influences the amount and moisture of fuel; the impact of weather conditions such as temperature and wind; potential barriers to fire spread, such as highways and lakes; and elevation and slope of land forms (fire spreads more easily uphill than downhill).
- **Time of Day**—A fire’s peak burning period generally is between 1 p.m. and 6 p.m.
- **Forest Practices**—In densely forested areas, stands of mixed conifer and hardwood stands that have experienced thinning or clear-cut provide an opportunity for rapidly spreading, high-intensity fires that are sustained until a break in fuel is encountered.

Fires can be categorized by their fuel types as follows:

- **Smoldering**—Involves the slow combustion of surface fuels without generating flame, spreading slowly and steadily. Smoldering fires can linger for days or weeks after flaring

has ceased, resulting in potential large quantities of fuel consumed. They heat the duff and mineral layers, affecting the roots, seeds, and plant stems in the ground. These are most common in peat bogs, but are not exclusive to that vegetation.

- **Crawling**—Surface fires that consume low-lying grass, forest litter and debris.
- **Ladder**—Fires that consume material between low-level vegetation or forest floor debris and tree canopies, such as small trees, low branches, vines, and invasive plants.
- **Crown**—Fires that consume low-level surface fuels, transition to ladder fuels, and also consume suspended materials at the canopy level. These fires can spread rapidly through the top of a forest canopy, burning entire trees, and can be extremely dangerous (sometimes referred to as a “Firestorm”).

Wildfires may spread by jumping or spotting, as burning materials are carried by wind or firestorm conditions. Burning materials can also jump over roadways, rivers, or even firebreaks and start distant fires. Updraft caused by large wildfire events draws air from surrounding area, and these self-generated winds can also lead to the phenomenon known as a firestorm.

10.1.1 Wildfire Impact

Short-term loss caused by a wildfire can include the destruction of timber, wildlife habitat, scenic vistas, and watersheds. Long-term effects include smaller timber harvests, reduced access to affected recreational areas, and destruction of cultural and economic resources and community infrastructure. Vulnerability to flooding increases due to the destruction of watersheds. The potential for significant damage to life and property exists in WUI areas, where development is adjacent to densely vegetated areas (DeSisto et al., 2009).

Forestlands in the planning area are susceptible to disturbances such as logging slash accumulation, forest debris due to weather damage, and periods of drought and high temperature. Forest debris from western red cedar, western hemlock, and Sitka spruce can be especially problematic and at risk to wildfires when slash is accumulated on the forest floor, because such debris resists deterioration. When ignited, these fuels can be explosive and serve as ladder fuels carrying fire from the surface to the canopy.

10.1.2 Identifying Wildfire Risk

Risk to communities is generally determined by the number, size and types of wildfires that have historically affected an area; topography; fuel and weather; suppression capability of local and regional resources; where and what types of structures are in the WUI; and what types of pre-fire mitigation activities have been completed. Identifying areas most at risk to fire or predicting the course a fire will take requires precise science. The following data sets are most useful in assessing risk in the area:

- **Topography (slope and aspect) and Vegetation (fire fuels)**—These are two of the most important factors driving wildfire behavior.
- **Weather**—Regional and microclimate variations can strongly influence wildfire behavior. Because of unique geographic features, weather can vary from one neighborhood to another, leading to very different wildfire behavior.

- **Critical Facilities/Asset Location**—A spatial inventory of assets—including homes, roads, fire stations, and natural resources that need protection—in relation to wildfire hazard helps prioritize protection and mitigation efforts.

10.1.3 Secondary Hazards

Wildfires can generate a range of secondary effects, which in some cases may cause more widespread and prolonged damage than the fire itself. Fires can cause direct economic losses in the reduction of harvestable timber and indirect economic losses in reduced tourism. Wildfires cause the contamination of reservoirs, destroy transmission lines and contribute to flooding. They strip slopes of vegetation, exposing them to greater amounts of runoff. This in turn can weaken soils and cause failures on slopes. Major landslides can occur several years after a wildfire. Most wildfires burn hot and for long durations that can bake soils, especially those high in clay content, thus increasing the imperviousness of the ground. This increases the runoff generated by storm events, thus increasing the chance of flooding.

10.2 HAZARD PROFILE

10.2.1 Extent and Location

Mason County has never received a state or federal disaster declaration for a fire event. Given its rural land use complexity and its proximity to the various large park systems (both federal and state), the entire region is susceptible to impact from wildfire, either as a direct result, or as a secondary result from health or economic impact.

10.2.2 Previous Occurrences

Wildfires have been a common occurrence throughout Washington as a whole for thousands of years. Evidence from tree rings or fire-scarred trees indicates cycles of prehistoric fires burned in many locations in both Eastern and Western Washington. Natural fire occurrence is directly related, but not proportional, to lightning incidence levels. It is rare for a summer to pass without at least one period of lightning activity. Lightning incidence is greatest during July and August, though storms capable of igniting fires have occurred from early spring to mid-October. Lightning storms generally track across the park in a southwest to northeast direction. At a national level, lightning starts over 4,000 house fires each year, which can ignite wildland fires through ember ignition and as a result of proximity to wildland areas. Lightning-caused fires cause over 10 times more acreage damage than human-caused fires, requiring great resource allocation.

Within Washington, lightning storms are typically followed by light to moderate amounts of precipitation. The rainfall may extinguish the fires, while high fuel moisture inhibits spread. However, prolonged periods of warm, dry weather, especially in combination with east winds, often reveal numerous latent “sleepers.” While most lightning fires are less than a quarter acre in size, occasional large fires during dry periods account for most of the burned acreage.

During the time period 2009-2021 (last full year of data available), Mason County as a whole had 850 wildfires occurring in the County (or for which the fire districts assisted with response since 2017), burning a total of ~2,006 acres. When averaged, that equates to ~71 fires per year occurring in the county and surrounding area. That figure does not reflect the recurrence interval for fires within the County, but rather an average calculation as to the number of wildland fires which have historically

occurred within the planning area during the periods reflected. For the period 2017-2021, those numbers also reflect mutual aid response provided to surrounding areas, and is indicative of the increase in fire response calls and the need for mutual aid.

Table 10-1 identifies the wildfires occurring within Mason County (or the surrounding areas) which have burned 5 acres or more, as well as the typing of fires. Table 10-2 identifies the total number of fires, regardless of size, and the total acres burned. Additional historic events are identified in Table 10-3.

Table 10-1			
Mason County Historic Fire Events 5 Acres or Greater			
Date	Name	Acres Burned	Complexity
7/7/2004	Island Shore Fire	10.4	4
4/25/2006	Razor Fire	5.6	4
7/24/06	Bear Gulch	1,050	2
8/29/2006	South Loop Fire	15	4
9/2/2006	Dewatto 2 Fire	61	2
9/7/2006	Pipeline 2 Fire	5	4
7/12/2007	Shelton Valley Rd. Fire	13	3
7/1/2007	Martin Road Fire	15	4
9/7/2008	East Cushman	10	4
8/2/2009	Eels Hill Road	13.2	4
8/25/2009	Vance Creek	16.3	3
8/15/2010	Richert Road	84.4	3
8/17/2011	Eells Hill	51.20	3
9/11/2012	School	10.4	4
9/12/2012	Carney Lake	5	4
9/26/2012	Powerline	9.3	4
10/4/2012	Powerline 2	229	2
8/10/2014	Mill 5	21	4
8/11/2014	Haven Lake	185	2
9/6/2014	Boyer Road	11	4

Table 10-1			
Mason County Historic Fire Events 5 Acres or Greater			
Date	Name	Acres Burned	Complexity
11/16/2014	WC 131	37	4
6/22/2015	Kamilche	5	4
7/31/2015	Deckerville	107	3
8/27/2015	Sunnyside	58	3
5/27/2016	Lynch Pit	7.1	4
8/13/18	Maple Fire (USFS Fire)	3,300	2
9/21/22	High Steel Fire	26	3

Table 10-2 Total Number Wildfire Events 2009-2021		
Year	Total Number of Wildland Fires	Total Acres Burned
2009	26	42.90
2010	17	91.31
2011	26	55.52
2012	42	262.94
2013	18	4.44
2014	33	261.77
2015	54	183.65
2016	53	25.8
2017*	40	15.51
2018*	76	170.09
2019*	150	207.8
2020*	161	484.24
2021*	154	199.98
Total	850	2,006
*Includes some incidents of fire response from the various Fire Districts within Mason County to areas outside of the county via mutual aid.		

Table 10-3 Additional Historic Wildfire Incidents	
8/1985	One of the largest fires in area history began with an illegal campfire caused the Beaver Fire just north of Staircase. Approximately 400 firefighters and 3 water-dumping helicopters fought the blaze. Smoke from the fire drifted at least 140 miles and over the Cascade Mountains creating a haze as far away as Wenatchee in Eastern Washington. Twenty backcountry hikers were evacuated from the Flapjacks Lakes area and another forty people in the area were taken out by park rangers supported by packhorses. The blaze charred over 1,000 acres and thousands of trees – some 200 to 300 years old – were destroyed. Only three minor injuries were reported among firefighters. The cost to fight the fire was over \$500,000.
9/1995	A blaze consumed 25 acres of logged land on Harstine Island and involved almost 150 firefighters and suppression support personnel costing \$135,000 to fight. Cause of fire was from a hunter's cigarette. The following day 36 acres of reforested land burned at Morrow Lake, an area south of Lake Nahwatzel. East winds pushed flames in the opposite direction from homes along the shore. The cost of fighting the fire was \$65,000. A total of 200 firefighters were involved in the two battles.

Table 10-3 Additional Historic Wildfire Incidents	
5/1997	The Lake Limerick fire, pushed by strong southwest winds, burned 594 acres, including 100 acres of wetlands, between Lake Limerick and Emerald Lake. The fire burned Christmas trees, slash, young replanted trees, wetland areas, and second growth Douglas fir trees. The cost of fighting the fire was approximately \$94,000. Firefighters from districts in Mason, Kitsap and Pierce Counties assisted the effort along with 70 Cedar Creek Correctional Center inmates. ~112 people from DNR and Cedar Creek completed the firelines. At the same time a second blaze consumed about 8 acres off Eagle Point Road.
7/2006	A wildfire burned from July to December, blackening a total of 1,085 acres on steep terrain in the Bear Gulch area, threatening the Lake Cushman community. Cost of fighting the fire was approximately \$1.8 million. US Forest Service Rd. was closed for about 1 year to prevent injuries from rock and debris slides. This road is the major access to the popular Staircase area and several summer homes located on the west side of Lake Cushman.

10.2.3 Severity

Potential losses from wildfire include human life, structures and other improvements, and natural resources. Smoke and air pollution from wildfires can be a health hazard, especially for sensitive populations such as children, the elderly and those with respiratory and cardiovascular diseases. Wildfire may also threaten the health and safety of those fighting the fires. Wildfire can lead to ancillary impacts such as landslides in steep ravine areas and flooding due to the impacts of silt in local watersheds. The destruction of forestlands can have a significant impact on salmon rearing for generations.

Extreme fires, when they occur, are characterized by more intense heat and preheating of surrounding fuels, stronger flame runs, potential tree crowning, increased likelihood of significant spot fires, and fire-induced weather (e.g., strong winds, lightning cells). Extreme fire behavior is significantly more difficult to combat and suppress, and can drastically increase the threat to homes and communities. Several factors contribute to the severity of a fire, most of which are utilized when completing a Community Wildfire Protection Plan (CWPP), and developing a component based hazard ranking.

Due to years of fire suppression, logging, and other human activities, the forests and rangelands have changed. Areas that historically experienced frequent, low-severity wildfires now burn with much greater intensity due to the build-up of understory brush and trees. At times, this equates to fires which are larger and more severe, killing the trees and vegetation at all levels. The combination of steep slopes, canyons, open rangeland, and fuel type have a history and potential for fast moving and fast spreading wildfires.

The Mason County planning area is vulnerable to wind-driven fires, whose embers could ignite grasses and weeds, and cause spot fires in more populated areas. Typical summer conditions could prove to be problematic due to a fire moving uphill from a structure fire on a lower slope, or from a wildland fire pushing upslope through the trees on a windy day, endangering multiple homes simultaneously in a very short period of time. Residents would have very short notice of an approaching fire.

Review of historic wildfires in the County demonstrate there are several different causes, the most common being debris burning and recreational-related fires.

10.2.4 Frequency

As previously indicated, none of Washington State's most significant wildfires have occurred in Mason County, although smaller fires have occurred in the region annually. Fires historically burn on a regular cycle, recycling carbon and nutrients stored in the ecosystem, and strongly affecting species within the ecosystem. The burning cycle in western Washington is approximately every 100 to 150 years.

Historically, drought patterns are related to large-scale climate patterns in the Pacific and Atlantic oceans. The El Niño–Southern Oscillation varies on a 5- to 7-year cycle, the Pacific Decadal Oscillation varies on a 20- to 30-year cycle, and the Atlantic Multidecadal Oscillation varies on a 65- to 80-year cycle. As these large-scale ocean climate patterns vary in relation to each other, drought conditions in the U.S. shift from region to region. El Niño years bring drier conditions to the Pacific Northwest and more fires.

Historic Fire Regime

Many ecosystems are adapted to historical patterns of fire. These patterns, called “fire regimes,” include temporal attributes (e.g., frequency and seasonality), spatial attributes (e.g., size and spatial complexity), and magnitude attributes (e.g., intensity and severity), each of which have ranges of natural variability. A fire regime refers to the frequency and intensity of natural fires occurring in various ecosystem types. Alterations of historical fire regimes and vegetation dynamics have occurred in many landscapes in the U.S., including Mason County through the combined influence of land management practices, fire exclusion, insect and disease outbreaks, climate change, and the invasion of non-native plant species. Anthropogenic influences on wildfire occurrence have been witnessed through arson, incidental ignition from industry (e.g., logging, railroad, sporting activities), and other factors. Likewise, wildfire abatement practices have reduced the spread of wildfires after ignition. This has reduced the risk to both the ecosystem and the urban populations living in or near forestlands, such as portions of Mason County.

The LANDFIRE Project produces maps of simulated historical fire regimes and vegetation conditions using the LANDSUM landscape succession and disturbance dynamics model. The LANDFIRE Project also produces maps of current vegetation and measurements of current vegetation departure from simulated historical reference conditions. These maps support fire and landscape management planning outlined in the goals of the National Fire Plan, Federal Wildland Fire Management Policy, and the Healthy Forests Restoration Act. The simulated historical mean fire return interval data layer quantifies the average number of years between fires under the presumed historical fire regime. This data is derived from simulations using LANDSUM. LANDSUM simulates fire dynamics as a function of vegetation dynamics, topography, and spatial context, in addition to variability introduced by dynamic wind direction and speed, frequency of extremely dry years, and landscape-level fire characteristics. The historical fire regime groups simulated in LANDFIRE categorize mean fire return interval and fire severities into five regimes defined in the Interagency Fire Regime Condition Class Guidebook:

- Regime 1: 0-35-year frequency, low to mixed severity

- Regime II: 0-35-year frequency, replacement severity
- Regime III: 35-200-year frequency, low to mixed severity
- Regime IV: 35 -200-year frequency, replacement severity
- Regime V: 200+ year frequency, any severity

Large wildfires have historically been infrequent in the coastal regions of the Pacific Northwest. While 269 fires have occurred in the planning area since 2009, due to firefighting efforts, many have been contained with limited impact on acreage burned (~928 acres). Fire regimes in Mason County are illustrated in Figure 10-3. It should be noted that not all regime classes fall within the county boundary.

The Mean Fire Return Interval (MFRI) layer quantifies the average period between fires under the presumed historical fire regime. MFRI is intended to describe one component of historical fire regime characteristics. As illustrated, the average Mean Fire Return Interval for the majority of Mason County is every 70-100 years.

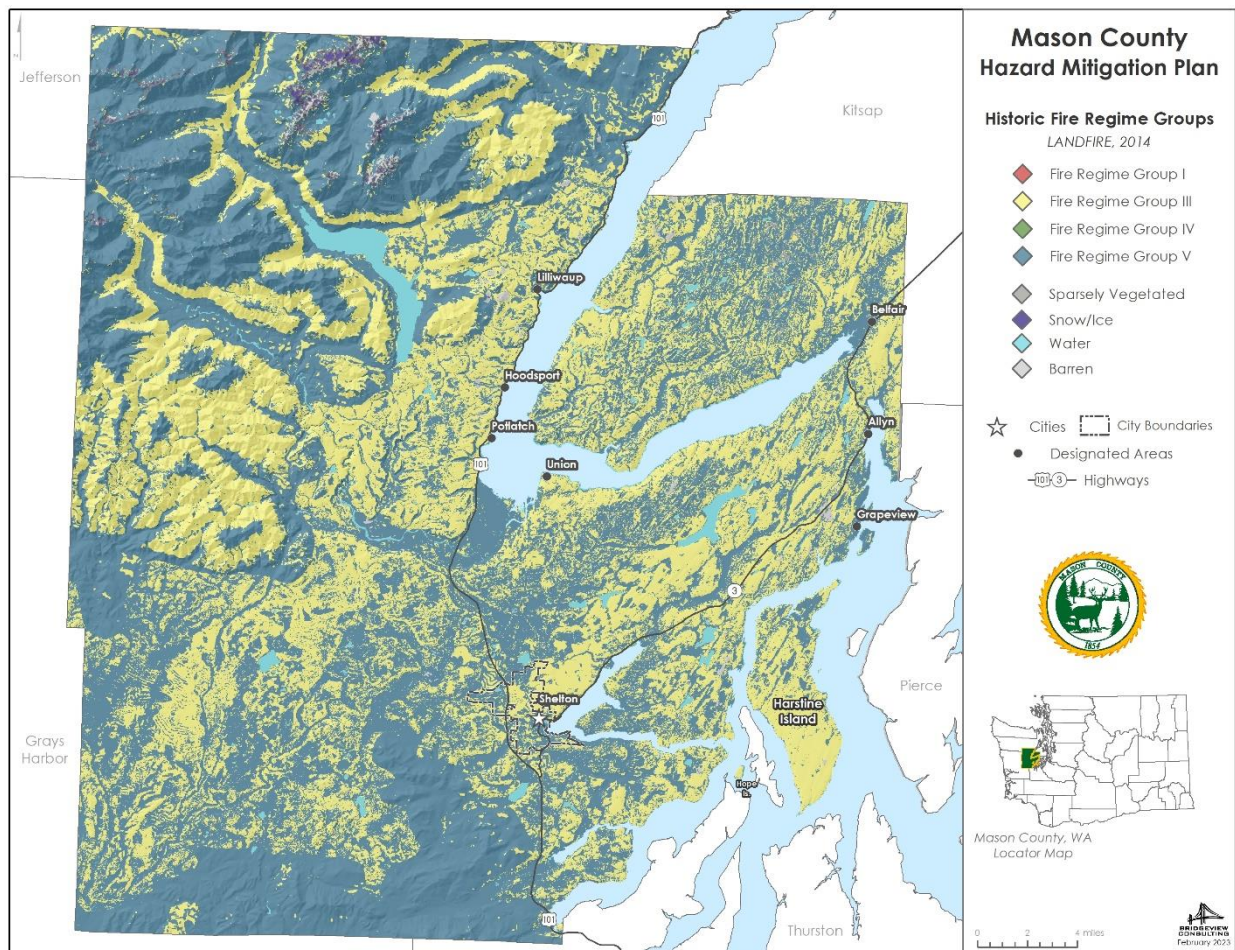


Figure 10-3 LANDFIRE Fire Regimes in Mason County

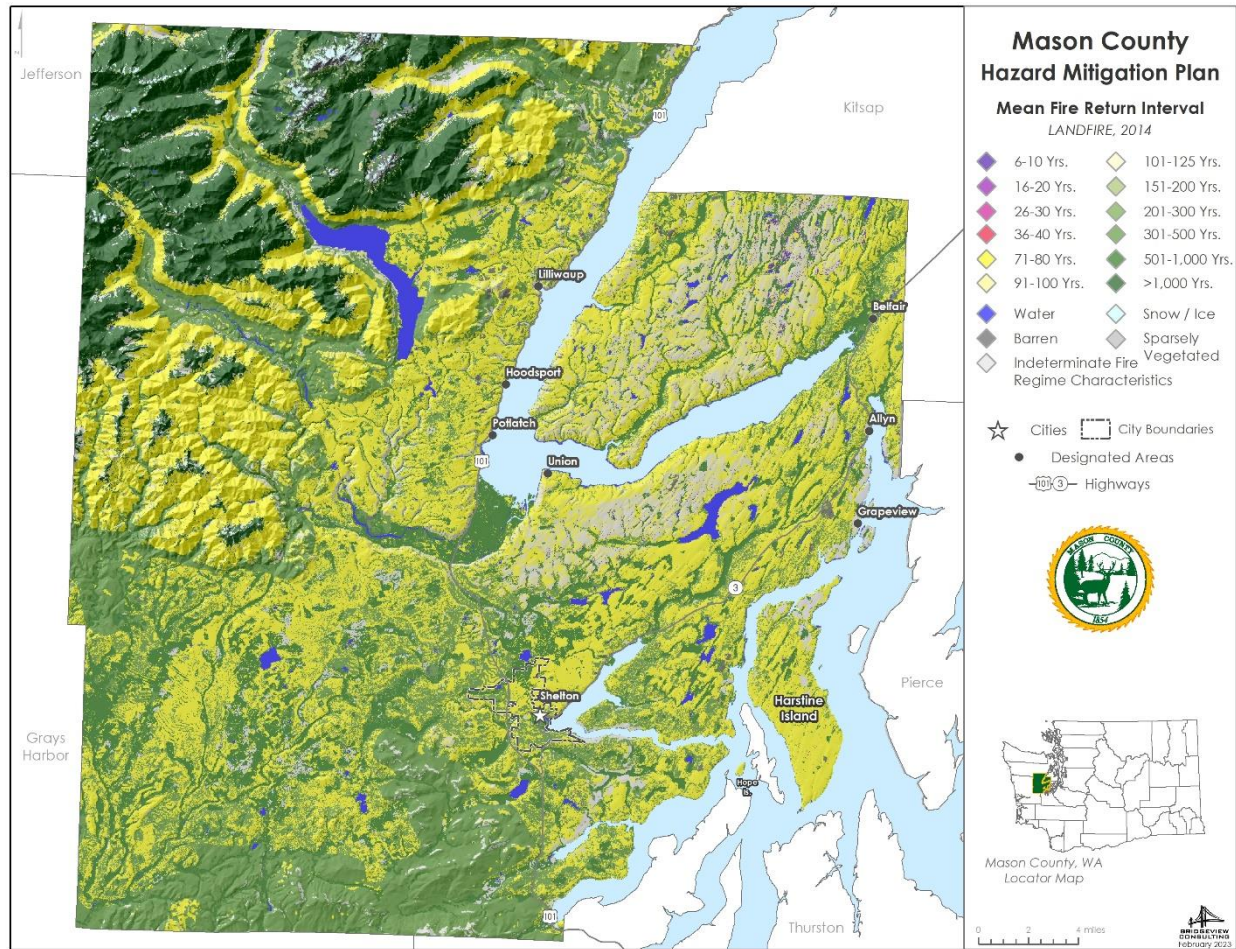


Figure 10-4 Mean Fire Return Interval

10.3 VULNERABILITY ASSESSMENT

10.3.1 Overview

Structures, above-ground infrastructure, critical facilities and natural environments are all vulnerable to the wildfire hazard. Understanding the relationship between weather, potential fire activity, and geographical features enhances the ability to prepare for the potential of wildfire events. This knowledge, when paired with emergency planning and appropriate mitigation measures, creates a safer environment.

Wildfire studies can analyze weather data to assist firefighters in understanding the relationship between weather patterns and potential fire behavior. Fire forecasting examines similarities between historical fire weather and existing weather and climate values. These studies have determined that for areas such as Mason County, any combination of two of the following factors can create more intense and potentially destructive fire behavior, known as extreme fire behavior:

- Sustained winds from the east
- Relative humidity less than 40 percent

- Temperature greater than 72° Fahrenheit
- Periods without precipitation greater than 14 days in duration
- 1,000-hour fuel moisture less than 17 percent.

If a fire breaks out and spreads rapidly, residents may need to evacuate within a short timeframe. A fire's peak burning period generally is between 1 p.m. and 6 p.m. In normal situations, fire alerting would commence quickly, helping to reduce the risk. However, in more remote locations of the County, or in areas where cell phone services are sporadic at times, warning time and calls for assistance may be reduced.

Warning Time

Wildfires are often caused by humans, intentionally or accidentally. There is no way to predict when one might break out. Since fireworks often cause brush fires, extra diligence is warranted around the Fourth of July when the use of fireworks is highest. Dry seasons and droughts are factors that greatly increase fire likelihood. Dry lightning may trigger wildfires. Severe weather can be predicted, so special attention can be paid during weather events that may include lightning. Reliable National Weather Service lightning warnings are available on average 24 to 48 hours prior to a significant electrical storm.

10.3.2 Impact on Life Health & Safety

Exposure to wildfire in Mason County is dependent upon many factors. The maps used in the analysis show areas of relative importance in determining fire risk, though they do not provide sufficient data for a statistical estimation of exposed population.

While there are no recorded fatalities from wildfire in the planning area, a statistical number of the population vulnerable to impact from fire is impossible to determine with any accuracy, due to the high number of variables that impact fire scenarios. The population at risk must also take into consideration tourists given the County's proximity to the parklands and other Washington high-tourist destinations. With its relatively high tourism rate, especially during summer months, there is an increase in the population vulnerability to fire. Given the increase in tourism during the summer months, when fire danger is at its greatest, increased consideration must be taken into account for fire response.

Smoke and air pollution from wildfires can be a severe health hazard, especially for sensitive populations, including children, the elderly and those with respiratory and cardiovascular diseases. Mason County has a high population of retirees and individuals over 65, further increasing the potential impact on the fire hazard. Smoke generated by wildfire consists of visible and invisible emissions that contain particulate matter (soot, tar, water vapor, and minerals), gases (carbon monoxide, carbon dioxide, nitrogen oxides), and toxics (formaldehyde, benzene). Emissions from wildfires depend on the type of fuel, the moisture content of the fuel, the efficiency (or temperature) of combustion, and the weather. Public health impacts associated with wildfire include difficulty in breathing, odor, and reduction in visibility. Wildfire also threatens the health and safety of those fighting fires. First responders are exposed to the dangers from the initial incident and after-effects from smoke inhalation and heat stroke. The county does have a high number of elderly citizens.

10.3.3 Impact on Property

Property damage from wildfires can be severe and can significantly alter entire communities. The potential exposure of the structures in the County should a fire occur is high, depending on the area, with the unincorporated county and the City of Shelton all having some degree of exposure to wildfire hazards. Some of the area fire districts are also volunteer, increasing the response times.

Density and the age of building stock in Mason County are contributing factors in assessing property vulnerability to wildfire. Many of the buildings in the planning area are of significant age, with many being constructed with wood frames and shingle roofs. Most do not have sprinkler systems. Table 10-4 identifies the acres within each fire regime group. Not all regimes fall within the County.

Table 10-4										
LANDFIRE - Fire Regime Group Acres within Jurisdiction's Boundary										
<i>Jurisdiction</i>	<i>Regime 1</i>	<i>Regime 2</i>	<i>Regime 3</i>	<i>Regime 4</i>	<i>Regime 5</i>	<i>Indeterminate Fire Regime Characteristics</i>	<i>Sparsely Vegetated</i>	<i>Snow/Ice</i>	<i>Barren</i>	<i>Water</i>
Mason County, WA	0.0	0.0	253,397.2	0.4	351,419.5	1,517.9	107.8	2,033.8	3,941.4	10,667.3
Unincorporated Mason Co.	0.0	0.0	249,819.7	0.4	347,767.3	1,510.5	107.8	2,033.2	3,904.7	10,425.8
City of Shelton	0.0	0.0	1,655.6	0.0	2,028.4	2.5	0.0	0.0	3.5	46.0
Town of Allyn	0.0	0.0	575.2	0.0	525.2	0.9	0.0	0.0	3.0	54.6
Town of Belfair	0.0	0.0	1,283.0	0.0	980.3	2.6	0.0	0.0	4.9	21.0

10.3.4 Impact on Critical Facilities and Infrastructure

Critical facilities of wood frame construction are especially vulnerable during wildfire events. In the event of wildfire, there would likely be little damage to most infrastructure. Most roads and railroads would be without damage except in the worst scenarios. Fueling stations could be significantly impacted, as could other structures maintaining hazardous materials. During a wildfire event, hazardous material storage containers could rupture due to excessive heat and act as fuel for the fire, causing rapid spreading and escalating the fire to unmanageable levels. In addition the materials could leak into surrounding areas, saturating soils and seeping into surface waters, having a disastrous effect on the environment. Power lines are also significantly at risk from wildfire because most poles are made of wood and susceptible to burning. Fires can create conditions that block or prevent access and can isolate residents and emergency service providers. Wildfire in Mason County could also impact wood-structured bridges, piers, and docks, which are utilized to moor watercraft, launch search and rescue vessels, dam safety inspections, shellfish harvesting, fishing vessels, or other private boats associated with tourism. Table 10-5 identifies critical facilities exposed to the wildfire hazard.

Table 10-5 Critical Facilities and Infrastructure Exposed to Fire Regime Areas				
	Regime 1	Regime 3	Regime 4*	Regime 5
Medical and Health Services	0	1	0	0
Government Function	0	2	0	17
Protective Function	0	14	0	25
Hazmat	0	4	0	0
Other Critical Function	0	0	0	3
Water	0	9	0	7
Wastewater	0	14	0	12
Power	0	13	0	8
Communications	0	1	0	2
Total	0	58	0	74

*There is no Regime 2 in the County. There are no structures located in Regime 4.

10.3.5 Impact on Economy

Wildfire impact on the economy can be far reaching, ranging from damage to transportation routes to non-use of park facilities and campsites impacting tourism, to loss of structures influencing tax base from lost revenue. Fire within the County could also impact timber harvesting, as well as other agricultural businesses. Taylor Shellfish, a major employer within the county distributing shellfish nationwide, could also be impacted by both primary and secondary impacts to wildfire. Disruption of major thoroughfares in the area could impact distribution of goods. Secondary hazards associated with wildfire, such as environmental impact, or increased landslides and flooding potential, would further impact the economy.

10.3.6 Impact on Environment

Fire is a natural and critical ecosystem process in most terrestrial ecosystems, dictating in part the types, structure, and spatial extent of native vegetation. However, wildfires can cause severe environmental impacts:

- **Damaged Fisheries**—Critical fisheries can suffer from increased water temperatures, sedimentation, and changes in water quality.
- **Soil Erosion**—The protective covering provided by foliage and dead organic matter is removed, leaving the soil fully exposed to wind and water erosion. Accelerated soil erosion occurs, causing landslides and threatening aquatic habitats.
- **Spread of Invasive Plant Species**—Non-native woody plant species frequently invade burned areas. When weeds become established, they can dominate the plant cover over broad landscapes, and become difficult and costly to control.
- **Disease and Insect Infestations**—Unless diseased or insect-infested trees are swiftly removed, infestations and disease can spread to healthy forests and private lands. Timely active management actions are needed to remove diseased or infested trees.

- **Destroyed Endangered Species Habitat**—Catastrophic fires can have devastating consequences for endangered species.
- **Soil Sterilization**—Topsoil exposed to extreme heat can become water repellant, and soil nutrients may be lost. It can take decades or even centuries for ecosystems to recover from a fire. Some fires burn so hot that they can sterilize the soil.

10.3.7 Impacts from Climate Change

Fire in western ecosystems is determined by climate variability, local topography, and human intervention. Climate change has the potential to affect multiple elements of the wildfire system: fire behavior, ignitions, fire management, and vegetation fuels. Hot dry spells create the highest fire risk. Increased temperatures may intensify wildfire danger by warming and drying out vegetation. When climate alters fuel loads and fuel moisture, forest susceptibility to wildfires changes. Climate change also may increase winds that spread fires. Faster fires are harder to contain, and thus are more likely to expand into residential neighborhoods.

Historically, drought patterns in the West are related to large-scale climate patterns in the Pacific and Atlantic oceans. The El Niño–Southern Oscillation in the Pacific varies on a 5- to 7-year cycle, the Pacific Decadal Oscillation varies on a 20- to 30-year cycle, and the Atlantic Multidecadal Oscillation varies on a 65- to 80-year cycle. As these large-scale ocean climate patterns vary in relation to each other, drought conditions in the U.S. shift from region to region. El Niño years bring drier conditions to the Pacific Northwest and more fires.

Climate scenarios project summer temperature increases between 2°C and 5°C and precipitation decreases of up to 15 percent. Such conditions would exacerbate summer drought and further promote high-elevation wildfires, releasing stores of carbon and further contributing to the buildup of greenhouse gases. Forest response to increased atmospheric carbon dioxide—the so-called “fertilization effect”—could also contribute to more tree growth and, thus, more fuel for fires, but the effects of carbon dioxide on mature forests are still largely unknown. High carbon dioxide levels should enhance tree recovery after fire and young forest regrowth, as long as sufficient nutrients and soil moisture are available, although the latter is in question for many parts of the western United States because of climate change.

10.4 FUTURE DEVELOPMENT TRENDS

The County is optimistic that increased population growth will continue to occur throughout the region. As areas of the County become more urbanized, the potential exists that the fire risk may increase as urbanization tends to alter the natural fire regime, and the growth will expand the urbanized areas into undeveloped wildland areas. However, the County feels that this expansion of the wildland-urban interface can be managed with strong land use and building codes. A growing body of research suggests that “the only effective home protection treatment is treatment in, on, and around the house (see Figure 10-5); homeowners must be responsible for protecting that property” (Nowicki 2001, p. 1:3). U.S. Forest Service research scientist, Jack Cohen has stated that “home ignitions are not likely unless flames and firebrand ignitions occur within 40 meters [131 feet] of the structure; the WUI fire loss problem primarily depends on the home and its immediate site.”

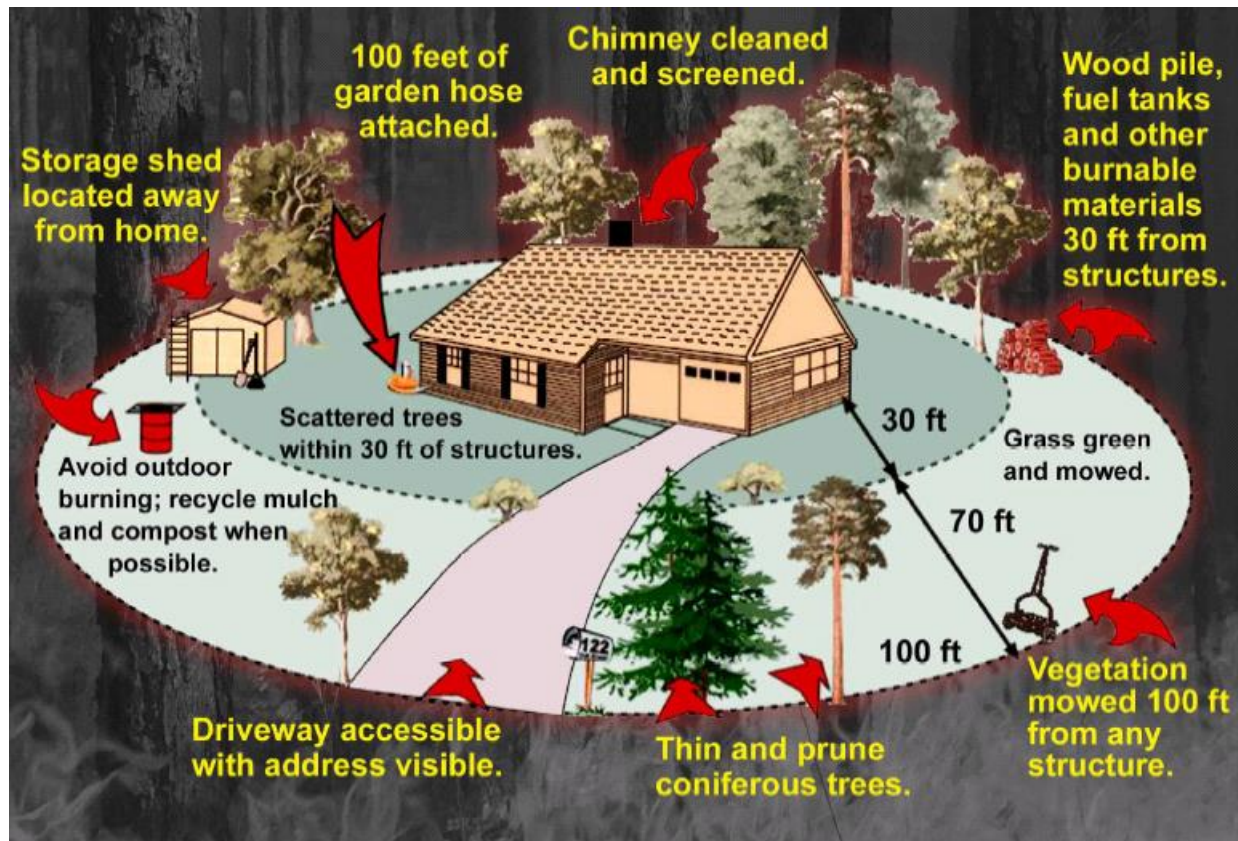


Figure 10-5 Measures to Protect Homes from Wildfire

10.5 ISSUES

The major issues for wildfire in Mason County are the following:

- Public education and outreach to people living in or near the fire hazard zones should include information about and assistance with mitigation activities such as defensible space, and advance identification of evacuation routes and safe zones.
- Wildfires could cause landslides as a secondary natural hazard.
- Climate change will affect the wildfire hazard.
- Future growth into interface areas should continue to be managed.
- Vegetation management activities should include enhancement through expansion of target areas as well as additional resources.
- Building code standards need to be enhanced, including items such as residential sprinkler requirements and prohibitive combustible roof standards.
- Increased fire department water supply is needed in high-risk wildfire areas.
- Obtain and maintain certifications and qualifications for fire department personnel. Ensure that firefighters are trained in basic wildfire behavior, basic fire weather, and that company officers and chief level officers are trained in the wildland command and strike team leader level.

A worst-case scenario would include an active fire season throughout the American west, spreading resources thin. Firefighting teams would be exhausted or unavailable. Many federal assets would be responding to other fires that started earlier in the season. While local fire districts would be extremely useful in the urban interface areas, they have limited wildfire capabilities or experience, and they would have a difficult time responding to the ignition zones. Even though the existence and spread of the fire is known, it may not be possible to respond to it adequately, so an initially manageable fire can become out of control before resources are dispatched.

To further complicate the problem, heavy rains could follow, causing flooding and landslides and releasing tons of sediment into rivers, permanently changing floodplains and damaging sensitive habitat and riparian areas. Such a fire followed by rain could release millions of cubic yards of sediment into streams for years, creating new floodplains and changing existing ones. With the forests removed from the watershed, stream flows could easily double. Flood that could be expected every 50 years may occur every couple of years. With the streambeds unable to carry the increased discharge because of increased sediment, the floodplains and the flood elevations would increase.

10.6 RESULTS

Based on review and analysis of the data, the Planning Team has determined that the probability for impact from Wildfire throughout the area is likely, but the impact is more limited with respect to geographic extent. The area experiences some level of wildfire almost annually, but the acreage burned has, thankfully, been more limited in nature due in large part to response activities.

Construction into the wildfire hazard areas undoubtedly will continue to expand, thereby increasing the risk of fires. Implementation of mitigation strategies which help reduce wildfire risk, such as landscaping regulations and mandatory sprinkler systems, could potentially help reduce the number of structures at risk. Based on the potential impact, the Planning Team determined the CPRI score to be 2.60, with overall vulnerability determined to be a medium level.

CHAPTER 11. HAZARD RANKING

11.1 CALCULATED PRIORITY RISK INDEX

In ranking the hazards, the Planning Team completed a Calculated Priority Risk Index (CPRI) worksheet for each hazard identified below. The index examines five criteria for each hazard as discussed in Chapter 4 (probability, magnitude/severity, extent/location, warning time, and duration), defines a risk index for each according to four levels, then applies a weighting factor. The result is a score that has been used to rank the hazards at the County level. All planning partners also completed their own hazard rankings, using the same process. Table 11-1 presents the results of the CPRI scoring for hazards Countywide. Table 11-2 is a summary of the hazard ranking for the jurisdiction planning partners. Figures 11-1 through Figure 11-6 are the CPRI worksheets for each planning partner, illustrating the vulnerabilities to each hazard of concern, as well as their hazard ranking as established in the methodology identified in Chapter 4.

Table 11-1 Countywide Calculated Priority Risk Index Ranking Scores						
Hazard	Probability	Magnitude and/or Severity	Extent and Location	Warning Time	Duration	Calculated Priority Risk Index Score
Climate Change	3	2	2	1	4	2.4
Drought	3	2	3	1	4	2.6
Earthquake	4	3	4	4	1	3.6
Flood	4	3	3	2	2	3.25
Landslide	4	2	2	4	1	2.95
Severe Weather	4	3	3	2	2	3.25
Wildfire	3	2	2	4	2	2.6
The CPRI scoring method has a range from 0 to 4. "0" being the least hazardous and "4" being the highest.						

Table 11-2
Hazard Ranking Summary

Hazard	County		City of Shelton		PUD 1		PUD 3		FD 16		CMFE		FD 4	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Climate Change	5	2.4	7	1.15	4	2.45	4	2.45	7	1.15	6	3.1	7	1.15
Drought	4	2.6	6	2.2	6	2.15	5	2.15	6	2.2	7	2.05	6	2.2
Earthquake	1	3.6	3	3.05	1	3.4	1	3.4	4	3.6	3	3.55	1	3.6
Flood	2	3.25	4	2.9	3	2.8	3	2.8	2	3.7	4	2.4	4	2.9
Landslide	3	2.95	5	2.45	5	2.15	5	2.15	5	2.45	5	2.9	5	2.45
Severe Weather	2	3.25	1	3.5	2	3.0	2	3	1	3.5	2	2.35	2	3.5
Wildfire	4	2.6	2	3.1	6	2.15	5	2.15	3	3.1	1	3.1	3	3.1

11.1.1 Calculated Priority Rate Index

CPRI Category	Degree of Risk			Assigned Weighting Factor
	Impact/Level ID	Description	Impact Factor	
Probability	Unlikely	<ul style="list-style-type: none"> Rare with no documented history of occurrences or events. Annual probability of less than 1% (~100 years or more). 	1	40%
	Possible	<ul style="list-style-type: none"> Infrequent occurrences; at least one documented or anecdotal historic event. Annual probability that is between 1% and 10% (~10 years or more). 	2	
	Likely	<ul style="list-style-type: none"> Frequent occurrences with at least two or more documented historic events. Annual probability that is between 10% and 90% (~10 years or less). 	3	
	Highly Likely	<ul style="list-style-type: none"> Common events with a well-documented history of occurrence. Annual probability of occurring. (1% chance or 100% Annually). 	4	
Magnitude/Severity	Negligible	<ul style="list-style-type: none"> People – Injuries and illnesses are treatable with first aid; minimal hospital impact; no deaths. Negligible impact to quality of life. Property – Less than 5% of critical facilities and infrastructure impacted and only for a short duration (less than 24-36 hours such as for a snow event); no loss of facilities, with only very minor damage/clean-up. Economy – Negligible economic impact. Continuity of government operating at 90% of normal operations with only slight modifications due to diversion of normal work for short-term response activity. Disruption lasts no more than 24-36 hours. Special Purpose Districts: No Functional Downtime. 	1	25%
	Limited	<ul style="list-style-type: none"> People – Injuries or illness predominantly minor in nature and do not result in permanent disability; some increased calls for service at hospitals; no deaths; 14% or less of the population impacted. Moderate impact to quality of life. Property – Slight property damage -greater than 5% and less than 25% of critical and non-critical facilities and infrastructure. Economy – Impact associated with loss property tax base limited; impact results primarily from lost revenue/tax base from businesses shut down during duration of event and short-term cleanup; increased calls for emergency services result in increased wages. Continuity of government impacted slightly; 80% of normal operations; most essential services being provided. Disruption lasts >36 hours, but <1 week. Special Purpose Districts: Functional downtime 179 days or less. 	2	
	Critical	<ul style="list-style-type: none"> People – Injuries or illness results in some permanent disability or significant injury; hospital calls for service increased significantly; no deaths. 25% to 49% of the population impacted. Property – Moderate property damages (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). Economy - Moderate impact as a result of critical and non-critical facilities and infrastructure impact, loss of revenue associated with tax base, lost income. Continuity of government ~50% operational capacity; limited delivery of essential services. Services interrupted for more than 1 week, but <1 month. Special Purpose Districts: Functional downtime 180-364 days. 	3	
	Catastrophic	<ul style="list-style-type: none"> People - Injuries or illnesses result in permanent disability and death to a significant amount of the population exposed to a hazard. >50% of the population impacted. Property – Severe property damage >50% of critical facilities and non-critical facilities and infrastructure impacted. Economy – Significant impact - loss of buildings /content, inventory, lost revenue, lost income. Continuity of government significantly impacted; limited services provided (life safety and mandated measures only). Services disrupted for > than 1 month. Special Purpose Districts: Functional Downtime 365 days or more. 	4	
Geographic Extent and Location	Limited	Less than 10% of area impacted.	1	20%
	Moderate	10%-24% of area impacted.	2	
	Significant	25%-49% of area impacted.	3	
	Extensive	50% or more of area impacted.	4	
Warning Time / Speed of Onset	<6 hours	Self-explanatory.	4	10%
	6 to 12 hours	Self-explanatory.	3	
	12 to 24 hours	Self-explanatory.	2	
	> 24 hours	Self-explanatory.	1	
Duration	< 6 hours	Self-explanatory.	1	5%
	< 24 hours	Self-explanatory.	2	
	<1 week	Self-explanatory.	3	
	>1 week	Self-explanatory.	4	

Hazard	Probability				Magnitude/Severity				Geographic Extent and Location				Warning Time				Duration				CPRI Score
	Unlikely / Low (1)	Possible / Medium (2)	Likely / High (3)	Highly Likely / Very High (4)	Negligible (1)	Limited (2)	Critical (3)	Catastrophic (4)	Negligible (1)	Limited (2)	Significant (3)	Extensive (4)	< 6 hours (4)	6 - 12 hours (3)	12 - 24 hours (2)	> 24 hours (1)	< 6 hours (1)	< 24 hours (2)	< 1 week (3)	> 1 week (4)	
Climate Change	1				1				1							1				4	1.15
Drought		2				2					3					1				4	2.20
Earthquake				4			3					4	4				1				3.60
Flood*			3				3				3				2				3		2.90
Landslides		2					3			2			4					2			2.45
Severe Weather				4			3					4			2				3		3.50
Wildfire			3				3				3		4						3		3.10
Other Hazards of Concern																					0.00
																					0.00
																					0.00
																					0.00
																					0.00
																					0.00
*Includes Dams																					0.00

Figure 11-1 Fire District #4

Hazard	Probability				Magnitude/Severity				Geographic Extent and Location				Warning Time				Duration				CPRI Score
	Unlikely / Low (1)	Possible / Medium (2)	Likely / High (3)	Highly Likely / Very High (4)	Negligible (1)	Limited (2)	Critical (3)	Catastrophic (4)	Negligible (1)	Limited (2)	Significant (3)	Extensive (4)	< 6 hours (4)	6 - 12 hours (3)	12 - 24 hours (2)	> 24 hours (1)	< 6 hours (1)	< 24 hours (2)	< 1 week (3)	> 1 week (4)	
Climate Change	1				1				1							1				4	1.15
Drought		2				2					3					1				4	2.20
Earthquake				4			3					4	4				1				3.60
Flood*				4				4				4			2				3		3.75
Landslides		2					3			2			4					2			2.45
Severe Weather				4			3					4			2				3		3.50
Wildfire			3				3				3		4						3		3.10
Other Hazards of Concern																					0.00
																					0.00
																					0.00
																					0.00
																					0.00
*Includes Dams																					0.00

Figure 11-2 Fire District #16

Hazard	Probability				Magnitude/Severity				Geographic Extent and Location				Warning Time				Duration				CPRI Score
	Unlikely / Low (1)	Possible / Medium (2)	Likely / High (3)	Highly Likely / Very High (4)	Negligible (1)	Limited (2)	Critical (3)	Catastrophic (4)	Negligible (1)	Limited (2)	Significant (3)	Extensive (4)	< 6 hours (4)	6 - 12 hours (3)	12 - 24 hours (2)	> 24 hours (1)	< 6 hours (1)	< 24 hours (2)	< 1 week (3)	> 1 week (4)	
Climate Change				4		2					3				2					4	3.10
Drought		2				2				2					2				3		2.05
Earthquake				4			3				3		4							4	3.55
Flood*		2				2					3			3						4	2.40
Landslides			3				3			2			4						3		2.90
Severe Weather			3			2				2						1			3		2.35
Wildfire			3				3				3		4						3		3.10
Other Hazards of Concern		2				2				2				2					3		2.05
																					0.00
																					0.00
																					0.00
																					0.00
*Includes Dams																					0.00

Figure 11-3 Central Mason Fire & EMS

Hazard	Probability				Magnitude/Severity				Geographic Extent and Location				Warning Time				Duration				CPRI Score
	Unlikely / Low (1)	Possible / Medium (2)	Likely / High (3)	Highly Likely / Very High (4)	Negligible (1)	Limited (2)	Critical (3)	Catastrophic (4)	Negligible (1)	Limited (2)	Significant (3)	Extensive (4)	< 6 hours (4)	6 - 12 hours (3)	12 - 24 hours (2)	> 24 hours (1)	< 6 hours (1)	< 24 hours (2)	< 1 week (3)	> 1 week (4)	
Climate Change	1				1				1							1				4	1.15
Drought		2				2					3					1				4	2.20
Earthquake		2						4				4	4				1				3.05
Flood*			3				3				3				2				3		2.90
Landslides		2					3			2			4					2			2.45
Severe Weather				4			3					4			2				3		3.50
Wildfire			3				3				3		4						3		3.10
Other Hazards of Concern																					0.00
																					0.00
																					0.00
																					0.00
																					0.00
*Includes Dams																					0.00

Figure 11-4 City of Shelton

Hazard	Probability				Magnitude/Severity				Geographic Extent and Location				Warning Time				Duration				CPRI Score
	Unlikely / Low (1)	Possible / Medium (2)	Likely / High (3)	Highly Likely / Very High (4)	Negligible (1)	Limited (2)	Critical (3)	Catastrophic (4)	Negligible (1)	Limited (2)	Significant (3)	Extensive (4)	< 6 hours (4)	6 - 12 hours (3)	12 - 24 hours (2)	> 24 hours (1)	< 6 hours (1)	< 24 hours (2)	< 1 week (3)	> 1 week (4)	
Climate Change		2					3				3					1				4	2.45
Drought		2				2				2				3					3		2.15
Earthquake			3					4			3		4							4	3.40
Flood*				4		2				2						1				4	2.80
Landslides		2				2				2				3				3			2.15
Severe Weather				4		2					3					1				4	3.00
Wildfire		2				2				2				3				3			2.15
Other Hazards of Concern																					0.00
																					0.00
																					0.00
																					0.00
																					0.00
																					0.00
*Includes Dams																					0.00

Figure 11-5 PUD 1

Hazard	Probability				Magnitude/Severity				Geographic Extent and Location				Warning Time				Duration				CPRI Score
	Unlikely / Low (1)	Possible / Medium (2)	Likely / High (3)	Highly Likely / Very High (4)	Negligible (1)	Limited (2)	Critical (3)	Catastrophic (4)	Negligible (1)	Limited (2)	Significant (3)	Extensive (4)	< 6 hours (4)	6 - 12 hours (3)	12 - 24 hours (2)	> 24 hours (1)	< 6 hours (1)	< 24 hours (2)	< 1 week (3)	> 1 week (4)	
Climate Change		2					3				3					1				4	2.45
Drought		2				2				2				3					3		2.15
Earthquake			3					4			3		4							4	3.40
Flood*				4		2				2						1				4	2.80
Landslides		2				2				2				3				3			2.15
Severe Weather				4		2					3					1				4	3.00
Wildfire		2				2				2				3				3			2.15
																					0.00
																					0.00
*Includes Dams																					0.00

Figure 11-6 PUD 3

11.2 SOCIAL VULNERABILITY

Once the hazard ranking was completed, the Planning Team then conducted a Social Vulnerability Assessment for those priority hazards identified in Table 11-1 and Table 11-2. Several different assessments were completed with respect to social vulnerability, including data contained within the Community Profile section (Chapter 3), within each hazard profile, within the various tables in this section, and a qualitative assignment based on the CPRI analysis.

When determining risk, it is significant to remember that risk is measured by not only the hazard, but also on how resilient a population is, or will be during the hazard. Resilience is influenced by many factors, including: age or income; available social networks, and neighborhood characteristics, all of which can be used to measure the social vulnerability of the area and its citizens. Factors that contribute to the level of vulnerability of a population are associated with four areas of impact, which, in part, are utilized within this assessment with a few modifications to the original study, as indicated:

- Socioeconomic status:
 - Below Poverty Level
 - Employment Status
 - Income level
 - No High School Diploma
- Household composition:
 - Age 65 or older

- Age 5 or younger
- Disability
- Single Parent Households
- Minority Status and Language:
 - Minority – race or ethnicity
 - Language barrier (Speak English “Less than Well”)
- Housing/transportation:
 - Multi-Unit Structures, including Group Quarters
 - Mobile Homes
 - Crowding
 - No Vehicle

The purpose of the classifications is to better understand whose needs are not being addressed through traditional service providers or who cannot safely access and use the standard resources offered for disaster preparedness, relief and recovery. Special focus on these groups during emergency situations is crucial because not only are they more likely to be impacted by an event, but they are many times also less likely to recover. As this planning process expands over the next five years, the County intends to expand this section to include data for all vulnerable classifications.

11.2.1 Classifications

Socioeconomic status considers things such as income, poverty, employment status, and education level. Those who are economically disadvantaged will be affected by an event more significantly. The monetary value of their possessions may be less, but they represent a larger proportion of total household assets. These groups are less likely to have renters or homeowner’s insurance, so their possession will be costlier to replace, and individuals are less likely to evacuate in order to ensure the protection of their belongings. In the event of injury or death, those who are unemployed will not have the benefits or the income to assist with costs for recovery. In addition, in most cases, the poor lack the assets and the resources to prepare for a disaster in advance, and once impacted, to recover.

Household composition and disability grouping is comprised of age (under the age of 5 and above 65), single parent homes, and any disability. These groups are more likely to need financial support, transportation, medical care, or assistance with daily activities during disasters. The elderly and the younger children often lack resources, knowledge, or life experiences to effectively address the situation and cannot protect themselves. Elderly living alone, and people with physical, sensory, or cognitive challenges are vulnerable during an incident. These groups often need a higher level of assistance than others, and may have caretakers who are less able to assist during a crisis if those caretakers have families of their own. This places a heavier burden on medical and first responders.

Minority status and language includes race, ethnicity, and proficiency of the English language. The social and economic marginalization of certain racial and ethnic groups have made these populations more likely to be vulnerable at all stages, and are automatically associated with a higher vulnerability rate. Many citizens are not fluent in English, which makes providing them with real time information difficult. Because Spanish is the most prominent second language, there are often translators

available, and many times emergency notifications are provided in Spanish; however, those who speak other languages are at greater risk if notifications are not provided in the appropriate languages. These groups often rely on family, friends, neighbors and social media for information.

Housing and transportation considers the structure of the home (e.g., building codes, age of structure), crowding, and access to vehicles or public transportation. The quality of the housing is crucial when calculating vulnerability. Economically disadvantaged often live in poorly constructed houses or mobile homes which may not be designed to withstand storms events, ice/snow loads, wind, earthquakes, or flooding. Mobile homes are often located in places without easy access to transportation, are in cluster communities, and many times not secured to a foundation, all of which increase vulnerability. Multi-unit housing in densely populated areas are difficult to evacuate due to limited amounts of space and crowding. Urban areas often have a lower automobile ownership rate, especially in the lower income areas, which make evacuations more challenging. Despite the lower proportion of people with vehicles, urban areas often have to deal with congestion on highways and major roads because of crowding. Group quarters are another housing situation that cause concern during evacuations, especially nursing homes and long-term care facilities because many institutions are unprepared to quickly remove staff and residents, and as with private group/independent living homes, the data that such facilities exist is not publicly known and/or identified.

All of these factors contribute to a community's social vulnerability which impacts all phases of emergency management, and should be taken into consideration in various planning efforts. Table 11-3 identifies those factors and classifications which contribute to a community's social vulnerability identified by the percent of special population within the County utilizing U.S. Census data, augmented with County-specific data where available.

Also occurring during this update period, the County conducted its annual Point in Time homeless census count on January 27, 2023. Those numbers showed that the current count of 477 respondents was nearly double 2022's numbers, which recorded 254 individuals. In an effort to address homelessness, Mason County Community Services administers funding dollars to impacted citizens for housing and homelessness. Those funds are received annually from various sources, including the local document recording fees, Consolidated Homeless Grant, and Housing and Essential Needs Grant.

Review of Washington State Department of Health's website also identifies social vulnerability throughout Mason County based on the same indices utilized by the planning team, which was originally developed by the CDC. The intent of the data is to provide information to emergency management groups for use during emergency situations, including response planning of emergencies. The data, when applied, allows a more accurate response based on the demographics and vulnerabilities of a specific community. Figure 11-7 identifies the various ranking for Mason County as identified by DOH. Reviewers wishing more information can access the data at: [Information by Location | Washington Tracking Network \(WTN\)](#)

Table 11-3 Vulnerable Populations	
Population Group	Percent of Total Population
Households Children 5 and Under	5
Populations 65 and Older	23.7
Population In Poverty	13
Language Other Than English*	8.1
With a disability under age 65	13.7
Households No Vehicles	5
Households No Telephone	2
Percent Housing Units Mobile Homes	18
*The County has interpretation services in over 250 languages, which are available to assist with translation of emergency notifications and information.	
Sources: Based on 2020 US Census and Washington State Office of Financial Management Data.	

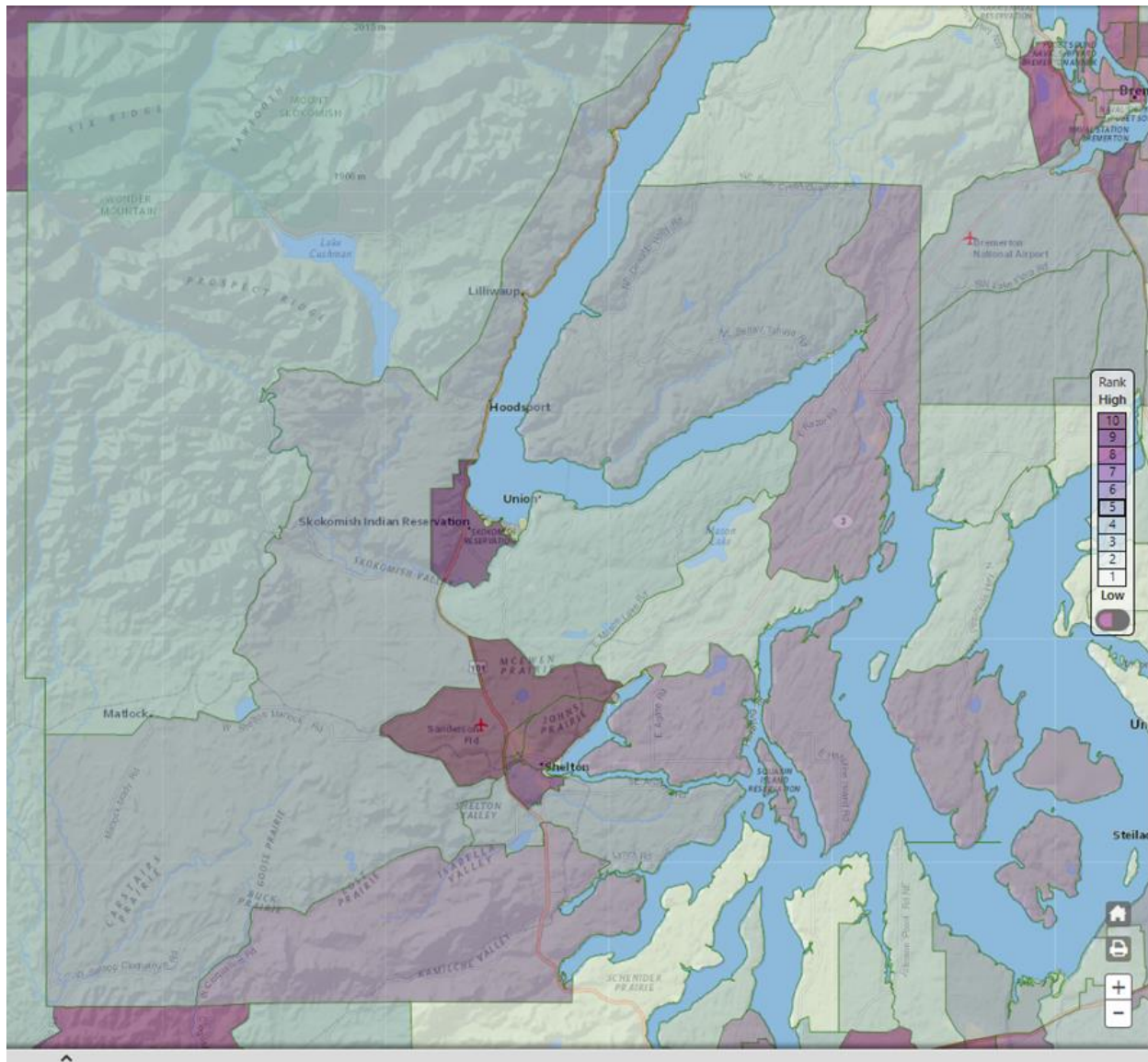


Figure 11-7 Washington State Department of Health Social Vulnerability Index

11.2.2 Results and Discussion

Based on the classifications identified, the Planning Team performed its assessment to help identify issues and concerns, conducting a qualitative assessment combining the value of the CPRI, and summarizing the potential impact based on past occurrences, spatial extent, and subjective damage and casualty potential. Those items were categorized into the following levels:

- Extremely Low—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- Low—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.

- Medium—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- High—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- Extremely High—Very widespread with catastrophic impact.

Table 11-4 identifies the results of this assessment.

Table 11-4
Vulnerability Overview

Hazard	Synopsis of Potential Impact	Population Groups Impacted (By Group Type)						Level of Impact High, Medium, Low	Summarized Extent and Location	
		Business	Children	Disabled	Elders	Families	Low Income			
Climate Change	Climate change is measured in terms of impact on other hazards. Impact varies, but can include physical drought conditions, water shortage, increased flood incidents, or increased wildfire danger.	X	X	X	X	X	X	X	Medium	Climate change itself customarily does not impact structures; however, the entire population and natural resources of the area will be impacted by climate change.
Drought	<p>Drought is typically measured in terms of water availability in a geographic area, and is not a sudden-onset hazard, allowing some preparation.</p> <p>Socioeconomic droughts occur when physical water shortage begins to affect people, individually and collectively.</p> <p>Social impacts mainly involve public safety, health, reduced quality of life, and inequities in the distribution of impacts and disaster relief. Many impacts identified as economic and/or environmental also have a social component. During warm seasons, water suppliers are often faced with more demand for water than they are able to distribute. This may lead to rationing and curtailment, with business that rely heavily on water usage suffering financially.</p> <p>Most socioeconomic definitions of drought associate it with supply, demand, and economic goods.</p>	X	X	X	X	X	X	X	Medium	Drought customarily does not impact structures, but would adversely impact people, resources, and aqua- and agri-cultural businesses (among others) within the area. Therefore, all populations would be susceptible, although the degree would be determined by the severity of the drought in place, the availability of water, increased fire danger and response times, and the economic impact from water-dependent industries.

Table 11-4
Vulnerability Overview

Hazard	Synopsis of Potential Impact	Population Groups Impacted (By Group Type)							Level of Impact High, Medium, Low	Summarized Extent and Location
		Business	Children	Disabled	Elders	Families	Low Income	Language		
Earthquake	<p>Older structures (pre ~1970) have high probability of collapse due to building code standards;</p> <p>Non-English speakers may have issues gaining hazard information for preparedness.</p> <p>Low-income individuals may not be able to stockpile supplies or medications.</p> <p>Elderly populations are vulnerable due to health issues, the lack of physical strength to extricate themselves, etc.</p> <p>Businesses many times do not carry insurance which will help them recover from losses.</p>	X	X	X	X	X	X	X	High	<p>Many structures in the area were built pre-1970, when lower codes were in place, making the structures more vulnerable to collapse, increasing the potential for injury.</p> <p>Also of concern with earthquake are landslides and slope stability. Stability in the area could be significantly undermined. The majority of the entire area is susceptible to the impacts from an earthquake to some degree.</p> <p>Older structures would be more susceptible to collapse during shaking, increasing the number and degree of injuries. Elderly and young would be susceptible because of the decreased ability to survive injury, and the decreased ability to physically extract themselves from debris if buried beneath collapsed structures.</p>

Table 11-4
Vulnerability Overview

Hazard	Synopsis of Potential Impact	Population Groups Impacted (By Group Type)						Level of Impact High, Medium, Low	Summarized Extent and Location
		Business	Children	Disabled	Elders	Families	Low Income		
Landslide	The probability for impact from Landslide is more limited with respect to geographic extent. The area experiences some level of landslides almost annually. The coastal bluff areas, and areas within the unincorporated areas of the County have identifiable landslide risk. While there are areas where no landslide risk, landslides can occur on fairly low slopes, and areas with no slopes can be impacted by slides at a distance. Construction in critical areas, which includes geologically sensitive areas such as landslide areas, is regulated; however, beyond the structural impact, secondary impact to infrastructure causing isolation or commodity shortages also has the potential to impact the region.	X	X	X	X	X	X	High	A significant portion of the planning area has some level of susceptibility to landslides, especially along the major roadways in the County. As such, evacuation in the area could be impacted by a landslide event. With the increased risk factor during the rainy season, a landslide could occur anywhere in the county where soils can become saturated. This could impact the ability of citizens to leave areas where flooding occurs, or evacuate after a major earthquake if a landslide has blocked major arterials. This could also impact responders accessing areas. Vulnerable populations would be less likely to be able to evacuate, increasing their risk.

Table 11-4
Vulnerability Overview

Hazard	Synopsis of Potential Impact	Population Groups Impacted (By Group Type)							Level of Impact High, Medium, Low	Summarized Extent and Location
		Business	Children	Disabled	Elders	Families	Low Income	Language		
Flood	<p>Year of construction will influence the building code and the height to which the structures were built when compared to the Base Flood Elevation.</p> <p>In most instances, weather patterns which cause flooding are identified in advance, allowing pre-planning for evacuation, thereby potentially reducing the individuals at risk.</p> <p>Individuals without homeowner's insurance which covers flooding may suffer extreme financial risk.</p> <p>Businesses impacted many times do not carry insurance which will help them recover from losses. In many instances, those businesses do not return to the area because they cannot overcome the financial loss.</p>	X	X	X	X	X	X	X	High	<p>Flooding in the area has been significant, especially within the Skokomish basin and the City of Shelton.</p> <p>Flooding in the area has also impacted transportation, causing roadways to be blocked, and causing landslides which also block major arterials. This has caused issues with evacuation in certain areas.</p> <p>All areas within the floodplain would be vulnerable. Given the higher-than-average population of elderly and young, the level of vulnerability is higher than when compared to other areas.</p> <p>The County also has increased populations from visitors who frequent tourism destinations in the area such as the Olympic National Forest, and the large campgrounds in the area where the dams are situated.</p> <p>For planning purposes, a significant increase in seasonal population in the area should be considered to include annual volumes of tourists and residents with vacation homes.</p>

Table 11-4
Vulnerability Overview

Hazard	Synopsis of Potential Impact	Population Groups Impacted (By Group Type)							Level of Impact High, Medium, Low	Summarized Extent and Location
		Business	Children	Disabled	Elders	Families	Low Income	Language		
Severe Weather – inclusive of heat, cold, wind, snow, ice, hail, Thunder-storm, lightening	<p>Severe weather occurs regularly throughout the planning area. In most instances, weather patterns are forecasted in advance, allowing for preparation.</p> <p>Individuals with lower income may not have the ability to stock supplies, nor afford the cost of increased energy costs for both heating or cooling, depending on the weather event.</p> <p>In snow or ice conditions, secondary impacts from driving or shoveling snow increases the risk of impact.</p> <p>Elderly and young children are especially susceptible to ice and heat conditions.</p> <p>Lighting strikes also occur throughout the planning area, although in a limited capacity. In densely wooded areas, such as the Olympic National Forest, fires could go un-noticed for a period of time, allowing the fire to gain strength and severity, especially during drought situations. Lightning risk also increases due to the large waterbodies in the area, and the time it takes for boaters to get to safety. The area also has a number of golf courses, which are open and provide little cover from lightning strikes.</p>	X	X	X	X	X	X	X	High	<p>The entire region is susceptible to severe weather incidents, including impact to people, property, and the environment.</p> <p>Incidents of some nature and degree occur annually. Depending on the type of event, roadways may be impassible. Significant power outages do not occur often, and do not customarily last for a long period of time. However, when coupled with cold conditions, the impact to vulnerable populations increases.</p> <p>With extreme heat events, physical manifestation on the young and elderly rise. In addition, the increased fire danger impacts the entire area.</p>

Table 11-4
Vulnerability Overview

Hazard	Synopsis of Potential Impact	Population Groups Impacted (By Group Type)							Level of Impact High, Medium, Low	Summarized Extent and Location
		Business	Children	Disabled	Elders	Families	Low Income	Language		
Wildfire	<p>Impact from wildfires has increased over time due to effective suppression tactics. This has now caused fires to burn with greater intensity, with the traditional fire regimes being modified.</p> <p>Embers from wildfires can be carried significant distances (miles). With climate change impacting drought conditions, the potential for wildfire increases as moisture content is depleted.</p> <p>Lightning strikes and people are the major causes of wildfires, which can spread very quickly, leaving little to no time to evacuate.</p> <p>Individuals with access and functional needs, the young and elderly are at greater risk due to their potential dependence on others to assist with evacuation.</p> <p>Individuals, including the young and elderly, with health concerns are impacted significantly by smoke. Increased rates of death due to smoke is not uncommon.</p>	X	X	X	X	X	X	X	Medium	<p>Wildfire danger can impact the entire planning area; however, there has been limited impact to date. The various Fire Regimes do identify areas of higher levels of risk, although wildfires can occur in any area with vegetation. Not all Fire Regimes exist in the area.</p> <p>Due to the wind patterns in the area, including the shift of winds during afternoon hours, embers have the potential to travel great distances (miles) and ignite fires in areas which are densely wooded. In some instances, these fires can burn for periods of time, going un-noticed until ignition consumes a large area, making containment difficult.</p> <p>Elderly, young and individuals with breathing/health issues are more vulnerable due to smoke and particulates.</p> <p>Language may also be a barrier for non-English speaking populations due to the inability to understand evacuation orders, which can be very short-notice.</p>

CHAPTER 12.

MITIGATION STRATEGY

The development of a mitigation strategy allows the community to create a vision for preventing future disasters. This is accomplished by establishing a common set of mitigation goals and objectives, a common method to prioritize actions, and evaluation of the success of such actions. Specific mitigation goals, objectives and projects were developed for Mason County and its planning partners by the Planning Team in their attempt to establish an overall mitigation strategy by which the jurisdictions would enhance resiliency of the planning area.

12.1 HAZARD MITIGATION GOALS AND OBJECTIVES

During the December 2022 Kick-Off Meeting, the Planning Team reviewed the 2018 existing goals. For the 2023 update, the planning team used the existing goals as written, with no modifications. The planning team felt that the goals as written support the countywide effort of enhanced capabilities which support resilience through protection of life, property, the economy and the environment. The goals as written accurately describe the overall direction that Mason County and its planning partners can take to work toward mitigating risk from natural hazards and avoid long-term vulnerabilities to the hazards of concern.

12.1.1 Goals

Goals for the 2023 Hazard Mitigation Plan are as follows:

1. Reduce or prevent hazard-related injuries or loss of life, as well as reducing impact to property, the environment, and the economy.
2. Encourage the development and implementation of multi-objective opportunities and long-term, cost-effective, and environmentally sound mitigation projects and initiatives.
3. Enhance community capabilities and resilience through proactive measures, increased public awareness, and readiness.
4. Promote disaster-resistant and resilient communities by leveraging public and private partnering opportunities.

12.1.2 Objectives

During the Kick-Off Meeting, the planning team confirmed the objectives for the 2023 Hazard Mitigation Plan as presented in Table 12-1.

Table 12-1
Objectives 2023

Objective Number	Objective Statement	Applicable Goals
O-1	Acquire (purchase), retrofit, or relocate structures in high hazard areas.	1, 2, 3, 4,
O-2	Encourage open space uses in hazardous areas or ensure that if building occurs in these high-risk areas that it is done in such a way as to minimize risk.	1, 2, 3, 4
O-3	Use best available data, science, and technologies to improve understanding of location and potential impacts of hazards, and to promote disaster resilient communities that minimize risk.	1, 2, 3, 4,
O-4	Consider the impacts of natural hazards in all planning mechanisms that address current and future land use.	1, 2, 3, 4
O-5	Increase resilience and the continuity of operations of identified critical facilities throughout the County.	1, 2, 3, 4
O-6	Continue established partnerships among the County Government and business leaders within surrounding area to improve and implement methods to protect life, property, and the environment, while enhancing government and business continuity within the planning area.	1, 2, 3, 4
O-7	Enhance community capabilities to prepare for, protect from, respond to, recover from, and mitigate the impact of hazards.	3
O-8	Encourage the development and implementation of long-term, cost-effective and environmentally sound mitigation projects by encouraging use of incentives.	1, 2, 3
O-9	Develop or improve emergency warning response and communication systems and evacuation procedures.	1, 3
O-10	Provide/improve fire protection activities through various means, including: public education and outreach activities, defensible space, fire-resistant landscaping, spatial distribution of development, fuel treatment activities, and enhanced water supply systems where appropriate and feasible.	1, 2, 3, 4
O-11	Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes, while preserving and maintaining the environmental elements of the planning area.	2, 3

12.2 IDENTIFICATION AND ANALYSIS OF MITIGATION ACTION ITEMS

After the goals and objectives were established, the planning team developed specific mitigation initiatives / action items to further increase resilience. FEMA defines mitigation initiatives as sustained measures, which if enacted, will reduce or eliminate the long-term risk from hazards. Whether by preparing citizens for disasters, training responders, or structural infrastructure protection, the actions ultimately should help protect our citizens, and enhance social and economic recovery during such times when disasters do strike.

FEMA identifies four categories of actions that constitute natural hazard mitigation, which become the core competencies for developing an effective mitigation program. Those categories, divided further into hard or soft mitigation initiatives, include:

- 1) Local planning and regulations (soft mitigation);
- 2) Education and awareness programs (soft mitigation);
- 3) Structural or infrastructure projects (hard mitigation); and
- 4) Natural systems protection (hard mitigation).

These competencies allow organizations to assess mitigation efforts, and where lacking, develop processes, programs, rules, regulations, and standards on which to enhance resilience when considering the hazards of concern, and their potential impact on a community. In an effort to help develop sound mitigation initiatives for this update, FEMA's 2013 catalog of *Mitigation Ideas* was presented to the planning team. This document includes a broad range of alternatives to be considered for use in the planning area, in compliance with 44 CFR (Section 201.6.c.3.ii), and can be applied to both existing structures and new construction. The catalog provides a baseline of mitigation alternatives that are backed by a planning process, are consistent with the planning partners' goals and objectives, and are within the capabilities of the partners to implement. It presents alternatives that are categorized in two ways:

- By what the alternative would do:
 - Manipulate a hazard
 - Reduce exposure to a hazard
 - Reduce vulnerability to a hazard
 - Increase the ability to respond to or be prepared for a hazard
- By who would have responsibility for implementation:
 - Individuals
 - Businesses
 - Government.

Hazard mitigation initiatives recommended in this plan were selected from among the alternatives presented in the catalogs, as well as projects identified by the planning partners and interested stakeholders specific to their jurisdiction. Some were carried over from the previous plan. Some may not be feasible based on the selection criteria identified for this plan, but are included nonetheless as the planning team felt they are viable actions to be taken to reduce hazard influence in some manner.

12.3 MITIGATION INITIATIVES AND 2023 ACTION PLAN STATUS

For the 2023 update, particular attention was given to new and existing buildings and infrastructure, and developing appropriate mitigation strategies for these facilities. The planning team determined that some initiatives from FEMA's Mitigation Catalog could be implemented to provide hazard mitigation benefits countywide. The 2018 plan contained two separate tables were developed; one for countywide initiatives (Table 12-2) and one for county-specific initiatives (Table 12-3).

For this 2023 update, Tables 12-2 and Table 12-3 remain current with a column added to provide the 2023 status of the 2018 effort, identifying the strategy as *Completed*, *Carried Forward* (still a relevant project), or *Removed* (no longer relevant, or completed and therefore removed). A brief synopsis is also provided beneath the identified strategy. New strategies identified during the 2023 update process are incorporated and designated as NEW.

Of the 24 identified countywide initiatives from the 2018 plan, none were removed, but some were modified slightly based on work performed on the strategy, or new information/guidance becoming available. All of the county-specific strategies carried forward to the 2023 update, and remain valid projects.

12.4 ANALYSIS OF MITIGATION INITIATIVES

In addition to identifying potential funding sources available for each project, the Planning Team also developed strategies/action items that are categorized and assessed in several ways:

- By what the alternative would impact – new or existing structures, to include efforts which:
 - Manipulate/mitigate a hazard;
 - Reduce exposure to a hazard;
 - Reduce vulnerability to a hazard;
- By who would have responsibility for implementation:
 - Individuals;
 - Businesses;
 - Government (Tribal, County, Local, State and/or Federal);
- By the timeline associated with completion of the project, based on the following parameters:
 - Short Term = to be completed in 1 to 5 years;
 - Long Term = to be completed in greater than 5 years;
 - Ongoing = currently being funded and implemented under existing programs;
- By who benefits from the initiative, as follows:
 - A specific structure or facility;
 - A local community;
 - County-level efforts;
 - Regional level benefits.
- By Community Lifelines potentially mitigated. (For this 2023 update, this analysis was included only at the County level, as all planning partners felt their mitigation action items targeted all lifelines).
 - Safety and Security

- Food, Water, Shelter
- Health and Medical
- Energy (Power & Fuel)
- Communications
- Transportation
- Hazardous Materials

12.5 CRS ANALYSIS OF MITIGATION INITIATIVES

Each Planning Partner further reviewed its recommended initiatives to classify them based on the hazard it addresses and the type of mitigation it involves. This analysis incorporated, among others, the Community Rating System scale, identifying each mitigation action item by type. Mitigation types used for this categorization are as follows.

- **Prevention** – Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. This includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Public Information and Education** – Public information campaigns or activities which inform citizens and elected officials about hazards and ways to mitigate them – a public education or awareness campaign, including efforts such as: real estate disclosure, hazard information centers, and school-age and adult education, all of which bring awareness of the hazards of concern.
- **Structural Projects** —Efforts taken to secure against acts of terrorism, manmade, or natural disasters. Types of projects include levees, reservoirs, channel improvements, or barricades which stop vehicles from approaching structures to protect.
- **Property Protection** – Actions taken that protect the properties. Types of efforts include: structural retrofit, property acquisition, elevation, relocation, insurance, storm shutters, shatter-resistant glass, sediment and erosion control, stream corridor restoration, etc. Protection can be at the individual homeowner level, or a service provided by police, fire, emergency management, or other public safety entities.
- **Emergency Services / Response** —Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities (e.g., sandbagging).
- **Natural Resource Protection** – Wetlands and floodplain protection, natural and beneficial uses of the floodplain, and best management practices. These include actions that preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- **Recovery** —Actions that involve the construction or re-construction of structures in such a way as to reduce the impact of a hazard, or that assist in rebuilding or re-establishing a community after a disaster incident. It also includes advance planning to address

recovery efforts which will take place after a disaster. Efforts are focused on re-establishing the planning region in such a way as enhance resiliency and reduce impacts to future incidents. Recovery differs from response, which occurs during, or immediately after an incident. Recovery views long-range, sustainable efforts.

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-1 Continue data gathering for facility information to continue to improve the risk assessment and identification of infrastructure countywide.										
New/ Existing	All	3, 6, 10,	DEM All planning partners	Low	HLS/ EMPG, BRIC, HMGP, HUD, General Funds	Ongoing	Yes	Structural Projects, Property Protection Yes (All)	Regional	C
2023 Status: This effort was completed with this HMP update, and will be maintained by each planning partner moving forward.										
CW-2 Work with County and state agencies to establish a protocol and advance permitting for transporting of hazardous materials for identification during an incident.										
New/ Existing	Hazardous Materials	3, 4, 5, 6, 7, 9	PH, Fire, DEM, PW, WDOT, WDOE	Low	General Funds, HLS (EMPG), CDC grants	Long-Term	Yes	Prevention, Public Info/ Education, Natural Resource Protection, Emergency Services/ Response Yes (HazMat)	Regional	CF
2023 Status: The County relies on the state to address permitting issues with respect to hazardous materials transportation.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-3 Develop points of distribution in areas of potential isolation that may occur during a landslide or earthquake event, as well as for use during incidents like the COVID Pandemic for equipment, vaccinations, etc.										
New	All	3, 6, 7, 9	PH, DEM, PW	Low	EMPG, HUD	Short-Term	No	Public Info/ Education, Emergency Services / Response, Recovery Yes (Health)	Regional	CF
2023 Status: PODs were utilized for COVID for immunizations and distribution of masks/gloves, etc. The County will continue to work on this initiative.										
CW-4 Work with Public Health and Human Services to develop an information bank identifying individuals with access and functional needs. This will assist the County in determining shelter locations requiring specific resources to meet the needs of those individuals. NOTE: This is not an attempt to gather medical-related data, but rather to determine access and functional needs of citizens – e.g., citizens in wheel chairs need more space and shower/restroom facilities; hearing impaired need to have an area which allows them to be near to their signer, the use of oxygen tanks increases space requirements, etc.										
New	All	3, 4, 5, 6, 7, 9, 11	PH, DEM, HS	Low	Health and Human Service Grants, HUD, HMGP	Long-Term	Yes	Public Info/ Education, Emergency Services / Response, Recovery Yes (Health)	Community Level	CF
2023 Status: County DEM, PH, and HS work with local agencies, private non-profits, and residents to provide information to its residents concerning the special needs of populations entering shelters.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-5 Coordinating with Assessor's Office, Permitting and other County offices, update Assessor's parcel data to include more building-specific information which may be utilized within the GIS and Hazus programs for enhanced risk assessments to provide a detailed loss estimation.										
New and Existing	All	3, 5, 6	Assessor's Office; GIS; PW, DEM; CD	Medium	General Fund, HMGP	Short-Term	Yes	Structural Projects, Property Protection, Recovery <u>Yes (All Sectors)</u>	County and Local	CF
2023 Status: The Assessor's office and other county departments continue to work to coordinate assessor's data with that of permitting and GIS to enhance the use of the data in HMP and other planning efforts.										
CW-6 Coordinate among all jurisdictions to seek out and apply for grants for site hardening of facilities.										
New/Existing	EQ, F, LS, SW	1, 2, 4, 6, 7, 10, 11	DEM	Medium	Earthquake and Tsunami Program, HMGP, BRIC, HUD, DOT, EPA	Long-Term	Yes	Structural Projects, Property Protection, Natural Resource Protection <u>Yes (All sectors related to Critical Lifelines)</u>	Facility Specific	CF
2023 Status: This continues to be an on-going effort and will be carried forward in the 2023 update.										
CW-7 Maintain and regularly update fire hydrant layer countywide.										
New/Existing	WF	3, 5, 7, 10	DEM, GIS, Fire	Low	HMGP, HUD, SAFER	Long-Term	Yes, Modified	Property Protection, Emergency Services/Response <u>Yes (Safety)</u>	County-wide	C, CF

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
2023 Status: This data is tracked as part of land use development and permitting requirements for site development as a regular course of activity. However, with the continued growth in certain areas of the county, this data will become more important. This information may also be utilized in the potential CWPP development, and will be information utilized by citizens when establishing potential mitigation strategies for the CWPP.										
CW-8 Continue implementation of public education program within Mason County to educate citizens about the hazards faced and the appropriate preparedness and response measures, including, but not limited to, NFIP information and insurance.										
New/Existing	All	All	DEM, Local and County CD	Low	EMPG, General Fund	Ongoing	Yes	Prevention, Public Info/Education Yes (Communications)	County and Community	CF
2023 Status: The County routinely provides public outreach to its citizens annually on emergency management and public safety matters. During those events, there is discussion about the hazards of concern, as well as citizens' ability to mitigate the impact from the hazards. This includes various hazard-specific insurance.										
CW-9 Continue to expand CERT training, involving local teams in exercises and training with first responders.										
New/Existing	All	6, 7	DEM	Low	EMPG	Ongoing	Yes, Modified	Prevention, Public Info/Education, Emergency Services, Response, Recovery Yes (Safety & Security)	County and Community	CF
2023 Status: The County regularly completes CERT training classes, having completed 14 total with 275 individuals having completed the class. Since completion of the last plan in 2018, three additional CERT classes have been conducted. During COVID, limited classes could occur.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-10 Develop and prepare a fueling plan, addressing both automotive and heating fuels, in case of prolonged interruption of normal distribution to Mason County locations.										
New and Existing	EQ, F, LS, SW, T	3, 4, 5, 6, 7, 8, 11	DEM, Sheriff, LE, Fire, PW and Local PW	Low	General Fund, EMPG and other grants which may become available.	Long-Term	Yes	Response, Recovery Yes (Energy)	County and Local	CF
2023 Status: No progress made.										
CW-11 Evaluate current coverage and equipment and provide a strategic emergency communications plan that provides better coverage to all areas of Mason County for first responders and emergency amateur radio communications. Continued training and recruitment will need to occur.										
Existing	All	6, 9	DEM	Low	General Funds	Short-Term	Yes - Modified	Emergency Services/Response, Prevention, Public Info/Education Yes (Comms)	County and Local	C, CF
2023 Status: Since completion of the last HMP, the County updated its CEMP, which included an update to ESF 2 – Communications.										
CW-12 Review designated emergency shelter structural and utility readiness for occupancy after a significant incident. The County will attempt to gain Red Cross perspective with respect to the adequacy and functionality of shelters utilized.										
New/Existing	All	1, 5, 6, 9, 11	DEM	Medium	BRIC, HMGP, General Funds	Short-Term	Yes, Modified	Prevention, Public Info, Emergency Services/Response Yes (Food/Shelter)	Regional	C

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
2023 Status: The County utilizes different shelter locations, which are customarily a facility utilized for joint purposes, and are maintained at a constant readiness level. In some instances, the structures utilized are not owned by the County, but the County will continue to work with the owning entity and Red Cross to ensure shelters are appropriately maintained.										
CW-13 Provide steep slope stability recommendations and education to owners of structures above steep bluffs or below steep bluffs. Increase monitoring of county bluffs involving beach communities or access to beach communities.										
New/Existing	EQ, F, LS, SW	1, 2, 3, 4, 6, 7	DEM, County and Local PW, CD, WDNR	Medium	BRIC, HMGP, General Funds	Long-Term	Yes	Structural Projects, Property Protection Yes (Safety, Transportation)	County and Local	C, CF
2023 Status: The County recently updated its Shoreline Program, which identified areas of geologic hazards along the bluff. The County's Comprehensive Plan is currently in the update process. In conjunction with those efforts, a large amount of public outreach is required, during which geologically hazardous areas are identified and discussed.										
CW-14 Conduct a needs assessment to determine logistical requirements for equipment and parts for wells and water distribution sources to ensure a surplus allowing for continued supply of water in case commodity flow is impacted by a major event.										
New/Existing	All	3	PH, DEM PW, WDOE	Medium	Earthquake and Tsunami Program Grant Funds, EPA, EMPG	Ongoing	Yes	Response, Recovery Yes (Food/Water)	County and Local	CF
2023 Status: The majority of the wells in the planning area are private wells. The public purveyors supplying water do maintain a surplus of some of the parts necessary to ensure continued services. The County does not have staffing to conduct this assessment, but does feel such data would be relevant, and therefore will carry it forward.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-15 Promote a “FireWise” program in County to increase fire safety zones around businesses and residences. Encourage owners to reduce woodland fuel loads on their property.										
New/Existing	D, WF	3, 8, 10	DEM, Fire	Low	Fire Grants, BRIC, HMGP	Ongoing	Yes	Property Protection, Natural Resource Protection, Prevention Yes (Safety, All)	Local	CF
2023 Status: The fire service providers throughout the county have applied for a grant to complete a CWPP, which promotes the Fire Wise program.										
CW-16 Work with local jurisdiction and planning partners to develop various emergency planning efforts to help ensure continuity of business and resiliency.										
New/Existing	All	5, 6, 9	DEM, ED, Chamber	Medium	EMPG Funds, General Funds	Long-Term	Yes	Recovery Yes (All)	County, Local	CF
2023 Status: The County DEM regularly work with the local planning partners to develop various emergency plans, as well as to continue lines of communications. Quarterly meetings of the LEPC also serves as the Emergency Management Planning Committee.										
CW-17 Identify and establish redundant or back-up emergency operations center locations throughout the County in case of road closures which restrict access to areas of the County.										
New	All	5, 6, 7, 8, 9	DEM, Public Officials -County and Local	Medium	ARPA, EMPG and General Funds as available	Short-Term	Yes	Emergency Services/Response, Recovery Yes (Safety)	County and Local	CF
2023 Status: A building in north Mason County was recently purchased; renovations are underway. It is anticipated that the structure may be completed by the end of 2023; however, due to the availability of funding to ensure the EOC can be completed with all equipment, the this action is being carried forward.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-18 Partner with Washington State Department of Transportation to expand earthquake assessment, and to expand and implement training and exercises throughout the county which support transportation-related issues and potential isolation.										
New/Existing	EQ, All	3, 4, 6, 7, 9, 11	DEM, PW, WSDOT	Medium	US DOT and WSDOT Grants, HLS	Long-Term	Yes	Emergency Services/Response, Recovery Yes (Transportation)	Regional	CF
2023 Status: This continues to be an on-going function given the landslide propensity along the various highways in the County.										
CW-19 Continue to promote and establish a countywide emergency management actions, projects, and programs, working with City of Shelton and special purpose districts, to enhance resiliency and maintain consistency in mitigation activities, emergency management programs, and capabilities. This includes seeking grant funding to support such initiatives.										
New/Existing	All	3, 4, 5, 6, 7, 8, 9 10, 11	DEM, Fire, Hospitals	Medium	General Funds, Grant Opportunities as they arise	Long-Term	Yes	Prevention, Public Information and Education, Emergency Services/Response, Recovery Yes (All)	County and Local	CF
2023 Status: The County DEM regularly work with the local planning partners to develop various emergency plans, as well as to continue lines of communications. Quarterly meetings of the LEPC also serves as the Emergency Management Planning Committee.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-20 Strive to capture time-sensitive, perishable data such as high-water marks, extent and location of hazard, and loss information following hazard events to support future updates to the risk assessment and in support of future grant applications to demonstrate impact.										
New/Existing	All	4, 8, 9, 10	DEM	Medium	General Funds	Long-Term	Yes	Emergency Services/Response, Recovery Yes (Safety)	County and Local	CF
2023 Status: The County works with all of the local agencies and the City of Shelton to continue this effort. This becomes particularly significant when attempting to gain a disaster declaration. Data captured during previous events has been integrated into this HMP update as well.										
CW-21 Continue to enhance local emergency planning committee involvement with all fire organizations throughout the County with the goal of quarterly meetings.										
Existing	WF	4, 8, 9, 10	DEM, Fire	Low	General Funds	Ongoing	Yes	Prevention, Emergency Services/Response, Recovery Yes (Safety)	County and Local	CF
2023 Status: This continues to be a priority for DEM. The LEPC was utilized in the update of this HMP, and proved to be a reliable format to host community public outreach efforts with respect to the plan development. All fire districts now participate in the quarterly LEPC meetings (as schedules permit).										
CW-22 Seek grant funding to develop a countywide mass care and evacuation exercise, which includes all fire and police departments, Hospital District, Public Health, County Transit, Emergency Management and search-and-rescue, as well as other planning partners as identified during exercise design.										
New and Existing	All	3, 4, 5, 6, 7, 8, 9, 10	DEM, Fire, Hospital s, PH, PW, WSDOT; Sheriff, LE	High	EMPG, DOJ Grants, Fire Training Grants, EMPG	Long-Term	Yes	Emergency Services/Response, Recovery Yes (Health and Medical)	County and Local	CF

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
2023 Status: In response to COVID, the County and several of the identified agencies in this strategy worked together in various ways. For the 2018-2023 period, the majority of the time was spent in response to COVID, so a separate exercise did not occur. The County and its planning partners do feel this is a valid project to complete within the life cycle of this update.										
CW-23 For municipal partners continue to integrate mitigation planning data into ongoing land-use planning to assist in providing information necessary to enforce existing building codes, floodplain and critical areas ordinances, and shoreline protection. For special purpose districts, integrate information from the mitigation plan into other planning initiatives, such as the Comprehensive Emergency Management Plan, response plans, evacuation plans, shelter plans, etc.										
New and Existing	F, EQ, LS, SW	1, 3, 5, 7, 8, 14, 15, 18	DEM	Low	FEMA	Short-Term	Yes	Prevention, Emergency Services, Planning, Response, Recovery Yes (Safety)	Local and County	CF
2023 Status: The planning partners do utilize the data from the HMP in its regular planning efforts. As the County begins the update of its Comprehensive Land Use Plan, on which several of the UGA rely, data from this plan will continue to support that effort.										
CW-24 Develop countywide mutual aid agreements with both public and private agencies in support of preparedness and response activities.										
New	All	4, 5, 6	DEM	Medium	General Funds	Ongoing	Yes	Emergency Services/Response, Recovery Yes (All)	County and Local	CF
2023 Status: The County and several of its planning partners have developed MOUs/MOAs with various entities. This was particularly true during COVID response.										

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
CW-25 Capture data concerning the number of portable generators at fueling stations and local grocery outlets to determine need to acquire generators to ensure fuel availability and food items during significant events which may impact transportation flows, reducing commodities in the planning area. If necessary, seek grant opportunities to purchase generators for use during such events.										
New/Existing	All	6, 7, 8, 9, 10	DEM	Low	General Funds	Ongoing	Yes	Emergency Services/Response, Recovery Yes (Food, Water, Shelter; Energy)	County and Local	CF
2023 Status: No progress made.										
CW-26 Capture information concerning the surplus supply maintained by local fueling stations and grocery outlets to determine quantities available should commodities be interrupted as a result of a significant incident.										
New/Existing	All	6, 7, 8, 9, 10	PW	Low	General Funds	Ongoing	Yes	Emergency Services/Response, Recovery Yes (Food, Water, Shelter, Energy)	County and Local	CF
2023 Status: No progress made.										
CW-27 Develop countywide debris management plan.										
New/Existing	EQ, F, LS, SW, WF	3, 5, 6, 9, 11	PW	High	Grant Sources TBD	Long-Term	Yes	Recovery Yes (Transportation, Health and Medical, Food, Water, Shelter, Safety and Security)	County and Local	CF

Table 12-2
Countywide Hazard Mitigation Initiatives and 2023 Status

New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agency*	Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	2023 Status Carried Forward (CF), Removed (R), Completed (C) Modified (M)
2023 Status: No progress made. Lack of funding to staff project.										
CW-28 Work with various communications organizations within the area to identify location of cell towers and capacity to support area during disaster incidents.										
New/Existing	All	6, 7, 8, 9, 10	PW	Low	General Funds	Ongoing	Yes	Emergency Services/Response, Recovery Yes Communi-cation	County and Local	CF
2023 Status: No progress made.										
* CD=Community Development (local and county); ED=Economic Development; DEM= Emergency Management (Interlocal Agreement whereby County provides services to city); Fire=Districts and Depts.; HS=Human Services; LE=Law Enforcement; PH=Public Health; PW=Public Works (local and county); WSDOT=Washington State Dept. of Transportation; WDOH=Washington State Dept. of Health; WDNR=Washington State Dept. of Natural Resources; WDOE=Washington Dept. of Ecology.										

Table 12-3
County-Specific Hazard Mitigation Initiatives

								CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)	
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?	
C-1 Study and retrofit county owned facilities to better withstand damage from earthquake, flood, severe weather.										
Existing	EQ, F, SW, All	1, 3, 4 5, 7, 8, 11	DEM, Facilities	High	HLS/EMPG, BRIC, HMGP, HUD, General Funds	Ongoing	Yes	Structural Projects, Property Protection	Facility	CF
								Yes (Safety, Comms, Transportat ion, HazMat, Health and Medical, Food, Water, Shelter)		
2023 Status: As structures have been remodeled, the County has ensured that new buildings are built to higher standards. An assessment of all structures has not occurred. The County feels this is a valid project, and will continue to seek grant funding to identify vulnerable structures.										
C-2 Evaluate and enhance the current capital improvements program for county roads, including the Skokomish Valley and Cloquallum Roads, as well as drainage projects to provide better flood control in known flood problem areas, including drainage system maintenance plans and sediment and debris clearance to ensure unobstructed flow of floodwaters.										
New/ Existing	F, SW	1, 2, 3, 4 5, 8, 11	PW	High	General Funds, HLS (EMPG), CDC grants	Long-Term	Partial	Property Protection, Structural Projects, Natural Resource Protection	County and Local	CF
								Yes (Trans- portation)		
2023 Status: The County has installed new flood gauges to identify the various runs of the river during flooding in an effort to better understand the depth involved. Portions of the roadways have been improved since the last plan was completed, such as the Dips, but additional work remains to be done.										

Table 12-3
County-Specific Hazard Mitigation Initiatives

								CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)	
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?	
C-3 Seek steep slope stability project funding or relocation funding for county roads with histories of instability.										
Existing	EQ, F, LS, SW, WF	1, 2, 3, 4 5, 8, 10, 11	PW	High	BRIC, HMGP, USDOT, WSDOT	Long-Term	Yes	Property Protection, Structural Projects, Natural Resource Protection Yes (Transportation)	County	CF
2023 Status: The County has worked with WDOT on a number of state roadways that have been significantly impacted by landslides. The County has also completed several road improvements to stabilize roadways, but additional work is needed.										
C-4. Seek grant funding for acquisition of properties in high-hazard areas, with special attention to repetitive loss properties.										
Existing	F, All	1, 2, 4	BOCC, DEM	High	BRIC, HMGP, FMA	Long-Term	Yes	Property Protection, Structural Projects Yes (Safety)	Facility and County	CF
2023 Status: The County continues to work with land owners in impacted areas.										
C-5. Obtain and install river gauges on the Tahuya River.										
New/Existing	F, SW	3, 6, 9	DEM, PW, USGS	High	HMGP, USGS Grant	Ongoing	Yes	Response, Recovery Yes (Safety, Transportation, Communications)	County	C, CF
2023 Status: The County has purchased and installed several gauges since completion of the last plan; however, additional gauges are necessary. The County will continue to work with USGS on this project.										

Table 12-3
County-Specific Hazard Mitigation Initiatives

								CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)	
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?	
C-6. Work with WA DOT or seek grant funding for County roadways to address areas in high landslide areas. When funding received, complete project.										
New	LS	3, 4, 6, 7	DEM, PW/Roads, WSDOT	Low	General Fund, DOH	Short-Term	Yes, Modified	Prevention Public Information and Education, Response, Recovery	County and Local	C, CF
								Yes (Transportation)		
2023 Status: WDOT did complete some work on the Purdy Cutoff on 2009, but issues still remain in certain areas. Additional work is needed to ensure appropriate ingress and egress.										
C-7 Continue participation in the NFIP; considering implementing various steps which will increase CRS scores to help lower insurance premiums.										
New/Existing	F, SW	1, 2, 3, 4, 5, 7, 11	DEM, Planning	Medium	General Fund	Long-Term	Yes	Prevention, Mitigation	County	CF
								Yes (Communication, Safety)		
2023 Status: While the County feels this is a worthwhile effort, they lack staffing and funding to implement additional elements to increase CRS points. However, the County will continue to work on this effort to ensure continued NFIP compliance.										
C-8 Continue working with the Skokomish Watershed Action Team (SWAT) to support on-going mitigation activities within the Skokomish Watershed.										
New/Existing	F, SW, LS	3, 4, 5, 6, 7	DEM, SWAT, PW	Low	General Fund	Ongoing	Yes	Mitigation, Recovery	County and Local	CF
								Yes (All)		
2023 Status: Since completion of the last plan, the County has diligently participated with SWAT, and has been able to install additional gauges on the river to assist in data gathering to support alerts and notifications, as well as obtain depth data for future planning and construction efforts. The County will continue to actively pursue mitigation activities within the watershed to help reduce the impacts of flooding.										

Table 12-3
County-Specific Hazard Mitigation Initiatives

										CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?		
C-9 Continue to design and build facilities to meet or exceed seismic and code standards, including redundant essential equipment. Apply current seismic, wind and snow-load standards to all renovation or replacement of existing facilities, and/or equipment.											
New/Existing	EQ, LS, SW	1, 3, 4, 5, 6, 7, 8, 11	Building	High	BRIC, HMGP	Ongoing	Yes	Structural Projects, Property Protection	County	C, CF	
									Yes (Safety, Food, Water, Shelter)		
2023 Status: While limited new county-owned construction has occurred since completion of the 2018 plan, with all new construction or significant remodels, the county ensures the most up-to-date codes are applied.											
C-10 Conduct activities that support mitigation efforts to reduce the negative influence of natural hazards impacting Mason County, such as appropriate hazard identification, warning, dissemination of relevant information and data, and public outreach.											
New	All	All	CD, PH, DEM	Low	General Fund, EMPG, HLS grants.	Ongoing	Yes	Structural Projects, Public Information and Education, Natural Resource Protection	County, Facility, Local	C, CF	
									Yes (Safety, Communications)		
2023 Status: The County routinely conducts public outreach efforts which identify the hazards of concern, vulnerability, and mitigation efforts which can be taken to reduce impact. The County also has maintained the mitigation website since completion of the last plan, on which the HMP is placed, as well as hazard maps. During the various outreach efforts and the countywide safety fairs that have occurred since completion of the 2018 plan, the County has provided information on alert and warning, increasing the number of individuals that have signed up for emergency alerts. The County has also continued its efforts to meet the needs of individuals with disabilities by supporting a registration bank on which residents can register, which is utilized to help alert responders to residents with special needs.											

Table 12-3
County-Specific Hazard Mitigation Initiatives

								CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)	
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?	
C-11 Work with local public and private entities to review infrastructure control systems and ensure appropriate level of security and protection measures are in place. As appropriate, conduct audit of policies and procedures to ensure consistency and accuracy in application of security devices in place.										
Existing	All	3, 4, 6, 7, 9	DEM, PUDs, IT, Law Enforcement Fire Service Agencies	Low	General Funds	Short-Term	Yes	Prevention, Property Protection, Emergency Services Yes (Safety, Energy, Communications, All)	Regional	CF
2023 Status: The County, in conjunction with its planning partners, continue to work with the local service providers, businesses, and industries to assist with identification of hazards and threats, and the potential implementation of security devices and measures.										
C-12 Implement cost-effective measures to address vulnerability of facilities at risk to sea level rise, extreme high tides and storm surges as they relate to potential inflow of saltwater. This includes working with local private water purveyors.										
New/Existing	CC, EQ, F, LS, SW	1, 2, 3, 4, 5, 6, 7	DEM, PH, PW, WDNR, WDOH, WDOE	Medium	BRIC, HMGP, General Funds, Ecology, DOH, HLS	Long-Term	Yes	Structural Projects, Property Protection, Natural Resource Protection Yes (Food, Water, Shelter)	County	CF
2023 Status: The County was again reminded in 2022 of the significance of this issue as it was significantly impacted by the King Tides occurring during this plan development. Several residential structures were impacted. While anticipated sea level rise is minimal in the county when compared to other areas of the state, the county lacks the funding and staff to conduct a sea level rise or climate change study to support any policy development or revisions. While this matter will be addressed in the Shoreline Master Plan and the Comprehensive Land Use Plan, there is minimal data available to support significant changes in planning and land use at present. The County will continue to seek funding to institute such a study which will better support this matter.										

Table 12-3
County-Specific Hazard Mitigation Initiatives

								CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)	
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Supports Community Lifelines Yes/No (Sector Impacted)	Who Benefits?	
C-13 Utilize data gathered during risk assessment to identify capital projects that, when modified, increase the resilience of the County's structures and conveyances to damage, or that allow a more expedited process for recovery from the impact of disaster incidents.										
New/Existing	All	All	DEM, PW, Planning, FEMA, WDNR	Medium	Earthquake and Tsunami Program Grant Funds, General Funds, BRIC, HMGP	Short-Term	Yes	Structural Projects, Property Protection, Recovery Yes, Safety, Food, Water, Shelter, Health and Medical, Energy, All)	Facility, County	C, CF
2023 Status: During incidents of impact from the various hazards of concern, the County has utilized information from the mitigation plan to identify vulnerable structures and areas of risk, as well as identifying potential mitigation action items or strategies which can be implemented to help reduce risk.										
C-14 Consider projects enhancing resistance of county structures to impact from hazards of concern, such as seismic bracing of equipment, piping and fixtures, removal of high hazard beams, access road reinforcement, or seismic upgrades of underwater interceptors.										
New/Existing	EQ, LS	1, 2, 3, 4, 5, 6, 7, 8, 11	DEM, PW	High	Earthquake and Tsunami Grant Program, BRIC, HMGP	Ongoing	Yes	Property Protection, Structural Projects Yes (Safety, Food, water, Shelter, Energy, Transportation, Hazmat)	Facility, County	CF

Table 12-3
County-Specific Hazard Mitigation Initiatives

New or Existing assets		Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	CRS Initiative Type <u>Supports Community Lifelines</u> Yes/No (Sector Impacted)	Who Benefits?	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)
2023 Status: All structures remodeled since completion of the 2018 HMP have been enhanced structurally to reduce the potential impact from the hazards of concern. But one example is the courthouse, which was acquired since completion of the last plan. The structure was remodeled/enhanced prior to the County taking occupancy to help ensure life safety of individuals in the structure.											
C-15 Implement a recovery system to ensure maximum FEMA reimbursement for disaster response, repair, mitigation and recovery, which will capture and track emergency activities, associated expenses (mileage, supplies, expendables, outside vendors, etc.), employee time and dedicated resources.											
New/Existing	All	6, 8, 9	DEM, Risk, Finance, PW	Medium	EMPG Funds, General Funds	Long-Term	Yes	<u>Recovery</u> Yes (All)	County	CF	
2023 Status: The County has established a process and system for capturing impact data to support recovery and reimbursement from FEMA. This effort continues to evolve and expand.											
C-16 Utilize data from the current risk assessment and comprehensive land use planning effort currently underway to update GIS capacity and capabilities.											
New	All	1, 2, 3, 4, 5, 8, 11	County GIS, Planning, DEM	Medium	HMGP, EMPG and General Funds	Short-Term	Yes	<u>Response, Recovery</u> Yes (Safety)	County	CF	
2023 Status: During the life cycle of this 2023 update, the County will be updating its Comprehensive Land Use Plan. GIS data and information from this update will be utilized as the COMP Plan is updated as well.											
C-17 Develop a web-based application to capture damage assessment from citizens, which can be verified by emergency personnel to expedite damage assessment. This may include an interface between the Assessor's office for property values, as well as a mechanism for rapid windshield assessment by first responders.											
New/Existing	All	3, 5, 6, 7, 9	IT, Assessor's Office, Risk Mgmt. DEM	Medium	General Funds, HLS, HMGP	Short-Term	Yes	<u>Recovery</u> Yes (Safety, Communications)	County	CF	
2023 Status: The County lacks funding to develop, maintain and train personnel for a system of this nature. However, it remains a valid project if funding can be gained.											

Table 12-3
County-Specific Hazard Mitigation Initiatives

										CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?		
C-18 Assess the County's communications systems to determine its current vulnerability. This will include a review of the number of radios necessary to allow for adequate communications during emergency situations with field units, emergency response personnel, and emergency managers.											
Existing	All	9	DEM, IT, PW	Low	General Funds	Ongoing	No	Emergency Services, Response	County and Local	Yes (Communications)	
C-19 In accordance with OSHA/WISHA requirements for all employees performing emergency response activities (post-disaster), identify and train County staff and volunteers that will be utilized for these efforts. Training to be considered includes: ATC 20/45, Disaster Site Worker Training, and Emergency Response Training, Damage Assessment.											
New/Existing	All	3, 6, 7, 9	BOCC, DEM, All County Depts.	High	EMPG, DOJ Grants, Fire Training Grants,	Ongoing	Yes	Emergency Services, Response, Recovery	County	C, CF	
2023 Status: The County has historically trained several employees in the various response discipline of emergency management. With COVID 19, many of the training opportunities were not available. As training becomes more readily available, the County will continue to comply with the requirements.											
C-20 Develop (or update) plans to ensure response and recovery efforts. This includes working with the BOCC to develop appropriate committees, such as a continuity of operations team, which will develop a countywide continuity of operations plan, and an emergency communications team which will look at communications and interoperability issues.											
Existing	All	3, 5, 6, 9,	DEM, BOCC	Low	BRIC, HMGP, HLS, HUD grants	Long-Term	Yes	Response and Recovery	County	C, CF	
2023 Status: Since completion of the 2018 HMP, the County has completed various emergency management plans, including a comprehensive update to its CEMP. DEM will continue to work with the BOCC to continue updating its various plans over the lifecycle of this 2023 HMP.											

Table 12-3
County-Specific Hazard Mitigation Initiatives

								CRS Initiative Type	2023 Status – Carried Forward (CF), Removed (R), Completed (C), Modified (M)	
New or Existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Funding Sources	Timeline	In Previous Plan?	Yes/No (Sector Impacted)	Who Benefits?	
C-21 Develop public outreach which supports community participation in incentive-based programs, such as FireWise and StormReady. The County and its fire districts have applied for 2023 funding to develop a CWPP. If granted, such funds will be utilized for establishing the FireWise outreach necessary.										
New/Existing	All	3, 6, 9, 10,	DEM	Low	General Funds	Ongoing	New	Public Information and Education, Emergency Services/Response	County	CF
								Yes (Safety, Communications)		
2023 Status: As of this update, the fire service agencies countywide have submitted a grant to develop a CWPP. A component of the CWPP is the FireWise program, which will be promoted as a part of the CWPP development. The County is also a StormReady community, and will continue to strive to maintain that designation.										

12.6 BENEFIT/COST REVIEW

Once the general analysis was completed for each mitigation initiative, 44 CFR requires the prioritization of the initiatives or action items according to a benefit/cost analysis of the proposed projects and their associated costs (Section 201.6.c.3iii). The benefit/cost analysis conducted during this planning process is not of the detailed variety required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) (previously Pre-Disaster Mitigation (PDM)) grant program. Rather, parameters were established for assigning subjective ratings (high, medium, and low) to the costs and benefits of these projects. Cost ratings were defined as follows:

- **High** —Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
- **Medium**—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

- **Low**—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.

Benefit ratings were defined as follows:

- **High**—Project will provide an immediate reduction of risk exposure for life and property.
- **Medium**—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
- **Low**—Long-term benefits of the project are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly. Prioritization of the projects in such a manner serves as a guide for choosing and funding projects.

12.7 PRIORITIZATION OF INITIATIVES

The method for prioritizing initiatives for the 2023 remains the same method used for the previous mitigation initiatives. The factors involved in the ranking remain consistent, with a category or level (high/medium/low) assigned with those identified factors to ensure consistency. Table 12-4 lists the priority of each countywide initiative. Table 12-5 lists the priority for each county-specific initiative. A qualitative benefit-cost review as described above was performed for each of these initiatives.

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant Eligible?	Can Project Be Funded under Existing Programs/ Budgets?	Priority (High, Med., Low)
1	4	H	L	Y	Y	Y	H
2	2	H	L	Y	Y	Y	H
3	4	H	L	Y	Y	Y	H
4	7	H	L	Y	Y	Y	H
5	3	H	M	Y	N	Y	M
6	7	H	M	Y	N	Y	M
7	4	M	L	Y	N	Y	M
8	11	H	L	Y	Y	Y	H
9	2	H	L	Y	Y	Y	H
10	7	H	L	Y	N	Y	H
11	2	H	L	Y	N	Y	H
12	5	H	M	Y	Y	Y	H
13	6	H	M	Y	Y	Y	H
14	1	M	M	Y	Y	N	M
15	3	M	L	Y	Y	N	L

Table 12-4. Prioritization of Countywide Mitigation Initiatives							
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant Eligible?	Can Project Be Funded under Existing Programs/ Budgets?	Priority (High, Med., Low)
16	3	M	M	Y	Y	Y	M
17	5	H	M	Y	Y	Y	M
18	6	M	M	Y	Y	N	M
19	9	H	M	Y	N	N	M
20	4	H	L	Y	Y	N	H
21	4	M	L	Y	N	Y	M
22	8	H	H	Y	Y	N	M
23	8	L	M	N	Y	N	L
24	3	H	M	Y	N	Y	M
25	6	M	L	Y	N	Y	M
26	5	M	L	Y	N	Y	M
27	5	H	H	Y	Y	N	M
28	5	M	L	Y	N	Y	M

Table 12-5. Prioritization of County-Specific Hazard Mitigation Initiatives							
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant Eligible?	Can Project Be Funded under Existing Programs/ Budgets?	Priority (High, Med., Low)
1	7	H	H	Y	Y	N	H
2	7	M	H	N	Y	N	M
3	8	H	H	Y	Y	Y	H
4	3	M	H	Y	Y	Y	M
5	3	H	H	Y	Y	N	H
6	4	H	H	Y	Y	N	H
7	7	H	L	Y	N	Y	H
8	5	H	L	Y	Y	Y	H
9	8	H	H	Y	N	N	L
10	11	H	L	Y	Y	N	H
11	5	H	L	Y	Y	Y	H
12	7	M	M	Y	Y	N	M

Table 12-5.
Prioritization of County-Specific Hazard Mitigation Initiatives

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant Eligible?	Can Project Be Funded under Existing Programs/Budgets?	Priority (High, Med., Low)
13	11	M	M	Y	N	N	L
14	9	H	H	Y	Y	N	H
15	3	H	M	Y	N	Y	M
16	6	H	H	Y	Y	Y	H
17	5	H	M	Y	Y	Y	H
18	1	M	L	Y	N	Y	L
19	4	H	H	Y	N	Y	H
20	4	H	L	Y	Y	N	M
21	4	H	L	Y	Y	Y	H

The priorities are defined as follows:

- **High Priority**—A project that meets multiple objectives (i.e., multiple hazards), has benefits that exceed cost, has funding secured or is an ongoing project and meets eligibility requirements for the HMGP or BRIC grant program. High priority projects can be completed in the short term (1 to 5 years).
- **Medium Priority**—A project that meets goals and objectives, that has benefits that exceed costs, and for which funding has not been secured but that is grant eligible under HMGP, BRIC or other grant programs. Project can be completed in the short term, once funding is secured. Medium priority projects will become high priority projects once funding is secured.
- **Low Priority**—A project that will mitigate the risk of a hazard, that has benefits that do not exceed the costs or are difficult to quantify, for which funding has not been secured, that is not eligible for HMGP or BRIC grant funding, and for which the time line for completion is long term (1 to 10 years). Low priority projects may be eligible for other sources of grant funding from other programs.

For many of the strategies identified in this action plan, the partners may seek financial assistance under the HMGP or BRIC programs, both of which require detailed benefit/cost analyses. These analyses will be performed on projects at the time of application using the FEMA benefit-cost model. For projects not seeking financial assistance from grant programs that require detailed analysis, the partners reserve the right to define “benefits” according to parameters that meet the goals and objectives of this plan.

Because this is a multi-jurisdictional plan, the prioritization of initiatives specific to the remaining jurisdictions must also be done at the individual level based on the needs and programs of that body, and accomplished as resources can be secured. Funding to complete any initiative will likely be acquired from a variety of sources, with the lack of funding alone preventing an initiative from being implemented. As such, the less formal approach used during this process is more appropriate

because some projects may not be implemented for up to 10 years, and associated costs and benefits could change dramatically in that time.

The method of prioritization utilized also allows for the inclusion of new projects throughout the life cycle of this plan without having to numerically re-value each of the projects based on an assigned value of 1, 2, 3, etc. Further, it supports the plan maintenance strategy for review, addition, and reprioritization of initiatives on an annual basis, reducing the level of effort involved in a numeric system of ranking, and enhancing the likelihood that the annual review will occur as a reduced level of effort will be required.

12.8 ADDITIONAL MITIGATION ACTIVITIES:

In addition to the projects identified above, additional efforts include:

- The Skokomish Watershed Action Team (SWAT) has completed a number of stewardship projects since completion of the last plan. Highlights include timber sale, the funds from which will be used to replace faulty road culverts and other restoration activities in the upper watershed. The group is also in the final stages of a feasibility study of three potential options for realigning the Skokomish Valley Road.
- Since completion of the 2018 plan, the SWAT has also worked to install additional river gauges to help capture data and provide additional information with respect to alert and warning for residents in the area.
- Volunteers from the SWAT Committee have continued to inspect road culverts which are in need of replacement, establishing a list for proposed restoration projects which the Forest Service may incorporate.

12.9 FUNDING OPPORTUNITIES

Although a number of the mitigation projects listed may not be eligible for FEMA funding, Mason County and its planning partners may secure alternate funding sources to implement these projects in the future including federal and state grant programs. Funds may also become available through the county or planning partner budgets via general funds, which may include various tax-based or other available funds as identified in Sections 12.7 and Chapter 13.²³

In some instances, there may be multiple sources of grant funding available, which will be determined at the time of application based on the funding mechanism, which annually identifies potential uses or restrictions to the funds.

²³ All planning partners also have the option of utilizing their entities General Funds (those funds which are not classified elsewhere), which are used to finance the daily and long-term operations through revenues generated through various sources, and are not restricted by law to a specific program.

In order to be eligible for some of those grant funds, completion of a hazard mitigation plan may be required. Table 12-6 identifies some of those grant requirements. Additional funding sources identified in Table 12-7 are also available which support various types of mitigation efforts on a countywide basis. At present, the County and its planning partners have utilized the Stafford Act funding available as a result of a disaster declaration such as the public assistance (all categories as applicable) and individual assistance (when approved), as well as regularly pursuing the homeland security grants. The various fire agencies have also pursued funding through fire management grants, including a pending application for development of a Community Wildfire Protection Plan, and regularly seeking funds for new fire stations and equipment. All planning partners also have the option of utilizing their entities General Funds (those funds which are not classified elsewhere), which are used to finance the daily and long-term operations through revenues generated through various sources, and are not restricted by law to a specific program.

Table 12-6 Grant Opportunities				
Program	Enabling Legislation	Funding Authorization	Hazard Mitigation Plan Requirement	
			Grantee	Sub-Grantee
Public Assistance, Categories A-B (debris removal, emergency protective measures)	Stafford Act	Presidential Disaster Declaration	☑	☑
Public Assistance, Categories C-G (e.g., repair of damaged infrastructure, publicly owned buildings)	Stafford Act	Presidential Disaster Declaration	☑	☑
Individual Assistance (IA)	Stafford Act	Presidential Disaster Declaration	☑	☑
Fire Management Assistance Grants	Stafford Act	Fire Management Assistance Declaration	☑	☐
Hazard Mitigation Grant Program (HMGP) Planning Grant	Stafford Act	Presidential Disaster Declaration	☑	☐
HMGP Project Grant	Stafford Act	Presidential Disaster Declaration	☑	☑
Building Resilient Infrastructure and Communities (BRIC) (Pre-Disaster Mitigation (PDM) Planning Grant)	Stafford Act	Annual Appropriation	☑	☑
Flood Mitigation Assistance (FMA)	National Flood Insurance Act	Annual Appropriation	☑	☑
Severe Repetitive Loss (SRL)	National Flood Insurance Act	Annual Appropriation	☑	☑
Repetitive Flood Claims (RFC)	National Flood Insurance Act	Annual Appropriation	☑	☐
Washington State DOE Watershed Plan Implementation and Flow Grants	Washington State	As funded by State of Washington	Not Required	
Homeland Security	Dept. of Homeland Security	Annual Appropriation	☑	☐
American Rescue Plan Act	ARP Legislation	Annual Appropriation	Not Required	
☑ = Hazard Mitigation Plan Required ☐ = No Hazard Mitigation Plan Required				

Table 12-7 Countywide Fiscal Capabilities Which Support Mitigation Planning Efforts	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Y
Capital Improvements Project Funding	Y
Authority to Levy Taxes for Specific Purposes	Y
User Fees for Water, Sewer, Gas or Electric Service	N
Incur Debt through General Obligation Bonds	Y
Incur Debt through Special Tax Bonds	Y
Incur Debt through Private Activity Bonds	Y
Withhold Public Expenditures in Hazard-Prone Areas	N
State Sponsored Grant Programs	Y
Development Impact Fees for Homebuyers or Developers	Y

CHAPTER 13.

CAPABILITY ASSESSMENT

13.1 LAWS AND ORDINANCES

Existing laws, ordinances and plans at the federal, state and local level can support or impact hazard mitigation initiatives identified in this plan. Hazard mitigation plans are required by 44 CFR to include a review and incorporation, if appropriate, of existing plans, studies, reports, and technical information as part of the planning process (Section 201.6.b(3)). Pertinent federal and state laws are described below. Each planning partner has individually reviewed existing local plans, studies, reports, and technical information as referenced and identified in its specific jurisdictional annexes presented in Volume 2. This capability assessment not only identifies the capabilities of the municipalities and planning partners, but it also demonstrates an integration of planning efforts, as many times the capability also requires an associated plan.

13.1.1 Federal

Disaster Mitigation Act

The DMA is the current federal legislation addressing hazard mitigation planning. It emphasizes planning for disasters before they occur. It specifically addresses planning at the local level, requiring plans to be in place before Hazard Mitigation Grant Program funds are available to communities. This plan is designed to meet the requirements of DMA, improving the planning partners' eligibility for future hazard mitigation funds.

Endangered Species Act

The 1973 Endangered Species Act (ESA) was enacted to conserve species facing depletion or extinction and the ecosystems that support them. The act sets forth a process for determining which species are threatened and endangered and requires the conservation of the critical habitat in which those species live. The ESA provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered. Provisions are made for listing species, as well as for recovery plans and the designation of critical habitat. The ESA outlines procedures for federal agencies to follow when taking actions that may jeopardize listed species. It is the enabling legislation for the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Criminal and civil penalties are provided for violations of the ESA and the Convention. Federal agencies must seek to conserve endangered and threatened species. The ESA defines three fundamental terms:

- **Endangered** means that a species of fish, animal or plant is "in danger of extinction throughout all or a significant portion of its range." (For salmon and other vertebrate species, this may include subspecies and distinct population segments.)
- **Threatened** means that a species "is likely to become endangered within the foreseeable future." Regulations may be less restrictive than for endangered species.

- **Critical habitat** means “specific geographical areas that are...essential for the conservation and management of a listed species, whether occupied by the species or not.”

Nation Landslide Preparedness Act

On January 5, 2021, the National Landslide Preparedness Act (P.L. 116-323) was signed into law authorizing a national landslide hazards reduction program and a 3D elevation program within the USGS. This broadened the already existing Landslide Hazards Program under the Natural Hazards Mission Area, and the 3D Elevation Program under the National Geospatial Program and required additional coordination with other federal agencies.

Coastal Zone Management Act

All states with federally approved coastal programs delineate a coastal zone consistent with the general standards act set forth in the Coastal Zone Management Act of 1972 (CZMA). According to the CZMA, the coastal zone area should encompass all important coastal resources including transitional and intertidal areas, salt marshes, beaches, coastal waters, and adjacent shorelines where activities could have the potential to impact the coastal waters. Federal land is excluded from the state coastal zone by the CZMA. Washington State has established the Washington State Coastal Zone Management Program, which was approved by the federal government in 1976, making it the first to be approved, applying to 15 coastal counties which front on salt water.

The Clean Water Act

The federal Clean Water Act (CWA) employs regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation’s surface waters so that they can support “the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water.”

Evolution of CWA programs over the last decade has included a shift from a program-by-program, source-by-source, and pollutant-by-pollutant approach to more holistic watershed-based strategies. Under the watershed approach, equal emphasis is placed on protecting healthy waters and restoring impaired ones. A full array of issues are addressed, not just those subject to CWA regulatory authority. Involvement of stakeholder groups in the development and implementation of strategies for achieving and maintaining water quality and other environmental goals is a hallmark of this approach.

Presidential Disaster Declarations

Presidentially declared disasters are disaster events that cause more damage than state and local governments/resources can handle without federal assistance. A Presidential Major Disaster Declaration puts into motion long-term federal recovery programs, some of which are matched by state programs, and designed to help disaster victims, businesses, and public entities. A Presidential Emergency Declaration can also be declared, but assistance is limited to specific emergency needs.

13.1.2 State-Level Planning Initiatives

Washington State Enhanced Mitigation Plan

The Washington State Enhanced Hazard Mitigation Plan approved by FEMA provides guidance for hazard mitigation throughout Washington. The plan identifies hazard mitigation goals, objectives, actions and initiatives for state government to reduce injury and damage from natural hazards. By meeting federal requirements for an enhanced state plan (44 CFR parts 201.4 and 201.5), the plan allows the state to seek significantly higher funding from the Hazard Mitigation Grant Program following presidential declared disasters (20 percent of federal disaster expenditures versus 15 percent with a standard plan).

Growth Management Act

The 1990 Washington State Growth Management Act (Revised Code of Washington (RCW) Chapter 36.70A) mandates that local jurisdictions adopt land use ordinances which protect the following critical areas:

- Wetlands
- Critical aquifer recharge areas
- Fish and wildlife habitat conservation areas
- Frequently flooded areas
- Geologically hazardous areas.

The Growth Management Act (GMA) regulates development in these areas, and therefore has the potential to affect hazard vulnerability and exposure at the local level.

Coastal Zone Management Program

Washington State has established the Washington State Coastal Zone Management Program in conjunction with the federal Coastal Zone Management Act, which was approved by the federal government in 1976, making it the first to be approved, applying to 15 coastal counties which front on salt water.

Shoreline Management Act

The 1971 Shoreline Management Act (RCW 90.58) was enacted to manage and protect the shorelines of the state by regulating development in the shoreline area. A major goal of the act is to prevent the “inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.” Its jurisdiction includes the Pacific Ocean shoreline and the shorelines of Puget Sound, the Strait of Juan de Fuca, and rivers, streams and lakes above a certain size. It also regulates wetlands associated with these shorelines.

Washington State Building Code

The Washington State Building Code Council annually adopts the current editions of national model codes. The Council also adopts changes to the Washington State Energy Code and Ventilation and

Indoor Air Quality Code. Washington's state-developed codes are mandatory statewide for residential and commercial buildings.

Comprehensive Emergency Management Planning

Washington's Comprehensive Emergency Management Planning law (RCW 38.52) establishes parameters to ensure that preparations of the state will be adequate to deal with disasters, to ensure the administration of state and federal programs providing disaster relief to individuals, to ensure adequate support for search and rescue operations, to protect the public peace, health and safety, and to preserve the lives and property of the people of the state.

Washington State Floodplain Management Law

Washington's floodplain management law (RCW 86.16, implemented through WAC 173-158) states that prevention of flood damage is a matter of statewide public concern and places regulatory control with the Department of Ecology. RCW 86.16 is cited in floodplain management literature, including FEMA's national assessment, as one of the first and strongest in the nation. RCW Chapter 86.12 (Flood Control by Counties) authorizes county governments to levy taxes, condemn properties and undertake flood control activities directed toward a public purpose.

Flood Control Assistance Account Program

Washington's first flood control maintenance program was passed in 1951, and was called the Flood Control Maintenance Program (FCMP). In 1984, RCW 86.26 (State Participation in Flood Control Maintenance) established the Flood Control Assistance Account Program (FCAAP), which provides funding for local flood hazard management. FCAAP rules are found in WAC 173-145. Ecology distributes FCAAP matching grants to cities, counties and other special districts responsible for flood control. This is one of the few state programs in the U.S. that provides grant funding to local governments for floodplain management. Local jurisdictions must participate in the NFIP and be a member in good standing to qualify for an FCAAP grant.

13.1.3 Local Programs

Each planning partner has prepared a jurisdiction-specific annex to this plan contained in Volume 2, which identifies its regulatory, technical and financial capability to carry out proactive mitigation efforts. Additional jurisdiction-specific information is available for review within each of those annexes. The following sections present additional regulatory information that applies to the planning partnership.

Puget Sound Regional Catastrophic Disaster Coordination Plan

The Regional Catastrophic Planning Team was formed to guide and manage the Puget Sound Regional Catastrophic Preparedness Grant Program funded by FEMA. Supporting the coordination of regional all-hazard planning for catastrophic events that may impact the region, the effort includes the development of integrated planning communities, plans, protocols, and procedures to manage a catastrophic event. The Regional Catastrophic Planning Team consists of representatives from designated emergency management interests across an eight-county area (see Figure 13-1), including Mason County.

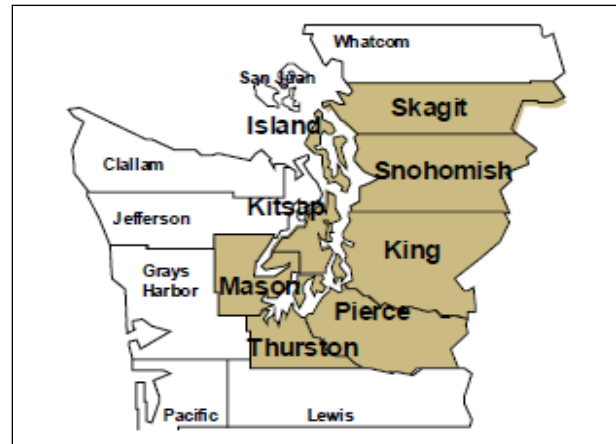


Figure 13-1 Counties in Puget Sound Regional Catastrophic Planning Region

As of this 2023 update, the existing Catastrophic Plan is currently in the update phase, with a specific emphasis on the Cascadia Subduction Zone Earthquake, and emphasize a closer relationship with supply chain issues and logistics.

Comprehensive Land Use Plans

Comprehensive plans are long-range in nature and serve as policy guides for how a jurisdiction plans to manage growth and development with respect to the natural environment and available resources. Washington State law (36.70A.040 RCW) requires that jurisdictions operating under the Growth Management Act develop comprehensive plans and development regulations that are consistent with the comprehensive plans and implement them (36.70A RCW). The County's plan is currently under review and update, with a December 2024 anticipated completion date.

13.2 MITIGATION-RELATED REGULATORY AUTHORITY

Hazard mitigation builds on a community's existing capabilities in place, including financial, regulatory, programmatic and planning capabilities. The County's capabilities to implement mitigation projects include community planners, engineers, floodplain managers, GIS personnel, emergency managers, and financial, legal and regulatory requirements (zoning, building codes, subdivision regulations, and floodplain management ordinances). These resources have the responsibility to provide overview of past, current, and ongoing pre- and post-disaster mitigation planning projects, including capital improvement programs, wildfire mitigation programs, stormwater management programs, and NFIP compliance projects. The following information and tables identify the County's capabilities with respect to (mitigation) efforts of varying types. Each planning partner also completed the same tables within their respective Annex documents.

Regulatory, Technical, Community Organizations, Programs and Social Systems

Regulatory capabilities currently available are summarized in Table 13-1. In addition to the financial and regulatory capabilities summarized in Table 13-2, there are other programs available, some of which provide incentives for citizens. Such programs further enhance resiliency throughout the

County. Two such programs include the National Flood Insurance Program, and the Community Rating System, both of which are discussed in detail in Chapter 8 – Flood.

Social systems can be defined as community organizations and programs that provide social and community-based services, such as health care or housing assistance, to the public. In planning for natural hazard mitigation, it is important to know what social systems exist within the community because of their existing connections to the public.

Often, actions identified by the plan involve communicating with the public or specific subgroups within the population (e.g. elderly, children, low income). The County and its planning partners can use existing social systems as resources for implementing such communication-related activities because these service providers already work directly with the public on a number of issues, one of which could be natural hazard preparedness and mitigation. Table 13-3 identifies several of the ongoing efforts which assist in notification and social service programs, further enhancing the resilience of the County.

Table 13-1 Mason County Legal and Regulatory Capability				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements				
Building Code Version Year	Yes	Yes	Yes	2015 International Building Code as required by the State
Zoning Ordinance	Yes		Yes	MCC Title 17
Subdivision Ordinance	Yes		Yes	MCC Title 16
Floodplain Ordinance	Yes	Yes	Yes	FEMA Requirements Established and enforced.
Stormwater Management	Yes			MCC Resource Ordinance
Post Disaster Recovery	No			
Real Estate Disclosure	No	No	Yes	
Growth Management	Yes		Yes	2016 Comprehensive Plan Update underway
Site Plan Review	Yes			
Public Health and Safety	Yes	Yes	Yes	
Coastal Zone Management	Yes	Yes	Yes	
Climate Change Adaptation	Yes			Some plans have begun to address this issue.
Shoreline Master Program	Yes			Adopted RCW 90.58 (2021 Update)
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire, etc.)	Yes		Yes	Mason County Resource Ordinance
Environmental Protection	Yes	Yes	Yes	
Planning Documents				
Comprehensive Land Use Plan <i>Is the plan equipped to provide linkage to this mitigation plan?</i>	Yes		Yes	2023 update in progress. Yes
Floodplain or Basin Plan	Yes			(See below)
Stormwater Plan	Yes			Various plans are in place such as: the Skokomish River Comprehensive Flood Hazard Management Plan; the Belfair Stormwater Basin Plan, the Allyn Urban Growth Area Plan which manages stormwater; the Hoodsport Rural Activity Center Stormwater Plan, and the Countywide Comprehensive Stormwater Management Plan.

Table 13-1 Mason County Legal and Regulatory Capability				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Capital Improvement Plan	Yes		Yes	
Habitat Conservation Plan	No			Critical Areas Ordinance and Shoreline Master Plan only.
Economic Development Plan	Yes		Yes	
Shoreline Management Plan	Yes		Yes	Mason County Code, Section 17.50. Updated 2021.
Community Wildfire Protection Plan (CWPP)	Yes		No	As of 2023 update, the fire services for the county have applied for funding to develop a countywide CWPP.
Belfair Urban Growth Area Sub-Area Plan	Yes			Establishes the vision for an enhanced, multi-dimensional community with mixed-use development in identified areas.
Shelton Urban Growth Area Sub-Area Plan	Yes			Establishes guiding goals and policies for future development within Shelton UGA.
Transportation Plan	Yes		Yes	
Response/Recovery Planning				
Comprehensive Emergency Management Plan	Yes		Yes	Updated 2021.
Threat and Hazard Identification and Risk Assessment	Yes		No	Homeland Security Region 3 Plan.
Terrorism Plan	Yes			
Post-Disaster Recovery Plan	No			ESF14
Continuity of Operations Plan	Draft			In-progress (some departments have completed their annex documents).
Public Health Plans	Yes			Various public health plans are in place both through the Health Department and through the hospital districts.
Administration, Boards and Commission				
Planning Commission	Yes		Yes	
Mitigation Planning Committee	Yes			
Watershed Restoration and Enhancement Committee	Yes	Yes	Yes	RCW 90.94.030

Table 13-1			
Mason County Legal and Regulatory Capability			
	Local Authority	Other Jurisdictional Authority	State Mandated
	Comments		
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)	Yes		
Various programs in place, including tree trimming, drainage systems, etc.			
Mutual Aid Agreements / Memorandums of Understanding			
MOAs: Area Agency on Aging – Area Agency provides information concerning high priority clients to enable (when possible) emergency management to assist with health and welfare checks for individuals with access and functional needs; Mason Transit – preparedness and disaster response including the potential for assistance in evacuating individuals with access and functional needs; DOC – Mission Creek Center for Women (for evacuation purposes to ensure protection and continuity).			

Table 13-2		
Administrative and Technical Capability		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Y	Planning Unit, Emergency Management
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Y	Planning Unit
Engineers specializing in construction practices?	Y	Planning Unit
Planners or engineers with an understanding of natural hazards	Y	Planning Unit
Staff with training in benefit/cost analysis	Y	Planning Unit
Surveyors	Y	Public Works
Personnel skilled or trained in GIS applications	Y	Planning Unit
Personnel skilled or trained in Hazus use	Y	Contracted Service
Scientist familiar with natural hazards in local area	Y	The county has hazard-specific subject matter experts on staff in various departments, available via contracting mechanisms, and available through state resources.

Table 13-2 Administrative and Technical Capability		
Staff/Personnel Resources	Available?	Department/Agency/Position
Emergency Manager	Y	Emergency Management Division with trained personnel and volunteers.
Grant writers	Y	Planning Unit; Various County departments have internal personnel who write grants; county staff to monitor and write grants.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	Y	CodeRED (no reverse 9-1-1); Public Works signage available as needed.
Hazard data and information available to public	Y	Planning Unit
Maintain Elevation Certificates	Y	Through Planning Department.

Table 13-3 Education and Outreach		
Program/Organization	Available ?	Department/Agency/Position and Brief Description
Local citizen groups or non-profit organizations focused on emergency preparedness?	Y	CERT and SAR trained personnel
Local citizen groups or non-profit organizations focused on environmental protection?	Y	Mason Conservation District
Organization focused on individuals with access and functional needs populations	Y	Voluntary Special Needs Registry in which Mason County residents can self-register if they have special medical needs (e.g. require oxygen or life support systems, have physical disabilities that would make independent evacuation difficult).
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Y	Various agencies at the county and state levels which promote educational efforts such as Firewise, Forestland-Urban Interface Fire Protection Act, and Fire Adapted Communities from the National Cohesive Wildfire Strategy.
Natural disaster or safety related school programs?	Y	Pursuant to the RCW, schools are required to develop and exercise hazard-specific response plans.
Public-private partnership initiatives addressing disaster-related issues?	Y	Various public education outreach; provide information and presentations; NFIP insurance; outreach for Continuity Planning.

Table 13-3 Education and Outreach		
Program/Organization	Available ?	Department/Agency/Position and Brief Description
Multi-seasonal public awareness program?	Y	The County maintains information on its website to address specific hazards at issue; also, as situations arise, the website, email lists and local area broadcasting provides public service announcements and information.

13.3 WASHINGTON STATE RATING BUREAU LEVELS OF SERVICE

In Washington, the Washington State Rating Bureau (WSRB) helps determine standards on which insurance rates are set. WSRB, like most other states, utilizes the Insurance Service Office, Inc. (ISO) to determine levels of protection based on a prescribed level of service. Two such levels of services assessed are the Public Protection Classification Program and the Building Code Effectiveness Grading Schedule.

13.3.1 Public Protection Classification Program

The Public Protection Classification (PPC) program recognizes the efforts of communities to provide fire protection services for citizens and property owners. A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Insurance companies use PPC information to help establish fair premiums for fire insurance — generally offering lower premiums in communities with better protection. By offering economic benefits for communities that invest in their firefighting services, the program provides an additional incentive for improving and maintaining public fire protection.

In order to establish appropriate fire insurance premiums for residential and commercial properties, insurance companies utilize up-to-date information about the Community's fire-protection services. Through analysis of relevant data, communities are able to evaluate their public fire-protection services, and secure lower fire insurance premiums for communities with better protection. This program provides incentives and rewards in those areas with improved firefighting services. This program has gathered extensive information on more than 46,000 fire-response jurisdictions. Once all of the data is reviewed and analyzed, communities are assigned a PPC from 1 to 10. Class 1 generally represents superior property fire protection, while Class 10 indicates that the area's fire-suppression program is not as robust.

The most significant benefit of the PPC program is its effect on losses. Statistical data on insurance losses bears out the relationship between excellent fire protection — as measured by the PPC program — and low fire losses. PPC helps communities prepare to fight fires effectively. The program also provides help for fire departments and other public officials as they plan, budget for, and justify improvements.

Table 13-4 identifies Public Protection Classifications for Mason County and the City of Shelton.

Table 13-4	
Countywide Public Protection Classification	
Community	Protection Class Grade
Shelton, City of *	5
Fire District #1	6
Fire District #3	7
Fire District #4	6
Fire District #5*	5
Fire District #6	5
Fire District #11	4
Fire District #12	8
Fire District #13	7
Fire District #16	6
Fire District #17	7
Fire District #18	7
North Mason Regional Fire Authority	5
*City of Shelton Fire Dept. and FD #5 merged and are <i>Central Mason Fire & EMS</i>	
Data effective as of February 2023	

13.3.2 Building Code Effectiveness Grading Schedule

The Building Code Effectiveness Grading Schedule (BCEGS) assesses building codes and amendments adopted in a community and evaluates that community's commitment to enforce them. The concept is simple: Municipalities with well-enforced, up-to-date codes should demonstrate better loss experience, and insurance rates can reflect that. The prospect of reducing damage and ultimately lowering insurance costs provides an incentive for communities to enforce their building codes rigorously. Table 13-5 identifies the BCEGS for the planning partnership.

Table 13-5		
Building Code Effectiveness Grading		
Community	Commercial	Dwelling
Mason County	4	4
City of Shelton	3	4
Data effective as of February 2023		

13.3.3 Public Safety Programs

Access and Functional Needs

One of the most important roles of local government is to protect their citizens from harm, including helping people prepare for and respond to emergencies. Making local government emergency

preparedness and response programs accessible to people with special needs is a critical part of this responsibility. Mason County Division of Emergency Management (DEM) has the mission to assess and plan for hazards and emergencies and work with other public safety and local government agencies to ensure public welfare. In an effort to provide services to all individuals county-wide, the County has developed a Special Needs Registry, which helps support individuals with access and functional needs. As a pre-planning tool, the Special Needs Registry should be considered strongly for all people who have special medical needs (i.e. oxygen or life support systems that are dependent upon electrical power) or have physical disabilities that would make it difficult to evacuate independently if the need arose. More information on the program is available at: https://www.masoncountywa.gov/forms/dem/special_needs_planning.pdf

Mason County Fire Districts

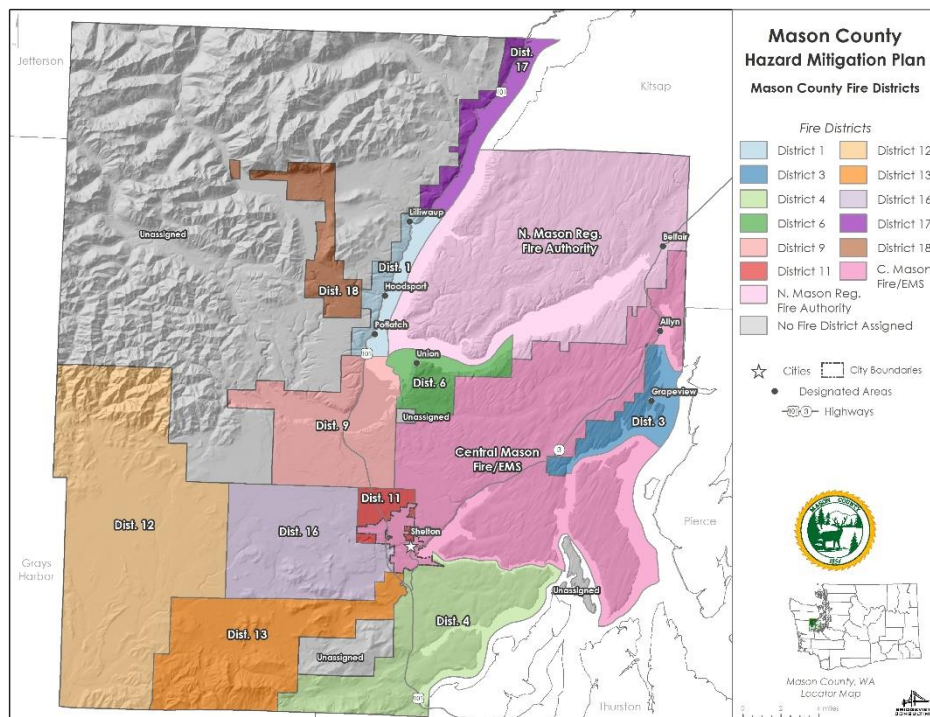


Figure 13-2 Mason County Fire Districts, Departments, and Regional Fire Authority

Mason County has a total of 13 fire districts serving its citizens. Within these fire districts, there are over 50 fire stations and structures owned by the various fire districts which protect the county during emergency situations. Fire prevention in Mason County is mainly focused on rural and wildland areas and is done through a Firewise community program in coordination with the WA DNR and the USFS.

The purpose of Mason County Fire Districts is the provision of fire prevention services, fire suppression services, emergency medical services, and for the protection of life and property. Mason County Fire Districts enjoy a working relationship with Mason County Government through an Interlocal Agreement addressing fire investigations. The Mason County Fire Chiefs Association, (in partnership with local law enforcement agencies) provides fire investigation services on behalf of the Mason County Fire Marshal's Office. Mason County Department of Community Development is

authority for inspections of all building sites prior to permit issuance, to include burn permits. Where there is limited or improper access to building(s), the Mason County fire protection plan calls for mandatory residential sprinkler system.

Mason County StormReady County

Mason County is also a recognized StormReady County under the National Weather Service Program. Achieving such status requires a significant level of effort. Being part of a Weather Ready Nation is about preparing for your community's increasing vulnerability to extreme weather and water events. The StormReady program helps arm America's communities with the communication and safety skills needed to save lives and property--before, during and after the event. StormReady helps community leaders and emergency managers strengthen local safety programs.

CHAPTER 14.

PLAN MAINTENANCE STRATEGY

In accordance with 44 CFR 201.6(c)(4), a hazard mitigation plan must present a plan maintenance process that includes the following:

- A section describing the method and schedule of monitoring, evaluating and updating the mitigation plan over its five year life-cycle
- A process by which local governments incorporate the requirements of mitigation plans into other planning mechanisms, such as comprehensive land use plans (as appropriate)
- A discussion on how the community will continue to engage public participation in mitigation planning efforts.

This section of the plan is focused on the plan maintenance strategy, and details the formal process that will ensure that the Mason County Hazard Mitigation Plan remains an active and relevant document and that the planning partners maintain their eligibility for applicable funding sources. The maintenance process identified for Mason County and its planning partners includes a schedule for monitoring and evaluating the plan and producing a plan revision every five years. This chapter also describes how public participation will be integrated throughout the plan maintenance and implementation process. It also explains how the mitigation strategies outlined in this plan will be incorporated into existing planning mechanisms and programs, such as comprehensive land-use planning processes, capital improvement planning, and building code enforcement and implementation. The plan's format allows sections to be reviewed and updated when new data becomes available, resulting in a plan that will remain current and relevant.

The Mason County Emergency Management Coordinator will maintain lead responsibility for overseeing the plan implementation and maintenance strategy. Plan implementation and evaluation will be a shared responsibility among all planning partnership members and agencies identified as lead agencies in the mitigation action plans (see planning partner annexes in Volume 2 of this plan).

14.1 MONITORING, EVALUATION AND UPDATING THE PLAN

The 2018 Hazard Mitigation Plan identified a maintenance strategy which included regular reviews during the life cycle of the plan; however, due to lack of staffing and transition of emergency management personnel, the plan was not reviewed as originally intended. While the plan review did not occur as intended, the County and its planning partners were effective in completing several of the strategies and action items identified in the plan as discussed in Chapter 12.

14.1.1 Plan Implementation and Maintenance

The effectiveness of the hazard mitigation plan depends on its implementation and incorporation of its action items into partner jurisdictions' existing plans, policies and programs. Together, the action items in the plan provide a framework for activities that the partnership can implement over the next 5 years. The planning partners have established goals and objectives and have prioritized mitigation actions that will be implemented through existing plans, policies, and programs.

44 CFR requires that local hazard mitigation plans be reviewed, revised if appropriate, and resubmitted for approval in order to remain eligible for benefits under the DMA (Section 201.6.d.3). The Mason County partnership intends to update the hazard mitigation plan on a 5-year cycle from the date of initial plan adoption. This cycle may be accelerated to less than 5 years based on the following triggers:

- A presidential disaster declaration that impacts the planning area.
- A hazard event that causes loss of life.
- A comprehensive update of the County or participating city/town's comprehensive plan.

It will not be the intent of future updates to develop a complete new hazard mitigation plan for the planning area. The update will, at a minimum, include the following elements:

- The update process will be convened through a planning team.
- The hazard risk assessment will be reviewed and, if necessary, updated using best available information and technologies.
- The action plans will be reviewed and revised to account for any initiatives completed, dropped, or changed and to account for changes in the risk assessment or new partnership policies identified under other planning mechanisms (such as the comprehensive plan).
- The draft update will be sent to appropriate agencies and organizations for comment.
- The public will be given an opportunity to comment on the update prior to adoption.
- The partnership governing bodies will adopt their portions of the updated plan.

The hazard mitigation plan will be reviewed annually and a progress report prepared. These reviews may be more or less frequent, as deemed necessary by the Emergency Management Director, but there will be a minimum of one review per year. The minimum task of each planning partner will be the evaluation of the progress of its individual action plan during a 12-month performance period. This review will include the following:

- Summary of any hazard events that occurred during the performance period and the impact these events had on the planning area.
- Review of mitigation success stories.
- Review of continuing public involvement.
- Brief discussion about why targeted strategies were not completed.
- Re-evaluation of the action plan to determine if the timeline for identified projects needs to be amended (such as changing a long-term project to a short-term one because of new funding).
- Recommendations for new projects.
- Changes in or potential for new funding options (grant opportunities).
- Impact of any other planning programs or initiatives that involve hazard mitigation.

A template to guide the planning partners in preparing a progress report has been created as part of this planning process (see Appendix C). The Emergency Management Coordinator will then prepare a formal annual report on the progress of the plan. This report should be used as follows:

- Posted on the Mason County website page dedicated to the hazard mitigation plan.
- Provided to the local media through a press release.
- Presented to planning partner governing bodies to inform them of the progress of actions implemented during the reporting period.

Use of the progress report will be at the discretion of each planning partner. Annual progress reporting is not a requirement specified under 44 CFR. However, it may enhance the planning partnership's opportunities for funding. While failure to implement this component of the plan maintenance strategy will not jeopardize a planning partner's compliance under the DMA, completion of the annual review will reduce the level of effort involved in future plan updates, and is highly encouraged by FEMA.

In addition to the annual review, three years after adoption of the hazard mitigation plan, the Director may decide to apply for a planning grant through FEMA to start the 2028 update. Upon receipt of funding, the County will solicit bids under applicable contracting procedures and hire a contractor to assist with the project. The proposed schedule for completion of the plan update is one year from award of a contract, to coincide with the five-year adoption date of the 2023 hazard mitigation plan update.

The Director (or his designee) will be responsible for the plan update. Before the end of the five-year period, the updated plan will be submitted to FEMA for approval. When concurrence is received that the updated plan complies with FEMA requirements, it will be submitted to the Board of County Commissioners, the City of Shelton Council, and the Special Purpose District Commissioners for adoption. The County will send an e-mail to individuals and organizations on the stakeholder list to inform them that the updated plan is available on the County website.

14.2 IMPLEMENTATION THROUGH EXISTING PROGRAMS

Mason County will have the opportunity to implement hazard mitigation projects through existing programs and procedures through plan revisions or amendments. The hazard mitigation plan will be incorporated into the plans, regulations and ordinances as they are updated in the future or when new plans are developed.

The County's Comprehensive Plan and the comprehensive plans of the planning partners are considered to be integral parts of this plan. The County and the City of Shelton, through adoption of comprehensive plans and zoning ordinances, have planned for the impact of natural hazards. The plan development process provided the County and the City with the opportunity to review and expand on policies contained within these planning mechanisms. The planning partners used their comprehensive plans and the hazard mitigation plan as complementary documents that work together to achieve the goal of reducing risk exposure to the citizens of the Mason County. An update to a comprehensive plan may trigger an update to the hazard mitigation plan.

All planning partners are committed to creating a linkage between the hazard mitigation plan and their individual comprehensive and other plans, including emergency management response plans. In some instances, this may be accomplished by identifying a mitigation initiative to do so and giving

that initiative a high priority. Other planning processes and programs to be coordinated with the recommendations of the hazard mitigation plan include the following:

- Partners' emergency response plans
- Capital improvement programs
- Municipal codes
- Building codes
- Critical areas regulation
- Growth management
- Water resource inventory area planning
- Basin planning
- Community design guidelines
- Water-efficient landscape design guidelines
- Stormwater management programs
- Water system vulnerability assessments
- Master fire protection plans
- Coastal Zone Atlas information
- Landslide reports and planning
- Evacuation planning
- Transportation planning

Some action items do not need to be implemented through regulation. Instead, these items can be implemented through the creation of new educational programs, continued interagency coordination, or improved public participation. As information becomes available from other planning mechanisms that can enhance this plan, that information will be incorporated via the update process.

14.3 CONTINUED PUBLIC INVOLVEMENT

Mason County is dedicated to involving the public directly in review and updates of the hazard mitigation plan. The public will continue to be apprised of the plan's progress through the Mason County website and the annual progress reports that will be provided to the media. All planning partners have agreed to provide links to the County hazard mitigation plan website on their websites to increase avenues of public access to the plan. The Mason County Division of Emergency Management has agreed to maintain the hazard mitigation plan website. This site will not only house the final plan, it will become the one-stop shop for information regarding the plan, the partnership and plan implementation. Upon initiation of future update processes, a new public involvement strategy will be initiated. This strategy will be based on the needs and capabilities of the planning partnership at the time of the update. At a minimum, this strategy will include the use of social media and local media outlets within the planning area.

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APPENDIX A
ACRONYMS AND DEFINITIONS

APPENDIX A

ACRONYMS AND DEFINITIONS

ACRONYMS

ASHRAE—American Society of Heating, Refrigerating, and Air-Conditioning Engineers
BOR—U.S. Bureau of Reclamation
BRIC- Building Resilient Infrastructure and Communities
CFR—Code of Federal Regulations
cfs—cubic feet per second
CIP—Capital Improvement Plan
CRS—Community Rating System
DFIRM—Digital Flood Insurance Rate Maps
DHS—Department of Homeland Security
DMA —Disaster Mitigation Act
DSO—Dam Safety Office
EAP—Emergency Action Plan
EPA—U.S. Environmental Protection Agency
ESA—Endangered Species Act
FCAAP—Flood Control Assistance Account Program
FCMP—Flood Control Maintenance Program
FEMA—Federal Emergency Management Agency
FERC—Federal Energy Regulatory Commission
FIRM—Flood Insurance Rate Map
FIS—Flood Insurance Study
GIS—Geographic Information System
GMA—Growth Management Act
Hazus-MH—Hazards, United States-Multi Hazard
HMGP—Hazard Mitigation Grant Program
IBC—International Building Code
IRC—International Residential Code
MM—Modified Mercalli Scale
NEHRP—National Earthquake Hazards Reduction Program
NFIP—National Flood Insurance Program
NFPA—National Fire Protection Association
NFR—Natural fire rotation
NOAA—National Oceanic and Atmospheric Administration
NWS—National Weather Service
PDM—Pre-Disaster Mitigation Grant Program
PDI—Palmer Drought Index
PGA—Peak Ground Acceleration
PHDI—Palmer Hydrological Drought Index
RCW—Revised Code of Washington

SCS—U.S. Department of Agriculture Soil Conservation Service
SFHA—Special Flood Hazard Area
SHELDUS—Special Hazard Events and Losses Database for the US
SPI—Standardized Precipitation Index
USGS—U.S. Geological Survey
WAC—Washington Administrative Code
WDFW—Washington Department of Fish and Wildlife
WUI— Wildland Urban Interface

DEFINITIONS

100-Year Flood: The term “100-year flood” can be misleading. The 100-year flood does not necessarily occur once every 100 years. Rather, it is the flood that has a 1 percent chance of being equaled or exceeded in any given year. Thus, the 100-year flood could occur more than once in a relatively short period of time. The Federal Emergency Management Agency (FEMA) defines it as the 1 percent annual chance flood, which is now the standard definition used by most federal and state agencies and by the National Flood Insurance Program (NFIP).

Acre-Foot: An acre-foot is the amount of water it takes to cover 1 acre to a depth of 1 foot. This measure is used to describe the quantity of storage in a water reservoir. An acre-foot is a unit of volume. One acre foot equals 7,758 barrels; 325,829 gallons; or 43,560 cubic feet. An average household of four will use approximately 1 acre-foot of water per year.

Asset: An asset is any constructed or natural feature that has value, including, but not limited to, people; buildings; infrastructure, such as bridges, roads, sewers, and water systems; lifelines, such as electricity and communication resources; and environmental, cultural, or recreational features such as parks, wetlands, and landmarks.

Base Flood: The flood having a 1% chance of being equaled or exceeded in any given year, also known as the “100-year” or “1% chance” flood. The base flood is a statistical concept used to ensure that all properties subject to the National Flood Insurance Program (NFIP) are protected to the same degree against flooding.

Basin: A basin is the area within which all surface water—whether from rainfall, snowmelt, springs, or other sources—flows to a single water body or watercourse. The boundary of a river basin is defined by natural topography, such as hills, mountains, and ridges. Basins are also referred to as “watersheds” and “drainage basins.”

Benefit: A benefit is a net project outcome and is usually defined in monetary terms. Benefits may include direct and indirect effects. For the purposes of benefit-cost analysis of proposed mitigation measures, benefits are limited to specific, measurable, risk reduction factors, including reduction in expected property losses (buildings, contents, and functions) and protection of human life.

Benefit/Cost Analysis: A benefit/cost analysis is a systematic, quantitative method of comparing projected benefits to projected costs of a project or policy. It is used as a measure of cost effectiveness.

Building: A building is defined as a structure that is walled and roofed, principally aboveground, and permanently fixed to a site. The term includes manufactured homes on permanent foundations on which the wheels and axles carry no weight.

Capability Assessment: A capability assessment provides a description and analysis of a community's current capacity to address threats associated with hazards. The assessment includes two components: an inventory of an agency's mission, programs, and policies, and an analysis of its capacity to carry them out. A capability assessment is an integral part of the planning process in which a community's actions to reduce losses are identified, reviewed, and analyzed, and the framework for implementation is identified. The following capabilities were reviewed under this assessment:

- Legal and regulatory capability
- Administrative and technical capability
- Fiscal capability

Community Rating System (CRS): The CRS is a voluntary program under the NFIP that rewards participating communities (provides incentives) for exceeding the minimum requirements of the NFIP and completing activities that reduce flood hazard risk by providing flood insurance premium discounts.

Critical Area: An area defined by state or local regulations as deserving special protection because of unique natural features or its value as habitat for a wide range of species of flora and fauna. A sensitive/critical area is usually subject to more restrictive development regulations.

Critical Facility: Facilities and infrastructure that are critical to the health and welfare of the population. These become especially important after any hazard event occurs. For the purposes of this plan, critical facilities include:

- Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic and/or water reactive materials;
- Hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a hazard event.
- Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for disaster response before, during, and after hazard events, and
- Public and private utilities, facilities and infrastructure that are vital to maintaining or restoring normal services to areas damaged by hazard events.
- Government facilities.

Cubic Feet per Second (cfs): Discharge or river flow is commonly measured in cfs. One cubic foot is about 7.5 gallons of liquid.

Dam: Any artificial barrier or controlling mechanism that can or does impound 10 acre-feet or more of water.

Dam Failure: Dam failure refers to a partial or complete breach in a dam (or levee) that impacts its integrity. Dam failures occur for a number of reasons, such as flash flooding, inadequate spillway size, mechanical failure of valves or other equipment, freezing and thawing cycles, earthquakes, and intentional destruction.

Debris Avalanche: Volcanoes are prone to debris and mountain rock avalanches that can approach speeds of 100 mph.

Debris Flow: Dense mixtures of water-saturated debris that move down-valley; looking and behaving much like flowing concrete. They form when loose masses of unconsolidated material are saturated, become unstable, and move down slope. The source of water varies but includes rainfall, melting snow or ice, and glacial outburst floods.

Debris Slide: Debris slides consist of unconsolidated rock or soil that has moved rapidly down slope. They occur on slopes greater than 65 percent.

Disaster Mitigation Act of 2000 (DMA); The DMA is Public Law 106-390 and is the latest federal legislation enacted to encourage and promote proactive, pre-disaster planning as a condition of receiving financial assistance under the Robert T. Stafford Act. The DMA emphasizes planning for disasters before they occur. Under the DMA, a pre-disaster hazard mitigation program and new requirements for the national post-disaster hazard mitigation grant program (HMGP) were established.

Drainage Basin: A basin is the area within which all surface water- whether from rainfall, snowmelt, springs or other sources- flows to a single water body or watercourse. The boundary of a river basin is defined by natural topography, such as hills, mountains and ridges. Drainage basins are also referred to as **watersheds** or **basins**.

Drought: Drought is a period of time without substantial rainfall or snowfall from one year to the next. Drought can also be defined as the cumulative impacts of several dry years or a deficiency of precipitation over an extended period of time, which in turn results in water shortages for some activity, group, or environmental function. A hydrological drought is caused by deficiencies in surface and subsurface water supplies. A socioeconomic drought impacts the health, well-being, and quality of life or starts to have an adverse impact on a region. Drought is a normal, recurrent feature of climate and occurs almost everywhere.

Earthquake: An earthquake is defined as a sudden slip on a fault, volcanic or magmatic activity, and sudden stress changes in the earth that result in ground shaking and radiated seismic energy. Earthquakes can last from a few seconds to over 5 minutes, and have been known to occur as a series of tremors over a period of several days. The actual movement of the ground in an earthquake is seldom the direct cause of injury or death. Casualties may result from falling objects and debris as shocks shake, damage, or demolish buildings and other structures.

Exposure: Exposure is defined as the number and dollar value of assets considered to be at risk during the occurrence of a specific hazard.

Extent: The extent is the size of an area affected by a hazard.

Fire Behavior: Fire behavior refers to the physical characteristics of a fire and is a function of the interaction between the fuel characteristics (such as type of vegetation and structures that could burn), topography, and weather. Variables that affect fire behavior include the rate of spread, intensity, fuel consumption, and fire type (such as underbrush versus crown fire).

Fire Frequency: Fire frequency is the broad measure of the rate of fire occurrence in a particular area. An estimate of the areas most likely to burn is based on past fire history or fire rotation in the area, fuel conditions, weather, ignition sources (such as human or lightning), fire suppression response, and other factors.

Flash Flood: A flash flood occurs with little or no warning when water levels rise at an extremely fast rate

Flood Insurance Rate Map (FIRM): FIRMs are the official maps on which the Federal Emergency Management Agency (FEMA) has delineated the Special Flood Hazard Area (SFHA).

Flood Insurance Study: A report published by the Federal Insurance and Mitigation Administration for a community in conjunction with the community's Flood Insurance rate Map. The study contains such background data as the base flood discharges and water surface elevations that were used to prepare the FIRM. In most cases, a community FIRM with detailed mapping will have a corresponding flood insurance study.

Floodplain: Any land area susceptible to being inundated by flood waters from any source. A flood insurance rate map identifies most, but not necessarily all, of a community's floodplain as the Special Flood Hazard Area (SFHA).

Floodway: Floodways are areas within a floodplain that are reserved for the purpose of conveying flood discharge without increasing the base flood elevation more than 1 foot. Generally speaking, no development is allowed in floodways, as any structures located there would block the flow of floodwaters.

Floodway Fringe: Floodway fringe areas are located in the floodplain but outside of the floodway. Some development is generally allowed in these areas, with a variety of restrictions. On maps that have identified and delineated a floodway, this would be the area beyond the floodway boundary that can be subject to different regulations.

Fog: Fog refers to a cloud (or condensed water droplets) near the ground. Fog forms when air close to the ground can no longer hold all the moisture it contains. Fog occurs either when air is cooled to its dew point or the amount of moisture in the air increases. Heavy fog is particularly hazardous because it can restrict surface visibility. Severe fog incidents can close roads, cause vehicle accidents, cause airport delays, and impair the effectiveness of emergency response. Financial losses associated with transportation delays caused by fog have not been calculated in the United States but are known to be substantial.

Freeboard: Freeboard is the margin of safety added to the base flood elevation.

Frequency: For the purposes of this plan, frequency refers to how often a hazard of specific magnitude, duration, and/or extent is expected to occur on average. Statistically, a hazard with a 100-year frequency is expected to occur about once every 100 years on average and has a 1 percent chance of occurring any given year. Frequency reliability varies depending on the type of hazard considered.

Fujita Scale of Tornado Intensity: Tornado wind speeds are sometimes estimated on the basis of wind speed and damage sustained using the Fujita Scale. The scale rates the intensity or severity of tornado events using numeric values from F0 to F5 based on tornado wind speed and damage. An F0 tornado (wind speed less than 73 miles per hour (mph)) indicates minimal damage (such as broken tree limbs), and an F5 tornado (wind speeds of 261 to 318 mph) indicates severe damage.

Goal: A goal is a general guideline that explains what is to be achieved. Goals are usually broad-based, long-term, policy-type statements and represent global visions. Goals help define the benefits that a plan is trying to achieve. The success of a hazard mitigation plan is measured by the degree to which its goals have been met (that is, by the actual benefits in terms of actual hazard mitigation).

Geographic Information System (GIS): GIS is a computer software application that relates data regarding physical and other features on the earth to a database for mapping and analysis.

Hazard: A hazard is a source of potential danger or adverse condition that could harm people and/or cause property damage.

Hazard Mitigation Grant Program (HMGP): Authorized under Section 202 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the HMGP is administered by FEMA and provides grants to states, tribes, and local governments to implement hazard mitigation actions after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to disasters and to enable mitigation activities to be implemented as a community recovers from a disaster

Hazards U.S. Multi-Hazard (Hazus-MH) Loss Estimation Program: Hazus-MH is a GIS-based program used to support the development of risk assessments as required under the DMA. The Hazus-MH software program assesses risk in a quantitative manner to estimate damages and losses associated with natural hazards. Hazus-MH is FEMA's nationally applicable, standardized methodology and software program and contains modules for estimating potential losses from earthquakes, floods, and wind hazards. Hazus-MH has also been used to assess vulnerability (exposure) for other hazards.

Hydraulics: Hydraulics is the branch of science or engineering that addresses fluids (especially water) in motion in rivers or canals, works and machinery for conducting or raising water, the use of water as a prime mover, and other fluid-related areas.

Hydrology: Hydrology is the analysis of waters of the earth. For example, a flood discharge estimate is developed by conducting a hydrologic study.

Intensity: For the purposes of this plan, intensity refers to the measure of the effects of a hazard.

Inventory: The assets identified in a study region comprise an inventory. Inventories include assets that could be lost when a disaster occurs and community resources are at risk. Assets include people, buildings, transportation, and other valued community resources.

Landslide: Landslides can be described as the sliding movement of masses of loosened rock and soil down a hillside or slope. Fundamentally, slope failures occur when the strength of the soils forming the slope exceeds the pressure, such as weight or saturation, acting upon them.

Lightning: Lightning is an electrical discharge resulting from the buildup of positive and negative charges within a thunderstorm. When the buildup becomes strong enough, lightning appears as a "bolt," usually within or between clouds and the ground. A bolt of lightning instantaneously reaches temperatures approaching 50,000°F. The rapid heating and cooling of air near lightning causes thunder. Lightning is a major threat during thunderstorms. In the United States, 75 to 100 Americans are struck and killed by lightning each year (see <http://www.fema.gov/hazard/thunderstorms/thunder.shtm>).

Liquefaction: Liquefaction is the complete failure of soils, occurring when soils lose shear strength and flow horizontally. It is most likely to occur in fine grain sands and silts, which behave like viscous fluids when liquefaction occurs. This situation is extremely hazardous to development on the soils that liquefy, and generally results in extreme property damage and threats to life and safety.

Local Government: Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized

tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

Magnitude: Magnitude is the measure of the strength of an earthquake, and is typically measured by the Richter scale. As an estimate of energy, each whole number step in the magnitude scale corresponds to the release of about 31 times more energy than the amount associated with the preceding whole number value.

Mass movement: A collective term for landslides, mudflows, debris flows, sinkholes and lahars.

Mitigation: A preventive action that can be taken in advance of an event that will reduce or eliminate the risk to life or property.

Mitigation Actions: Mitigation actions are specific actions to achieve goals and objectives that minimize the effects from a disaster and reduce the loss of life and property.

Objective: For the purposes of this plan, an objective is defined as a short-term aim that, when combined with other objectives, forms a strategy or course of action to meet a goal. Unlike goals, objectives are specific and measurable.

Peak Ground Acceleration: Peak Ground Acceleration (PGA) is a measure of the highest amplitude of ground shaking that accompanies an earthquake, based on a percentage of the force of gravity.

Preparedness: Preparedness refers to actions that strengthen the capability of government, citizens, and communities to respond to disasters.

Presidential Disaster Declaration: These declarations are typically made for events that cause more damage than state and local governments and resources can handle without federal government assistance. Generally, no specific dollar loss threshold has been established for such declarations. A Presidential Disaster Declaration puts into motion long-term federal recovery programs, some of which are matched by state programs, designed to help disaster victims, businesses, and public entities.

Probability of Occurrence: The probability of occurrence is a statistical measure or estimate of the likelihood that a hazard will occur. This probability is generally based on past hazard events in the area and a forecast of events that could occur in the future. A probability factor based on yearly values of occurrence is used to estimate probability of occurrence.

Repetitive Loss Property: Any NFIP-insured property that, since 1978 and regardless of any changes of ownership during that period, has experienced:

- Four or more paid flood losses in excess of \$1000.00; or
- Two paid flood losses in excess of \$1000.00 within any 10-year period since 1978 or
- Three or more paid losses that equal or exceed the current value of the insured property.

Return Period (or Mean Return Period): This term refers to the average period of time in years between occurrences of a particular hazard (equal to the inverse of the annual frequency of occurrence).

Riverine: Of or produced by a river. Riverine floodplains have readily identifiable channels. Floodway maps can only be prepared for riverine floodplains.

Risk: Risk is the estimated impact that a hazard would have on people, services, facilities, and structures in a community. Risk measures the likelihood of a hazard occurring and resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage above a particular threshold due to occurrence of a specific type of hazard. Risk also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.

Risk Assessment: Risk assessment is the process of measuring potential loss of life, personal injury, economic injury, and property damage resulting from hazards. This process assesses the vulnerability of people, buildings, and infrastructure to hazards and focuses on (1) hazard identification; (2) impacts of hazards on physical, social, and economic assets; (3) vulnerability identification; and (4) estimates of the cost of damage or costs that could be avoided through mitigation.

Risk Ranking: This ranking serves two purposes, first to describe the probability that a hazard will occur, and second to describe the impact a hazard will have on people, property, and the economy. Risk estimates for the County are based on the methodology that the County used to prepare the risk assessment for this plan. The following equation shows the risk ranking calculation:

$$\text{Risk Ranking} = \text{Probability} + \text{Impact (people + property + economy)}$$

Robert T. Stafford Act: The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 100-107, was signed into law on November 23, 1988. This law amended the Disaster Relief Act of 1974, Public Law 93-288. The Stafford Act is the statutory authority for most federal disaster response activities, especially as they pertain to FEMA and its programs.

Sinkhole: A collapse depression in the ground with no visible outlet. Its drainage is subterranean. It is commonly vertical-sided or funnel-shaped.

Special Flood Hazard Area (SFHA): The base floodplain delineated on a Flood Insurance Rate Map. The SFHA is mapped as a Zone A in riverine situations and Zone V in coastal situations. The SFHA may or may not encompass all of a community's flood problems

Stakeholder: Business leaders, civic groups, academia, non-profit organizations, major employers, managers of critical facilities, farmers, developers, special purpose districts, and others whose actions could impact hazard mitigation.

Stream Bank Erosion: Stream bank erosion is common along rivers, streams and drains where banks have been eroded, sloughed or undercut. However, it is important to remember that a stream is a dynamic and constantly changing system. It is natural for a stream to want to meander, so not all eroding banks are "bad" and in need of repair. Generally, stream bank erosion becomes a problem where development has limited the meandering nature of streams, where streams have been channelized, or where stream bank structures (like bridges, culverts, etc.) are located in places where they can actually cause damage to downstream areas. Stabilizing these areas can help protect watercourses from continued sedimentation, damage to adjacent land uses, control unwanted meander, and improvement of habitat for fish and wildlife.

Steep Slope: Different communities and agencies define it differently, depending on what it is being applied to, but generally a steep slope is a slope in which the percent slope equals or exceeds 25%. For this study, steep slope is defined as slopes greater than 33%.

Sustainable Hazard Mitigation: This concept includes the sound management of natural resources, local economic and social resiliency, and the recognition that hazards and mitigation must be understood in the largest possible social and economic context.

Thunderstorm: A thunderstorm is a storm with lightning and thunder produced by cumulonimbus clouds. Thunderstorms usually produce gusty winds, heavy rains, and sometimes hail. Thunderstorms are usually short in duration (seldom more than 2 hours). Heavy rains associated with thunderstorms can lead to flash flooding during the wet or dry seasons.

Tornado: A tornado is a violently rotating column of air extending between and in contact with a cloud and the surface of the earth. Tornadoes are often (but not always) visible as funnel clouds. On a local scale, tornadoes are the most intense of all atmospheric circulations, and winds can reach destructive speeds of more than 300 mph. A tornado's vortex is typically a few hundred meters in diameter, and damage paths can be up to 1 mile wide and 50 miles long.

Vulnerability: Vulnerability describes how exposed or susceptible an asset is to damage. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power. Flooding of an electric substation would affect not only the substation itself but businesses as well. Often, indirect effects can be much more widespread and damaging than direct effects.

Watershed: A watershed is an area that drains down gradient from areas of higher land to areas of lower land to the lowest point, a common drainage basin.

Wildfire: These terms refer to any uncontrolled fire occurring on undeveloped land that requires fire suppression. The potential for wildfire is influenced by three factors: the presence of fuel, topography, and air mass. Fuel can include living and dead vegetation on the ground, along the surface as brush and small trees, and in the air such as tree canopies. Topography includes both slope and elevation. Air mass includes temperature, relative humidity, wind speed and direction, cloud cover, precipitation amount, duration, and the stability of the atmosphere at the time of the fire. Wildfires can be ignited by lightning and, most frequently, by human activity including smoking, campfires, equipment use, and arson.

Windstorm: Windstorms are generally short-duration events involving straight-line winds or gusts exceeding 50 mph. These gusts can produce winds of sufficient strength to cause property damage. Windstorms are especially dangerous in areas with significant tree stands, exposed property, poorly constructed buildings, mobile homes (manufactured housing units), major infrastructure, and aboveground utility lines. A windstorm can topple trees and power lines; cause damage to residential, commercial, critical facilities; and leave tons of debris in its wake.

Zoning Ordinance: The zoning ordinance designates allowable land use and intensities for a local jurisdiction. Zoning ordinances consist of two components: a zoning text and a zoning map.

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APPENDIX B
FEMA APPROVAL LETTER

APPENDIX B

FEMA PLAN APPROVAL LETTER

**Mason County
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**APPENDIX C
EXAMPLE TEMPLATE FOR FUTURE PROGRESS REPORTS**

APPENDIX C

EXAMPLE TEMPLATE FOR FUTURE PROGRESS REPORTS

Mason County Hazard Mitigation Plan Annual Progress Report

Reporting Period: (Insert reporting period)

Background: Mason County and participating cities and special purpose districts in the county developed a hazard mitigation plan to reduce risk from all hazards by identifying resources, information, and strategies for risk reduction. The federal Disaster Mitigation Act requires state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. To prepare the plan, the participating partners organized resources, assessed risks from natural hazards within the county, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address probable impacts from natural hazards. By completing this process, these jurisdictions maintained compliance with the Disaster Mitigation Act, achieving eligibility for mitigation grant funding opportunities afforded under the Robert T. Stafford Act. The plan can be viewed on-line at:

Insert web address

Summary Overview of the Plan's Progress: The performance period for the hazard mitigation plan became effective on ___, 2023, with the final approval of the plan by FEMA. The initial performance period for this plan will be 5 years, with an anticipated update to the plan to occur before ___, 2028. As of this reporting period, the performance period for this plan is considered to be ___ percent complete. The hazard mitigation plan has targeted ___ hazard mitigation initiatives to be pursued during the 5-year performance period. As of the reporting period, the following overall progress can be reported:

- ___ out of ___ initiatives (___%) reported ongoing action toward completion.
- ___ out of ___ initiatives (___%) were reported as being complete.
- ___ out of ___ initiatives (___%) reported no action taken.

Purpose: The purpose of this report is to provide an annual update on the implementation of the action plan identified in the Mason County Hazard Mitigation Plan. The objective is to ensure that there is a continuing and responsive planning process that will keep the hazard mitigation plan dynamic and responsive to the needs and capabilities of the partner jurisdictions. This report discusses the following:

- Natural hazard events that have occurred within the last year
- Changes in risk exposure within the planning area (all of Mason County)
- Mitigation success stories
- Review of the action plan
- Changes in capabilities that could impact plan implementation

- Recommendations for changes/enhancement.

The Hazard Mitigation Plan Planning Team: The Hazard Mitigation Plan Planning Team, made up of planning partners and stakeholders within the planning area, reviewed and approved this progress report at its annual meeting held on , 2024. It was determined through the plan’s development process that a planning team would remain in service to oversee maintenance of the plan. At a minimum, the planning team will provide technical review and oversight on the development of the annual progress report. It is anticipated that there will be turnover in the membership annually, which will be documented in the progress reports. For this reporting period, the planning team membership is as indicated in Table 1.

[illegible]

Natural Hazard Events within the Planning Area: During the reporting period, there were __ natural hazard events in the planning area that had a measurable impact on people or property. A summary of these events is as follows:

- _____
- _____

Changes in Risk Exposure in the Planning Area: *(Insert brief overview of any natural hazard event in the planning area that changed the probability of occurrence or ranking of risk for the hazards addressed in the hazard mitigation plan)*

Mitigation Success Stories: *(Insert brief overview of mitigation accomplishments during the reporting period)*

Review of the Action Plan: Table 2 reviews the action plan, reporting the status of each initiative. Reviewers of this report should refer to the hazard mitigation plan for more detailed descriptions of each initiative and the prioritization process.

Address the following in the “status” column of the following table:

- Was any element of the initiative carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation for the initiative still appropriate?
- If the initiative was completed, does it need to be changed or removed from the action plan?

TABLE 2 ACTION PLAN MATRIX				
Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O, ✓)
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				
Initiative #_— [description]				

TABLE 2 ACTION PLAN MATRIX				
Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O, ✓)
Completion status legend: ✓ = Project Completed O = Action ongoing toward completion X = No progress at this time				

Changes That May Impact Implementation of the Plan: *(Insert brief overview of any significant changes in the planning area that would have a profound impact on the implementation of the plan. Specify any changes in technical, regulatory and financial capabilities identified during the plan's development)*

Recommendations for Changes or Enhancements: Based on the review of this report by the Hazard Mitigation Plan Planning Team, the following recommendations will be noted for future updates or revisions to the plan:

- _____
- _____
- _____
- _____
- _____

Public review notice: The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. Copies of the report have been provided to the governing boards of all planning partners and to local media outlets and the report is posted on the Mason County hazard mitigation plan website. Any questions or comments regarding the contents of this report should be directed to:

SEPTEMBER 2023

MASON COUNTY 2023
MULTI-JURISDICTION
HAZARD MITIGATION PLAN
VOLUME 2: PLANNING PARTNER ANNEXES



Bridgeview Consulting, LLC.
915 N. Laurel Lane | Tacoma, WA 98406 | 253.301.1330

**MASON COUNTY MULTI-JURISDICTION
2023 HAZARD MITIGATION PLAN UPDATE
VOLUME 2: PLANNING PARTNER ANNEXES**

SEPTEMBER 2023



:

Mason County Department of Emergency Management
100 Public Works Drive
Shelton, WA 98584

Prepared by:



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Mason County
2023 Multi-Jurisdiction Hazard Mitigation Plan Update
Volume 2—Planning Partner Annexes

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CHAPTER 1.

PLANNING PARTNER PARTICIPATION

1.1 BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. Such planning efforts require all participating jurisdictions to fully participate in the process and formally adopt the resulting planning document. Chapter 44 of the Code of Federal Regulations (44 CFR) states:

Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan. (Section 201.6.a(4))

In the preparation of the 2023 *Mason County Multi-Jurisdiction Hazard Mitigation Plan Update*, a Planning Partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act of 2000 (DMA) for as many eligible local governments in Mason County as possible. The DMA defines a local government as follows:

Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

There are two types of Planning Partners in this process, with distinct needs and capabilities:

- Incorporated municipalities (cities and towns)
- Special purpose districts (e.g., fire, hospital, school, water)
- For purposes of this update, the County elected to utilize the base plan as its document, with specific county data identified within the various tables within Volume 1.

1.2 THE PLANNING PARTNERSHIP

INITIAL SOLICITATION AND LETTERS OF INTENT

The planning team solicited the participation of the County and recognized special purpose districts at the outset of this project. Initial letters and emails were sent out in March 2022 to identify potential stakeholders for this process. The purpose of the letter was to introduce the planning process to jurisdictions in the County that could have a stake in the outcome of the planning effort, as well as to invite participation in the effort.

The planning process kickoff meeting was held on December 13, 2022 to solicit planning partners and inform potential partners of the benefits of participation in this effort. County-identified eligible local governments within the planning area were invited to attend; a press release of the meeting

was also published. Various agencies and citizen stakeholders were also invited to this meeting. The goals of the meeting were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Provide an update on the planning grant.
- Outline the Mason County plan update work plan.
- Describe the benefits of multi-jurisdictional planning.
- Solicit planning partners.
- Confirm a Planning Committee.

All interested local governments were provided with a list of planning partner expectations developed by the planning team and were informed of the obligations required for participation. Local governments wishing to join the planning effort were asked to provide the planning team with a “notice of intent to participate” that agreed to the planning partner expectations and designated a point of contact for their jurisdiction. In all, formal commitment was received from seven planning partners by the planning team, and the Mason County Planning Partnership was formed.

PLANNING PARTNER EXPECTATIONS

The Planning Team previously developed the following list of planning partner expectations, which were confirmed at the December 2022 kick-off meeting:

- Each partner will provide a “Letter of Intent to Participate.”
- Each partner will support and participate in the development of the update by providing requested information. Support includes this body making decisions regarding plan development and scope on behalf of the partnership.
- Each partner will provide support for the public involvement strategy developed by the Planning Team in the form of mailing lists, possible meeting space, and media outreach such as newsletters, newspapers or direct-mailed brochures.
- Each partner will participate in plan update development activities such as:
 - Planning Team meetings
 - Public meetings or open houses
 - Workshops and planning partner sessions
 - Public review and comment periods prior to adoption.

Attendance will be tracked at such activities, and attendance records will be used to track and document participation for each planning partner. A minimum level of participation was established.

- Each partner will be expected to perform a “consistency review” of all technical studies, plans, and ordinances specific to hazards identified within the planning area to determine the existence of plans, studies or ordinances not consistent with the equivalent documents reviewed in preparation of the County plan. For example: if a planning partner

has a floodplain management plan that makes recommendations that are not consistent with any of the County's basin plans, that plan will need to be reviewed for probable incorporation into the plan for the partner's area.

- Each partner will be expected to review the risk assessment and identify hazards and vulnerabilities specific to its jurisdiction. County or contract resources will provide jurisdiction-specific mapping and technical consultation to aid in this task if unavailable by the local jurisdiction, but the determination of risk and vulnerability will be up to each partner.
- Each partner will be expected to review the mitigation recommendations chosen for the overall county and determine if they will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the overall plan recommendations will need to be identified, prioritized and reviewed to determine their benefits and costs.
- Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed and when it is estimated to occur.
- Each partner will be required to sponsor or take part in at least one public meeting to present the draft plan at least two weeks prior to adoption (various ways in which this may be met).
- Each partner will be required to formally adopt the plan.

It should be noted that by adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria may result in a partner being dropped from the partnership by the Planning Team, and thus losing eligibility under the scope of this plan.

LINKAGE PROCEDURES

Eligible local jurisdictions that did not participate in development of this hazard mitigation plan update may comply with DMA requirements by linking to this plan following the procedures outlined in Appendix A.

1.3 ANNEX-PREPARATION PROCESS

TEMPLATES

Templates were created to help the Planning Partners prepare their jurisdiction-specific annexes. Since special purpose districts operate differently from incorporated municipalities, separate templates were created for the two types of jurisdictions. The templates were created so that all criteria of 44 CFR Section 201.6 would be met, based on the partners' capabilities and mode of operation. If templates were not completed in advance, each partner was required to participate in a technical assistance workshop during which key elements of the template were completed by a designated point of contact for each partner and a member of the planning team. The templates were set up to lead each partner through a series of steps that would generate the DMA-required elements that are specific for each partner.

WORKSHOP

Workshops were held for Planning Partners to learn about the templates and the overall planning process. In addition to the workshops, one-on-one meetings and/or telephone conferences were also held to provide assistance. Topics addressed included the following:

- DMA
- Mason County plan background
- The Annex templates and Instructions
- Risk ranking (Calculated Priority Risk Index - CPRI)
- Developing an action plan
- Cost/benefit review.

The sessions provided technical assistance and an overview of the template completion process. Attendance at this workshop was mandatory under the planning partner expectations established by the Planning Team Committee. There was 100-percent attendance of the partnership at these sessions.

In the risk-ranking exercise, each planning partner was asked to rank each risk specifically for its jurisdiction, based on the impact on its population or facilities. Cities were asked to base this ranking on probability of occurrence and the potential impact on people, property and the economy. Special purpose districts were asked to base this ranking on probability of occurrence and the potential impact on their constituency, their vital facilities and the facilities' functionality after an event. The methodology followed that used for the countywide risk ranking presented in Volume 1. A principal objective of this exercise was to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes. Tools utilized during these sessions included the following:

- The risk assessment results developed for this plan
- Hazard maps for all hazards of concern
- Special district boundary maps that illustrated the sphere of influence for each special purpose district partner
- Hazard mitigation catalogs
- Federal funding and technical assistance catalogs
- Copies of partners' prior annexes, if applicable.
- Calculated Priority Risk Ranking Table
- Loss Matrices, Critical Facility Exposure and Impact Tables, Comprehensive Data Management System database attribute tables.

PRIORITIZATION

44 CFR requires actions identified in the action plan to be prioritized (Section 201.c.3.iii). The planning team developed a methodology for prioritizing the action plans that meets the needs of the

partnership and the requirements of 44 CFR. The actions were prioritized according to the following criteria:

- **High Priority**—Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.
- **Medium Priority**—Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- **Low Priority**—Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and timeline for completion is long term (5 to 10 years).

These priority definitions are dynamic and can change from one category to another based on changes to a parameter such as availability of funding. For example, a project might be assigned a medium priority because of the uncertainty of a funding source but be changed to high once a funding source has been identified. The prioritization schedule for this plan will be reviewed and updated as needed annually through the plan maintenance strategy.

BENEFIT/COST REVIEW

44 CFR requires the prioritization of the action plan to emphasize a benefit/cost analysis of the proposed actions. Because some actions may not be implemented for up to 10 years, benefit/cost analysis was qualitative and not of the detail required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. A review of the apparent benefits versus the apparent cost of each project was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to costs and benefits as follows:

- Cost ratings:
 - **High**—Existing funding levels are not adequate to cover the costs of the proposed action; implementation would require an increase in revenue through an alternative source (for example, bonds, grants, and fee increases).
 - **Medium**—The action could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the action would have to be spread over multiple years.
 - **Low**—The action could be funded under the existing budget. The action is part of or can be part of an existing, ongoing program.
- Benefit ratings:
 - **High**—The action will have an immediate impact on the reduction of risk exposure to life and property.
 - **Medium**—The action will have a long-term impact on the reduction of risk exposure to life and property or will provide an immediate reduction in the risk exposure to property.

- **Low**—Long-term benefits of the action are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly.

It should be noted that for many of the strategies identified in this action plan, funding might be sought under FEMA's various mitigation programs. These programs require detailed benefit/cost analysis as part of the application process. These analyses will be performed on projects at the time of application preparation. The FEMA benefit-cost model will be used to perform this review. For projects not seeking financial assistance from grant programs that require this sort of analysis, the Partners reserve the right to define "benefits" according to parameters that meet their needs and the goals and objectives of this plan.

ANALYSIS OF MITIGATION INITIATIVES

Each planning partner reviewed its recommended initiatives to classify each initiative based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this categorization are as follows:

- **Prevention** - Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. This includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Public Information and Education** - Public information campaigns or activities which inform citizens and elected officials about hazards and ways to mitigate them – a public education or awareness campaign, including efforts such as: real estate disclosure, hazard information centers, and school-age and adult education, all of which bring awareness of the hazards of concern.
- **Structural Projects** —Efforts taken to secure against acts of terrorism, manmade, or natural disasters. Types of projects include levees, reservoirs, channel improvements, or barricades which stop vehicles from approaching structures to protect.
- **Property Protection** - Actions taken that protect the properties. Types of efforts include: structural retrofit, property acquisition, elevation, relocation, insurance, storm shutters, shatter-resistant glass, sediment and erosion control, stream corridor restoration, etc. Protection can be at the individual homeowner level, or a service provided by police, fire, emergency management, or other public safety entities.
- **Emergency Services / Response** —Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities (e.g., sandbagging).
- **Natural Resource Protection** - Wetlands and floodplain protection, natural and beneficial uses of the floodplain, and best management practices. These include actions that preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

- **Recovery** —Actions that involve the construction or re-construction of structures in such a way as to reduce the impact of a hazard, or that assist in rebuilding or re-establishing a community after a disaster incident. It also includes advance planning to address recovery efforts which will take place after a disaster. Efforts are focused on re-establishing the planning region in such a way as enhance resiliency and reduce impacts to future incidents. Recovery differs from response, which occurs during, or immediately after an incident. Recovery views long-range, sustainable efforts.

1.4 FINAL COVERAGE UNDER THE PLAN

Of the seven committed planning partners, all fully met the participation requirements specified by the Planning Team. All partners attended the workshop, and all subsequently submitted completed templates. Therefore, all jurisdictions are included in this volume and will seek DMA compliance under this plan.

Table 1-1 Planning Partner Status				
Jurisdiction	Letter of Intent Submitted	Attended Workshop?	Completed Template?	Will Be Covered by This Plan?
Mason County	Yes	Yes	Yes	Yes
City of Shelton	Yes	Yes	Yes	Yes
Central Mason Fire & EMS	Yes	Yes	Yes	Yes
Mason County Fire District #16	Yes	Yes	Yes	Yes
Mason County Fire District #4	Yes	Yes	Yes	Yes
Public Utility District #1	Yes	Yes	Yes	Yes
Public Utility District #3	Yes	Yes	Yes	Yes

CHAPTER 2.

CITY OF SHELTON ANNEX



2.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the City of Shelton, a participating jurisdiction to the 2023 Mason County Hazard Mitigation Plan Update, having also been a previous planning partner in the County's 2018 plan. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the City of Shelton. For planning purposes, this Annex provides additional information specific to the jurisdiction, with a focus on providing greater details on the risk assessment and mitigation strategy for this community only.

2.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

The City of Shelton followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County's Planning Team, the City of Shelton also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

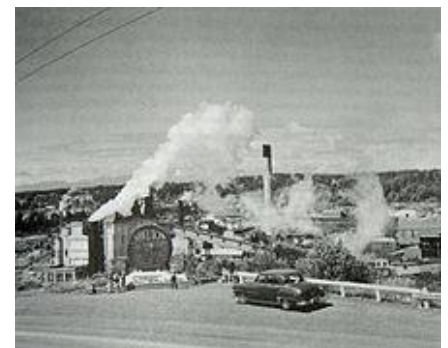
Local Planning Team Members		
Name	Position/Title	Planning Tasks
Carol Beason, Chief of Police 525 W Cota Shelton, WA 98584	Primary Point of Contact	Attended meetings, provided local data to planning partnership; captured necessary information from various departments within the City to complete annex template. Conducted public outreach briefings during City Council meetings, including for risk assessment results and for plan review. Also presented final plan to City for adoption.
Chris Kostad, Police Captain 525 W Cota Shelton, WA 98584	Alternate Point of Contact	Work with Chief Beason to participate in countywide planning process. Assist with information gathering to provide to planning team. Assist with completion of annex template.
Mark Ziegler, Interim City Manager 525 W Cota Shelton, WA 98584	Planning Team Member	Provided information on overall annex; assisted in appointing City of Shelton Planning Team Members to serve on committee; provided input into various elements and hazard impact; reviewed all phases of plan development; presented plan to Council and for public outreach.
Jay Harris, Director of Public Works 525 W Cota	Planning Team Member	Provided information on all elements of plan development; conducted review of draft plans;

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Shelton, WA 98584		reviewed risk assessment data; assisted with public outreach and presentation to City Council.
Jae Hill, Community and Economic Development Director 525 W Cota Shelton, WA 98584	Planning Team Member	Provided information on overall annex; assisted with Capabilities Assessment; conducted review of document; assisted with Annex development.

2.3 COMMUNITY PROFILE

The following is a summary of key information about the jurisdiction and its history:

- ☐ **Date of Incorporation—1890**
- ☐ **Current Population and Anticipated Growth**—Population for the City of Shelton has continued to expand since completion of the last plan, increasing to 10,763 based on US Census Facts (2021 figures). Housing units have also continued to increase, with certain portions of the City seeing a new residential areas being developed.
- ☐ **Location and Description**— The City of Shelton is the westernmost city on Puget Sound, enjoying quiet harbors along pristine shorelines and densely forested hills. The City serves as the county seat for Mason County, Washington. The City is located at 47°12'49"N 123°6'22"W (47.213702, -123.106088). According to the United States Census Bureau, the city has a total area of 6.09 square miles (15.77 km²), of which 5.76 square miles (14.92 km²) is land and 0.33 square miles (0.85 km²) is water. The City of Shelton is the only city in Mason County. Major roadways in the City include Highway 3 and Railroad Ave running through its boundaries. There are also three highly travelled accesses off Highway 101 which flow into the City. The City is geographically recognized as having three general areas: Hillcrest, Mt. View, and the Downtown area. Most of the City's retail is transitioning into the Mt. View area. Likewise, Mason General Hospital is also expanding into the Mt. View area as well. The Downtown area continues with small local retail. The City has ~104 employees and provides a wide range of municipal services including City Administration, City Clerk, Community and Economic Development, Finance, Municipal Court, Fire, Police, and Public Works. Also offered are services such as: Water & Sewer, Solid Waste, and Parks & Recreation.
- ☐ **Brief History**— Shelton was officially incorporated in 1890. The city was named after David Shelton (pictured right), a delegate to the territorial legislature. Shelton was once served by a small fleet of steamboats, which was part of the Puget Sound Mosquito Fleet. These boats included the Old Settler, Irene, Willie, City of Shelton, Marian, Clara Brown, and S.G. Simpson.
- ☐ The economy was built around logging, farming, dairying and ranching as well as oyster cultivation. The Simpson Timber



Company mill on Puget Sound's Oakland Bay dominated the landscape of the downtown area; the mill was sold to Sierra Pacific Industries in 2015, who are currently building a new mill. Shelton also identifies itself as the "Christmas Tree Capital."

- ☐ **Climate**— Shelton experiences heavy annual precipitation, but experiences a distinct drying trend in summer, in common with much of western Washington. Due to this trend, Shelton's climate is classified as a warm-summer climate classification system. Temperatures year-round are relatively mild, with few days of extreme highs in summer and extreme lows in winter.
- ☐ **Governing Body Format** — Shelton was the last city in the state of Washington to utilize the Mayor/Commission form of government. A recent November 2017 election now changes government to a seven-member City Council with City Manager form of government.
- ☐ **Development Trends** - With the closure and sale of Simpson Timber and Sierra Pacific purchase we will have the largest lumber stud mill on the west coast. Now fully operational with Sierra Pacific's fabrication facility also located on site. In addition, a new water system now provides the needed water to the Mt. View area and out to the WSP academy on Hwy 102. Mason General Hospital, now Mason Health, completed a large expansion to put all of their medical clinics in one central location, including a three-story medical complex on the current footprint. Solidifying Mason Health as a regional healthcare provider and critical community service provider.
- ☐ **Economy** – The City of Shelton economic base consists of Forest Products, Medical Services, and Education (e.g., retail sales and services; recreational and healthcare services; agricultural; and light manufacturing. The largest employers include Sierra Pacific Lumber Manufacture, Mason General Hospital, and Shelton School District.

2.4 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the jurisdiction or there are hazards which are unique to the jurisdiction as follows. Table 2-1 lists all past occurrences of hazard events within the jurisdiction. If available, dollar loss data is also included.

Table 2-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	Minimal for City facilities or operations. Unknown for overall community.
Severe Winter Storm	4593	12/29/20-1/16/21	Minimal for City facilities or operations. Unknown for overall community.

Table 2-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Storm	4539	1/20/-2/10/2020	Minimal for City facilities or operations. Unknown for overall community.
Pandemic	4481	1/20/20 – Present	Unknown
Severe Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown

**Table 2-1
Natural Hazard Events**

Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown
Jurisdiction Specific Incidents Not Rising to Level of Disaster Declaration			
Wildfire by PUD 3 Headquarters - 240 Acres burned		10/2014	Unknown Damages

2.5 CAPABILITY ASSESSMENT

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction's capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities are divided into the following sections: National Flood Insurance Program (NFIP) information; regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

2.6 NATIONAL FLOOD INSURANCE PROGRAM

The City of Shelton maintains active participation in the National Flood Insurance Program (NFIP) and implements the NFIP regulations through Chapter 18.07 of the Shelton Municipal Code. Within Section 18.07.050 SMC there are definitions for "substantial damage" and "substantial improvement" as follows:

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a “historic structure”; provided, that the alteration will not preclude the structure’s continued designation as a “historic structure.”

Elsewhere in that same Chapter, the requirements of the Chapter—including development permits, elevation certificates, floodproofing, elevation above base flood elevation, structure anchoring, and so on—are applied to all new construction and buildings undergoing substantial improvements, including those damaged as a result of flood events.

The City maintains building officials that regularly inspect and enforce all building codes and construction regulations to ensure compliance with the established municipal codes.

Information on the community’s National Flood Insurance Program (NFIP) compliance is presented in Table 2-2. This identifies the current status of the jurisdiction’s involvement with the NFIP. Data for this section was compiled from FEMA websites and State of Washington, Emergency Management Division.

- Current Policies in Force (as of 2022): 11
- Total Coverage for Policies in Force: \$3,620,000

Repetitive flood loss records are as follows (all are for residential structures):

- Number of FEMA-Identified Repetitive Loss Properties: 22
- Number of FEMA-Identified Severe Repetitive Loss Properties: 3
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

Table 2-2 National Flood Insurance Program Compliance	
What department is responsible for floodplain management in your community?	City of Shelton Community Development Department
Who is your community’s floodplain administrator? (department/position)	City of Shelton Community Development Department – Chief Building Official and Senior Planner
Do you have any certified floodplain managers on staff in your community?	No
What is the date of adoption of your flood damage prevention ordinance?	Originally adopted in 1992 and amended in 2006 and 2013 and 2022.

Table 2-2 National Flood Insurance Program Compliance	
When was the most recent Community Assistance Visit or Community Assistance Contact?	2012
To the best of your knowledge, does your community have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	None that we are aware of.
Do your flood hazard maps adequately address the flood risk within your community? (If no, please state why)	Yes.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Training regarding methods of achieving compliance in existing (older) structures undergoing significant remodel would be helpful.
Does your community participate in the Community Rating System (CRS)? If so, is your community seeking to improve its CRS Classification? If not, is your community interested in joining the CRS program?	No.

2.7 REGULATORY CAPABILITY

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 2-3. This includes planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are currently in place.

Table 2-3 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements				
Building Code	Yes			
Version - International Codes				
Year -2015				
Zoning Ordinance	Yes			
Subdivision Ordinance	Yes			
Floodplain Ordinance	Yes			
Stormwater Management	Yes			
Post Disaster Recovery	Unknown			
Real Estate Disclosure	Unknown			

Table 2-3 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Growth Management –	Yes			The City of Shelton operates under the Washington State Growth Management Act.
Site Plan Review	Yes			
Public Health and Safety	Yes			
Coastal Zone Management	Yes			
Climate Change Adaptation	Yes			The state has certain mandates which the City operates under, including mechanisms to reduce the carbon footprint.
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire, etc.)	Yes			Flood, stormwater, wildfire, critical areas ordinance.
Environmental Protection	Yes			
Planning Documents				
General or Comprehensive Plan	Yes (Comp Plan)			
Is the plan equipped to provide linkage to this mitigation plan? Yes				
Floodplain or Basin Plan	Yes			The City Floodplain Ordinance is enforced, but there is no “plan” per se
Stormwater Plan	Yes			The City of Shelton has stormwater requirements for all development. All new development is reviewed pursuant to the Department of Ecology Stormwater Management Manual for Western Washington (2005)
Capital Improvement Plan	Yes			
Habitat Conservation Plan –	Yes			While there is no Conservation Plan directly through the City of Shelton, the City of Shelton does work with the Mason Conservation District for Conservation efforts.
Shoreline Management Plan	Yes			The City of Shelton updated its Shoreline Master Program in 2013.
Community Wildfire Protection Plan	No			
Transportation Plan	Yes			Yes, in the City Comprehensive Plan.
Response/Recovery Planning				

Table 2-3 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Comprehensive Emergency Management Plan				Yes, through the County, who provides emergency management services to the City.
Threat and Hazard Identification and Risk Assessment	Yes			The City is part of the Region's THIRA
Terrorism Plan	Yes			Through law enforcement.
Post-Disaster Recovery Plan	No			
Continuity of Operations Plan	No			
Public Health Plans	Yes			Through the County.
Boards and Commission				
Planning Commission	Yes			
Mitigation Planning Committee	Yes			The points of contact for this 2023 update process will remain in force during the lifecycle of this plan.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)-	Yes			Through the City of Shelton Public Works Department.
Mutual Aid Agreements / Memorandums of Understanding	Yes			
Other				

2.7.1 Administrative and Technical Capability

The assessment of the jurisdiction's administrative and technical capabilities, educational outreach efforts, and on-going programmatic efforts are presented in Table 2-4. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 2-4 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	City of Shelton Community Development and Public Works and Engineering have planners and engineers as paid staff positions.
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	City of Shelton Building and Fire Departments / Building Official and Assistant Fire Chief
Engineers specializing in construction practices?	Yes	City of Shelton Engineering Department and, to a degree, the City of Shelton Building Department
Planners or engineers with an understanding of natural hazards	Yes	City of Shelton Community Development and Engineering Departments
Staff with training in benefit/cost analysis	Yes	Available on a contractual basis
Surveyors	Yes	Available on a contractual basis
Personnel skilled or trained in GIS applications	Yes	City of Shelton Engineering Department
Scientist familiar with natural hazards in local area	Yes	City of Shelton Community Development Department, Planning Staff
Emergency Manager	Yes	Police Department / Chief of Police / Contracted services with the County, who provides assistance with planning and emergency response activities as needed, including damage assessment after a disaster incident.
Grant writers	Yes	No official, job specific, grant writers are on staff. Staff write grants as applicable.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	Yes	County public works has signage available for use for warning systems; also, County communications programs support the City as needed for warning and broadcasts. The City also uses a PIO and social media.
Hazard data and information available to public	Yes	Through Mason County Emergency Management and City of Shelton
Maintain Elevation Certificates	Yes	City of Shelton Community Development keeps elevation certificates in specific project files as applicable.
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	No	The City is attempting to establish CERT teams throughout the City for this purpose.

**Table 2-4
Administrative and Technical Capability Supporting Mitigation**

Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Local citizen groups or non-profit organizations focused on environmental protection?	Yes	Numerous organizations (Mason Conservation District, South Puget Sound Enhancement Group, Squaxin Island Tribe, etc.) are focused on environmental protection in the area.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	The City of Shelton Utility Department has outreach information for responsible water use, the City of Shelton contract Fire Department - Central Mason Fire & EMS, provides outreach for fire safety and household preparedness.
Multi-seasonal public awareness program?	Yes	Both the City and the County provide public awareness programs on an on-going basis throughout the year as seasonal issues arise, such as flood season, wildfire season, etc.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	Yes	Mason County Noxious Weed Board
Noxious Weed Eradication Program or other vegetation management	Yes	Mason County Noxious Weed Board
Chipper program	Yes	Through Public Works. The City of Shelton also offers a free Christmas tree chipping program yearly.
Creek, stream, culvert or storm drain maintenance or cleaning program	Yes	The City of Shelton stormwater utility provides creek, stream, and culvert/storm drainage maintenance and cleaning. The City also advocates for residents to "adopt a storm drain" during the fall when leaf fall is at its highest level.
Stream restoration program	Yes	The City of Shelton Critical Areas Ordinance requires the restoration and/or maintenance of streams and riparian areas as the City develops. The City of Shelton Community Development Department administers the Critical Areas Ordinance.
Erosion or sediment control program	Yes	The City of Shelton Public Works and Engineering Department has adopted the 2018 Stormwater Management Manual for Western Washington and also has Public Works Standards that apply to any land clearing activity.

Table 2-4 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Address signage for property addresses	Yes	The City of Shelton adheres to the requirements for the International Fire Code for addressing of properties. The City of Shelton Building Department and contract Fire Department administer this code.
Other		

2.7.2 Fiscal Capability

The assessment of the jurisdiction's fiscal capabilities is presented in Table 2-5. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 2-5 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Other	

2.7.3 Community Classifications

Classifications under various community mitigation programs are presented in Table 2-6. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community.

Table 2-6 Community Classifications	
	Participating (Yes/No)
Protection Class	5
Building Code Effectiveness Grading Schedule	Commercial 3 Dwellings 4
Storm Ready	Yes - County
Firewise	Yes
Tsunami Ready (if applicable)	NA

2.8 HAZARD RISK AND VULNERABILITY RANKING

The jurisdiction's Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect the City of Shelton

Table 2-7 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by: past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 2-7 Hazard Risk and Vulnerability Ranking			
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank
1	Severe Weather	3.5	Medium
2	Wildfire	3.1	Low
3	Earthquake	3.6	High
4	Flood	2.9	Low
5	Landslide	2.45	Low
6	Drought	2.2	Extremely Low
7	Climate Change	1.15	Low

The hazards as ranked for this 2023 update remain the same as for the 2018 update. While the City has had some new construction occurring within its boundaries, those structures are built to higher codes in place, and must adhere to land use authority with respect to construction in hazard areas, thereby decreasing vulnerability associated with new construction. All measures possible have been taken to help ensure the safety of the citizens.

2.9 MITIGATION GOALS AND OBJECTIVES

The City of Shelton adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

2.10 HAZARD MITIGATION ACTION PLAN

The Planning Team for the jurisdiction identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the jurisdiction's assets and hazards of concern. Table 2-8 lists the action items/strategies that make up the jurisdiction's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, who will benefit from the activity, and the type of initiative associated with each item are also identified. (NOTE: City Funds reflect funding available from the City coffers.)

**Table 2-8
Hazard Mitigation Action Plan Matrix**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1 Create a public education plan that would include classes, publication, and signage to raise the level of knowledge in the community about our current hazards. IE., Wildland fires, Earthquakes, Powerline Awareness. Focus will be on basic all hazard preparedness.									
New	All	1,2,3, 4	City of Shelton Police Dept, Chief or designee	\$2,000	EMPG, FEMA grants, City Funds	Short Term	Yes	Public Information	Local
INITIATIVE # 2 Outreach to the local community to create interest in the CERT program									
New	All	1,2,3,4	City of Shelton Police Dept, Chief or designee	\$1500	SHSP, FEMA HLS, City Funds	Short and Long Term	Yes	Public Information, Response, Emergency Services	Local
INITIATIVE #3 To work with Red Cross and Local Community to use the Civic Center for short term Shelter. This may include enhancing the facility to ensure appropriate equipment needs are met.									
New	All	1,2,3,4	City of Shelton City Council and Police Dept, Chief or designee	\$3000	FEMA Grants as available or City Funds	Short Term	Yes – Modified	Emergency Services	Local
INITIATIVE # 4 Upgrade the Communication System to mirror the MACECOM Communication Center									
New	All	1,2,3,4	City of Shelton Police Dept, Chief or designee	\$5000	HLS, EMPG, SHSP, City Funds	Long Term	Yes	Emergency Services	Local
INITIATIVE #5 Seek out grant funding to construct a new public safety structure which incorporates space to be utilized as a shelter or resilience center.									

Table 2-8
Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
New	All	All	City of Shelton Police Dept, Chief or designee, City of Shelton Finance Dept. Director	\$2 Million	FEMA, BRIC, HLS, HUD, etc.	Long Term	No	Emergency Services, Recovery, Response	Local and County

2.11 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 2-9 identifies the prioritization for each action item.

Table 2-9
Mitigation Strategy Priority schedule

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
1	4	H	L	Y	Y	Y	H
2	All	H	L	Y	Y	Y	H
3	All	L	L	Y	Y	Y	L
4	All	H	L	Y	Y	Y	H
5	All	H	H	Y	Y	N	H

a. See Chapter 1 for explanation of priorities.

2.12 STATUS OF PREVIOUS PLAN INITIATIVES

Table 2-10 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 2-10.
2023 Status of previous Hazard Mitigation STRATEGIES

Mitigation Strategy	Associated Hazards							2023 Project Status	Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant	Carried Over
Public Outreach	X	X	X	X	X	X	X	Continuing in nature. In conjunction with the County and contracted Fire Dept., the City engages in regular emergency management and public safety efforts which relate to the specific hazards of concern.		X		X
CERT Training	X	X	X	X	X	X	X	The City works in conjunction with the County and its contract Fire Department to assist with this effort.		X		X

Table 2-10. 2023 Status of previous Hazard Mitigation STRATEGIES											
	Associated Hazards								Current Status		
Mitigation Strategy	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire	2023 Project Status	Completed	Continual / Ongoing	Removed / No Longer Relevant
Shelter Arrangements	X	X	X	X	X	X	X				X
Upgrade Communications System	X	X	X	X	X	X	X	The City has applied for grant funds to acquire new communications equipment, but the grant is pending.			X

2.13 HAZARD MAPS

The following maps illustrate the areas of concern within the City of Shelton. All maps were updated with the most current data with the exception of two maps. In the case of the Coastal Landforms/Feeder Bluff map by Washington Department of Ecology, the State no longer provides this data, and it is therefore considered the best available data for this update. FEMA's 2017 Risk Map project developed the Ground Shaking Map for the Cascadia M9.0 Earthquake event, which map remains current as no additional Risk Map update has been completed by FEMA. As such, both maps were not replaced, and are a carry-over from the 2018 HMP.

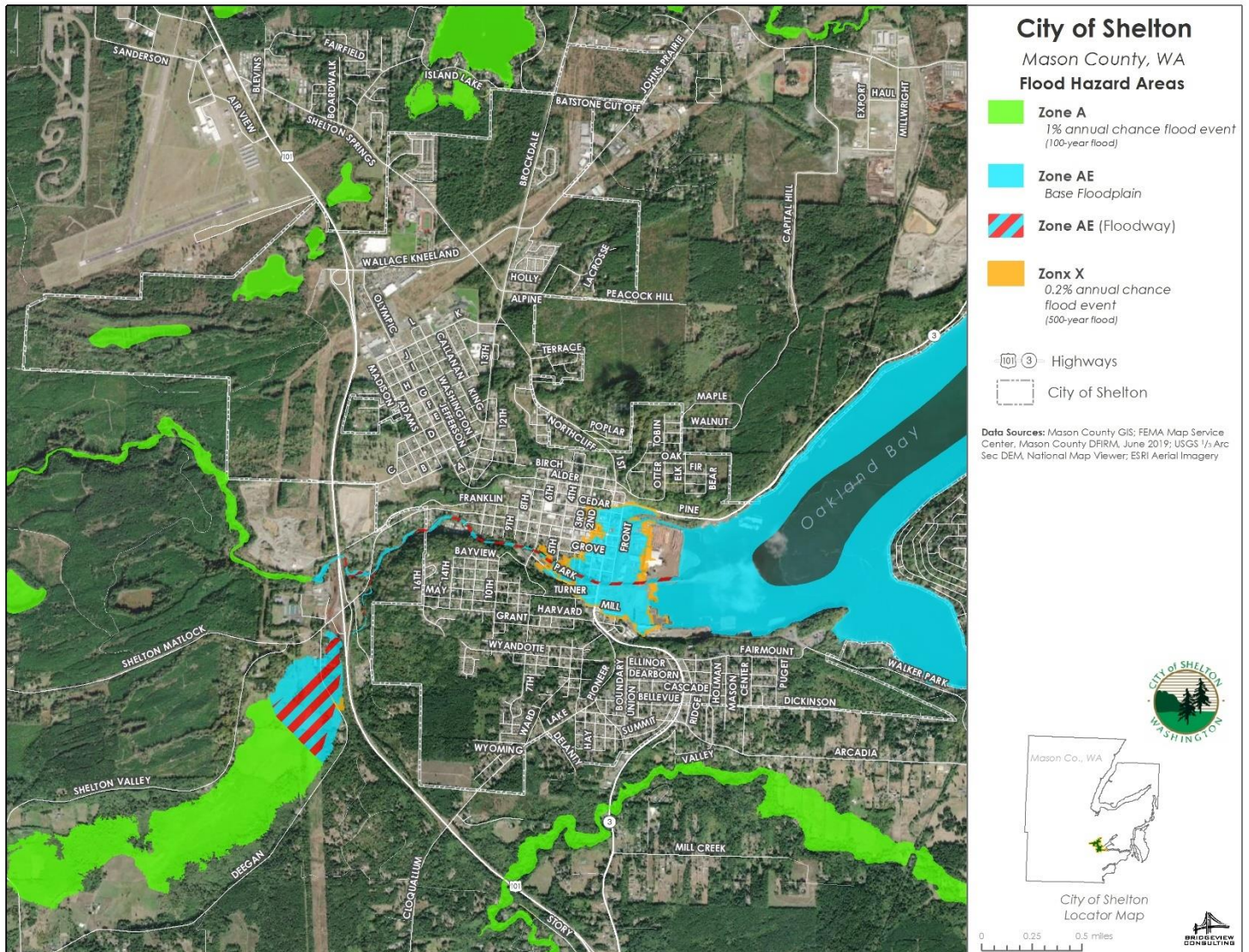


Figure 2-1 City of Shelton Flood Hazard Area

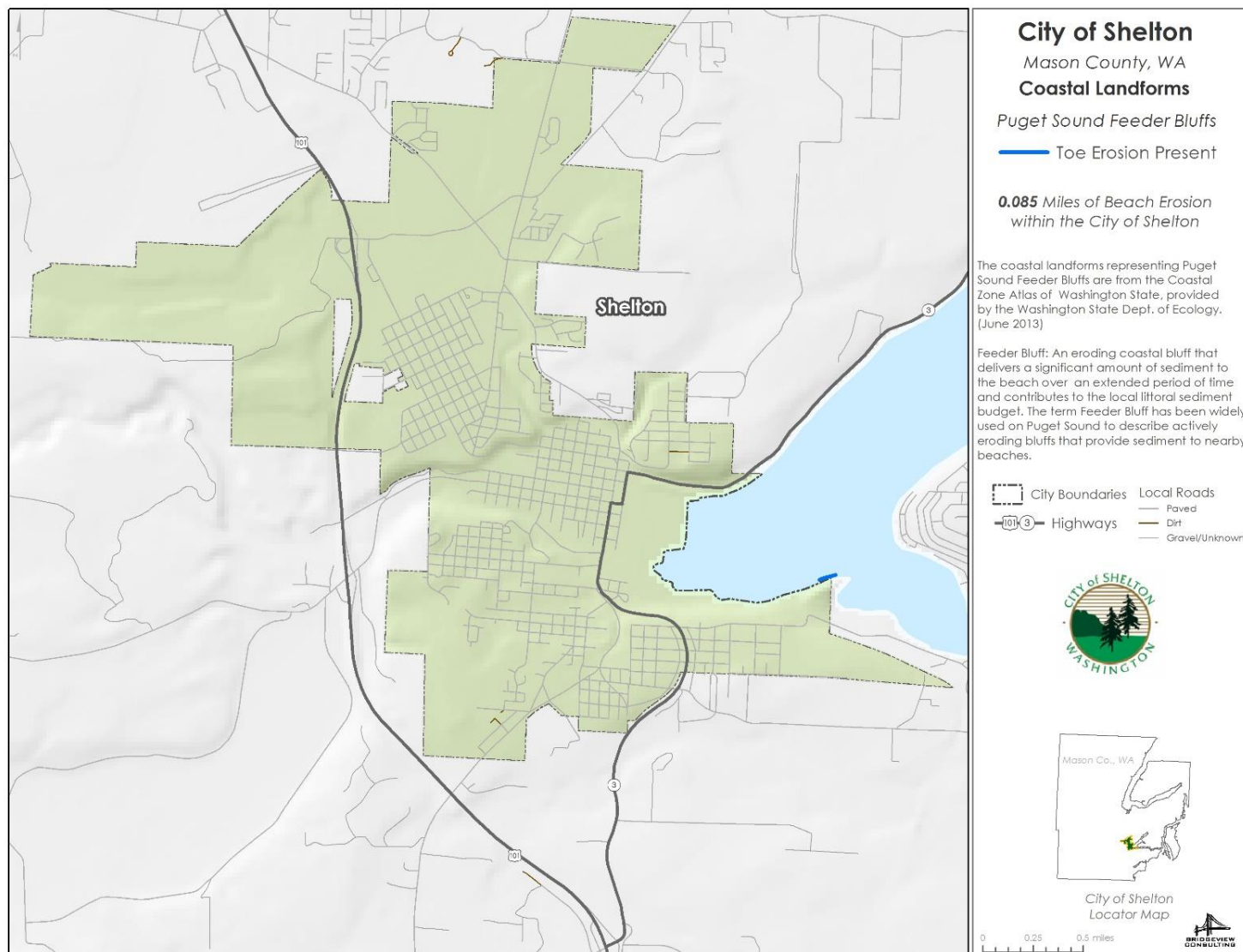


Figure 2-2 Erosion Hazard - Feeder Bluffs

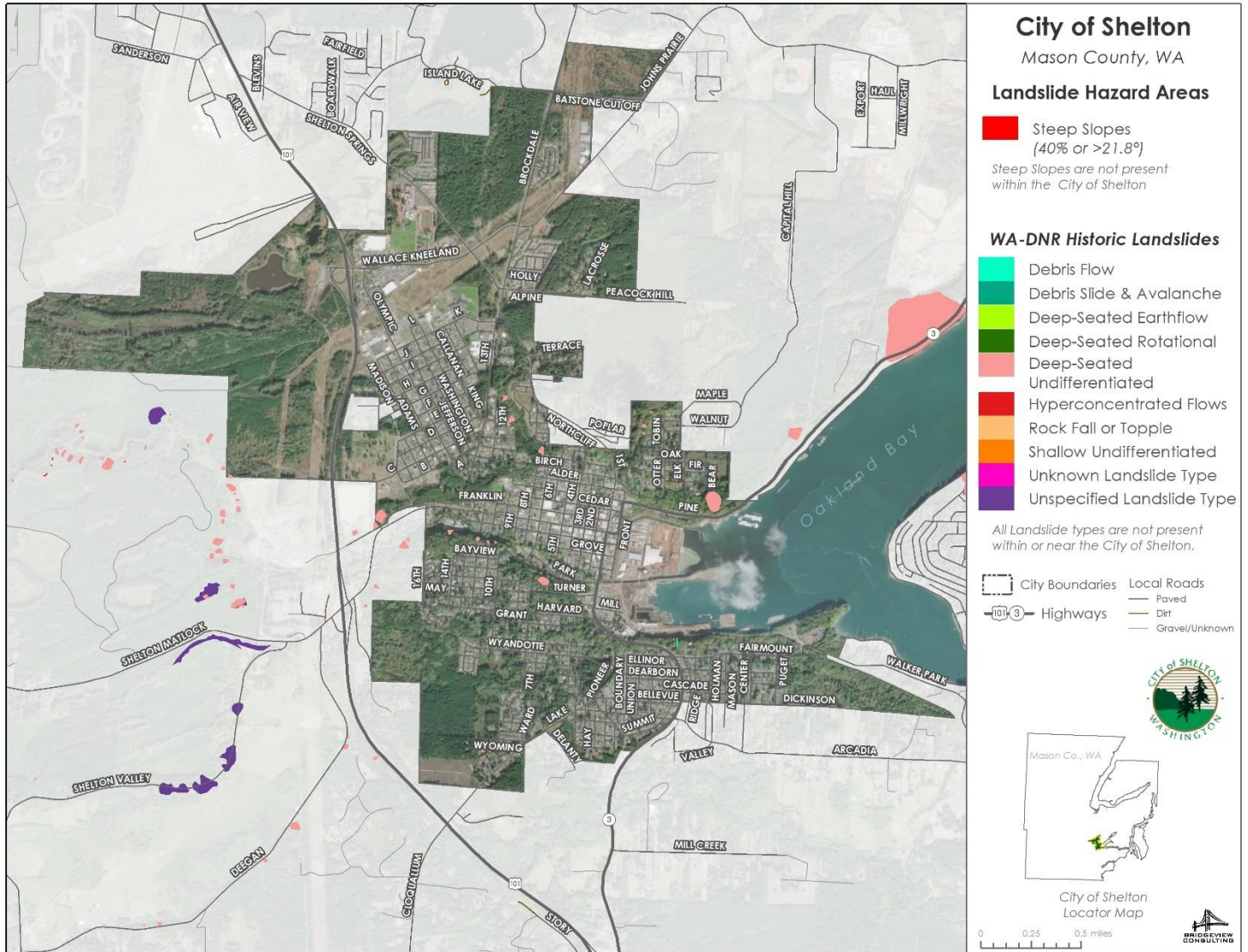


Figure 2-3 Historic Landslide Incidents and Landslide Hazard Areas of Concern

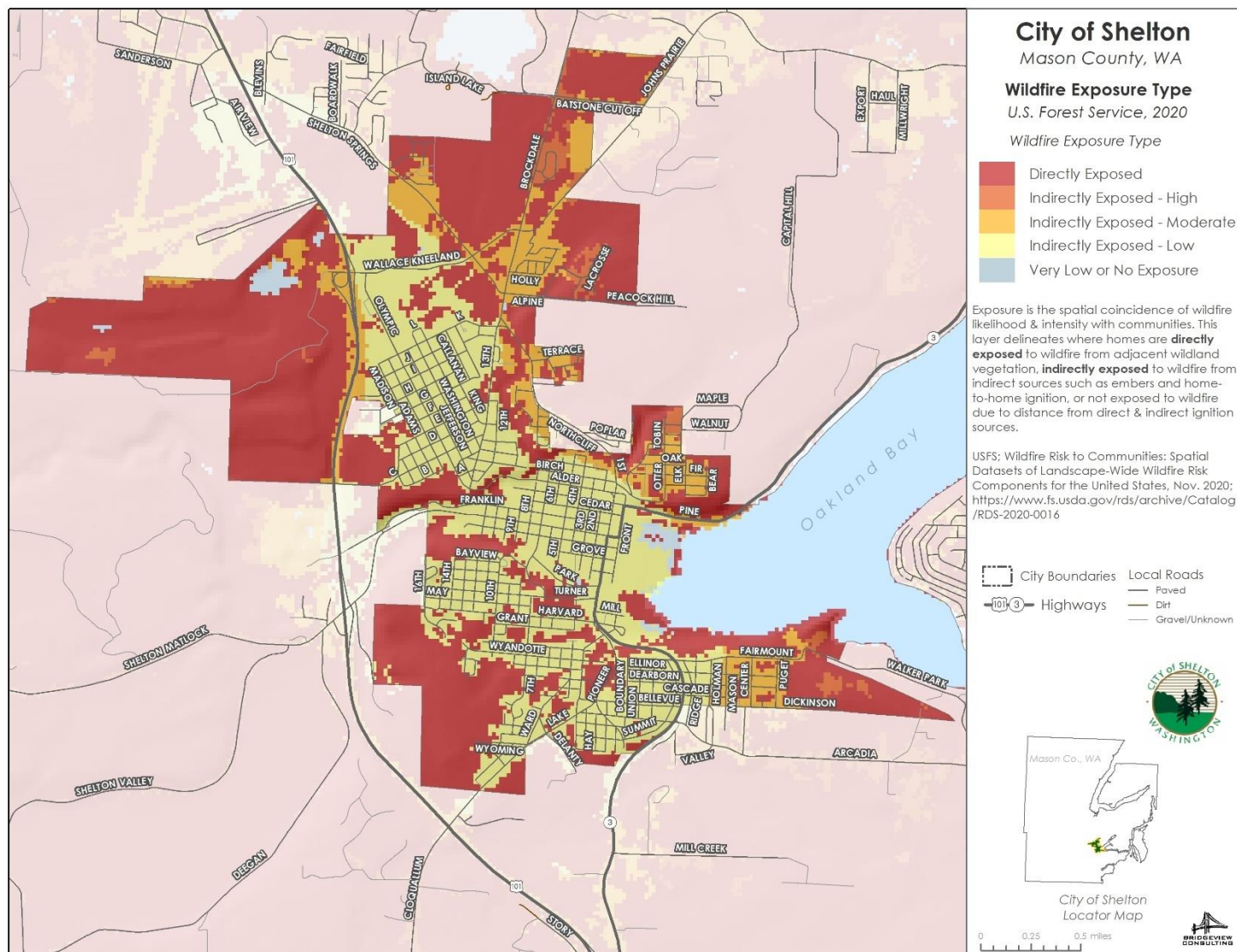
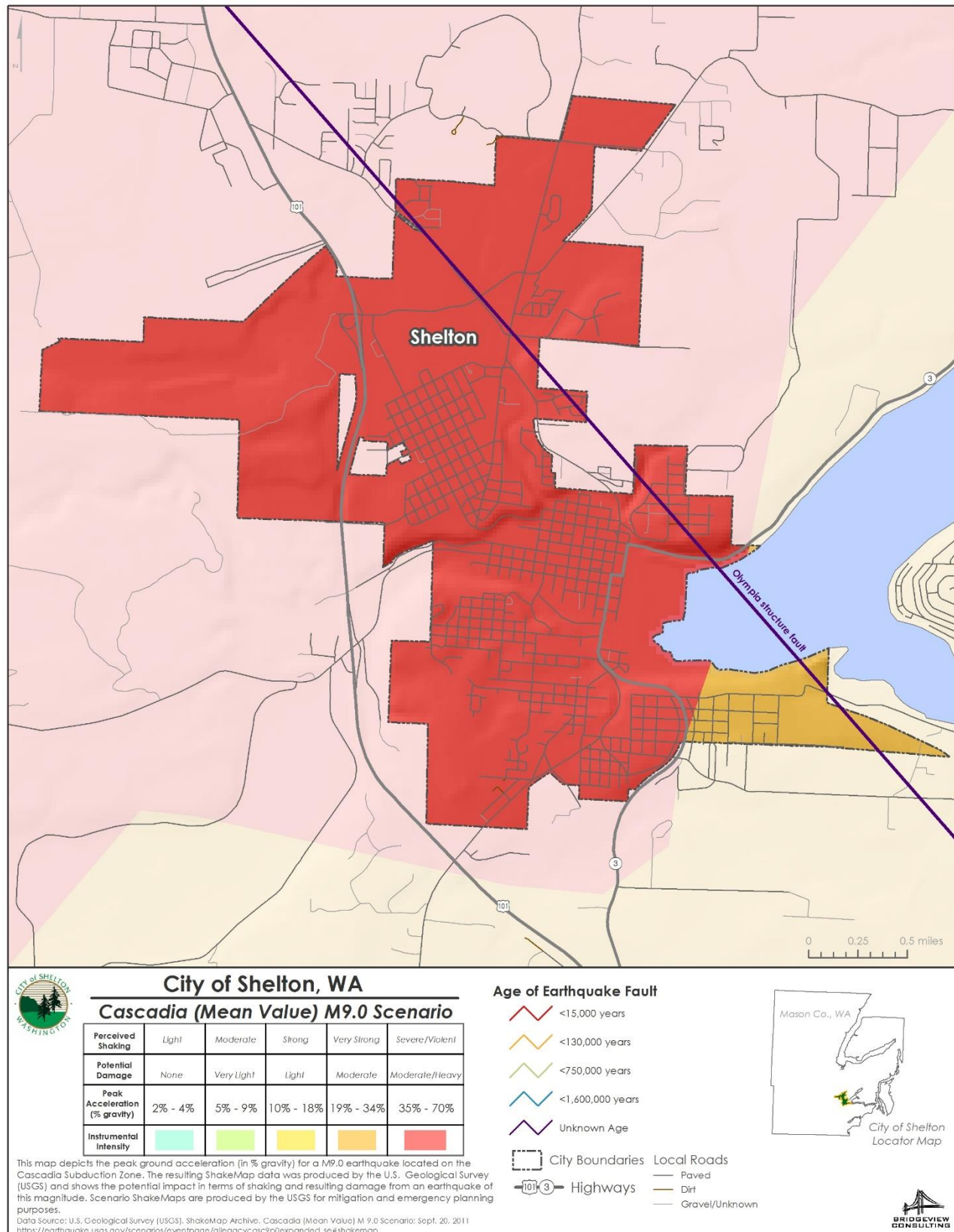


Figure 2-4 Wildfire Exposure



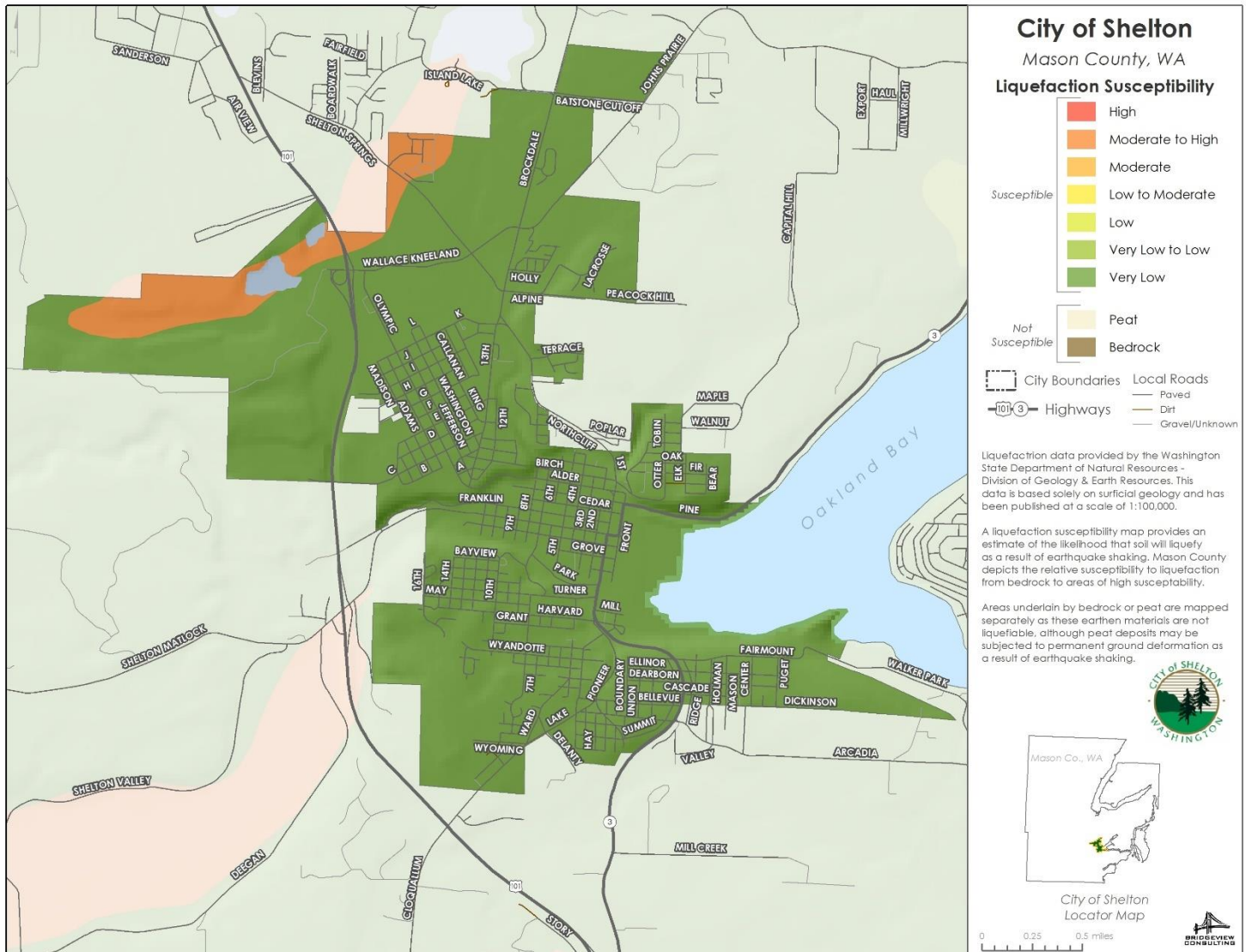


Figure 2-6 Liquefaction Susceptibility within the City of Shelton

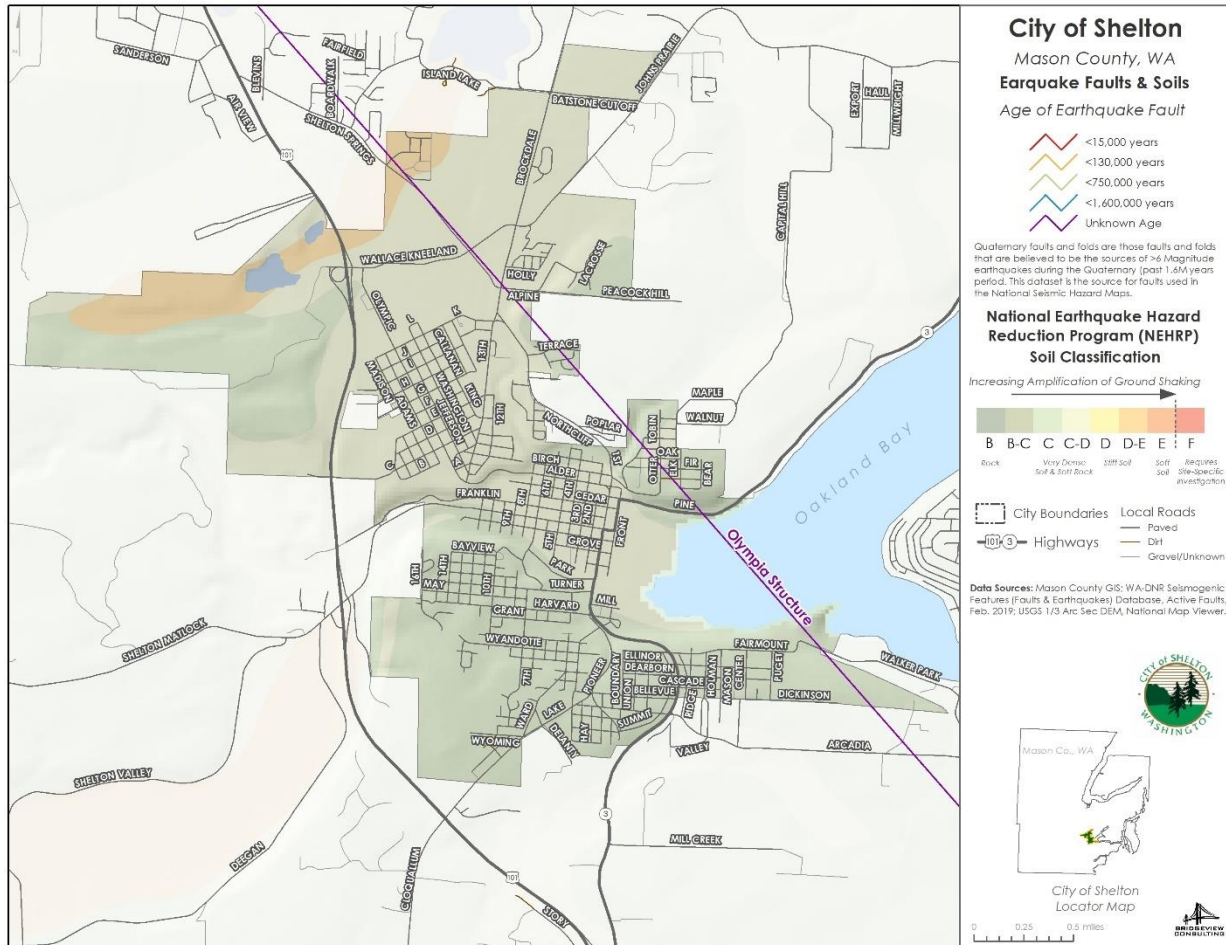


Figure 2-7 City of Shelton Earthquake Faults and NEHRP Soils Type

CHAPTER 3.
PUBLIC UTILITY DISTRICT NO. 3
HAZARD MITIGATION PLAN 2023 ANNEX UPDATE



3.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the PUD 3, a participating special purpose District to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the PUD 3. For planning purposes, this Annex provides additional information specific to the District, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only.

3.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

The Mason County PUD 3 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County's Planning Team, the PUD 3 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

LOCAL PLANNING TEAM MEMBERS		
NAME	POSITION/TITLE	PLANNING TASKS
Stephanie Schuffenhauer, Business Analyst PO Box 2148 Shelton, WA 98584 360-432-5240 stephanies@masonpud3.org	Primary Point of Contact	Identification of historic impact data; capturing of general plan data; identification of assets;
Ali Burgess, Safety & Environmental Programs Coordinator PO Box 2148 Shelton, WA 98584 360-432-5980 ali.burgess@masonpud3.org	Alternate Point of Contact	Annex development; assimilation of data; point of contact with County planning team; meeting attendance;

LOCAL PLANNING TEAM MEMBERS		
NAME	POSITION/TITLE	PLANNING TASKS
Lynn Eaton, Communications & Government Relations Manager PO Box 2148 Shelton, WA 98584 lynne@masonpud3.org	Public Relations	Public Outreach, meeting attendance;
Barbara Adkins PO Box 2148 Shelton, WA 98584 barbara.adkins@masonpud3.org	Grant Writer	Provided input and information to overall plan for PUD 3; attended meetings; assisted with update to critical facilities list; assisted with risk assessment and hazard ranking; conducted various reviews during plan completion.
Chris Miller, Operations Manager PO Box 2148 Shelton, WA 98584 chrism@masonpud3.org	Operations	Mutual aid, safety measures and regional prioritization
Justin Holzgrove, Director of Engineering & Utility Services PO Box 2148 Shelton, WA 98584 justinh@masonpud3.org	Engineering & Telecom	Oversight and review

3.3 DISTRICT PROFILE

Mason County PUD No. 3 (the District) provides electrical and telecommunication services to customers in Mason, Grays Harbor, and Kitsap Counties (see service territory map below). The District maintains 1,824 miles of electrical lines and 716 miles of telecommunication lines that service 35,525 electrical and 2,642 end-use telecommunications customers as of December 31, 2022. The District maintains 12 substations, an operations center on Johns Prairie Road, a telecommunications data center and office in downtown Shelton and a payment center in Belfair. The annual budget for 2023 was \$101.2 million and the District's net position as of December 31, 2022, was \$113,194,050. As of April 1, 2023, the average kWh cost for residential customers was \$0.0816 and the system charge was \$1.50/day.

The following is a summary of key information about the District:

- **Governing Authority**— The District is governed by a 3-board member commission and RCW 54.
- **Population Served**—35,525 owner-ratepayers as of December 31, 2022
- **Land Area Served**—600 sq. miles
- **Land Area Owned**—Approximately 105 acres scattered throughout Mason County.
- **Total Value of Critical Infrastructure/Equipment/Facilities**—The total book value of critical infrastructure and equipment owned by the District is \$292,210,561
- **Current and Anticipated Service Trends**— The county anticipates a 15% growth rate in the next ten years. Mason PUD 3 anticipates a similar growth rate.

Mason County PUD No. 3 Service Territory

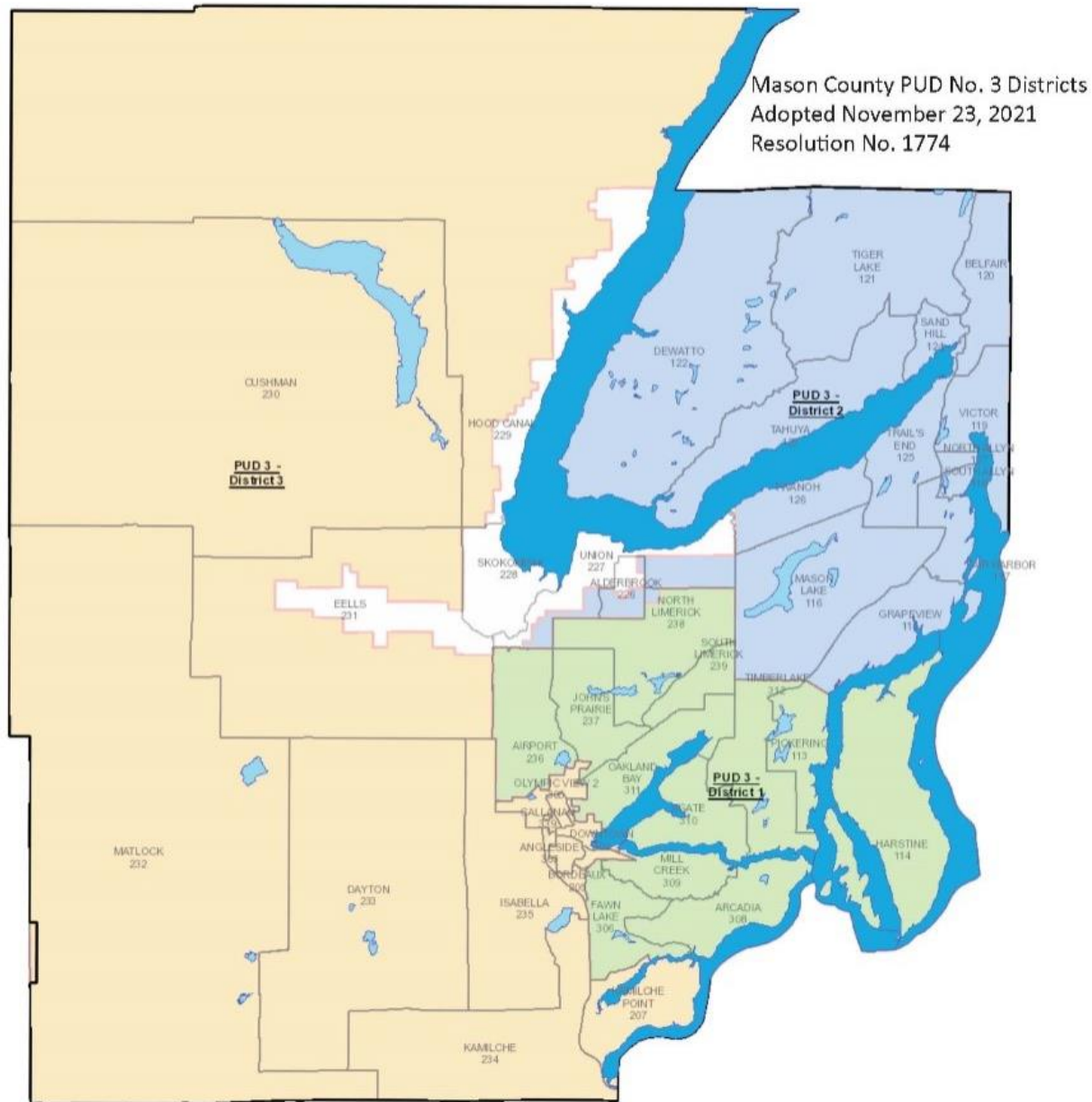


Figure 3-1 PUD 3 Service Territory

3.4 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the special purpose District Table 3-1 lists all past occurrences which have impacted the District. If available, dollar loss data is also included.

Table 3-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date/Period Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	\$391,638
Severe Winter Storm	4593	12/29/20-1/16/21	\$315,613
Severe Storm	4539	1/20/-2/10/2020	\$71,163
Severe Winter Storm	4418	12/10-24/2018	\$239,695
Flood	4253	12/1/2015	\$105,889
Severe Storm	4249	11/12/2015	\$282,461
Severe Storm	4056	1/14/2012	\$507,646
Severe Storm(s)	1825	12/12/2008	\$174,207
Flood	1817	1/6/2009	\$61, 240
Severe Storm(s)	1734	12/1/2007	\$800,706
Severe Storm(s)	1682	12/14/2006	\$1,416,245
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown

Table 3-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date/Period Incident	Dollar Losses Impacting District (if known)
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown
Jurisdiction Specific Incidents Not Rising to Level of Disaster Declaration			
Wildfire by PUD 3 Headquarters - 240 Acres burned		10/2014	Unknown Damages

3.5 CAPABILITY ASSESSMENT

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction's capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into the following sections: regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

3.5.1 Regulatory Capability

The assessment of the District's legal and regulatory capabilities, including planning and land management regulations which are customarily used by location jurisdictions to implement hazard mitigation activities, are identified in Table 3-2. Those items applicable to the District are identified.

Table 3-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements				
Building Code		x		
Washington State Building Code			x	

Table 3-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Zoning Ordinance		x		
Floodplain Ordinance		x		
Stormwater Management		x		
Post Disaster Recovery		x		
Growth Management		x		
Site Plan Review		x		
Public Health and Safety		x		
Natural Hazard Specific Ordinance (steep slope, wildfire, etc.)		x		
Environmental Protection		x		
State Environmental Policy Act			x	
Federal and State Preservation Act		x	x	
Endangered Species Act		x		
Planning Documents				
General or Comprehensive Plan	x			Business Continuity
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>				Yes
Capital Improvement Plan	x			5-year Capital Plan
Habitat Conservation Plan	x			Avian Protection Plan
Economic Development Plan	x			PUD 3 Part of EDC CEDS List
Community Wildfire Protection Plan	x			Wildfire Prevention Plan & Wildfire Smoke Response Plan
Disaster Preparedness	x			Business Continuity
Response/Recovery Planning				
Comprehensive Emergency Management Plan	x			Business Continuity Plan & Accident Prevention Plan (APP) & Safety Program
Threat and Hazard Identification and Risk Assessment	x			Business Continuity Plan
Terrorism Plan	x			Business Continuity Plan & APP
Post-Disaster Recovery Plan	x			Business Continuity Plan
Continuity of Operations Plan	x			Business Continuity Plan
Public Health Plans	x			Pandemic Response Policy

Table 3-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Boards and Commission				
Planning Commission	x			Board of Commissioners
Mitigation Planning Committee	x			Safety Committees as well as in conjunction with County
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)	x			Tree Trimming, Infrared, Pole Test & Treat, Substation Testing
Mutual Aid Agreements / Memorandums of Understanding	x			Mutual Aid agreements, Regionally and Nationally
Other				

3.5.2 Administrative and Technical Capabilities

The assessment of the District's administrative and technical capabilities, including educational and outreach efforts, and on-going programmatic efforts are presented in Table 3-3. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 3-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	Engineering
Engineers specializing in construction practices?	Yes	Engineering
Planners or engineers with an understanding of natural hazards	Yes	Engineering & Safety/Environmental
Staff with training in benefit/cost analysis	Yes	Accounting
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	GIS Technician / Mappers

Table 3-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Personnel skilled or trained in Hazus use	No	
Scientist familiar with natural hazards in local area	Yes	Safety & Environmental
Emergency Manager	Yes	Identified through Business Continuity
Grant writers	Yes	Accounting
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	No	
Hazard data and information available to public	Yes	Public Affairs & Safety/Environmental
Maintain Elevation Certificates	No	
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	Engineering, Public Affairs and Safety & Environmental
Local citizen groups or non-profit organizations focused on environmental protection?	Yes	Energy Expo and School Education Committee
Organization focused on individuals with access and functional needs populations	Yes	Customer Service
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Public Affairs / Safety & Environmental / Education Committee
Natural disaster or safety related school programs?	Yes	Public Affairs / Education Committee / Safety Demo
Public-private partnership initiatives addressing disaster-related issues?	Yes	Public Affairs / Education Committee / Safety Demo
Multi-seasonal public awareness program?	Yes	Public Affairs / Education Committee / Safety Demo
Other		
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	Yes	Operations: Slashing / Tree Trimming
Noxious Weed Eradication Program or other vegetation management	No	
Fire Safe Councils	No	
Chipper program	No	
Defensible space inspections program	No	

Table 3-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Creek, stream, culvert or storm drain maintenance or cleaning program	No	
Stream restoration program	No	
Erosion or sediment control program	Yes	Engineering & Safety/Environmental Certified Erosion and Sediment Control Lead (CESCL)
Address signage for property addresses	No	
Other	No	

3.5.3 Fiscal Capability

The assessment of the jurisdiction's fiscal capabilities is presented in Table 3-4. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 3-4 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Eligible
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

3.6 COMMUNITY CLASSIFICATION

The District's classifications under various hazard mitigation programs are presented in Table 3-5. Each of the classifications identified establishes requirements which, when met, are known to

increase the resilience of a community. Those which specifically require District participation or enhance mitigation efforts are indicated accordingly.

Table 3-5 Community Classifications		
	Participating (Yes/No)	Date Enrolled
Community Rating System	No	
Building Code Effectiveness Grading Schedule	No	
Storm Ready	Yes	Countywide
Firewise	No	
Tsunami Ready (if applicable)	N/A	
RP3 – Reliable Public Power Provider designation through the American Public Power Association (APPA) based on reliability, safety, work force development and system improvement.	Yes	2013- Current
Wildfire Prevention Plan – vegetation management and fire-wrapping poles for prevention	Yes	2022

3.7 HAZARD RISK AND VULNERABILITY RANKING

The District's Planning Team reviewed the hazard list identified within the Base Plan and have identified the hazards that affect the PUD 3.

Table 3-6 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by: past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- ☐ Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- ☐ Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- ☐ Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.

- ☐ High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- ☐ Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 3-6 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
1	Earthquake	3.40	Extremely High	Most of the PUD's structures fall within the very low to low liquefaction area (over 140), with 17 in the moderate to high liquefaction area, and three in the low to moderate. Some structures identified are masonry (unreinforced and reinforced masonry), steel; pre-cast, and manufactured structure. Many of the PUD's facilities (both water and power) are older (1954-1969). An earthquake would also impact the district's ability to provide service and repair lines as disruption in other areas outside of the planning area could impact transmission. In addition, failed roadways would also impact response capabilities for ingress and egress to lines, substations, and water facilities.
2	Severe Weather	3.0	Extremely High	All structures, poles, and lines (both water and power) can be impacted by a severe weather event. Impact could include power outages throughout the service area. The PUD has well over 5,000 poles and miles of line along the Olympic National Forest and Hood Canal. The PUD does conduct regular tree-trimming do help reduce the impact; however, power outages will continue to occur due to high wind events, ice forming on the power lines, lightning strikes, etc. A severe weather event which includes flooding could potentially impact water supply, although such incidents have not occurred. Power outages for the area also results in a

Table 3-6 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
				loss of water service for most of PUD 1's water systems due to no standby generators for the well pumps.
3	Flood	2.80	High	Several critical facilities or building structures owned by PUD are within the 100-year flood hazard area; none are within the 500-year zone. In addition to direct impact, flooding issues could also impact the wells in the area. Flood events could impact response to downed lines.
4	Climate Change	2.45	Medium	Climate change will impact the district through increased frequency of storm events, flooding, landslides, increased wildfire danger, and drought situations.
5	Landslide	2.15	Medium	The PUD has six (6) identified structures within the landslide hazard areas, or within 500' thereof. The PUD does own an extensive number of poles and lines, some of which have been impacted annually by landslide events. Assessment on the poles and lines were outside of the scope of this project.
6	Wildfire	2.15	Medium	Wildfires in the area have the potential to impact all lines and poles, as well as all structures, which fall into the various Fire Regimes. All poles and lines are subject to the wildfire risk.
7	Drought	2.15	Low	Drought will impact water supply for power generation and increase wildfire danger in the area. The District already mandates water use restrictions during peak use seasons due to drought and high consumption.

3.8 MITIGATION GOALS AND OBJECTIVES

The District adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

3.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for the District identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the District assets and hazards of concern. Table 3-7 lists the action items/strategies that make up the District's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the District), potential funding sources, the timeframe, who will benefit from the activity, and the type of initiative associated with each item are also identified.

TABLE 3-7.
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE # P-1: Acquire a Mobile Substation to better withstand damage from major events and/or maintenance requirements at substations. Each of Mason PUD 3's twelve substations supply electricity to approximately 1,500 to over 5,000 residents. The Mobile Substation could be used by multiple agencies for the benefit of Mason County residents.									
New/Existing	ALL	1,5,6,7	Operations, Purchasing, Finance, Local/Regional Partners	High	PUD General Fund, Inter local Agreement, BRIC, HMGP Grants	Long-Term	Yes	Preventive, Emergency Response, Property Protection, Recovery	Facility, Local, County and Region
INITIATIVE # P-2: Replace the Hood Canal Submarine Cable ; a 6,000-foot, three-phase underwater, ground laid, armored cable installed in 1969 and used as a redundant, geo-diverse feed for approximately 3,000 customers. A life-prolonging attempt to inject insulative gel made its way through two of the phases but not the third phase signaling potential issues and increased levels of concern for reliability. Without this cable in place, PUD 3 is not able to take critical substations down for scheduled preventative maintenance. Additionally, when outages occur, this cable provides service to geographically isolated and economically distressed communities which may be critical during a natural disaster. Replacement of this cable will make it more resistant to disastrous conditions such as earthquakes.									
New/Existing	ALL	1,2,4,5,7	Engineering, Purchasing, Finance, Operations	High ~\$3.5m	PUD General Fund, BRIC, HMGP Grants	Short-Term	No	Prevention, Property Protection, Emergency Response, Recovery	Facility, Local, County
INITIATIVE # P-3: Continue with proactive Tree Trimming program. This is a cyclic program with the goal of having enough miles trimmed each year so that the entire system is complete every five years. Additionally, hazardous trees are reported by customers and field personnel and investigated.									

**TABLE 3-7.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
Existing	WS, SW, WF, FS	4,5,10,11	Operations, Finance	Low	PUD General Fund, Fire Grants, HLS, EMPG, Tribal Funds	Ongoing	Yes	Prevention, Property Protection, Natural Resource Protection, Recovery	Facility, Local, County
INITIATIVE # P-4: Implement Wildfire Prevention Plan District-wide, which includes preventative projects and activities such as: Improve system protections and operation of devices, reducing fuse sizes, replace legacy devices to reduce exposure to live lines, soil resistivity testing/grounding, fire retardant wraps in at-risk locations, tree wire upgrades, replace outdated arrestors, update safety & reliability standards, etc.									
New/Existing	WF, FS, IF	1,3,4,5,7, 10	Engineering, Purchasing, Finance, Operations	Medium	PUD General Fund, Fire Grants as available	Short-Term	No	Prevention, Property Protection, Natural Resource Protection, Emergency Services	Facility, Local, County
INITIATIVE # P-5: Continue implementation of public Safety Education Programs within Mason County to educate citizens about the hazards faced with the utility and the appropriate preparedness and response measures.									
Existing	ALL	6,7,9,10	Operations, Engineering, Safety, PIO, Education Committee	Low	PUD General Fund	Ongoing	Yes	Prevention, Public Information and Education, Emergency Services, Recovery	Local, County
INITIATIVE # P-6: Continue to update and implement Business Continuity and Disaster Plan for emergency operations and planning efforts to help ensure continuity of operations and system reliability.									
New/Existing	ALL	1,2,3,4,5, 6,7,9,10, 11	Operations, Safety, Administration, PIO	Low	PUD General Fund	Short-Term	Yes	Prevention, Recovery, Public Information and Education, Emergency Services	Facility, County, Community
INITIATIVE # P-7: Continue with proactive Pole Inspection Test and Treat program. This is a cyclic program with the goal of inspecting every pole in the District's service territory every ten years (which is industry standard). As poles have an average 50-year lifespan, the District's goal is to ensure safety and reliability by identifying and replacing poles which have met their end-of-life and are a hazard to the public and line workers.									
New/Existing	WS, SW, IF, L	1,2,3,4,5, 7,10,11	Engineering, Finance, Purchasing	Low	PUD General Fund	Ongoing	No	Prevention, Property Protection	Facility, Local, County

**TABLE 3-7.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE # P-8: Install Weather Monitoring Cameras in areas where the District currently has fiber access throughout the District for crews responding in inclement weather to emergency outages. The cameras would be accessible to the public and partner agencies like county crews, fire districts, and emergency responders.									
New/Existing	WS, SW, ET	1,3,6,7,9	Engineering, Finance, Purchasing, IS, Telecom	Low	PUD General Fund	Short-Term	No	Public Information and Education, Emergency Services, Recovery	Local, County

3.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 3-8 identifies the prioritization for each initiative.

Table 3-8. Mitigation Strategy Priority Schedule							
Initiative #	# Of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
P-1	4	H	H	Y	Y	N	H
P-2	5	H	H	Y	Y	Y	H
P-3	4	H	M	Y	N	Y	H
P-4	6	M	L	Y	Y	Y	H
P-5	4	H	L	Y	N	Y	H
P-6	10	M	L	Y	N	Y	H
P-7	8	M	L	Y	Y	Y	H
P-8	5	H	L	Y	Y	Y	H
a. See Chapter 1 for explanation of priorities.							

3.11 STATUS OF PREVIOUS PLAN INITIATIVES

Table 3-9 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
	Associated Hazards								Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
Mitigation Strategy								2023 Project Status				
INITIATIVE # P-1: Determine the necessity for a mobile substation to better withstand damage from major events and/or maintenance requirements at substations. Once need is determined, seek partnership with PUD 1 and/or other utilities in the region.	✓	✓	✓	✓	✓	✓	✓	Ongoing: The PUD will be increasing the priority of the project and looking for multiple funding sources and seeking availability as the supply chain is becoming a real risk to the reliable delivery of power.				✓
INITIATIVE # P-2: Evaluate radio system coverage for the District through radio mobile testing. Radio communication has become unreliable with an outdated system. A full upgrade will need to take place in order to better serve customers and maintain communication with field personnel for safety. Work with local planning partners to determine feasibility of shared equipment and/or	✓	✓	✓	✓	✓	✓	✓	The PUD completed its digital radio upgrade throughout its service territory. Continued analysis of radio coverage is on-going. Low performing areas will be addressed as appropriate.	✓			

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
	Associated Hazards								Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
Mitigation Strategy								2023 Project Status				
INITIATE # P-3: Continue routine tree trimming on 5-year cycle to minimize hazardous trees and debris from overhead lines. The benefit outweighs the cost to owner-ratepayers with system reliability.					✓			The PUD continues with the tree trimming program. There are currently two full-time tree crews and one contracted tree crew. The goal each year is to trim enough miles of line to remain on the 5-year cycle. Additionally, hazardous trees are reported by customers and field personnel and dealt with on a case-by-case basis.		✓		
INITIATIVE # P-4: Determine the necessity for a backup communication tower for Kamilche Tower, in the event it does not withstand damage from major events and/or during maintenance work. The backup tower could serve all critical emergency services	✓	✓	✓	✓	✓	✓	✓	The PUD determined this is no longer a necessary action. Other communication towers throughout the service territory are sufficient for temporary backup communications.			✓	

Table 3-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
	Associated Hazards								Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
Mitigation Strategy								2023 Project Status				
INITIATIVE # P-5: Continue implementation of public safety education programs within Mason County to educate citizens about the hazards faced with the utility and the appropriate preparedness and response measures	✓	✓	✓	✓	✓	✓	✓	The PUD continues to find value in educating the public about electrical safety and being prepared for emergencies and disasters.		✓		
INITIATIVE # P-6: Continue to update and implement Business Continuity Plan for emergency operations and planning efforts to help ensure continuity of operations and system reliability.	✓	✓	✓	✓	✓	✓	✓	The PUD utilized its business continuity plan during the COVID-19 pandemic and plans to update it based on operational/procedural changes and improvements made during the emergency.				✓

3.12 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

Information in this plan was from the 2022 annual report for the fiscal year ending in 2022. Since completion of the last plan, PUD 3 service area has increased in numbers of customers prompting the need for significant infrastructure development. In 2020, the District energized a new Totten substation to meet the growth on the south end of its service territory including tribal and shellfish industry expansion.

The District anticipates future growth in the urban growth areas of Belfair and Shelton and is responding with the planning, design, and construction of switching yards, transmission lines, and substations in these two areas concurrently.

The risk to customers in the Cushman area of Mason PUD 3's service territory (approximately 2,000 customers) has increased since the last plan with respect to the services provided by the District. The Potlatch substation serving that area is currently owned by the Bonneville Power Administration (BPA) and the output is shared by Mason PUD 1 and Mason PUD 3. The BPA has notified the two utilities that it will no longer provide upgrades/maintenance to the substation which was built in 1969. The District has purchased land adjacent to the existing substation and has plans to build a new substation within the next five years.

Additionally, since the last plan, the District has modernized its grid with a heavy reliance on its fiber optic network for meter reading, system monitoring, and security. While the system would be able to operate manually with the loss of telecommunications, it would hinder the speed of operations in a disaster or emergency situation.

CHAPTER 4.

MASON COUNTY PUBLIC UTILITY DISTRICT NO. 1

2023 ANNEX UPDATE

4.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Mason County PUD No. 1, a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the Mason County PUD No. 1. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district's previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.

4.1.1 Hazard Mitigation Planning Team Point(S) of Contact

The Mason County PUD No. 1 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County's Planning Team, the Mason County PUD No. 1 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Kristin Masteller, General Manager 21971 N. Hwy 101 Shelton, WA 98584 Telephone: 360-877-5249 e-mail Address: kristinm@mason-pud1.org	Primary Point of Contact	Attended planning team meetings; provided impact data re: power outages; provided hazard impact data; gave BOC briefings; presented final plan for adoption.
James Reyes 21971 N. Hwy 101 Shelton, WA 98584 Telephone: 360-877-5249 jreyes@mascon-pud1.org	Engineering Manager	Served as alternate point of contact for all phases of plan development. Provided general information; conducted review of plan at various stages.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Katie Arnold 21971 N. Hwy 101 Shelton, WA 98584 Telephone: 360-877-5249 e-mail Address: karnold@mason-pud1.org	District Treasurer and Director of Business Services	Attended planning team meetings; provided impact data re: power outages; updated annex template with current data; provided hazard loss data; assisted with BOC briefings; coordinated and distributed public outreach information.

4.2 DISTRICT PROFILE

The following is a summary of key information about the jurisdiction as it is in place for the 2023 update:

- **Governing Authority**— The district is governed by the Board of Commissioners
- **Population Served**—8,400 water & electric customers as of January 2023
- **Land Area Served**—Hood Canal and Mason County
- **Land Area Owned**—The PUD provides services countywide.
- **List of Critical Infrastructure/Equipment Owned by the Jurisdiction:**

Water	\$16,650,447
Electric	\$37,618,956
Sewer	\$91,577
- **Total Value of Critical Infrastructure/Equipment**—The total value of critical infrastructure and equipment owned by the jurisdiction is \$54,360,980
- **Total Value of Critical Facilities**—The total value of critical facilities owned by the jurisdiction is \$6,956,712
- **Current and Anticipated Service Trends**— The District anticipates slow but steady growth (3-5%) to continue in Mason County, impacting both the water and electric business.

4.3 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the special purpose. Table 4-1 lists all past occurrences which have impacted the district. If available, dollar loss data is also included.

**Table 4-1
Natural Hazard Events**

Type of Event	FEMA Disaster # (if applicable)	Date/Period Incident	Dollar Losses (if known)
Severe Winter Storm	4650	12/26/21- 1/15/22	\$514,728
Severe Winter Storm	4593	12/29/20-1/16/21	\$74,060
Severe Storm	4539	1/20/-2/10/2020	\$163,887
Pandemic	4481	1/20/20 – Present	\$153,387
Severe Winter Storm	4418	12/10-24/2018	\$57,356
Flood	4253	12/1-12/14/2015	Data not available.
Snow Storm, High Winds	1079	11/7/95-12/18/95	Data not available.
Ice Storm	1159	12/26/96-2/10/97	Data not available.
Severe Wind storm, Flooding	1499	10/15/03- 10/23/03	Data not available.
Severe Wind storm, Landslides	1641	2/2/06- 2/4/06	Data not available.
Severe Storm, Landslides	1682	12/14/06- 12/15/16	Data not available.
Severe Storm, Snow/Ice	1734	12/1/07- 12/17/07	Data not available.
Severe Storm, Snow/Ice	1825	12/12/08- 1/7/09	Data not available.
Severe Storm, High Winds, Landslides	4249	11/12/15- 11/21/15	Data not available.
Local Area Disaster – Not Declared			
Snow Storm, Landslides	n/a	12/21/12- 12/24/12	Data not available.
Severe Wind Storm	n/a	3/10/16- 3/13/16	Data not available.
Snow Storm	n/a	2/09/19-2/13/19	87,922
Severe Wind Storm	n/a	9/2/20-9/19/20	75,957
Severe Storm	n/a	11/28/22-12/23/22	164,686

4.4 CAPABILITY ASSESSMENT

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction's capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities are divided into the

following sections: regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

4.4.1 Regulatory Capability

The assessment of the district's legal and regulatory capabilities, including planning and land management regulations which are customarily used by local jurisdictions to implement hazard mitigation activities, are identified in Table 4-2. Those items applicable to the district are identified.

Table 4-2 Legal and Regulatory Capability Supporting Mitigation			
	Local Authority	Other Jurisdictional Authority	State Mandated
Comments			
Codes, Ordinances & Requirements			
Building Code			
Zoning Ordinance			
Subdivision Ordinance			
Floodplain Ordinance			
Stormwater Management			
Post Disaster Recovery			
Real Estate Disclosure			
Growth Management			
Site Plan Review			
Public Health and Safety	X		Water Adequacy Determinations
Coastal Zone Management			
Climate Change Adaptation			
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire, etc.)			
Environmental Protection			
Planning Documents			
General or Comprehensive Plan			
<i>Is the plan equipped to provide linkage to this mitigation plan? Yes</i>			

Table 4-2 Legal and Regulatory Capability Supporting Mitigation				
	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Floodplain or Basin Plan				
Stormwater Plan				
Capital Improvement Plan	X			PUD 1 CIP plan for water & electric
Habitat Conservation Plan				
Economic Development Plan				
Shoreline Management Plan				
Community Wildfire Protection Plan				
Transportation Plan				
Response/Recovery Planning				
Comprehensive Emergency Management Plan				
Threat and Hazard Identification and Risk Assessment				
Terrorism Plan				
Post-Disaster Recovery Plan	X			PUD 1 Disaster Preparedness Plan
Continuity of Operations Plan	X			PUD 1 Disaster Preparedness Plan
Public Health Plans				
Boards and Commission				
Planning Commission				
Mitigation Planning Committee				
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems, chipping, etc.)	X			Annual Vegetation Management program
Mutual Aid Agreements / Memorandums of Understanding	X			Mutual Aid Agreements with neighboring utilities and BPA
Other	X			PUD Wildfire Mitigation Plan

4.4.2 Administrative and Technical Capabilities

The assessment of the district's administrative and technical capabilities, including educational and outreach efforts, and on-going programmatic efforts are presented in Table 4-3. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 4-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	NO	
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	NO	
Engineers specializing in construction practices?	NO	
Planners or engineers with an understanding of natural hazards	NO	
Staff with training in benefit/cost analysis	YES	District Treasurer
Surveyors	NO	
Personnel skilled or trained in GIS applications	YES	Electric & Water Depts.
Personnel skilled or trained in Hazus use	NO	
Scientist familiar with natural hazards in local area	NO	
Emergency Manager	NO	
Grant writers	YES	GM & Treasurer
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	NO	
Hazard data and information available to public	YES	Mason County's Data
Maintain Elevation Certificates	NO	
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	NO	
Local citizen groups or non-profit organizations focused on environmental protection?	NO	
Organization focused on individuals with access and functional needs populations	NO	

Table 4-3 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	YES	Ongoing through social media and print media for water use and household preparedness for loss of utilities.
Natural disaster or safety related school programs?	NO	
Public-private partnership initiatives addressing disaster-related issues?	NO	
Multi-seasonal public awareness program?	YES	Ongoing through social and print media for utility-specific messaging.
Other	NO	
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	YES	PUD 1-specific vegetation mgmt. program
Noxious Weed Eradication Program or other vegetation management	NO	
Fire Safe Councils	NO	
Chipper program	YES	PUD 1- specific chipper use for VM program.
Defensible space inspections program	NO	
Creek, stream, culvert or storm drain maintenance or cleaning program	NO	
Stream restoration program	NO	
Erosion or sediment control program	NO	
Address signage for property addresses	NO	
Other	NO	

4.4.3 Fiscal Capability

The assessment of the jurisdiction's fiscal capabilities is presented in Table 4-4. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 4-4 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	YES

Table 4-4 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Capital Improvements Project Funding	YES
Authority to Levy Taxes for Specific Purposes	YES
User Fees for Water, Sewer, Gas or Electric Service	YES
Incur Debt through General Obligation Bonds	YES
Incur Debt through Special Tax Bonds	UNKNOWN
Incur Debt through Private Activity Bonds	UNKNOWN
Withhold Public Expenditures in Hazard-Prone Areas	NO
State Sponsored Grant Programs	YES
Development Impact Fees for Homebuyers or Developers	YES
Other	NO

4.5 COMMUNITY CLASSIFICATION

The district's classifications under various hazard mitigation programs are presented in Table 4-5. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 4-5 Community Classifications		
	Participating (Yes/No)	Date Enrolled
Community Rating System	NO	
Building Code Effectiveness Grading Schedule	NO	
Storm Ready	NO	
Firewise	NO	
Tsunami Ready (if applicable)	NO	

4.6 HAZARD RISK AND VULNERABILITY RANKING

The district's Planning Team reviewed the hazard list identified within the Base Plan and have identified the hazards that affect Mason County PUD No. 1.

Table 4-6 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 4-6. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
1	Earthquake	3.40	High	Most of the PUD's structures fall within the very low to low liquefaction area (over 140), with 17 in the moderate to high liquefaction area, and three in the low to moderate. Some structures identified are masonry (unreinforced and reinforced masonry), steel; pre-cast, and manufactured structure. Many of the PUD's facilities (both water and power) are older (1954-1969). An earthquake would also impact the district's ability to provide service and repair lines as disruption in other areas outside of the planning area could impact transmission. In addition, failed roadways would also impact response capabilities for ingress and egress to lines, substations, and water facilities.
2	Severe Weather	3.0	High	All structures, poles, and lines (both water and power) can be impacted by a severe weather event. Impact could include power outages throughout the service area. The PUD has well over 5,000 poles and miles of line along the Olympic National Forest and Hood Canal. The PUD does conduct regular tree-trimming do help reduce the impact; however, power outages will continue to occur due to high wind events, ice forming on the power lines, lightning strikes, etc. A severe weather event which includes flooding could potentially impact water supply, although such incidents have not occurred. Power outages for the area also results in a loss of water service for most of PUD 1's water systems due to no standby generators for the well pumps.
3	Flood	2.8	High	22 critical facilities or building structures owned by PUD are within the 100-year flood hazard area; none are within the 500-year zone. In addition to direct impact, flooding issues could also impact the wells in the area. Flood events could impact response to downed lines.

Table 4-6. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
4	Climate Change	2.45	Medium	Climate change will impact the district through increased frequency of storm events, flooding, landslides, increased wildfire danger, and drought situations.
5	Landslide	2.15	Medium (Greater potential for impact along roadways and power poles)	The PUD has six (6) identified structures within the landslide hazard areas, or within 500' thereof. The PUD does own an extensive number of poles and lines, some of which have been impacted annually by landslide events. Assessment on the poles and lines were outside of the scope of this project.
6	Wildfire	2.15	Low	Wildfires in the area have the potential to impact all lines and poles, as well as all structures, which fall into the various Fire Regimes. All poles and lines are subject to the wildfire risk.
6	Drought	2.15	Low	Drought will impact water supply for power generation and increase wildfire danger in the area. The District already mandates water use restrictions during peak use seasons due to drought and high consumption.

The hazard ranking for the most part remained unchanged, with the top three hazards remaining consistent from the 2018 plan to this 2023 update. While PUD 1 has increased its critical facilities due to acquisition of new infrastructure and structures, that does not increase its vulnerability other than the fact that there are more assets.

4.7 MITIGATION GOALS AND OBJECTIVES

PUD 1 adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

4.8 HAZARD MITIGATION ACTION PLAN

The Planning Team for the district identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 4-7 lists the action items/strategies that make up the district's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including

outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

**Table 4-7.
Hazard Mitigation Action Plan Matrix**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1- Continue social media activity to alert customers and residents of utility interruptions, extreme weather events, disaster events, planning, resources, transportation/highway closures, etc.									
Existing	All	All	PUD 1 Public Outreach coordinator	Low	n/a – PUD General Funds	Ongoing	YES	Public Information	Local/Regional
INITIATIVE #2- Procure a mobile substation to help power sections of the grid during prolonged and significant outages; keep critical facilities in power- schools, hospitals, EMS, MACECOM, etc. Can be shared with neighboring counties.									
NEW	All	All	PUD 1 General Manager	High	Dept. of Energy (DOE) Grant, BRIC Grant	Long-term	YES	Emergency Services	Local/Regional
INITIATIVE #3- Construct a Jorstad substation near the Mason/Jefferson County line to enable looping and keep the 1,600 customers on the Hwy 101 N. feeder in power if one of the other substations fails or there is a massive slide/storm that takes out infrastructure along 101.									
NEW	All	All	PUD 1 General Manager	High	BRIC, ARPA Grant, PUD 1 General Funds	Short Term	YES	Preventative, Structural Projects	Local
INITIATIVE #4- Construct Manzanita substation to modernize and replace the aging Union substation and provide a more robust and reliable power supply to the Union and Skokomish Valley area.									
NEW	All	All	PUD 1 Operations Mgr.	Low	BRIC Grant, HUD or DOE Grant	Short-term	NO	Preventative, Structural Projects	Local
INITIATIVE #5- Seven to 10 Year Vegetation Management Trim Cycle System-Wide									
Existing	All	All	PUD 1 Operations Mgr.	Low	SAFER Grant, Fire Mgmt. Grants	Ongoing	YES	Preventative, Natural Resource Protection	Local

Table 4-7.
Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #6- Utility Pole Testing & Replacements									
Existing	All	All	PUD 1 Operations	Medium	BRIC, PUD 1 General Funds	Long-term	YES	Preventative	Local
INITIATIVE #7- Interties at 106, Manzanita and Lake Cushman with PUD3 for redundant power feeds when one of us goes offline									
NEW	All	All	PUD 1 Operations	Medium	BRIC or DOE grants,	Long term	NO	Preventative, Recovery	Local/ Regional

4.9 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 4-8 identifies the prioritization for each initiative.

Table 4-8. Mitigation Strategy Priority Schedule							
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority ^a
1	100+	H	L	Y	N	Y	H
2	0	H	H	Y	Y	N	M
3	3	M	H	Y	Y	Partially	M
4	7	M	L	Y	Y	Partially	H
5	3	H	M	Y	N	Y	H
6	3	M	M	Y	Y	Partially	M
7	1	M	M	Y	Y	Partially	M
a. See Chapter 1 for explanation of priorities.							

4.10 STATUS OF PREVIOUS PLAN INITIATIVES

Table 4-9 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Table 4-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
	Associated Hazards								Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
Mitigation Strategy								2023 Project Status				
1-Communications	X	X	X	X	X		X	Completed and ongoing.	X			
2-Mobile Substation		X	X	X	X		X	Not begun.				X
3-Jorstad Substation	X	X	X	X	X		X	Land procured. In design phase.		X		
4-Manzanita Substation	X	X	X	X	X		X	In design phase. Equipment purchased.		X		
5-Vegetation Management	X	X		X	X		X	Trimmed 3 out of 7 areas. Applied for grants for whole system trimming and highline truck. Removed danger trees each year.		X		

Table 4-9. 2023 Status of previous Hazard Mitigation STRATEGIES												
	Associated Hazards								Current Status			
Mitigation Strategy	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire	2023 Project Status	Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
6-Test and Replace poles	X			X	X		X	Replaced 300+ poles. Completed pole attachment audit. Have not started inspection.		X		
7-Power Interties	X	X	X	X	X		X	Engineering design completed for 1/3 interties. Interlocal agreement between PUD 1 and PUD 3 executed. Soliciting funding.		X		

CHAPTER 5.
CENTRAL MASON FIRE & EMS
HAZARD MITIGATION PLAN 2023 ANNEX UPDATE

5.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Central Mason Fire and EMS (CMFE), a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the Mason County DEM Planning Team. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district's previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.



5.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

The CMFE followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County's Planning Team, the CMFE also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
K.C. Whitehouse, Battalion Chief 122 W Franklin ST Shelton, WA 98584 360-545-2037 kwhitehouse@cmfe.org	Primary Point of Contact	Attend meetings, provide local data to planning partnership; seek necessary information from inside district to complete annex template; assist with public outreach efforts; present final plan and CMFE Annex to Fire Commissioners for review and adoption.
Jeff Snyder, Chief 122 W Franklin Shelton, WA 98584 360.229-1733 jsnyder@cmfe.org	Alternate Point of Contact	Work with Batt. Chief to participate in countywide planning process. Assist with information gathering to provide to planning team. Assist with completion of annex template.

5.3 DISTRICT PROFILE

Central Mason Fire & EMS (CMFE) is an all-hazards fire protection district established under Chapter 52 of the Revised Code of Washington. Situated between the Olympic Mountains and the Puget Sound, Central Mason serves the city of Shelton, and the communities of Allyn, Victor, Mason Lake, Pickering, Harstine Island, Agate, Deer Creek, Lake Limerick, Bayshore, John's Prairie, Island Lake, and Sanderson Field.

CMFE provides a wide range of emergency and non-emergency services out of six staffed stations and six volunteer stations. Services provided by CMFE include fire suppression, advanced life support (ALS) ambulance services, basic life support (BLS) ambulance services, rescue, incident management, fire investigation, community risk reduction, and fire marshal services.

The CMFE full-time staff consists of one chief, one deputy chief, three battalion chiefs (two certified as paramedics), one division chief of administrative services, one training/health & safety captain (certified as paramedic), one fire marshal, one deputy fire marshal, 12 lieutenants (seven certified as paramedics), 39 firefighters (18 certified as paramedics), one firefighter/mechanic, one facilities maintenance technician, and three administrative support staff members. Our volunteer staff includes 28 firefighters. All firefighters are trained to NFPA 1001 and WAC 296-305 standards.

The CMFE coverage area includes several pieces of critical infrastructure to the region, including 13 schools, one community college, three major highways, a major natural gas pipeline, the rail line leading to the Navy SUBBASE Bangor and the Puget Sound Naval Shipyard, as well as the transmission lines that power the much of the Olympic Peninsula. In addition, MCFD 5's response area includes three popular state parks.

CMFE maintains interlocal agreements and/or contracts for service to provide assistance for: county-wide mutual aid, Washington State Department of Natural Resources, Washington State Fire Service Mobilization, Emergency Management Assistance Compact, and Washington Corrections Center.

At the time this report was filed, CMFE is in the process of executing a merger with Mason County Fire District #11.

The following is a summary of key information about the jurisdiction:

Governing Authority— The district is governed by elected fire commissioners.

Population Served—31,186 as of 2023

Land Area Served— Fire District = 165 Square Miles. ALS Coverage = 748 Square Miles.

Value of Area Served—The estimated value of the area served by the district is \$5.3-billion.

Land Area Owned— CMFE currently owns parcels in nine locations within the fire district.

Critical Infrastructure/Equipment Owned by the Jurisdiction:

(11) fire engines, (3) water tenders, (1) ladder truck, (5) brush engines, (8) ambulances, (10) staff vehicles, and (4) support vehicles.

Total Value of Critical Infrastructure/Equipment—The total value of critical infrastructure and equipment owned by the jurisdiction is \$43,829,000.00

CRITICAL FACILITIES OWNED BY THE JURISDICTION AND VALUES			
Structure	Building Value	Content Value	Total Value
City of Shelton Fire Station	\$ 12,000,000.00	\$ 5,700,000.00	\$ 17,700,000.00
CMFE Station #1	\$ 1,240,000.00	\$ 1,650,000.00	\$ 2,890,000.00
CMFE Station #2	\$ 130,000.00	\$ 77,000.00	\$ 207,000.00
CMFE Station #3	\$ 1,750,000.00	\$ 1,880,000.00	\$ 3,630,000.00
CMFE Station #4	\$ 960,000.00	\$ 1,650,000.00	\$ 2,610,000.00
CMFE Station #5	\$ 402,000.00	\$ 810,000.00	\$ 1,212,000.00
CMFE Station #6	\$ 495,000.00	\$ 1,500,000.00	\$ 1,995,000.00
CMFE Station #7	\$ 2,800,000.00	\$ 1,650,000.00	\$ 4,450,000.00
CMFE Station #9	\$ 870,000.00	\$ 1,270,000.00	\$ 2,140,000.00
CMFE Station #10	\$ 618,000.00	\$ 1,350,000.00	\$ 1,968,000.00
CMFE Station #11	\$ 1,930,000.00	\$ 1,800,000.00	\$ 3,730,000.00
CMFE Station #12	\$ 487,000.00	\$ 810,000.00	\$ 1,297,000.00
TOTALS	\$ 23,682,000.00	\$ 20,147,000.00	\$ 43,829,000.00

SERVICE TRENDS 2020-2022						
Major Incident Breakdown	2022	% of Total Calls	2021	% of Total Calls	2020	% of Total Calls
Fires	193	2.07%	195	2.17%	183	2.28%
Overpressure ruptures, explosion, overheating - no fire	3	0.03%	6	0.07%	6	0.07%
Rescue & Emergency Medical Service	6,454	69.26%	6,322	70.35%	6,149	76.60%
Hazardous Conditions (No Fire)	79	0.85%	62	0.69%	63	0.79%
Service Call	799	8.57%	792	8.81%	526	6.55%
Good Intent Call	1,451	15.57%	1,344	14.95%	808	10.07%
False Alarm & False Call	315	3.38%	245	2.73%	265	3.30%
Severe Weather & Natural Disaster	20	0.22%	10	0.11%	19	0.24%
Special Incident Type	5	0.05%	11	0.12%	8	0.10%
TOTALS	9,319		8,987		8,027	

- Service trends in the area will continue to increase due to commercial and residential growth within CMFE coverage. The Shelton and Allyn Urban Growth Areas have seen considerable growth over the last five years. Three major residential expansions are in the permitting phase within the Shelton city limits.
- Current and forecasted growth within the fire district is predominantly in areas identified by the Washington State Department of Natural Resources (2020) as being in the wildland/urban interface. Many of these areas within the fire district include high densities of Highly Valued Resources and Assets (HVRA's).
- The CMFE response area will soon include the Port of Shelton at Sanderson Field through merger with Mason County Fire District #11. The Port of Shelton at Sanderson Field is home to several key pieces of infrastructure to the region and is an economic hub for Mason County.

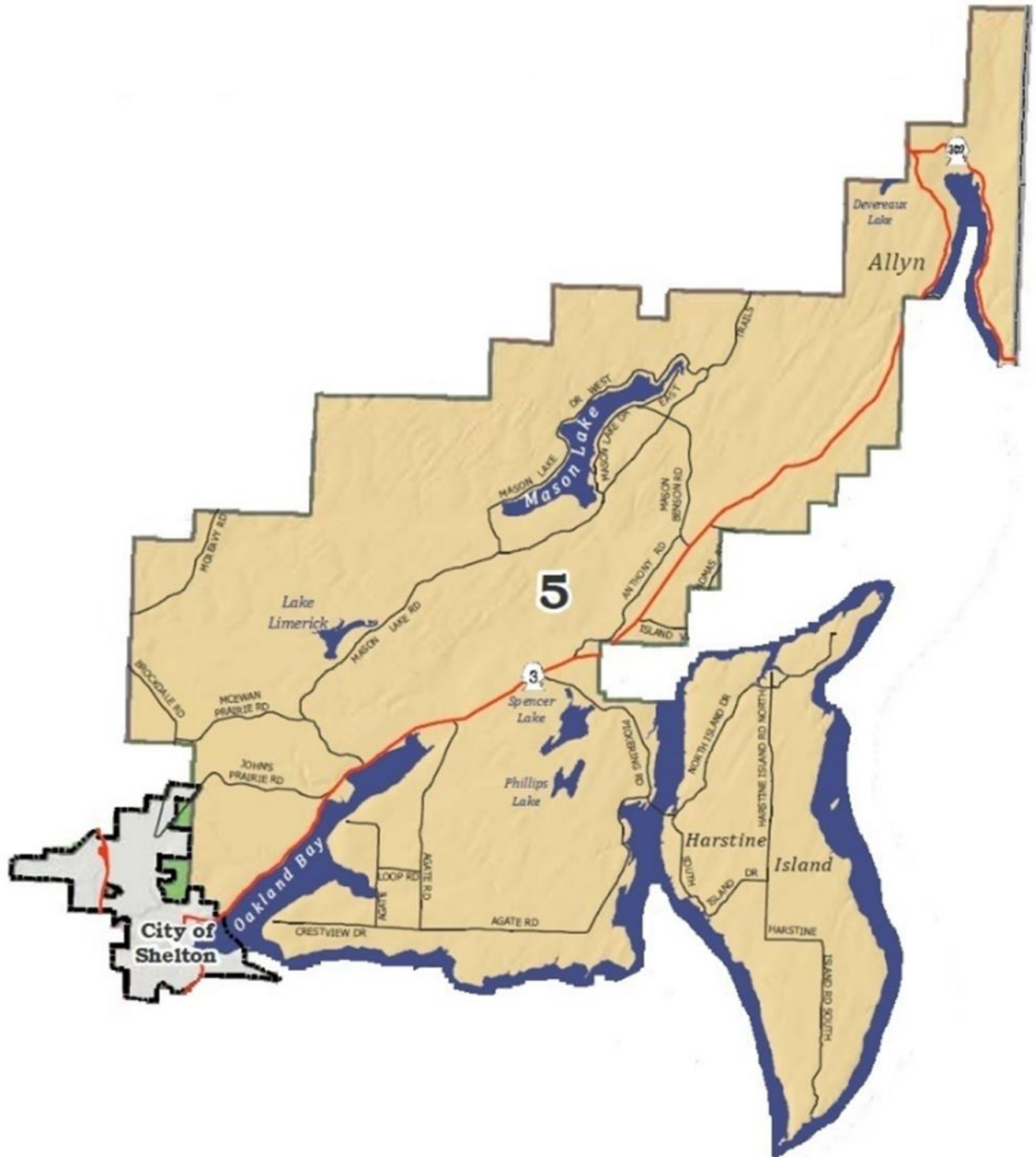


Figure 5-1 CMFE Service Area Boundaries

5.4 HAZARD EVENT HISTORY

CMFE provided response activities to all of those disasters identified within Table 5-1. In addition to those events identified, the District also responded to many additional events, one of which included resources owned by PUD 3. That incident is also identified below as a significant event which did not rise to a disaster declaration.

Table 5-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21-1/15/22	Unknown
Severe Winter Storm	4593	12/29/20-1/16/21	Unknown
Severe Storm	4539	1/20/-2/10/2020	Unknown
Pandemic	4481	1/20/20 – Present	Unknown
Severe Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown

Table 5-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown
Jurisdiction Specific Incidents Not Rising to Level of Disaster Declaration			
Wildfire by PUD 3 Headquarters - 240 Acres burned		10/2014	Unknown Damages

5.5 APPLICABLE REGULATIONS AND PLANS

The following codes, ordinance, policies or plans which are applicable to this hazard mitigation plan or support hazard mitigation planning efforts are identified as follows:

- Central Mason Fire and EMS Strategic Plan
- Central Mason Fire and EMS Policy and Guidelines
- Comprehensive Emergency Management Plan with the Mason County
 - www.masoncountywa.gov
- Capital Improvement Program, renewed as needed
- Federal Mitigation Act of 2000 requires State, Tribal and local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. The District's current approved Hazard Mitigation Plan Update supports this regulation and plan update.
- County and Regional Response Plans
- National Response Framework
- National Incident Management System
- Revised Code of Washington 52.26 (Regional Fire Protection Service)
- WAC 296.305

5.5.1 Administrative and Technical Capabilities

The assessment of the district's administrative and technical capabilities is presented in Table 5-2. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 5-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	These services are provided through the County. CMFE has a certified Fire Marshal / Inspector
Staff with training in benefit/cost analysis	Yes	These services, when necessary, may be contracted or provided by County.
Personnel skilled or trained in GIS applications	No	
Personnel skilled or trained in Hazus use	No	
Scientist familiar with natural hazards in local area	Yes	Through County and State resources.
Emergency Manager	Yes	The County provides this service.
Grant writers	Yes	We have two staff members. The fire district has the authority to apply for grants.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	Yes	County public works has signage available for use for warning systems; also County communications programs support the District as needed for warning and broadcasts. We also use our PIO and social media for this.
Hazard data and information available to public	Yes	Hazard maps developed through this process are available on the County's website for review.
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	CERT teams trained with citizens throughout the County and within the City of Shelton
Firewise, Washington Fire Adapted Communities, WA DNR Wildfire Ready Neighbors	Yes	Harstine Pointe is Firewise certified. Harstine Island is affiliated with the Washington Fire Adapted Communities. Lake Limerick, Rainbow Lake, and Emerald Lake are affiliated with WA DNR Wildfire Ready Neighbors.
Public-private partnership initiatives addressing disaster-related issues?	Yes	We work with many small communities in the Fire District to address Disaster Preparedness.

Table 5-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Multi-seasonal public awareness program?	Yes	The County regularly provides seasonal awareness programs via its website, safety fairs, Twitter accounts.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	No	
Noxious Weed Eradication Program or other vegetation management	No	
Fire Safe Councils	Yes	
Chipper program	Yes	
Defensible space inspections program	Yes	
Address signage for property addresses	Yes	
Other		

5.5.2 Fiscal Capability

The assessment of the jurisdiction's fiscal capabilities is presented in Table 5-3. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 5-3 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Other	

5.6 COMMUNITY CLASSIFICATION

The district's classifications under various hazard mitigation programs are presented in Table 5-4. Each of the classifications identified establishes requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 5-4 Community Classifications	
	Participating (Yes/No)
Protection Class	5
Building Code Effectiveness Grading Schedule	Commercial – 3 Dwelling - 4
Storm Ready	Yes - County
Firewise	Yes
Tsunami Ready (if applicable)	NA

5.7 HAZARD RISK AND VULNERABILITY RANKING

The district's Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect Central Mason Fire & EMS. Following the same process identified in the base plan, Table 5-5 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by past occurrences, spatial extent, damage, casualties, and continuity of government.

Based on the industry that CMFE operates, the internal Planning Team determined that wildfire warranted a ranking of “high.” This ranking is based on evaluation of impacts from previous events, as well as data sourced from the Washington State Department of Natural Resources Wildland/Urban Interface Risk Map and the Pacific Northwest Qualitative Risk Assessment. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 5-5. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
1	Wildfire	3.1	High	The majority of structures owned by the district fall into Fire Regimes 3 and 5. While structures owned by the district have not been impacted by wildfire, the district’s response to wildfire events has increased over the last several years, potentially because of climate change and the drought which the entire state experienced several times over the course of the last few years, as well as some of the driest summers on record with record-reaching temperatures occurring since completion of the last plan. CMF has been fortunate to be able to control wildfires which have erupted, although there was a significant wildfire which occurred significantly impacting PUD 3.

**Table 5-5.
Hazard Risk and Vulnerability Ranking**

Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
2	Severe Weather	2.35	Medium	Severe storms can impact all of the District's structures. Most structures included in this assessment were built in 1977-1978 timeframe. One was built in 1920, the newest structure built in 1980. Strong winds in the area could damage the facilities. Severe storms also impact response capabilities. Falling trees and flooded roadways impact ingress and egress. Snow, while customarily not of a long duration or significant amounts, also has the potential to impact response times, as well as increasing calls for service. Snow-load capacities can also be of concern, causing roofs to collapse during significant snow event. Many of the structures in the service area are older in nature and may be impacted by such an event. A combined snow/rain event could also overcome drainage capacity, further impacting response.
3	Earthquake	3.55	High	The entire planning area is susceptible to earthquakes. While all of the structures owned by the district fall within the "very low" liquefaction zone, all of the structures are dated, making them more susceptible to the EQ hazard. All but three of the structures owned by the district included in this assessment are wood, with three being steel construction.
4	Flood	2.4	Medium	None of the district's structures fall within either the 100- or 500-year floodplain; however, response to areas flooded do frequently occur. In some instances, response is hampered by floodwaters over roadways.
5	Landslide	2.9	Medium	No structures owned by the district fall within the landslide hazard area; however, there are roadways throughout the County as a whole that are many times impacted by landslides occurring, particularly along major arterials. This does have the potential to impact the district due to delayed response times, or impacting ability for adequate staffing if roadways are impacted.

Table 5-5. Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk
6	Climate Change	3.1	Low	Climate change will continue to exacerbate other hazards of concern, including increased severity of severe storms, increased flooding events, and impact to water supplies. These have the potential to impact not only district-owned structures, but also response capabilities.
7	Drought	2.05	Extremely Low	Droughts will increase the risk to wildfire and has the ability to limit water supplies needed to fight fires. The increase to wildfire danger could also impact the risk to the district's structures

The service area in which CMFE is situated are the areas which have experienced the most rapid growth within Mason County since completion of the 2018 plan. With the increased calls for service, the district does feel there is a great amount of vulnerability within its service area as a whole due to the increase in population and structures; however, with respect to the district's facilities, the vulnerability remains consistent with the 2018 plan.

5.8 MITIGATION GOALS AND OBJECTIVES

CMFE adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

5.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for CMFE has identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 5-6 lists the action items/strategies that make up the district's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

Table 5-6.
Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1 Refine and expand CMFE public education programs related to risk profile and identified hazards, such as wildland fires, earthquakes, and severe weather events. Principal focus will be on basic all hazard preparedness.									
Existing	All	1, 2, 3, 4	CMFE Chief or Designee	\$2,000	DEM, FEMA, Tribal Funds or Fire Grants, District funds	Short Term	No	Public Information, Resource Protection, Emergency Services	This will benefit all district residents, and visitors.
INITIATIVE #2 Maintain and expand wildfire risk reduction programs (FireWise USA, Fire Adapted Communities, & Wildfire Ready Neighbors) throughout the fire district.									
Both	Wildfire	All	CMFE Chief or Designee	\$50,000	Fire Grants, FEMA Grants, District funds	Short Term	No	Property Protection, Emergency Services, Recovery	Private, Local, County, Region
INITIATIVE #3 Evaluate and expand disaster preparedness efforts on Harstine Island and other at-risk communities.									
Both	All	All	CMFE Chief or Designee	Medium	DEM, Fire or BRIC Grants, District Funds	Long Term	No	Preventive Activities, Emergency Services, Recovery	Local, County, Region

5.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 5-7 identifies the prioritization for each initiative.

Table 5-7. Mitigation Strategy Priority Schedule							
Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority (a)
1	4	H	L	Y	Y	Y	H
2	All	H	H	Y	Y	Y	H
3	All	H	M	Y	Y	N	M
a. See Chapter 1 for explanation of priorities.							

5.11 STATUS OF PREVIOUS PLAN INITIATIVES

Table 5-8 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

TABLE 5-8. STATUS OF PREVIOUS HAZARD MITIGATION STRATEGIES												
	Associated Hazards								Current Status			
	Coastal Erosion	Earthquakes	Floods	Landslides	Severe Weather	Tsunami	Wildland Fire		Completed	Continual /Ongoing Nature	Removed /No Longer Relevant /No Action	Carried Over
Mitigation Strategy								2023 Project Status				
Station 57 Generator					✓			Project Complete	✓			
Station 51 Relocation				✓				Project will be reevaluated as part of capital facilities planning.			✓	

5.12 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

With the anticipated continued growth in the area, the CMFE will need to conduct additional risk and vulnerability assessments as development trends change to allow for a better understanding with respect to personnel and staffing, as well as equipment needs with respect to calls for service to ensure continued public safety at the appropriate levels.

CHAPTER 6.

MASON COUNTY FIRE DISTRICT #16

HAZARD MITIGATION PLAN 2023 ANNEX UPDATE

6.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Mason County Fire District 16, a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by Fire Protection District 16. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district's previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.

6.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

Mason County Fire District 16 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County's Planning Team, the Mason County Fire District 16 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Matthew N Welander PO Box 2436 Shelton, WA 98584 Telephone: 360-485-3714 Email: mwelander@mcfcd16.com	Fire Chief, Primary Point of Contact	Attend meetings; provide local data to planning partnership; seek necessary information from inside district to complete annex template.
Greg Seals PO Box 2436 Shelton, WA 98584 Telephone: 360-426-7343 Email: gseals@mcfcd16.com	Deputy Fire Chief Alternate Point of Contact	Work with Chief to participate in countywide planning process. Assist with information gathering to provide to planning team; assist with completion of annex template.

6.3 DISTRICT PROFILE

Mason County Fire District 16 is in Mason County, bordering the City of Shelton on the west side of the city. The district covers the area in between Shelton and the Matlock area. In 2018 Mason County Fire District 9 merged into District 16. Formed in 1977 the original station was built primarily with lumber donated by the Simpson Timber Company. The fire district provides fire suppression, rescue and emergency medical services, and wildland/urban interface protection to the approximately 5500 permanent residents. In addition to the permanent residents, the district is responsible for the protection of a major state prison and a 90-acre motor sports facility, which both more than doubles our population and add special hazards. Funding for the district is provided by fire taxes, impact fees from the prison, and use fees for stand-by at the track.

The fire district is made up of three elected commissioners, two paid Chief Officers, and approximately 10 volunteer fire personnel. The Headquarters Station is located at the intersection of Shelton Matlock and Dayton Airport Roads. With satellite stations located in the Brockdale area, Skokomish Valley, and Shelton Valley.

The following is a summary of key information about the jurisdiction:

Governing Authority— The district is governed by elected commissioners.

Population Served— 4,900 as of 2022, with the 2016 population served at 3,433, signifying a significant increase. In addition, FD #16 also serves 1,200 inmates and large numbers of spectators at the motorsports park

Land Area Served— As of 2022, 94 square miles, with 2016 service area at 54 Square Miles

Land Area Owned—3.5 acres

- We do not own the Skokomish Valley Station and no ability to mitigate any of the current or potential issues with the flooding in the area.

Critical Infrastructure/Equipment Owned by the Jurisdiction:

– Dayton Fire Station	\$550,000
– Shelton Valley Station	\$175,550
– Skokomish Valley Station	\$250,000 (Leased Property)
– Brockdale Station	\$260,760
– 2 Engines and Contents	\$600,000
– 1 Tender	\$300,000
– 2 Brush Engines	\$100,000
– 1 Ambulance	\$100,000
– 2 Command Vehicles	\$120,000

Total Value of Critical Infrastructure/Equipment—The total value of critical infrastructure and equipment owned by the District is \$1,640,000.

List of Critical Facilities Owned by the Jurisdiction:

Station 16-1	\$700,000
Station 16-2	\$200,000
Station 91	\$200,000

Station 92

\$300,000

Total Value of Critical Facilities—The total value of critical facilities owned by the jurisdiction is \$1,400,000

- **Current and Anticipated Service Trends** – Mason County Fire District 16, is facing several issues in the ability to continue to provide services. We are a largely bedroom community, with the only industry tied directly to agriculture practices, timber, beef, etc. With that the availability of tax money is very limited. We are the only district in the county that saw a reduction in population since the last census. Between 2020 and 2022 we have seen a 5% drop in population with a call increase of 10% in that same time. The political climate has made it very difficult to increase funding through elective tax increases, and we now sit at the lowest tax rate of the county and have no EMS levy at all. As we move forward we will need to look at other funding sources to keep pace with the needs of the district.

6.4 HAZARD EVENT HISTORY

Anecdotal during storms, there is large areas of isolation due to the high percentage of overhead powerlines. Also of note is the Little Egypt area, which floods every year. There histrionically have been several large wildland fire incidents in our 80-90% timberland. The Skokomish Valley floods every year multiple times and cuts off the area's access to services. In addition to this, the floods over the years have damaged the grange hall that we use for a warming and waiting center at times of flood and deep snow. We are currently without the ability to serve the public during those times.

The following table identifies the disaster incidents which have impacted the county. At present, the District does not have any data which specifically illustrates impact to District facilities. This is something which the District has identified as a deficiency and will begin to capture moving forward.

Table 6-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21-1/15/22	Unknown
Severe Winter Storm	4593	12/29/20-1/16/21	Unknown
Severe Storm	4539	1/20/-2/10/2020	Unknown
Pandemic	4481	1/20/20 – Present	Unknown
Severe Winter Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown
Severe Storm(s)	1079	11/7/1995	Unknown
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Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown

Table 6-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown

6.5 APPLICABLE REGULATIONS AND PLANS

The following codes, ordinance, policies or plans which are applicable to this hazard mitigation plan or support hazard mitigation planning efforts are identified as follows:

- Mason County Fire District #16 Strategic Plan
- Mason County Fire District #16 SOP/SOGs
- Emergency Operations Plan with the Mason County
 - www.masoncountywa.gov
- Capital Improvement Program, renewed annually (See Strat Plan)
- Federal Mitigation Act of 2000 requires State, Tribal and local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. The District's current approved Hazard Mitigation Plan Update supports this regulation and plan update.
- Response Plans
- National Response Framework
- National Incident Management System
- Revised Code of Washington 52.26 (Regional Fire Protection Service)
- WAC 296.305

6.5.1 Administrative and Technical Capabilities

The assessment of the district's administrative and technical capabilities is presented in Table 6-2. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 6-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	These services are provided through the County.
Staff with training in benefit/cost analysis	Yes	These services, when necessary, may be contracted or provided by County.
Personnel skilled or trained in GIS applications	Yes	
Personnel skilled or trained in Hazus use	Yes	
Scientist familiar with natural hazards in local area	Yes	Through County and State resources.
Emergency Manager	Yes	The County provides this service.
Grant writers	No	While there is no designated staff, the District has the authority to apply for grants.
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	No	County public works has signage available for use for warning systems; also County communications programs support the District as needed for warning and broadcasts.
Hazard data and information available to public	Yes	Hazard maps developed through this process are available on the County's website for review.
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	CERT teams trained with citizens throughout the County and within the City of Shelton
Firewise Groups?	No	There are limited groups which currently exist within areas of the County; however, this is a strategy addressed within the countywide strategies.
Public-private partnership initiatives addressing disaster-related issues?	Yes	Skokomish watershed groups addressing flood potential within the watershed areas.
Multi-seasonal public awareness program?	Yes	The County regularly provides seasonal awareness programs via its website, safety fairs, Twitter accounts.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	Yes	County Conservation District

Table 6-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Noxious Weed Eradication Program or other vegetation management	Yes	County Conservation District
Fire Safe Councils	Yes	
Chipper program	Yes	Available through DNR; however, rarely used.
Defensible space inspections program	Yes	
Address signage for property addresses	No	
Other		

6.5.2 Fiscal Capability

The assessment of the District's fiscal capabilities is presented in Table 6-3. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 6-3 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Other	

6.6 COMMUNITY CLASSIFICATION

The district's classifications under various hazard mitigation programs are presented in Table 6-4. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 6-4 Community Classifications	
	Participating (Yes/No)
Protection Class	7
Building Code Effectiveness Grading Schedule	County - 3
Storm Ready	Yes - County
Firewise	No
Tsunami Ready (if applicable)	NA

6.7 HAZARD RISK AND VULNERABILITY RANKING

The district's Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect the Mason County Fire District 16. Following the same process identified in the base plan, Table 6-5 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by: past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 6-5
Hazard Risk and Vulnerability Ranking

Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
1	Severe Weather	3.5	Medium	Severe storms can impact all of the District's structures depending on the type of event. Strong winds in the area could damage the facilities. Severe storms also impact response capabilities. Falling trees and flooded roadways impact ingress and egress. Snow, while customarily not of a long duration or significant amounts, also has the potential to impact response times, as well as increasing calls for service. Snow-load capacities would not be of great concern, as all of the district's structures were built 1979 or later. However, a combined snow/rain event could overcome drainage capacity, further impacting response.
2	Flood	3.7	High	Flood would be of concern with respect to the district's ability to respond to calls for service, as well as impact to structures.
3	Wildfire	3.1	Low	The majority of the district's structures fall within Fire Regime Class 3 (see wildfire profile for definition). Two of the structures are of concrete and steel construction. The remaining structure is wood construction, making it more vulnerable to fire.
4	Earthquake	3.6	High	The entire planning area is susceptible to earthquakes, which would impact response times due to damaged infrastructure throughout the county. All structures owned by the district fall within the very low liquefaction hazard zone. Due to the age of much of the building stock throughout the county, earthquake would also be of concern with respect to staffing, and employees' ability to report for duty due to blocked roadways, structure failure, etc.
5	Landslide	2.45	Low	No structure is within the landslide hazard area, however, roadways impacted by landslides would reduce response times.
6	Drought	2.2	Extremely Low	Droughts will increase the risk to wildfire and has the ability to limit water supplies needed to fight fires. The increase to wildfire danger could also impact the risk to the district's structures.

Table 6-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
7	Climate Change	1.15	Low	Climate change will continue to exacerbate other hazards of concern, including increased severity of severe storms, increased flooding events, and impact to water supplies. These have the potential to impact not only district-owned structures, but also response capabilities.

6.8 MITIGATION GOALS AND OBJECTIVES

The District adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

6.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for the district identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 6-6 lists the action items/strategies that make up the district's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

Table 6-6
Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE #1 Create a public education plan that would include classes, publication, and signage to raise the level of knowledge in the community about our current hazards, i.e., Wildland fires, Earthquakes, Powerline Awareness. Focus will be on basic all hazard preparedness.									
New	All	1, 2, 3, 4	Fire District 16 Chief or designee	\$2,000	BRIC or HLS Grants, Tribal Grants, District funds	Short Term	Y	Public Information	This will benefit all district residents, and visitors.
INITIATIVE #2 Add Larger Bays to Station 16-1 and remodel existing station, with emphasis on developing the ability to be a shelter for short to medium term displaced residents and emergency responders.									
Station 16-1	All	All	Fire District 16 Chief or designee	High	SAFER or BRIC grants, Bonds, District funds	Long Term	Y	Structural projects, Emergency Services, Recovery	Facility, Local, County, Region
INITIATIVE #3 Relocate all above ground power lines from in front of Fire Station									
Station 16-1	Severe weather, Earthquake	All	PUD 3 General Manager in conjunction with FD #16 Chief	TBD (Medium)	PUD 3, FEMA Grants (BRIC, HMGP) or DOE Grants	Long Term	Y	Preventive Activities, Emergency Services, Recovery	Facility, Local
INITIATIVE #4 Improve communications infrastructure between our major hazards and resources. To include WCC, DEM, neighboring fire districts.									
New, Station 16-1	All	All	District 16 Chief, and DEM	Assessing (High)	ARPA Grants, HLS DEM, District Funds	Long Term	Y	Structural Projects, Property Protection, Emergency Services, Recovery	Facility, Local, County, Region
INITIATIVE #5 Establish a well for Station 16-1.									

Table 6-6
Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
Station 16-1	All	All	District 16 Chief, DEM, FEMA	Assessing (Medium)	BRIC Grants, District Funds	Long Term	Y	Emergency Services, Recovery	Facility, Local, County
INITIATIVE #6 Seek grant funding to complete the quarters at the Brockdale Fire Station									
New	All	All	District 16 Chief	High	BRIC, Fire Grants	Long-Term	N	All	Local
INITIATIVE #7 Seek grant funding to construct a structure in the Skokomish Valley.									
New	All	All	District 16 Chief	High	BRIC, Fire Grants	Long-Term	N	All	Local

6.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 6-7 identifies the prioritization for each initiative.

Table 6-7
Mitigation Strategy Priority Schedule

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
1	4	H	L	Y	Y	Y	H
2	All	H	H	Y	Y	Y	H
3	All	H	M	Y	Y	N	M
4	All	H	H	H	Y	N	M
5	All	M	M	Y	N	Y	M
6	All	H	H	Y	Y	N	H

Table 6-7
Mitigation Strategy Priority Schedule

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
7	All	H	H	Y	Y	N	H
a. See Chapter 1 for explanation of priorities.							

6.11 STATUS OF PREVIOUS PLAN INITIATIVES

FD #16 has made no progress on any of the action items identified in the 2018 HMP Annex due to staffing shortage and funding. As such, all items are brought forward to the 2023 update.

6.12 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

We will need to work with DOC/WCC in the near future to further understand their specific needs in the event of a disaster of consequence.

CHAPTER 7.

MASON COUNTY FIRE DISTRICT #4

HAZARD MITIGATION PLAN ANNEX

7.1 INTRODUCTION

This Annex details the hazard mitigation planning elements specific to the Mason County Fire District 4, a participating special purpose district to the Mason County Hazard Mitigation Plan Update. This Annex is not intended to be a standalone document, but rather appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by Fire Protection District 16. For planning purposes, this Annex provides additional information specific to the district, with a focus on providing greater details on the risk assessment and mitigation strategy for this entity only. This document serves as an update to the district's previously completed plan. All relevant data has been carried over and updated with new information as appropriate and as identified within the planning process discussed in Volume 1.



7.2 HAZARD MITIGATION PLANNING TEAM POINT(S) OF CONTACT

Mason County Fire District #4 followed the planning process detailed in Section 2 of the Base Plan. In addition to providing representation on the County's Planning Team, the Mason County Fire District 4 also formulated their own internal planning team to support the broader planning process. Individuals assisting in this Annex development are identified below, along with a brief description of how they participated.

Local Planning Team Members		
Name	Position/Title	Planning Tasks
Gregory C. Rudolph 2970 SE Arcadia Rd. Shelton, WA. 98584 Telephone: 360.426.7222 grudolph@masonfire4.com	Fire Chief Primary Point of Contact	Attend meetings, provide local data to planning partnership. Gather pertinent information from stakeholders from within district boundaries to complete annex.
Lisa Brengan 2970 SE Arcadia Rd. Shelton, WA. 98584 Telephone: 360.426.7222 lbrengan@masonfire4.com	Office Manager Alternate Point of Contact	Assist with information collection to facilitate the development of the annex template and to attend meetings if the primary contact is unable to attend.

7.3 DISTRICT PROFILE

Mason County Fire Protection District No. 4 consists of a 52 square mile area in southern Mason County serving an approximate population of 8500, bordering Thurston County to the south and the city of Shelton to the north, the Puget sound to the east and additional Mason County fire districts to the west. District #4 maintains a total of seven stations, three of the stations are staffed depending on resources available. The district employs a full-time Fire Chief, Assistant Chief, and an Office Manager which make up the administrative team. Line staff consists of three career Captains, six career firefighters, six part time firefighters and ten volunteer firefighters. The District provides an all-hazard service to the citizens including but not limited to fire suppression, rescue and emergency medical services, technical rescue, hazardous materials response, and wildland/urban interface protection.

The following is a summary of key information about the jurisdiction:

- **Governing Authority**— The district is governed by an elected board of three fire commissioners.
- **Population Served**—8500 as of 2023
- **Land Area Served**—52 square miles
- **Value of Area Served**—The estimated value of the area served by the jurisdiction is \$1,348,826,301.00
- **Land Area Owned**—5.71 acres.
- **List of Critical Infrastructure/Equipment Owned by the Jurisdiction:**

3 Fire Engines	\$3.0M
2 BLS Aid units	\$750K
3 Brush Engines	\$500K
2 Command Units	\$200K
2 Tender/Pumpers	\$1.5M
- **Total Value of Critical Infrastructure/Equipment**—The total value of critical infrastructure and equipment owned by the jurisdiction is \$5.95M
- **List of Critical Facilities Owned by the Jurisdiction:**

Station 41	\$1,480,423.00
Station 42	\$87,173.00
Station 43	\$100,872.00
Station 45	\$111,920.00
Station 46	\$915,166.00
Station 47	\$90,660.00
- **Total Value of Critical Facilities**—The total value of critical facilities owned by the jurisdiction is \$2,786,214.00

- Current and Anticipated Service Trends**—Over the last five years Mason County Fire District 4 has had an increase in call volume of 26 percent with very little change in funding or staffing. Call volumes are expected to increase with the available land in south Mason County for residential and commercial use secondary to the close proximity to Thurston County. Population has increased steadily since 2020 and we expect it to continue as more people move from urban areas to rural areas such as Mason County. We have seen a 19 percent increase in call volume in the southern end of the district that borders Thurston County and with our geographical location near the I5 corridor I would expect a projected increase in call volume with a potential spike coming in the next 3 to 5 years.

The district's boundaries are shown on in the map provided below.

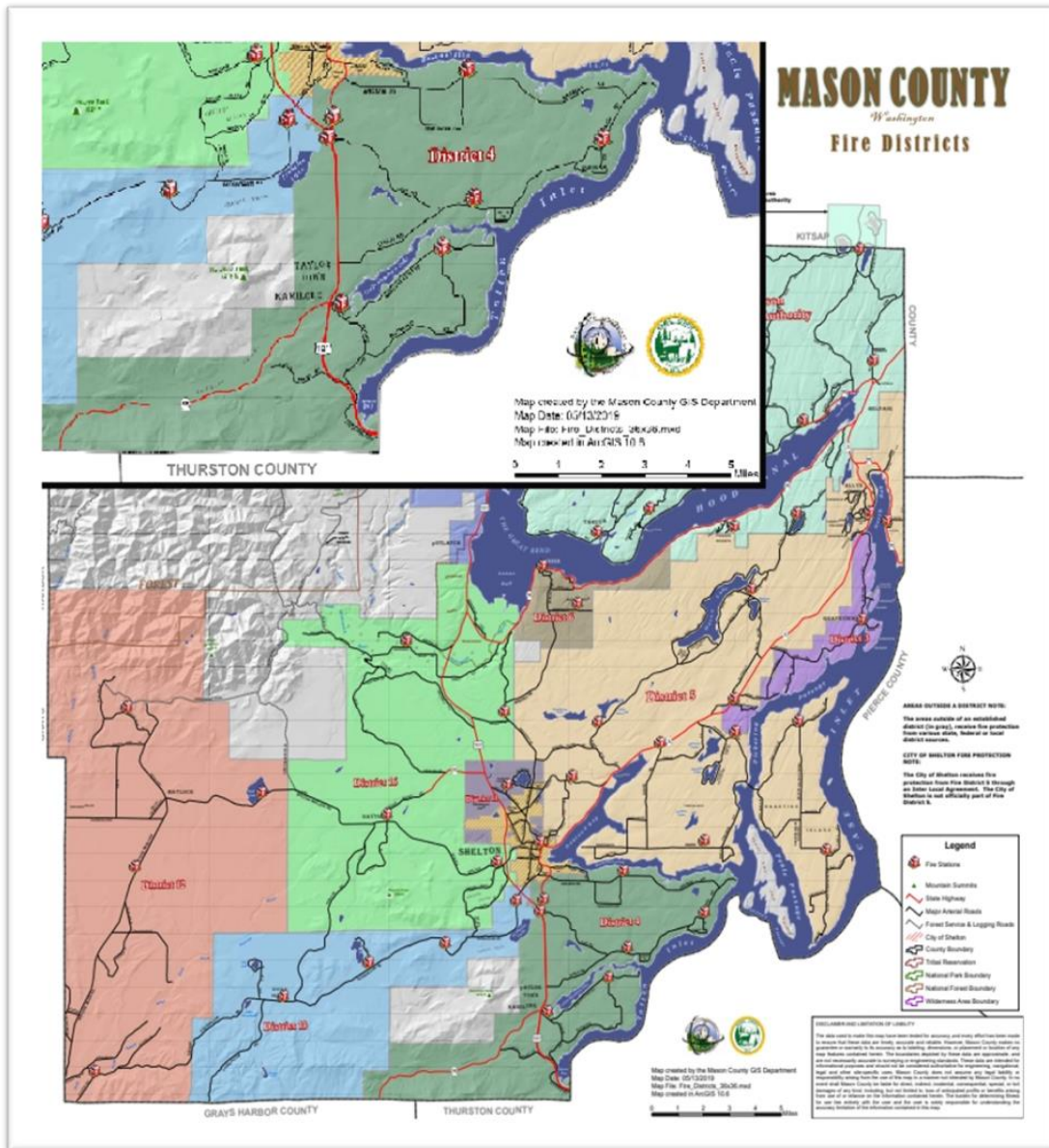


Figure 7-1 Fire District #4

7.4 HAZARD EVENT HISTORY

Within the Base Plan, the Planning Team identified all hazard events which have occurred within the County. In the context of the planning region, it was determined that there are no additional hazards that are unique to the special purpose district. Table 7-1 identifies the hazards of concern. The District has no specific dollar loss information at this time.

Table 7-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Winter Storm	4650	12/26/21-1/15/22	Unknown
Severe Winter Storm	4593	12/29/20-1/16/21	Unknown
Severe Storm	4539	1/20/-2/10/2020	Unknown
Pandemic	4481	1/20/20 – Present	Unknown
Severe Winter Storm	4418	12/10-24/2018	Unknown
Flood	4253	12/1/2015	Unknown
Severe Storm	4269	11/12/2015	Unknown
Severe Storm	4056	1/14/2012	Unknown
Severe Storm(s)	1825	12/12/2008	Unknown
Flood	1817	1/6/2009	Unknown
Severe Storm(s)	1734	12/1/2007	Unknown
Severe Storm(s)	1682	12/14/2006	Unknown
Severe Storm(s)	1641	1/27/2006	Unknown
Severe Storm(s)	1499	10/15/2003	Unknown
Earthquake	1361	2/28/2001	Unknown
Flood	1172	3/18/1997	Unknown
Severe Storm(s)	1159	12/26/1996	Unknown

Table 7-1 Natural Hazard Events			
Type of Event	FEMA Disaster # (if applicable)	Date Incident	Dollar Losses Impacting District (if known)
Severe Storm(s)	1079	11/7/1995	Unknown
Severe Storm(s)	981	1/20/1993	Unknown
Flood	883	11/9/1990	Unknown
Volcano	623	5/21/1980	Unknown
Flood	612	12/31/1979	Unknown
Flood	492	12/13/1975	Unknown
Flood	414	1/25/1974	Unknown
Earthquake	196	5/11/1965	Unknown
Flood	185	12/29/1964	Unknown

7.5 APPLICABLE REGULATIONS AND PLANS

Coordination with other community planning efforts is paramount to the successful implementation of this plan. This section provides information on how planning mechanisms, policies, and programs are integrated into other on-going efforts. It also identifies the jurisdiction's capabilities with respect to preparing and planning for, responding to, recovering from, and mitigating the impacts of hazard events and incidents.

Capabilities include the programs, policies and plans currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities are divided into the following sections: regulatory capabilities which influence mitigation; administrative and technical mitigation capabilities, including education and outreach, partnerships, and other on-going mitigation efforts; fiscal capabilities which support mitigation efforts, and classifications under various community programs.

The following codes, ordinance, policies or plans which are applicable to this hazard mitigation plan or support hazard mitigation planning efforts are identified as follows:

Fire District Capabilities:

- Emergency Operations Plan
- Emergency Procedures and Policies
- County Comprehensive Emergency Management Plan

- State of Washington Comprehensive Emergency Management Plan
- National Response Framework
- National Incident Management System
- Revised Code of Washington 52.26 (Regional Fire Protection Service)
- WAC 296.305
- Response Plans

General Capabilities:

- Specific incident response plans
- Operations plans or policies
- Employee Handbooks and Safety Manuals
- Mutual Aid Agreements
- Continuity of Operations Plan

7.5.1 Administrative and Technical Capabilities

The assessment of the district's administrative and technical capabilities is presented in Table 7-2. These are elements which support not only mitigation, but all phases of emergency management already in place that are used to implement mitigation activities and communicate hazard-related information.

Table 7-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Professionals trained in building or infrastructure construction practices (building officials, fire inspectors, etc.)	Yes	These services are provided through the County or from Mason Fire 4.
Staff with training in benefit/cost analysis	Yes	These services, when necessary, may be contracted or provided by County.
Personnel skilled or trained in GIS applications	Yes	The county provides this service
Scientist familiar with natural hazards in local area	Yes	Through County and State resources.
Emergency Manager	Yes	The County provides this service.
Grant writers	No	Available through local resources or contracted.

Table 7-2 Administrative and Technical Capability Supporting Mitigation		
Staff/Personnel Resources	Available (Yes/No)	Department/Agency/Position
Warning Systems/Services (Reverse 9-1-1, outdoor warning signs or signals, flood or fire warning program, etc.?)	No	County public works can provide signage available for use for warning systems; also County communications programs support the District as needed for warning and broadcasts.
Hazard data and information available to public	Yes	Hazard maps developed through this process are available on the County's website for review.
Specific equipment response plans.	Yes	Provided through the county and local jurisdictions
Specific operational plans.	Yes	Provided through the county and local jurisdictions
Education and Outreach		
Local citizen groups or non-profit organizations focused on emergency preparedness?	Yes	CERT teams trained with citizens throughout the County and within the City of Shelton
Firewise Groups?	No	There are limited groups which currently exist within areas of the County; however, this is a strategy addressed within the countywide strategies.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Fire prevention programs in schools and Stop the Bleed courses.
Public-private partnership initiatives addressing disaster-related issues?	Yes	Skokomish watershed groups addressing flood potential within the watershed areas.
Multi-seasonal public awareness program?	Yes	The County regularly provides seasonal awareness programs via its website, safety fairs, Twitter accounts.
On-Going Mitigation Efforts		
Hazardous Vegetation Abatement Program	No	
Noxious Weed Eradication Program or other vegetation management	No	
Chipper program	Yes	Through State DNR
Defensible space inspections program	No	
Address signage for property addresses	Yes	Mason FD #4 has an address sign program
Other		

7.5.2 Fiscal Capability

The assessment of the District's fiscal capabilities is presented in Table 6-3. These are the financial tools or resources that could potentially be used to help fund mitigation activities.

Table 7-3 Fiscal Capability Available to Support Mitigation	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	

7.6 COMMUNITY CLASSIFICATION

The district's classifications under various hazard mitigation programs are presented in Table 6-4. Each of the classifications identified establish requirements which, when met, are known to increase the resilience of a community. Those which specifically require district participation or enhance mitigation efforts are indicated accordingly.

Table 7-4 Community Classifications	
	Participating (Yes/No)
Protection Class	6
Building Code Effectiveness Grading Schedule	County - 3
Storm Ready	Yes - County
Firewise	No
Tsunami Ready (if applicable)	NA

7.7 HAZARD RISK AND VULNERABILITY RANKING

The district's Planning Team reviewed the hazard list identified within the Base Plan, and have identified the hazards that affect the Mason County Fire District 16. Following the same process identified in the base plan, Table 6-5 presents the ranking of the hazards of concern based on their CPRI score. A qualitative vulnerability ranking was then assigned based on a summary of potential impact determined by past occurrences, spatial extent, damage, casualties, and continuity of government. The assessment is categorized into the following classifications:

- Extremely Low – No or very limited impact. The occurrence and potential cost of damage to life and property is very minimal-to-nonexistent. No impact to government functions with no disruption to essential services.
- Low (Negligible) – Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal. Government functions are at 90% with limited disruption to essential services.
- Medium (Limited) – Moderate potential impact. This ranking carries a moderate threat level to the general population and /or built environment. The potential damage is more isolated, and less costly than a more widespread disaster. Government functions are at 80% with limited impact to essential services.
- High (Critical) – Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past. Government functions are at ~50% operations with limited delivery of essential services.
- Extremely High (Catastrophic) – Very widespread with catastrophic impact. Government functions are significantly impacted for in excess of one month.

Table 7-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
1	Earthquake	3.60	High	Major roadway and infrastructure damage including older fire stations that are not retrofitted to current standards.
2	Severe Weather	3.50	High	High wind events impacting travel through the region and district that contains three State Highways.
3	Wildfire	3.10	High	Loss of natural resources having an economic impact on the local and regional economy

Table 7-5 Hazard Risk and Vulnerability Ranking				
Hazard Rank	Hazard Type	CPRI Score	Vulnerability Rank	Description of Risk (Impact to Structures and/or Service Area)
4	Flood	2.90	High	Shutting down access/egress routes to roadways and thoroughfares
5	Landslides	2.45	Medium	Shutting down access/egress routes to roadways and thoroughfares
6	Drought	2.20	Medium	Increasing weather extremes and increased severe weather with an impact on wildland fire season.
7	Climate Change	1.15	Low	Increasing weather extremes and increased severe weather with an impact on wildland fire season.

7.8 MITIGATION GOALS AND OBJECTIVES

The District adopts the hazard mitigation goals and objectives developed by the Planning Team described in Volume 1.

7.9 HAZARD MITIGATION ACTION PLAN

The Planning Team for the district identified and prioritized a wide range of actions based on the risk assessment, and their knowledge of the district assets and hazards of concern. Table 6-6 lists the action items/strategies that make up the district's hazard mitigation plan. Background information and information on how each action item will be administered, responsible agency/office (including outside the district), potential funding sources, the timeframe, and the type of initiative associated with each item are also identified.

**Table 7-6
Hazard Mitigation Action Plan Matrix**

Applies to new or existing assets	Hazards Mitigated	Object ives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
INITIATIVE # 1 Seek out grant or other funding sources to construct a new fire station to support emergency operations and to be used as a resilience center and shelter location in the event of natural disaster or weather-related emergency.									
New	All	All	Mason County Fire District 4 Chief	High	HUD, BRIC, HMGP,	Long Term	All	Mason County Fire District 4	High
INITIATIVE # 2 Add water storage at multiple stations that currently have wells throughout the district to enhance firefighting capabilities for wildland and structural fires.									
New	Wildfire	All	Mason County Fire District 4 Chief	Medium	SAFER Grants, HMGP, District Funds	Short Term	No	Property Protection, Emergency Services, Natural Resource Protection	Local, County, Region
INITIATIVE # 3 Improve the communications infrastructure to enhance interoperability between other agencies such as Squaxin Tribe, DEM, Law Enforcement, etc.									
New	All	All	Mason County Fire District 4 Chief	Medium	FEMA or HLS Grants, District Funds	Long Term	No	Emergency Services, Property Protection, Natural Resource Protection	Local, County, Region
INITIATIVE # 4 Create a public education plan that would include classes, publication, and signage to raise the level of knowledge in the community about the current hazards, such as wildland fires, earthquakes, powerline awareness, etc.									
New	All	All	Mason County Fire District 4	Low	DEM. FEMA Grants,, Tribal Grants, District Funds	Short Term	No	Public Information, Preventive Activities	Local
INITIATIVE # 5 Institute a regional Mobile Integrated Health Program with Physician Associate program to deliver health care more effectively in a rural community.									

Table 7-6
Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost (High/Medium/Low) or \$ Figure if Known	Sources of Funding (List Grant type, General Fund, etc.)	Timeline (Long-Term, Short-Term)	Included in Previous Plan? Yes/No	Initiative Type: Public Information, Preventive Activities, Structural Projects, Property Protection, Emergency Services, Recovery, Natural Resource Protection	Who or What Benefits? Facility, Local, County, Region
New	All	All	Mason County Fire District 4 Chief	Medium	Hospital District, Squaxin Tribe, District Funds	Long Term	No	Preventive Activities, Emergency Services, Public Information	Local and Regional

7.10 PRIORITIZATION OF MITIGATION INITIATIVES

Once the mitigation initiatives items were identified, the Planning Team followed the same process outlined within Volume 1 to prioritize their initiatives. An analysis of six different initiative types for each identified action item was conducted. Table 6-7 identifies the prioritization for each initiative.

Table 7-7
Mitigation Strategy Priority Schedule

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority ^a
1	All	H	H	Y	Y	N	H
2	All	H	H	Y	Y	N	H
3	All	H	M	Y	Y	N	M
4	All	H	H	Y	Y	N	M
5	All	H	H	Y	Y	N	H

a. See Chapter 1 for explanation of priorities.

**Mason County 2023 Multi-Jurisdiction Hazard Mitigation Plan Update
Volume 2: Planning Partner Annexes**

**APPENDIX A.
LINKAGE PROCEDURES TO THE
HAZARD MITIGATION PLAN**

APPENDIX A. PROCEDURES FOR LINKING TO THE HAZARD MITIGATION PLAN UPDATE

Not all eligible local governments within Mason County are included in the *Mason County 2023 Multi-Jurisdiction Hazard Mitigation Plan Update*. It is assumed that some or all of these non-participating local governments may choose to “link” to the Plan at some point to gain eligibility for programs under the federal Disaster Mitigation Act. In addition, some of the current partnership may not continue to meet eligibility requirements due to a lack of participation as prescribed by the plan. The following “linkage” procedures define the requirements established by the Planning Committee for dealing with an increase or decrease in the number of planning partners linked to this plan. It should be noted that a currently non-participating jurisdiction within the defined planning area is not obligated to link to this plan. These jurisdictions can elect to do their own “complete” plan that addresses all required elements of 44 CFR Section 201.6.

INCREASING THE PARTNERSHIP THROUGH LINKAGE

Eligible linking jurisdictions are instructed to complete **all** of the following procedures during this time frame:

- The eligible jurisdiction requests a “Linkage Package” by contacting the Point of Contact (POC) for the plan:

Name:	Tammi Wright
Title:	Emergency Management Coordinator
Address:	100 Public Works Drive
City, State ZIP:	Shelton, WA
Phone:	(360) 427-9670 x800
e-mail:	tammiw@masoncountywa.gov

The POC will provide a linkage packages that includes:

- Copy of Volume 1 and 2 of the plan.
 - Planning partner’s expectations package.
 - A sample “letter of intent” to link to the hazard mitigation plan update.
 - A Special Purpose District or City template and instructions.
 - Catalog of Hazard Mitigation Alternatives.
 - A “request for technical assistance” form.
 - A copy of Section 201.6 of Chapter 44, the Code of Federal Regulations (44 CFR), which defines the federal requirements for a local hazard mitigation plan.
- The new jurisdiction will be required to review both volumes of the hazard mitigation plan update, which includes the following key components for the planning area:
 - The planning area risk assessment

- Goals and objectives
- Plan implementation and maintenance procedures
- Comprehensive review of alternatives
- County-wide initiatives.

Once this review is complete, the jurisdiction will complete its specific annex using the template and instructions provided by the POC. Technical assistance can be provided upon request by completing the request for technical assistance (TA) form provided in the linkage package. This TA may be provided by the POC or any other resource within the Planning Partnership such as a member of the Planning Team Committee or a currently participating City or Special Purposes District partner. The POC will determine who will provide the TA and the possible level of TA based on resources available at the time of the request.

- The new jurisdiction will be required to develop a public involvement strategy that ensures the public's ability to participate in the plan development process. At a minimum, the new jurisdiction must make an attempt to solicit public opinion on hazard mitigation at the onset of this linkage process and a minimum of one public meeting to present their draft jurisdiction specific annex for comment, prior to adoption by the governing body. The Planning Partnership will have resources available to aid in the public involvement strategy such as the Plan website. However, it will be the new jurisdiction's responsibility to implement and document this strategy for incorporation into its annex. It should be noted that the Jurisdictional Annex templates ***do not*** include a section for the description of the public process. This is because the original partnership was covered under a uniform public involvement strategy that covered the planning area described in Volume 1 of the plan. Since new partners were not addressed by that strategy, they will have to initiate a new strategy, and add a description of that strategy to their annex. For consistency, new partners are encouraged to follow the public involvement format utilized by the initial planning effort as described in Volume 1 of the plan.
- Once their public involvement strategy is completed and they have completed their template, the new jurisdiction will submit the completed package to the POC for a pre-adoption review to ensure conformance with the Regional plan format.
- The POC will review for the following:
 - Documentation of Public Involvement strategy
 - Conformance of template entries with guidelines outlined in instructions
 - Chosen initiatives are consistent with goals, objectives and mitigation catalog of the hazard mitigation plan update
 - A designated point of contact
 - A ranking of risk specific to the jurisdiction.

The POC may utilize members of the Planning Committee or other resources to complete this review. All proposed linked annexes will be submitted to the Planning Team for review and comment prior to submittal to State Emergency Management.

- Plans approved and accepted by the Planning Team will be forwarded to Washington State Emergency Management for review with a cover letter stating the forwarded plan meets local approved plan standards and whether the plan is submitted with local adoption or for criteria met/plan not adopted review.
- Washington State Emergency Management Division (EMD) will review plans for federal compliance. Non-Compliant plans are returned to the Lead agency for correction. Compliant plans are forwarded to FEMA for review with annotation as to the adoption status.
- FEMA reviews the new jurisdiction's plan in association with the approved plan to ensure DMA compliance. FEMA notifies new jurisdiction of results of review with copies to Washington State EMD and approved planning authority.
- New jurisdiction corrects plan shortfalls (if necessary) and resubmits to Washington State EMD through the approved plan lead agency.
- For plans with no shortfalls from the FEMA review that have not been adopted, the new jurisdiction governing authority adopts the plan (if not already accomplished) and forwards adoption resolution to FEMA with copies to lead agency and Washington State EMD.
- FEMA regional director notifies new jurisdiction governing authority of plan approval.

The new jurisdiction plan is then included with the regional plan with the commitment from the new jurisdiction to participate in the ongoing plan implementation and maintenance.

DECREASING THE PARTNERSHIP

The eligibility afforded under this process to the planning partnership can be rescinded in two ways. First, a participating planning partner can ask to be removed from the partnership. This may be done because the partner has decided to develop its own plan or has identified a different planning process for which it can gain eligibility. A partner that wishes to voluntarily leave the partnership shall inform the POC of this desire in writing. This notification can occur any time during the calendar year. A jurisdiction wishing to pursue this avenue is advised to make sure that it is eligible under the new planning effort, to avoid any period of being out of compliance with the Disaster Mitigation Act.

After receiving this notification, the POC shall immediately notify both Washington State EMD and FEMA in writing that the partner in question is no longer covered by the hazard mitigation plan update, and that the eligibility afforded that partner under this plan should be rescinded based on this notification.

The second way a partner can be removed from the partnership is by failure to meet the participation requirements specified in the "Planning Partner Expectations" package provided to each partner at the beginning of the process, or the plan maintenance and implementation procedures specified within Volume 1 of the plan. Each partner agreed to these terms by adopting the plan.

Eligibility status of the planning partnership will be monitored by the POC. The determination of whether a partner is meeting its participation requirements will be based on the following parameters:

- Are progress reports being submitted annually by the specified time frames?
- Are partners notifying the POC of changes in designated points of contact?
- Are the partners supporting the Planning Team by attending designated meetings or responding to needs identified by the body?
- Are the partners continuing to be supportive as specified in the Planning Partners expectations package provided to them at the beginning of the process?

Participation in the plan does not end with plan approval. This partnership was formed on the premise that a group of planning partners would pool resources and work together to strive to reduce risk within the planning area. Failure to support this premise lessens the effectiveness of this effort. The following procedures will be followed to remove a partner due to the lack of participation:

- The POC will advise the Planning Team of this pending action and provide evidence or justification for the action. Justification may include: multiple failures to submit annual progress reports, failure to attend meetings determined to be mandatory by the Planning Committee, failure to act on the partner's action plan, or inability to reach designated point of contact after a minimum of five attempts.
- The Planning Team will review information provided by POC, and determine action by a vote. The Planning Committee will invoke the voting process established in the ground rules established during the formation of this body.
- Once the Planning Team has approved an action, the POC will notify the planning partner of the pending action in writing via certified mail. This notification will outline the grounds for the action, and ask the partner if it is their desire to remain as a partner. This notification shall also clearly identify the ramifications of removal from the partnership. The partner will be given 30 days to respond to the notification.
- Confirmation by the partner that they no longer wish to participate or failure to respond to the notification shall trigger the procedures for voluntary removal discussed above.
- Should the partner respond that they would like to continue participation in the partnership, they must clearly articulate an action plan to address the deficiencies identified by the POC. This action plan shall be reviewed by the Planning Team to determine whether the actions are appropriate to rescind the action. Those partners that satisfy the Planning Team's review will remain in the partnership, and no further action is required.
- Automatic removal from the partnership will be implemented for partners where these actions have to be initiated more than once in a 5 year planning cycle.



FEMA

August 24, 2023

Mr. Tim Cook
State Hazard Mitigation Officer
Washington State Emergency Management Division
Building 20, MS TA-20
Camp Murray, Washington 98430-5122

Dear Mr. Cook:

The Federal Emergency Management Agency (FEMA) Region 10 completed a pre-adoption review of the draft Mason County Hazard Mitigation Plan. The attached Mitigation Plan Review Tool documents the Region's review and compliance with all required elements of 44 CFR Part 201.6, as well as identifies the jurisdictions participating in the planning process. This letter serves as Region 10's commitment to approve the plan upon receiving documentation of its adoption by participating jurisdictions.

Formal adoption documentation must be submitted to FEMA Region 10 by at least one jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. Once FEMA approves the plan, the jurisdictions are eligible to apply for FEMA Hazard Mitigation Assistance grants.

Please contact our Regional Mitigation Planning Program Manager, Erin Cooper, at (202) 856-1927 or erin.cooper@fema.dhs.gov with any questions.

Sincerely,

Wendy Shaw, P.E.
Risk Analysis Branch Chief
Mitigation Division

WS:vl



CITY OF SHELTON COUNCIL BRIEFING REQUEST (Agenda Item F8)

Touch Date: 10/10/2023
Brief Date: 10/17/2023
Action Date: 11/21/2023

Department: Executive
Presented By: Mark Ziegler, City Manager

APPROVED FOR COUNCIL PACKET:

Action Requested:

ROUTE TO:

REVIEWED:

PROGRAM/PROJECT TITLE:

Designated Crisis Responder

☐

Ordinance

☐ Dept. Head

☐ Finance Director

☒ Attorney

☒ City Clerk

☒ City Manager

MZ

ATTACHMENTS:

- Contract with Olympic Health and Recovery Services

- Contract with Thurston Mason Behavioral Health Administrative Service Organization

☐

Resolution

☒

Motion

☐

Other

DESCRIPTION OF THE PROGRAM/PROJECT AND BACKGROUND INFORMATION:

Throughout the summer and early fall of 2022, the city convened a Homelessness Task Force to address concerns in the community and determine consensus recommendations which should be considered by the City Council. One of the consensus recommendations from the task force is support for a Designated Crisis Responder (DCR) within the city to assist individuals experiencing mental health crisis.

The City subsequently contracted with Olympic Health and Recovery Services (OHRS) for DCR services in February 2023, with funding provided by the Association of Washington Cities, through June 30, 2023. These services have been maintained to present date with the understanding that Thurston-Mason Behavioral Health Administrative Service Organization (TMBHO-ASO) has funding to reimburse the City through December 31, 2023.

The DCR is placed with the Shelton Police Department, operating independently, Tuesday through Friday from 10am to 8pm. The DCR is authorized to act as a DCR by the Washington State Healthcare Authority.

ANALYSIS/OPTIONS/ALTERNATIVES:

The council may choose to modify the terms of this contract or disapprove this contract and seek another provider.

BUDGET/FISCAL INFORMATION:

This program will be supported by grant dollars obtained through Thurston Mason Behavioral Health Services

PUBLIC INFORMATION REQUIREMENTS:

More information can be obtained through the City Clerk's Office.

STAFF RECOMMENDATION/MOTION:

"I move to approve the contracts with Thurston Mason Behavioral Health Administrative Services Organization and Olympic Health and Recovery Services for a designated crisis responder and authorize the City Manager to sign the contracts."

AGREEMENT FOR DESIGNATED CRISIS RESPONDER SERVICES

The City of Shelton (“City”) and Olympic Health and Recovery Services (“OHRs”) enter into the following Agreement for Designated Crisis Responder (“DCR”) services.

1. OVERVIEW

Olympic Health and Recovery Services (OHRs) shall provide dedicated Involuntary Treatment Act (“ITA”) Services including all services required for the evaluation for involuntary detention or involuntary treatment of individuals in accordance with WAC 246-341-0810, RCW 71.05, RCW 71.24.300, and RCW 71.34.700.

2. SERVICE REQUIREMENTS

- 2.1.** OHRs shall provide continuous services in four 10 hour shifts, Tuesday through Friday from 10 a.m. to 8 p.m. During these agreed upon hours, OHRs will provide ITA services to persons who have mental disorders and substance use disorders in accordance with state law and without regard to the individual’s ability to pay.
- 2.2.** OHRs will incorporate the statewide Designated Crisis Responder (DCR) protocols approved by the Health Care Authority into its practice.
- 2.3.** OHRs will respond to referrals immediately upon request during the mutually agreed upon hours of service and not later than the timelines outlined by the RCW 71.05.153. The City may utilize the regional 24/7 hotline for service requests outside the agreed-upon hours.
- 2.4.** OHRs will provide services in the community and hospital settings, as deemed appropriate in its sole discretion.
- 2.5.** The City will allow OHRs to utilize office space in the police department during the agreed upon hours. OHRs shall be responsible for supplying its own equipment including computer equipment and transportation services.
- 2.6.** OHRs shall provide all services required for the evaluation for involuntary detention or involuntary treatment of Individuals of all ages, including all clinical services. The DCR shall exercise independent decision-making authority when evaluating individuals for involuntary treatment. OHRs shall continue to provide ITA services to an individual until the end of the involuntary commitment or until the individual is appropriately passed on to a relieving DCR.

3. PROGRAM REQUIREMENTS

- 3.1.** All OHRs staff shall have the necessary training defined within the DCR protocol and be designated as a DCR by the Thurston Mason Behavioral Health-Administrative Service Organization (TMBH-ASO).
- 3.2.** OHRs shall fully participate in the Quality Management program of their, as it relates to the function of the DCR and ITA work. The quality assurance/improvement program will include tracking of timely investigations, quality of documentation, training of the DCR teams in SUD ITA process, and

reporting timeliness of detainment.

- 3.3. OHRS must have policies and procedures for ITA services that adhere to WAC 246-341-0810, 246-341-0300 through 246-341-0650.

4. PERFORMANCE MEASURES AND REPORTING

- 4.1. OHRS shall track the following items:

- Number of referrals and referral source
- Number of attempted evaluations
- Number of completed evaluations
- ITA Evaluation dispositions (e.g., hospital placement, not detained, single bed certification, etc.)

- 4.2. For AWC Grant Reporting requirements, OHRS will report the following information to the City of Shelton on a monthly basis, or as needed:

- Number of individuals served
- Gender (Male, Female, Nonbinary, etc.) of individuals served
- Age of individuals served
- Veteran status of individuals served
- Substance abuse or mental health issues of individuals served
- Reason for contact
- Outcome of contact (No outcome, referral to services, involuntary transport, etc.)
- Long-term outcome of individual receiving services (No outcome, permanent housing, shelter, etc.)
- Program successes and challenges

5. ELIGIBILITY

- 5.1. OHRS will primarily provide ITA services to Individuals referred by the City of Shelton Police Department.
- 5.2. OHRS will respond to referrals from the Mason County Sheriff's Office, the OHRS Crisis Team, and community referrals as appropriate.

6. COMPENSATION

The City shall compensate OHRS for its services in an amount not to exceed fifty thousand dollars (\$50,000). OHRS shall invoice the City on a monthly basis. Invoices shall include a breakdown of costs for salary, benefits, training, supplies, travel, and administration. Invoices shall be paid within thirty (30) days of receipt.

7. TERM

This Agreement shall take effect upon execution and shall remain in effect through December 31, 2023.

8. INSURANCE/INDEMNITY

Indemnification / Hold Harmless. OHRS shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the negligent or other tortious acts, errors or omissions of the OHRS in connection with the performance of this Agreement, except for injuries and damages caused by sole negligence of the City.

In the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of OHRS and the City, its officers, officials, employees, and volunteers, OHRS's liability hereunder shall be only to the extent of OHRS's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the OHRS's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or Termination of this Agreement.

Insurance. OHRS shall procure and maintain for the duration of this Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the Work hereunder by the OHRS, their agents, representatives, employees or subcontractors.

No Limitation. OHRS's maintenance of insurance as required by this Agreement shall not be construed to limit the liability of OHRS to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available at law or in equity.

A. Minimum Scope of Insurance. OHRS shall obtain insurance of the types described below:

1. Automobile Liability insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01 or substitute providing equivalent coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.
2. Commercial General Liability insurance shall be written on ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract. The City shall be named as an insured under OHRS's Commercial General Liability insurance policy with respect to the Work performed for the City using additional insured endorsement at least as broad as ISO endorsement from CG 20 26 or substitute endorsements providing equivalent coverage.
3. Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
4. Professional Liability insurance appropriate to OHRS's profession.

B. Minimum Amounts of Insurance. OHRS shall maintain the following insurance limits:

1. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
2. Commercial General Liability insurance shall be written with limits no less than \$2,000,000 each occurrence and \$2,000,000 general aggregate.
3. Professional Liability insurance shall be written with limits no less than \$2,000,000 per claim and \$2,000,000 policy aggregate limit.

C. Other Insurance Provisions. OHRS's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain, that they shall be primary insurance as respect the City. Any Insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess of OHRS's insurance and shall not contribute with it.

D. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

E. Verification of Coverage. OHRS shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the insurance requirements of OHRS before commencement of the Work.

F. Notice of Cancellation. OHRS shall provide the City with written notice of any policy cancellation, within two (2) business days of their receipt of such notice.

G. Failure to Maintain Insurance. Failure on the part of OHRS to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five (5) business days' notice to OHRS to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due OHRS from the City.

H. City's Full Availability of OHRS Limits. If OHRS maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by OHRS, irrespective of whether such limits maintained by OHRS are greater than those required by this Agreement or whether any certificate of insurance furnished to the City evidences limits of liability lower than those maintained by OHRS.

9. MISCELLANEOUS

9.1. Assignment. Any assignment of this Agreement by OHRS without the written consent of the City shall be void.

9.2. This Contract contains Federal Block Grant funds, and any subcontracts must be subcontracted according to the terms set forth by the Community Behavioral Health

Advisory Board-approved Mental Health Block Grant project plan and/or Substance Abuse Block Grant (SABG) project plan. The approved Subcontractor must adhere to the applicable requirements in the Thurston-Mason BH-ASO Non-Medicaid Professional Services Contractor Guide and Crisis Provider Guide.

- 9.3. Non-Waiver of Breach.** The failure of the City to insist upon strict performance of any of the covenants and agreements contained herein, or to exercise any option herein conferred in one or more instances shall not be construed to be a waiver or relinquishment of said covenants, agreements or options, and the same shall be and remain in full force and effect.
- 9.4. Resolution of Disputes, Governing Law.** Should any dispute, misunderstanding or conflict arise as to the terms and conditions contained in this Agreement, the matter shall be referred to the City Manager, whose decision shall be final. In the event of any litigation arising out of this Agreement, the Parties shall bear their own costs and fees. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington and the jurisdiction of any dispute under this Agreement shall be the Superior Court of Mason County, Washington.
- 9.5. Public Records Act.** OHRS acknowledges that the City is a public agency subject to the Public Records Act codified in Chapter 42.56 RCW and documents, notes, emails, and other records prepared or gathered by OHRS in its performance of this Agreement may be subject to public review and disclosure, even if those records are not produced to or possessed by the City of Woodinville. As such, OHRS agrees to cooperate fully with the City in satisfying the City's duties and obligations under the Public Records Act as allowable by law.
- 9.6. Ratification.** Each Party shall take such action as is necessary by law to approve this Agreement via appropriate motion of its governing body or by other allowable means.

Executed this _____ day of November 2023.

Signatures on following page

OLYMPIC HEALTH AND REHABILITATIVE SERVICES

DATE: _____

Name/Title

CITY OF SHELTON

Date: _____

Mark Ziegler, City Manager

Attest:

Donna Nault, City Clerk

THURSTON-MASON BEHAVIORAL HEALTH ADMINISTRATIVE SERVICE ORGANIZATION (TMBH-ASO)

CONTRACT FOR PROFESSIONAL SERVICES WITH

Contractor:	City of Shelton				
Contact:	Mark Ziegler	Title:	City Manager		
Phone:	360.432.5194	Email:	mark.ziegler@sheltonwa.gov		
Mailing Address:	525 West Cota Street, Shelton WA 98584				
Contract Number:	2023-3635	Start Date:	July 1, 2023	End Date:	December 31, 2023
Thurston-Mason BH-ASO Contacts:					
Tara Smith, Finance Director		Phone:	360.763.5809	Email:	tara.smith@tmbho.org
Mark Freedman, ASO Administrator		Phone:	360.763.5791	Email:	mark.freedman@tmbho.org
Amy Martin, Care Manager		Phone:	360.763.5828	Email:	amy.martin@tmbho.org
Mailing Address:	612 Woodland Square Loop Rd SE Ste 401 Lacey WA 98503				
Is this Contractor a Subrecipient for the purposes of this contract? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				CFDA#: 93.959; 93.958	
				Contract Total	\$50,000
INCORPORATION OF EXHIBITS AND ATTACHMENTS					
<p>The Provider shall provide services and comply with the requirements set forth in the following attached exhibits, attachments, or any other materials which are incorporated herein by reference. To the extent that the terms and conditions of any Exhibit or Attachments conflicts with the terms and conditions of this base contract, the terms of this Contract shall control.</p>					
<input checked="" type="checkbox"/> Exhibit A: Scope of Services <input checked="" type="checkbox"/> Exhibit B: Compensation <input checked="" type="checkbox"/> Exhibit C: Business Associate Agreement (BAA)			<input checked="" type="checkbox"/> TMBH-ASO Non-Medicaid Professional Services Contractor Guide <input checked="" type="checkbox"/> TMBH-ASO Non-Medicaid Crisis Services Provider Guide		
<p>This Professional Service Contract is entered into in counterpart or duplicate copies, and any signed counterpart or duplicate copy shall be equivalent to a signed original for all purposes, between the Thurston-Mason Behavioral Health Administrative Service Organization (TMBH-ASO) and the Contractor. This Contract, including all Exhibits, Attachments, and other documents incorporated by reference, contains all of the terms and conditions agreed upon by the parties. No other understandings and representations, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or bind the parties. The parties signing below warrant that they have read and understand this Contract and have authority to enter into this Professional Service Contract. THE PARTIES HERETO ACKNOWLEDGE THAT THE WAIVER OF IMMUNITY SET OUT IN SECTION 17 WAS MUTUALLY NEGOTIATED AND SPECIFICALLY AGREED TO BY THE PARTIES HEREIN.</p>					
Contractor Signature:		Printed Name and Title:		Date:	
Thurston-Mason BH-ASO Signature:		Printed Name and Title:		Date:	
		Mark Freedman, ASO Administrator			

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1. SERVICES PROVIDED BY THE CONTRACTOR

- 1.1. The CONTRACTOR shall perform the services as identified in Exhibit A: Scope of Work.

2. SERVICES PROVIDED BY TMBH-ASO

- 2.1. In order to assist the CONTRACTOR in fulfilling its duties under this Contract, TMBH-ASO shall provide the following as identified in Exhibit A: Scope of Work.

3. COMPENSATION

- 3.1. For the services performed hereunder, the CONTRACTOR shall be paid based upon mutually agreed rates contained in Exhibit B - Compensation, attached hereto and incorporated herein by reference.
- 3.2. No payment shall be made for any work performed by the CONTRACTOR, except for work identified and set forth in this Contract or supporting exhibits or attachments incorporated by reference into this Contract.
- 3.3. The CONTRACTOR may, in accordance with Exhibit B - Compensation, submit invoices to TMBH-ASO not more often than once per month during the progress of the work for partial payment of work completed to date. Invoices shall cover the time CONTRACTOR performed work for TMBH-ASO during the billing period. TMBH-ASO shall pay the CONTRACTOR for services rendered in the month following the actual delivery of the work and will remit payment per Exhibit B - Compensation.
- 3.4. The CONTRACTOR shall not be paid for services rendered under the Contract unless and until they have been performed to the satisfaction of TMBH-ASO.

4. AMENDMENT AND CHANGES IN WORK

- 4.1. In the event of any errors or omissions by the CONTRACTOR in the performance of any work required under this Contract, the CONTRACTOR shall make any and all necessary corrections without additional compensation. All work submitted by the CONTRACTOR shall be certified by the CONTRACTOR and checked for errors and omissions. The CONTRACTOR shall be responsible for the accuracy of the work, even if the work is accepted by TMBH-ASO.
- 4.2. Except as described below, an amendment to this Contract shall require the approval of both TMBH-ASO and the CONTRACTOR. The following shall guide the amendment process:
- 4.2.1. Any amendment shall be in writing and shall be signed by the CONTRACTOR's authorized officer and an authorized representative of TMBH-ASO. No other understandings, verbal or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties hereto.
- 4.2.2. TMBH-ASO reserves the right to issue unilateral amendments which provide corrective or clarifying information.
- 4.2.3. The CONTRACTOR shall submit all feedback or questions to TMBH-ASO at contracts@tmbho.org or other email address as expressly stated.
- 4.2.4. The CONTRACTOR shall submit written feedback within the expressed deadline provided to the CONTRACTOR upon receipt of any amendments. TMBH-ASO is not obligated to accept CONTRACTOR feedback after the written deadline provided by TMBH-ASO.
- 4.2.5. The CONTRACTOR shall return all signed amendments within the written deadline provided by TMBH-ASO contracts administration.

5. ASSIGNMENT, DELEGATION, AND SUBCONTRACTING

- 5.1. The CONTRACTOR shall not assign or subcontract any obligations and duties of the Contract to any person, partnership, corporation, association or organization, without the prior written consent of TMBH-ASO. If approved, the CONTRACTOR shall:
 - 5.1.1. Provide copies of all Subcontracts, including exhibits, attachments, and Subcontract amendments to TMBH-ASO within 15 days of contract execution.
 - 5.1.2. Retain the responsibility for monitoring Subcontractor compliance and oversight of delegated functions, which shall be documented and provided to TMBH-ASO no less than annually.
- 5.2. All Subcontracts must be in writing and specify all duties, responsibilities and reports that are appropriate to the service or activity delegated under the Subcontract and require compliance with all applicable local, State and federal laws, rules and regulations. No Subcontract terminates the legal responsibility of the CONTRACTOR to TMBH-ASO to perform the terms of this Contract. The CONTRACTOR shall be responsible for the acts and omissions of any Subcontractor, and the CONTRACTOR is responsible for all contractual obligations, financial or otherwise, to its Subcontractors. TMBH-ASO has no contractual obligations to any Subcontractor under contract to the CONTRACTOR. Subcontractors must abide by the requirements of Section 1128A(b) of the Social Security Act prohibiting BHO'S and other providers from making payments directly or indirectly to physicians or other providers as an inducement to reduce or limit services provided to recipients.
 - 5.2.1. This Contract contains Federal Block Grant funds, and any subcontracts must be subcontracted according to the terms set forth by the Community Behavioral Health Advisory Board-approved Mental Health Block Grant project plan and/or Substance Abuse Block Grant (SABG) project plan. The approved Subcontractor must adhere to the applicable requirements in the Thurston-Mason BH-ASO Non-Medicaid Professional Services Contractor Guide and Crisis Provider Guide.

6. COMPLIANCE WITH APPLICABLE LAW

- 6.1. In the provision of services under this Contract, the CONTRACTOR and any approved Subcontractors shall comply with all applicable federal, State and local laws and Regulations, and all amendments thereto, that are in effect when the Contract is signed or that come into effect during the term of this Contract. The provisions of this Contract that are in conflict with applicable State or federal laws or Regulations are hereby amended to conform to the minimum requirements of such laws or Regulations.
- 6.2. The Contractor and any approved Subcontractors shall comply with these General Terms and Conditions, Provider Guides, Subdelegation Grids, Exhibits, Attachments, TMBH-ASO and/or the Department Data Reporting Guidelines, TMBH-ASO Data Dictionary, TMBH-ASO Policies and Procedures, TMBH-ASO Protocols, TMBH-ASO and/or the Department required forms, and any other documents attached hereto or incorporated herein by reference.
- 6.3. A provision of this Contract that is stricter than such laws or Regulations will not be deemed a conflict.

7. CONFIDENTIALITY

- 7.1. The CONTRACTOR shall protect and preserve the confidentiality of TMBH-ASO's data or information that is defined as confidential under State or federal law or Regulation or data that TMBH-ASO has identified as confidential subject to the City's obligation to comply with state laws requiring open government, including the Public Records Act, Chap. 42.56 RCW.

- 7.2. The CONTRACTOR shall comply with all applicable federal and state laws and Regulations concerning collection, use, and disclosure of Personal Information set forth in Governor Locke's Executive Order 00-03 and Protected Health Information (PHI), defined at 45 C.F.R. §160.103, as may be amended from time to time.
- 7.3. The CONTRACTOR shall not release, divulge, publish, transfer, sell, or otherwise make known to unauthorized third parties Personal Information or PHI without the advance express written consent of the individual who is the subject matter of the Personal Information or PHI or as otherwise required in this Contract or as permitted or required by state or federal law or Regulation.
- 7.4. The CONTRACTOR shall implement appropriate physical, electronic and managerial safeguards to prevent unauthorized access to Personal Information and PHI. The CONTRACTOR shall require the same standards of confidentiality of any approved Subcontractors.
- 7.5. The CONTRACTOR agrees to share Personal Information regarding Individuals in a manner that complies with applicable state and federal law protecting confidentiality of such information (including but not limited to the Health Insurance Portability and Accountability Act (HIPAA) of 1996, codified at 42 U.S.C. §1320(d) et. seq. and 45 C.F.R. parts 160, 162, and 164., the HIPAA Regulations, 42 C.F.R. §431 Subpart F, RCW 5.60.060(4), and Chapter 70.02 RCW). The CONTRACTOR and the CONTRACTOR's Subcontractors shall fully cooperate with TMBH-ASO efforts to implement HIPAA requirements.
- 7.6. The CONTRACTOR shall protect and maintain all Confidential Information gained by reason of this Contract against unauthorized use, access, disclosure, modification or loss.
- 7.7. This duty requires that CONTRACTOR employ reasonable security measures, which include restricting access to the Confidential Information by:
 - 7.7.1. Encrypting electronic Confidential Information during Transport;
 - 7.7.2. Physically securing and tracking media containing Confidential Information during Transport;
 - 7.7.3. Limiting access to staff that have an authorized business requirement to view the Confidential Information;
 - 7.7.4. Using access lists, Unique User ID and Hardened Password authentication to protect Confidential Information;
 - 7.7.5. Physically securing any computers, documents or other media containing the Confidential Information; and
 - 7.7.6. Encrypting all Confidential Information that is stored on portable devices including but not limited to laptop computers and flash memory devices.
- 7.8. Upon request by TMBH-ASO the CONTRACTOR shall return the Confidential Information or certify in writing that the CONTRACTOR employed a TMBH-ASO approved method to destroy the information. CONTRACTOR may obtain information regarding approved destruction methods from the TMBH-ASO contact identified in this Contract, subject to the City's obligation to comply with state laws requiring retention of records.
- 7.9. In the event of a breach, meaning an acquisition, access, use, or disclosure of PHI in a manner not permitted by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule which compromises the security or privacy of an Individual's PHI, the CONTRACTOR shall notify TMBH-ASO in writing, as described in the Notices Section of the General Terms and Conditions, within two (2) business days after determining notification must be sent to Individuals. CONTRACTOR must also take actions to mitigate the risk of loss and comply with any notification

or other requirement imposed by law (45 C.F.R. Part 164, Subpart D, WAC 284-04-625, RCW 19.255.010).

- 7.10. TMBH-ASO reserves the right to monitor, audit, or investigate the use of Personal Information and PHI of Individuals collected, used, or acquired by CONTRACTOR during the term of this Agreement to the extent permitted by law. All TMBH-ASO representatives conducting onsite audits of CONTRACTOR agree to keep confidential any patient- identifiable information which may be reviewed during the course of any site visit or audit.
- 7.11. Any material breach of this confidentiality provision may result in termination of this Contract. The CONTRACTOR shall indemnify and hold TMBH-ASO harmless from any damages related to the CONTRACTOR's or Subcontractor's unauthorized use or release of Personal Information or PHI of Individuals.
- 7.12. To the extent allowed by law, when the Contract term has ended or the Contract terminated, or when Confidential Information is no longer needed, the CONTRACTOR shall return the Confidential Information or certify in writing the destruction of Confidential Information upon written request by TMBH-ASO, subject to the City's obligation to comply with state laws requiring retention of records.
- 7.13. Paper documents with Confidential Information may be recycled through a contracted firm, provided the contract with the recycler specifies that the confidentiality of information will be protected, and the information destroyed through the recycling process. Paper documents with Confidential Information must be destroyed through shredding, pulping, or incineration.
- 7.14. The CONTRACTOR shall obtain written consent from an individual prior to the use of the individual's picture(s) or personal story.

8. CONTRACTOR CERTIFICATION REGARDING ETHICS

- 8.1. The CONTRACTOR certifies that the CONTRACTOR is now, and shall remain, in compliance with Chapter 42.23 RCW, Code of Ethics for Municipal Officers, throughout the term of this Contract, as a recipient of public funding under this Contract.

9. DEFENSE OF LEGAL ACTIONS

- 9.1. The CONTRACTOR shall advise TMBH-ASO as to matters that come to its attention with respect to potential substantial legal actions involving allegations that may give rise to a claim for indemnification from TMBH-ASO. The CONTRACTOR shall fully cooperate with TMBH-ASO in the defense of any action arising out of matters related to this Contract by providing without additional fee all reasonably available information relating to such actions and by providing necessary testimony.

10. DISPUTES

- 10.1. Differences between the CONTRACTOR and TMBH-ASO, arising under and by virtue of this Contract shall be brought to the attention of TMBH-ASO at the earliest possible time in order that such matters may be settled, or other appropriate action promptly taken. Any dispute relating to the quality or acceptability of performance and/or compensation due to the CONTRACTOR shall be decided by the TMBH-ASO Contract representative or designee. All rulings, orders, instructions and decisions of TMBH-ASO'S contract representative shall be final and conclusive, subject to the CONTRACTOR'S right to seek judicial relief pursuant to Section 14, Governing Law and Venue.

11. ENTIRE CONTRACT

- 11.1. The parties agree that this Contract, including all documents attached or incorporated by reference, is the complete expression of its terms and conditions. Any verbal or written representations or understandings not incorporated in this Contract are specifically excluded.

12. FORCE MAJEURE

- 12.1. If the CONTRACTOR is prevented from performing any of its obligations hereunder in whole or in part as a result of a major epidemic, act of God, war, civil disturbance, court order or any other cause beyond its control, such nonperformance shall not be a ground for termination for default. Immediately upon the occurrence of any such event, the CONTRACTOR shall commence to use its best efforts to provide, directly or indirectly, alternative and, to the extent practicable, comparable performance. Nothing in this Section shall be construed to prevent TMBH-ASO from terminating this Contract for reasons other than for default during the period of events set forth above, or for default, if such default occurred prior to such event.

13. FUTURE SUPPORT

- 13.1. TMBH-ASO makes no commitment to future support and assumes no obligation for future support of the services contracted for, except as expressly set forth in this Contract.

14. GOVERNING LAW AND VENUE

- 14.1. This Contract has been and shall be construed as having been made and delivered in accordance with the laws of the state of Washington, and it is agreed by each party hereto that this Contract shall be governed by the laws of the State of Washington, both as to its interpretation and performance.
- 14.2. Any action at law, suit in equity, or judicial proceedings arising out of this Contract shall be instituted and maintained only in any of the courts of competent jurisdiction in Thurston County or Mason County. In the event that an action is removed to U.S. District Court, venue shall be in the Western District of Washington in Tacoma.

15. HEADINGS

- 15.1. The headings used in this Contract are for reference and convenience only, and in no way define, limit, or decide the scope or intent of any provisions or Sections of this Contract.

16. HEALTH AND SAFETY

- 16.1. The CONTRACTOR shall perform any and all of its obligations under this Contract in a manner that does not compromise the health and safety of any TMBH-ASO individual with whom the CONTRACTOR has contact.

17. INDEMNIFICATION AND HOLD HARMLESS

- 17.1. The CONTRACTOR shall hold harmless, indemnify and defend THURSTON COUNTY, MASON COUNTY, TMBH-ASO, its officers, officials, employees and agents, from and against any and all claims, actions, suits, liability, losses, expenses, damages, and judgments of any nature whatsoever, including costs and attorney's fees in defense thereof, for injury, sickness, disability or death to persons or damage to property or business, caused by or arising out of the CONTRACTOR's acts, errors or omissions or the acts, errors or omissions of its employees, agents, Subcontractors or anyone for whose acts any of them may be liable, in the performance of this Contract. PROVIDED HOWEVER, that the CONTRACTOR's obligations hereunder shall not extend to injury, sickness, disability, death or damage caused by or arising out of the sole negligence of THURSTON COUNTY, MASON COUNTY, TMBH-ASO, its officers, officials, employees or agents. PROVIDED FURTHER, that in the event of the concurrent negligence of the parties, the CONTRACTOR's obligations hereunder shall apply only to the percentage of fault attributable to the CONTRACTOR, its employees, agents or Subcontractors. Claims shall include, but not be limited to, assertions that information supplied or used by the CONTRACTOR or Subcontractor infringes any patent, copyright, trademark, trade name, or otherwise results in an unfair trade practice.
- 17.2. In any and all claims against THURSTON COUNTY, MASON COUNTY, TMBH-ASO, its officers,

officials, employees and agents by any employee of the CONTRACTOR, Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR or Subcontractor under Worker's Compensation acts, disability benefits acts, or other employee benefits acts, it being clearly agreed and understood by the parties hereto that the CONTRACTOR expressly waives any immunity the CONTRACTOR might have had under Title 51 RCW. By executing the Contract, the CONTRACTOR acknowledges that the foregoing waiver has been mutually negotiated by the parties and that the provisions of this Section shall be incorporated, as relevant, into any contract the CONTRACTOR makes with any Subcontractor or agent performing work hereunder.

- 17.3. The CONTRACTOR's obligations hereunder shall include, but are not limited to, investigating, adjusting and defending all claims alleging loss from action, error or omission, or breach of any common law, statutory or other delegated duty by the CONTRACTOR, the CONTRACTOR's employees, agents or Subcontractors
- 17.4. The CONTRACTOR shall indemnify and hold harmless the State from any claims by the CONTRACTOR related to the provision of services to Individuals according to the terms of this Contract; this obligation shall not apply to any services that were unpaid due to non-payment of installment moneys by the State to TMBH-ASO. The CONTRACTOR agrees to promptly notify TMBH-ASO in writing of any claim and provide the State and TMBH-ASO the opportunity to defend and settle the claim. The CONTRACTOR waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend, and hold harmless the State and its agencies, officials, agents, or employees.

18. INDEPENDENT CONTRACTOR

- 18.1. The parties intend that an independent CONTRACTOR relationship between the CONTRACTOR and TMBH-ASO shall be created by this Contract. The CONTRACTOR specifically has the right to direct and control CONTRACTOR'S own activities in providing the agreed services in accordance with the specifications set out in this Contract.
- 18.2. The CONTRACTOR acknowledges that the entire compensation for this Contract is set forth in Section, Compensation and Exhibit B - Compensation of this Contract, and the CONTRACTOR is not entitled to any TMBH-ASO benefits, including, but not limited to: vacation pay, holiday pay, sick leave pay, medical, dental, or other insurance benefits, fringe benefits, or any other rights or privileges afforded to TMBH-ASO employees.
- 18.3. The CONTRACTOR shall have and maintain complete responsibility and control over all of its subcontractors, employees, agents, and representatives. No subcontractor, employee, agent or representative of the CONTRACTOR shall be or deem to be or act or purport to act as an employee, agent or representative of TMBH-ASO.
- 18.4. The CONTRACTOR shall assume full responsibility for the payment of all payroll taxes, use, sales, income or other form of taxes, fees, licenses, excises, or payments required by any city, county, federal or state legislation which is now or may during the term of this Contract be enacted as to all persons employed by the CONTRACTOR and as to all duties, activities and requirements by the CONTRACTOR in performance of the work on this project and under this Contract and shall assume exclusive liability therefore, and meet all requirements thereunder pursuant to any rules or regulations.
- 18.5. The CONTRACTOR agrees to immediately remove any of its employees or agents from assignment to perform services under this Contract upon receipt of a written request to do so from TMBH-ASO'S contract representative or designee, provided that if such removal prevents the Contractor from discharging its obligations, the Contractor may terminate the agreement without penalty.

19. INSPECTION OF BOOKS AND RECORDS

19.1. TMBH-ASO has the right to inspect the books and records of the CONTRACTOR relating to the performance of this Contract. The CONTRACTOR and any approved Subcontractors shall cooperate with TMBH-ASO regarding any audits and investigations initiated by TMBH-ASO or other funding entities that support the services under this Contract – Federal, State, or local government.

19.2. Records

19.2.1. The CONTRACTOR shall provide access to its records and place of business during the term of this Contract and for one (1) year following termination or expiration of this Contract for the purposes of monitoring, auditing, and evaluating CONTRACTOR's compliance with this Contract, and compliance with applicable State and federal laws, rules, and regulations as existing now or as later amended.

19.2.2. The CONTRACTOR and any approved Subcontractors shall maintain all financial, program and other records pertinent to this Contract. All financial records shall follow generally accepted accounting principles. Other records shall be maintained as necessary to clearly reflect all actions taken by the CONTRACTOR related to this Contract.

19.2.3. The CONTRACTOR shall maintain books, records, documents and other material relevant to this Contract which sufficiently and properly reflects all direct and indirect costs expended in the performance of the services described herein and the performance of all acts required by the Contract and applicable laws, rules, and regulations.

19.2.4. Records will enable identification of all federal funds received and expended by Catalog of Federal Domestic Assistance Number (CFDA#), federal program, award number and year, name of federal, state and pass-through agency. Records will meet the requirements of OMB Circular A-102 Grants and Cooperative Contracts with state and local Governments, and also OMB Circular A-110 Uniform Administrative Requirements for Grants and Contracts with institutions of higher education, hospitals and other non-profit organizations.

19.2.4.1. The CONTRACTOR will include in their financial statements a schedule of expenditures of all federal awards. The schedule will include the name of the federal agency, the pass-through entity, the CFDA#, any other identification number, the amount of expenditures for the program, identification of any major programs, and any notes that pertain to the significant accounting policies used to account for the federal programs.

19.2.5. All records and reports relating to this Contract shall be retained by the CONTRACTOR in accordance with the applicable Washington State records retention schedules.

19.2.6. The CONTRACTOR and TMBH-ASO are both subject to the Public Records Act (Chapter 42.56 RCW). This Contract shall be a "public record" as defined in Chapter 42.56 RCW. Any documents submitted to the Contractor or to TMBH-ASO may be construed as "public records" and therefore subject to public disclosure.

20. INSURANCE

20.1. Depending upon contracted services to be delivered, some or all insurance requirements may be waived by TMBH-ASO. The CONTRACTOR or any approved Subcontractor understands, no Sections of the insurance terms will be removed, if "waived" it will be noted next to "insurance" or next to

each individual insurance requirement, as applicable.

- 20.2. **Professional Legal Liability:** The CONTRACTOR or any approved Subcontractor, if a licensed professional, shall maintain Professional Legal Liability or Professional Errors and Omissions coverage appropriate to the CONTRACTOR's profession and shall be written subject to limits of not less than \$1,000,000 per loss and a \$3,000,000 aggregate.
- 20.2.1. The coverage shall apply to liability for a professional error, act or omission arising out of the scope of the CONTRACTOR's or any approved Subcontractor's services defined in this Contract. Coverage shall not exclude bodily injury or property damage. Coverage shall not exclude hazards related to the work rendered as part of the Contract or within the scope of the CONTRACTOR's or any approved Subcontractor's services as defined by this Contract including testing, monitoring, measuring operations, or laboratory analysis where such services are rendered as part of the Contract.
- 20.3. **Commercial General Liability:** The CONTRACTOR or any approved Subcontractor shall maintain Commercial General Liability coverage for bodily injury, personal injury and property damage, subject to limits of not less than \$1,000,000 per loss. Coverage shall include: liability that arises out of the ownership, maintenance or use of real property, arises out of operations away from the business premises by employees or agents of the insured, or liability assumed by Contract. The general aggregate limit shall apply separately to this Contract and be no less than \$3,000,000.
- 20.3.1. The CONTRACTOR or any approved Subcontractor will provide Commercial General Liability coverage that does not exclude any activity to be performed in fulfillment of this Contract. Specialized forms specific to the industry of the CONTRACTOR will be deemed equivalent, provided coverage is no more restrictive than would be provided under a standard Commercial General Liability policy, including contractual liability coverage.
- 20.3.2. The CONTRACTOR or any approved Subcontractor shall secure employers' liability coverage with limits not less than \$100,000 as part of their CGL policy or separately.
- 20.4. **Automobile Liability:** The CONTRACTOR or any approved Subcontractor shall maintain automobile liability insurance as follows:
- 20.4.1. The CONTRACTOR shall maintain Business Automobile Liability Insurance with a limit of not less than \$1,000,000 each accident combined Bodily Injury and Property Damages. Coverage shall include owned, hired and non-owned automobiles.
- 20.5. **Industrial Insurance Coverage**
- 20.5.1. The CONTRACTOR or any approved Subcontractor shall comply with the provisions of Title 51 RCW, Industrial Insurance. If the CONTRACTOR or any approved Subcontractor fails to provide industrial insurance coverage or fails to pay premiums or penalties on behalf of its employees, as may be required by law, TMBH-ASO may collect from the CONTRACTOR or any approved Subcontractor the full amount payable to the Industrial Insurance accident fund. TMBH-ASO may deduct the amount owed by the CONTRACTOR or any approved Subcontractor to the accident fund from the amount payable to the CONTRACTOR or any approved Subcontractor by TMBH-ASO under this Contract and transmit the deducted amount to the Department of Labor and Industries, (L&I) Division of Insurance Services. This provision does not waive any of L&I's rights to collect from the CONTRACTOR.
- 20.6. **Privacy Breach Response Coverage:** For the term of this Contract and three (3) years following its termination, the CONTRACTOR or any approved Subcontractor shall maintain insurance to cover

costs incurred in connection with a Security Incident, privacy Breach, or potential compromise of data including:

- 20.6.1. Computer forensics assistance to assess the impact of a data Breach, determine root cause, and help determine whether and the extent to which notification must be provided to comply with Breach notification laws (45. C.F.R. Part 164, Subpart D; RCW 42.56.590, RCW 19.255.010; and WAC 284-04-625).
- 20.6.2. Notification and call center services for individuals affected by a Security Incident or privacy Breach.
- 20.6.3. Breach resolution and mitigation services for individuals affected by a Security Incident or privacy Breach including fraud prevention, credit monitoring and identity theft assistance.
- 20.6.4. Regulatory defense, fines and penalties from any claim in the form of a regulatory proceeding resulting from a violation of any applicable privacy or security law(s) or regulation(s).

20.7. **Verification of Coverage and Acceptability of Insurers:** The CONTRACTOR shall place insurance with insurers licensed to do business in the State of Washington and having A.M. Best Company ratings of no less than A minus with the exception that excess and umbrella coverage used to meet the requirements for limits of liability or gaps in coverage need not be placed with insurers or re-insurers licensed in the State of Washington.

- 20.7.1. The CONTRACTOR shall furnish TMBH-ASO with properly executed Certificates of Insurance or a signed policy endorsement which shall clearly evidence all insurance required in this Section prior to commencement of services. The certificates will, at a minimum, list limits of liability and coverage. The certificate will provide that the underlying insurance contract will not be canceled, allowed to expire, or be materially reduced in coverage except on 30 days prior written notice to TMBH-ASO.
- 20.7.2. The CONTRACTOR shall furnish TMBH-ASO with evidence that the additional insured provision required above has been met. Acceptable form of evidence is the endorsement page(s) of the policy showing TMBH-ASO, THURSTON COUNTY, MASON COUNTY, their respective elected and appointed officers, officials, employees, agents, and WASHINGTON STATE as additional insureds.
- 20.7.3. Written notice of cancellation or change shall be mailed to TMBH-ASO to the address on the cover page.

21. The CONTRACTOR or its broker shall provide a copy of any, and all insurance policies specified in this Contract annually upon renewal and upon request of TMBH-ASO.

22. NON-WAIVER OF RIGHTS

- 22.1. The parties agree that the excuse or forgiveness of performance, or waiver of any provision(s) of this Contract does not constitute a waiver of such provision(s) or future performance or prejudice the right of the waiving party to enforce any of the provisions of this Contract at a later time.

23. NOTICES

- 23.1. Whenever one party is required to give notice to the other under this Contract, it shall be deemed given if either (a) emailed or (b) mailed by United States Postal Services, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:
 - 23.1.1. In the case of notice from TMBH-ASO to the CONTRACTOR, notice will be sent to:

City of Shelton
Mark Ziegler
City Manager
525 West Cota Street
Shelton WA 98584
Or
mark.ziegler@shelton.wa.gov

23.1.2. In the case of notice from the Contractor to TMBH-ASO, notice will be sent to:

TMBH-ASO Contract Manager
612 Woodland Square Loop SE Suite 401
Lacey WA 98503
Or
contracts@tmbho.org

23.2. Notices delivered through the United States Postal Service will be effective on the date delivered as evidenced by the return receipt. Notices delivered by email to contracts@tmbho.org, will be deemed to have been received when the recipient acknowledges, by email reply, having received that email.

23.3. Either party may, at any time, change its mailing address or email address for notification purposes by sending a notice in accord with this Section, stating the change and setting forth the new address, which shall be effective on the tenth (10th) day following the effective date of such notice unless a later date is specified.

24. NOTIFICATION OF ORGANIZATIONAL CHANGES

24.1. The CONTRACTOR shall provide TMBH-ASO with sixty (60) calendar days' prior written notice of any change in the CONTRACTOR's ownership or legal status. The CONTRACTOR shall provide TMBH-ASO written notice of any changes to the CONTRACTOR's leadership including management, executive officers, and/or executive board members within five (5) business days.

25. OWNERSHIP OF MATERIAL

25.1. TMBH-ASO recognizes that nothing in this Contract shall give TMBH-ASO ownership rights to the systems developed or acquired by the CONTRACTOR during the performance of this Contract. The CONTRACTOR recognizes that nothing in this Contract shall give the CONTRACTOR ownership rights to the systems developed or acquired by TMBH-ASO during the performance of this Contract.

25.2. Both Parties agree that if either uses any materials prepared by TMBH-ASO or the CONTRACTOR for purposes other than those intended by this Contract, they do so at their sole risk and agree to hold one another harmless therefore.

26. SEVERABILITY

26.1. If a court of law determines any provision of this Contract to be unenforceable or invalid, the parties hereto agree that all other portions of this Contract shall remain valid and enforceable.

27. SUBRECIPIENTS

27.1. If the CONTRACTOR or approved Subcontractor is a Subrecipient of federal awards as defined by 2 CFR Part 200 and this Contract, the CONTRACTOR shall:

27.1.1. Maintain records that identify, in its accounts, all federal awards received and expended and the federal programs under which they were received, by Catalog of Federal Domestic Assistance (CFDA) title and number, award number and year,

- name of the federal agency, and name of the pass-through entity;
- 27.1.2. Maintain internal controls that provide reasonable assurance that the CONTRACTOR is managing federal awards in compliance with laws, regulations, and provisions of contracts or grant contracts that could have a material effect on each of its federal programs;
 - 27.1.3. Prepare appropriate financial statements, including a schedule of expenditures of federal awards;
 - 27.1.4. Incorporate 2 CFR Part 200, Subpart F audit requirements into all contracts between the CONTRACTOR and its Subcontractors who are Subrecipients;
 - 27.1.5. Comply with any future amendments to 2 CFR Part 200 and any successor or replacement CFR or regulation;
 - 27.1.6. Comply with the applicable requirements of either 2 CFR Part 225 (OMB Circular A-87) or 2 CFR Part 230 (OMB Circular A-122), any future amendments, and any successor or replacement Circular or regulation; and
 - 27.1.7. Comply with the Omnibus Crime Control and Safe streets Act of 1968, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, Title IX of the Education Amendments of 1972, The Age Discrimination Act of 1975, and The Department of Justice Non-Discrimination Regulations at 28 CFR Part 42, Subparts C, D, E, and G, and 28 CFR Parts 35 and 39. (See www.ojp.usdoj.gov/ocr/ for additional information and access to the aforementioned federal laws and regulations.)

28. SURVIVABILITY

- 28.1. The terms and conditions contained in this Contract that shall survive the expiration or termination of this Contract include but are not limited to: Indemnification and Hold Harmless, Inspection Books and Records, Records, and Confidentiality. After termination of this Contract, the CONTRACTOR remains obligated to:
 - 28.1.1. Submit all reports required in this Contract per the Termination Section.
 - 28.1.2. Provide access to records required in accord with the Inspection provisions of this Section.

29. TERMINATION

- 29.1. Termination for Convenience
 - 29.1.1. If Contractor terminates this Contract for convenience, the Contractor is required to provide no less than six (6) months advance notice in writing to TMBH-ASO.
 - 29.1.2. If TMBH-ASO terminates this Contract for convenience, TMBH-ASO is required to provide no less than six (6) months advance notice in writing to Contractor.
- 29.2. Termination by Default
 - 29.2.1. **Termination by Contractor.** The Contractor may terminate this Contract whenever TMBH-ASO defaults in performance of the Contract and fails to cure the default within a period of one hundred twenty (120) calendar days (or such longer period as the Contractor may allow) after proper receipt from the Contractor of a written notice specifying the full nature of the default. For purposes of this Section, "default" means failure of HCA to meet one or more material obligations of this Contract.

- 29.2.2. **Termination by TMBH-ASO.** TMBH-ASO may terminate this Contract whenever TMBH-ASO determines the Contractor has defaulted in performance of the Contract and has failed to cure the default within a reasonable period of time as set by TMBH-ASO, based on the nature of the default and how such default impacts possible individuals. For purposes of this Section, “default” means failure of Contractor to meet one or more material obligations of this Contract.

30. WAIVER

- 30.1. Waiver of any breach or default on any occasion shall not be deemed to be a waiver of any subsequent breach or default. Any waiver shall not be construed to be a modification of the terms and conditions of this Contract. Only the Governing Board of TMBH-ASO or its designee has the authority to waive any term or condition of this Contract, as approved by legal counsel, on behalf of TMBH-ASO.



City of Shelton

Exhibit A: Scope of Work

1. SERVICES PROVIDED BY THE CONTRACTOR

1.1. The CONTRACTOR shall perform the following services:

1.1.1. Provide Involuntary Treatment Act (ITA) services including all services required for the evaluation for involuntary detention or involuntary treatment of individuals in accordance with WAC 246-341-0912 RCW 43.20A.890, 70.02, 71.05, 71.24, 71.34, 74.08.090, 74.50. A behavioral health agency providing DCR services must meet the general requirements for crisis services in WAC 246-341-0901.

1.2. A detailed description of the services to be performed by the CONTRACTOR is set forth in the Thurston-Mason BH-ASO Non-Medicaid Crisis Services Provider Guide, attached hereto and incorporated herein by reference.

1.3. The CONTRACTOR shall complete its work in a timely manner and in accordance with the schedule agreed to by the parties.

1.4. The CONTRACTOR or SUBCONTRACTOR shall track agreed upon data, including but not limited to, weekly accomplishments and number of:

- 1.4.1. Referrals
- 1.4.2. Follow Ups
- 1.4.3. Law Enforcement Referrals
- 1.4.4. Mason General Hospital ITA Referrals
- 1.4.5. Mason General Hospital Voluntary Referrals
- 1.4.6. Mason County Jail Referrals
- 1.4.7. Community Referrals (CLL, family, etc.)
- 1.4.8. Contact Made
- 1.4.9. Attempted
- 1.4.10. ITA Investigations
- 1.4.11. Crisis Investigations
- 1.4.12. Detained
- 1.4.13. Not Detained
- 1.4.14. No Bed Reports

2. SERVICES PROVIDED BY TMBH-ASO

2.1. In order to assist the CONTRACTOR in fulfilling its duties under this Contract, TMBH-ASO shall provide the following:

- 2.1.1. Relevant information as it exists to assist the CONTRACTOR with the performance of the CONTRACTOR'S services.
- 2.1.2. Coordination with other Consultants as necessary for the performance of the CONTRACTOR'S services.



City of Shelton

Exhibit B: Compensation

1. COMPENSATION

- 1.1. Program funding is based on the services as set forth in Exhibit A: Scope of Work in this Contract. The Contractor shall use all funds provided pursuant to this Contract, including interest earned to support only the services as described within this Contract.
- 1.2. Funding allocations are contingent upon the receipt of funds from contractual agreements between TMBH-ASO and other government agencies.
- 1.3. The Contractor shall be reimbursed for services delivered in the following manner:

City of Shelton				
Payment Period: July 1, 2023 through December 31, 2023				
Service Designation	Rate Method	Fund Source	Project Code	Not to Exceed
Co-Responder	Actual Cost	MHBG	41401	\$37,500
		SABG	41601	\$12,500
Contract Total				\$50,000

2. FEDERAL FUNDING REQUIREMENTS

- 2.1. If the Contractor has been awarded federal funding, as outlined below, the Contractor is required to report on the Schedule of Expenditures of Federal Awards (SEFA).

CFDA#	Funding Amount	Federal Award Identification Number	Federal Award Date	Indirect Cost Rate
93.959	\$12,500	B08TI083519	3/15/2021	10%
93.958	\$37,500	B09SM083829	3/15/2021	10%

- 2.2. If the Contractor has been awarded federal funding, the Contractor must follow the Single Audit Act requirements of the General Terms and Conditions, or any successor.
- 2.3. Block Grant funding as described below is awarded by the Department of Health and Human Services (DHHS), Catalog of Federal Domestic Assistance. Each Block Grant fund source has restrictions and may not be used for the following:

Restrictions	MHBG (CFDA #93.958)	SABG (CFDA #93.959)
Services and programs that are covered under the capitation rate for Medicaid covered services to Medicaid enrollees	X	X
Construction and/or renovation	X	X
Capital assets or the accumulation of operating reserve accounts	X	X
Equipment costs over \$5,000.00	X	X
Cash payments to consumers	X	X

State match for other federal funds	X	
Any mental health services (inpatient or outpatient)		X
Purchase or improve land – purchase, construct, or permanently improve any building or other facility or the purchase of medical equipment		X
Satisfy any requirement for the expenditure of non-Federal funds as a condition for receipt of Federal funds		X
Provide financial assistance to any entity other than public or nonprofit private entity		X
Make payments to intended recipients of health services		X
Provide individuals with hypodermic needles/syringes		X
Provide treatment services in penal or correctional institutions of the State		X

3. OTHER FUNDING SOURCES

- 3.1. The Contractor shall make all reasonable effort to collect from Third Party Insurers, when available. The Contractor shall report monthly, the total collections of third party reimbursement. The Contractor shall be able to show by individual, those clients eligible for third party benefits, including which services, amount billed by service, and amount collected.
- 3.2. The Contractor shall maintain records in such a manner to reasonably ensure that all third party resources available to clients are identified and pursued, in accordance with TMBH-ASO funds being the payer of last resort. Third party revenue received by the Contractor for TMBH-ASO funded services will be deducted from the TMBH-ASO payment for same services.
 - 3.2.1. Failure to seek third party payments and complying with the requirements under *TMBH-ASO Policy 3044 Third Party* shall result in a corrective action and/or TMBH-ASO may enact Remedial Actions per Provider Guide, Section 11.1, Compliance and Oversight Monitoring, including contract termination.

4. FISCAL MANAGEMENT

- 4.1. The Contractor shall provide services in the most effective, efficient and economical manner possible to establish a prudent financial management system. This shall include, but not be limited to:
 - 4.1.1. The Contractor may establish a sliding fee scale. The sliding fee scale schedule shall be posted and accessible to staff and clients and may not require payment from clients with income levels equal to or below the grant standards for the general assistance program.
 - 4.1.2. In accordance with Federal and State regulations and statutes, ensuring TMBH-ASO funds are not utilized to support administrative and/or direct services to non-TMBH-ASO authorized clients.

5. ACCOUNTING AND REPORTING REQUIREMENTS

- 5.1. Except for SUD residential and withdrawal management services, the Contractor will submit service encounters through the Information System for the TMBH-ASO Invoice by the 10th of each month.
- 5.2. Funding for all programs under this Contract is only to be used to provide the services, as depicted in the Program Contract, and may not supplement any other programs or fund sources.
- 5.3. The Contractor shall have an annual audit performed by an outside CPA firm if the Contractor receives any federal funds indicated in the Compensation Section (above) and in the Provider Guide, or from any other funding sources, see the General Terms and Conditions for Single Audit requirements, or any successor.

6. BILLING PROCEDURE AND INVOICE SCHEDULE

- 6.1. Invoices must be submitted by the Contractor to TMBH-ASO by the 10th calendar day of the month to receive payment by the last calendar day of the month. Cost reports of actual expenses must be submitted with the invoice to TMBH-ASO to the following email address: Invoices@tmbho.org.
 - 6.1.1. Submit the AJA Monthly Progress Report and the Covid Enhancement MHBG Monthly Report as backup with the invoices.
- 6.2. The Contractor must invoice Thurston-Mason BH-ASO for all services rendered within thirty (30) calendar days of the end of the state fiscal year or grant funding year for GFS and FBG funding. TMBH-ASO must submit an A-19 to HCA within forty-five (45) calendar days of the end of the state fiscal year or grant funding year.
- 6.3. The contractor shall invoice for services using the specified Excel invoice form provided by TMBH-ASO.
 - 6.3.1. Invoices must be signed with an original or electronic signature and received prior to payment.
 - 6.3.2. All invoices must contain a unique invoice number in the identified field on the invoice form. No invoice number shall be repeated.
- 6.4. TMBH-ASO reserves the rights to amend, delete, or add to the invoice or reporting forms required in this Exhibit.
- 6.5. TMBH-ASO shall not release payment until the Contractor provides required reports identified in this Contract.

7. DELIVERABLES

- 7.1. A copy of the annual audit must be submitted to the TMBH-ASO upon receipt of the audit report by the Contractor, if applicable.
- 7.2. Financial Statements that include Contractor assets, liabilities, fund balances, and third-party payers when applicable, must be submitted to the TMBH-ASO upon the agency's fiscal year end or annual audit, whichever occurs first, for this contracting period. An individual financial statement for services sets forth in this contract shall be itemized. Financial Statements may be sent electronically or via mail.
- 7.3. When submitting annual audit reports and financial statements, send to invoices@tmbho.org. Any information mailed to the fiscal department should be sent to:

TMBH-ASO Fiscal Department
612 Woodland Square Loop SE, Suite 401
Lacey, WA 98503
- 7.4. If receiving Covid Enhancement MHBG funds, complete the MHBG Annual Report. The annual report is due to contracts@tmbho.org by July 10th of each year.



Business Associate Agreement



OLYMPIC
HEALTH &
RECOVERY
SERVICES

☒ **Thurston Mason Behavioral Health Administrative Service Organization**
☐ **Olympic Health and Recovery Services**

THIS BUSINESS ASSOCIATE AGREEMENT (the "Agreement") is effective this 1st day of July 2023 (the "Effective Date") between Thurston-Mason Behavioral Health Administrative Service Organization ("TMBH-ASO") and/or Olympic Health and Recovery Services ("OHRS") as identified above ("Covered Entity"), and City of Shelton ("Business Associate").

RECITALS

WHEREAS, Covered Entity and Business Associate are parties entering into one or more agreements or contracts, incorporated herein by reference (the "Underlying Agreement" and collectively "Agreements") pursuant to which Business Associate will perform the services as outlined in Agreements and such services involve the use and disclosure of Individually Identifiable Health Information that is subject to protection under HIPAA and the HIPAA Rules (all as hereinafter defined); and

WHEREAS, Business Associate has created and maintains security safeguards for the protection from unlawful disclosure of Protected Health Information (as hereinafter defined); and

WHEREAS, Covered Entity and Business Associate are committed to complying with the Standards for Privacy of Individually Identifiable Health Information set forth under the HIPAA and HITECH Act and any regulations promulgated thereunder the "HIPAA Privacy Rule";

WHEREAS, this BAA, in conjunction with the HIPAA Rules, sets forth the terms and conditions pursuant to which protected health information (in any format) that is created, received, maintained, or transmitted by, the Business Associate from or on behalf of the Company, will be handled between the Business Associate and the Company and with third parties during the term of the Agreement(s) and after its termination.

NOW, THEREFORE, for and in consideration of the recitals above and the mutual covenants and conditions herein contained, Covered Entity and Business Associate enter into the following Agreement to provide a full statement of their respective responsibilities as more fully described below:

ARTICLE 1 – DEFINITIONS

Unless otherwise provided herein terms used shall have the same meaning as set forth in HIPAA and the HIPAA Rules.

- 1.1. **Agreement** means this Business Associate Agreement.
- 1.2. **Business Associate** as used in this Agreement means the Business Associate named in this Agreement and generally has the same meaning as the term "business associate" at 45 CFR § 160.103. Any reference to Business Associate in this Agreement includes Business Associate's employees, agents, officers, subcontractors, volunteers, or directors.
- 1.3. **CFR** means and refers to the Code of Federal Regulations.

- 1.4. **Covered Entity** means TMBH-ASO and/or OHRS, as specified above, which are each a Covered Entity as defined at 45 CFR § 160.103, in its conduct of covered functions by its health care components.
- 1.5. **Designated Record Set** means a group of records maintained by or for the Covered Entity that is: the medical records and billing records about Individuals maintained by or for a covered health care provider; the enrollment, payment, claims adjudication, and case or medical management record systems maintained by or for a health plan; or used, in whole or in part, by or for the Covered Entity to make decisions about Individuals.
- 1.6. **Electronic Protected Health Information or “EPHI”** means Protected Health Information that is transmitted by electronic media or maintained in electronic media.
- 1.7. **HIPAA** means the Health Insurance Portability and Accountability Act of 1996, Pub.L. No. 104-191, as amended by the Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as Title XIII of The American Recovery and Reinvestment Act of 2009, H.R. 1, Pub.L. 111-5 (February 17, 2009), as amended or superseded, and any current and future regulations promulgated under HIPAA.
- 1.8. **HIPAA Rules** means the Privacy, Security, Enforcement, and Breach Notification Rules at 45 CFR Part 160 and Part 164, in effect or as amended.
- 1.9. **Individual** means the person who is the subject of Protected Health Information and includes a person who qualifies as a personal representative in accordance with 45 CFR § 164.502(g).
- 1.10. **Material Alteration** means any addition, deletion or change to the PHI of any subject other than the addition of indexing, coding and other administrative identifiers for the purpose of facilitating the identification or processing of such information.
- 1.11. **Privacy Rule** means the Privacy Standards at 45 CFR Part 164, Subpart E, in effect or as amended.
- 1.12. **Protected Health Information or “PHI”** means individually identifiable health information created, received, maintained or transmitted by Business Associate on behalf of a health care component of the Covered Entity that relates to the provision of health care to an Individual; the past, present, or future physical or mental health or condition of an Individual; or the past, present, or future payment for provision of health care to an Individual. 45 CFR § 160.103. PHI includes demographic information that identifies the Individual or about which there is reasonable basis to believe can be used to identify the Individual. 45 CFR § 160.103. PHI is information transmitted or held in any form or medium and includes Electronic Protected Health Information. 45 CFR § 160.103. PHI does not include education records covered by the Family Educational Rights and Privacy Act, as amended, 20USCA 1232g (a)(4)(B)(iv) or employment records held by the Covered Entity in its role as employer.
- 1.13. **Security Rule** means the Security Standards at 45 CFR Part 164, Subparts A and C, in effect or as amended.
- 1.14. **Subcontractor** as used in this Agreement means a person to whom a business associate delegates a function, activity, or service, other than in the capacity of a member of the workforce of such business associate.
- 1.15. **Underlying Agreement** means one or more agreements or contracts, incorporated herein by reference pursuant to which Business Associate will perform the services as outlined in Agreements and all accompanying documents.

ARTICLE 2 – SCOPE OF USE OF PHI

2.1. Services

- 2.1.1. Except as otherwise specified herein, the Business Associate may use PHI solely to perform its duties as set forth in the Underlying Agreement. Except as otherwise limited in this Agreement, Business Associate may use and disclose PHI for the proper management and administration of the Business Associate, to carry out the legal responsibilities of the Business Associate and to provide any data aggregation services pursuant to the Underlying Agreement.
 - 2.1.1.1. Business Associate may disclose PHI for the purposes pursuant to the Underlying Agreement only to its employees, subcontractors and agents, in accordance with Section 2.3.1.5. as directed by the Covered Entity.
 - 2.1.1.2. Except as otherwise limited in this Agreement, Business Associate may disclose PHI for the proper management and administration of the Business Associate, provided that such disclosures are required by law or Business Associate obtains reasonable assurances from the person to whom the PHI is disclosed that the PHI will remain confidential and used or further disclosed only as required by law or for the purpose for which the PHI was disclosed to the person, the person implements reasonable and appropriate security measures to protect the PHI, and the person notifies the Business Associate of any instances of which it is aware where the confidentiality of the PHI has been breached.

2.2. Breach or Misuse of PHI

Business Associate recognizes that any breach of confidentiality or misuse of information found in and/or obtained from records may result in the termination of the Underlying Agreement and this Agreement and/or legal action. Unauthorized disclosure of PHI may give rise to irreparable injury to the Individual or to the owner of such information, and the Individual or owner of such information may seek legal remedies against Business Associate.

2.3. Responsibilities of Business Associate

- 2.3.1. With regard to its use and/or disclosure of PHI, the Business Associate hereby agrees to do the following:
 - 2.3.1.1. Use or disclose PHI only to perform functions, activities, or services for, or on behalf of, Covered Entity, as expressly permitted or required by this Agreement or the Underlying Agreement or as otherwise required by applicable law. Further, Business Associate agrees that it will not use or disclose PHI in any manner that violates federal law, including but not limited to HIPAA and any regulations enacted pursuant to its provisions, or applicable provisions of Washington State law. The Business Associate agrees that it is subject to and directly responsible for full compliance with the Privacy Rule that applies to the Business Associate to the same extent as the Covered Entity.
 - 2.3.1.2. Use commercially reasonable efforts to maintain the security of the PHI and to prevent unauthorized use and/or disclosure of such PHI, including, but not limited to the following:
 - 2.3.1.3. Any physical files on location at the agency must be kept in locked cabinets. Any PHI transported must be safeguarded against

unauthorized access at all times.

- 2.3.1.4. In addition, the Business Associate agrees to implement and maintain administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of all Electronic Protected Health Information that it creates, receives, maintains, or transmits on behalf of the Covered Entity in accordance with 45 CFR Part 164, subpart C for as long as the PHI is within its possession and control, even after the termination or expiration of this Agreement. The Business Associate agrees that it is subject to and directly responsible for full compliance with the HIPAA Security Rule that applies to Business Associates, including sections 164.308, 164.310, 164.312, and 164.316 of title 45 CFR, to the same extent as the Covered Entity. Business Associate shall apply the HIPAA Minimum Necessary standard to any use or disclosure of PHI necessary to achieve the purposes of the Underlying Agreement. See 45 CFR 164.514(d)(2) through (d)(5).
- 2.3.1.5. Require all of its employees, representatives, subcontractors and agents that create, receive, maintain, or transmit PHI or use or have access to PHI under the Underlying Agreement to agree in writing to adhere to the same restrictions and conditions on the use and/or disclosure of PHI that apply herein, including the obligation to return or destroy the PHI if feasible, as provided under Sections 5.4 and 5.5 of this Agreement.
- 2.3.1.6. Promptly report to the designated privacy officer of the Covered Entity, any use and/or disclosure of the PHI that is not permitted or required by this Agreement, or any Security Incident involving Covered Entity's PHI, by telephoning the privacy officer within twenty-four (24) hours of becoming aware of it and providing a written report of the unauthorized disclosure within five (5) business days.
- 2.3.1.7. The name and contact information for the Covered Entity's privacy officer is as follows:

Contact Officer: Chris Foster

Telephone: 360.763.5798

E-mail: chris.foster@tmbho.org

Address: 612 Woodland Square Loop SE Ste 401
Lacey, WA 98503

- 2.3.1.8. Mitigate, to the extent practicable, any harmful effect that is known to Business Associate of a use or disclosure of PHI by Business Associate in violation of the requirements of this Agreement or the law.
- 2.3.1.9. Within twenty-four (24) hours of the discovery of a breach as defined at 45 CFR § 164.402, notify the Covered Entity's privacy officer of any breach of unsecured PHI and take actions as may be necessary to identify, mitigate and remediate the cause of the breach. A breach shall be treated as

discovered by the Business Associate in accordance with the terms of 45 CFR § 164.410. The notification shall include the following information which shall be updated promptly and provided to the Covered Entity as requested by the Covered Entity:

- 2.3.1.9.1. The identification of each individual whose unsecured PHI has been, or is reasonably believed by the Business Associate to have been accessed, acquired, used, or disclosed during such breach;
 - 2.3.1.9.2. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known;
 - 2.3.1.9.3. A description of
 - 2.3.1.9.4. the types of unsecured PHI that were involved in the breach (such as whether full name, social security number, date of birth, home address, account number, diagnosis, disability code, or other types of information were involved);
 - 2.3.1.9.5. Any steps individuals should take to protect themselves from potential harm resulting from the breach;
 - 2.3.1.9.6. A brief description of what the Business Associate is doing to investigate the breach, to mitigate harm to individuals, and to protect against any further breaches;
 - 2.3.1.9.7. Contact procedures of the Business Associate for individuals to ask questions or learn additional information, which shall include a toll-free telephone number, an e-mail address, web site, or postal address; and
 - 2.3.1.9.8. Any other information required to be provided to the individual by the Covered Entity pursuant to 45 CFR § 164.404, as amended.
- 2.3.2. To the extent the Covered Entity deems warranted, the Covered Entity may provide notice or may, in its sole discretion, require Business Associate to provide notice at Business Associate's expense to any or all individuals whose unsecured PHI has been or is reasonably believed by the Business Associate to have been, accessed, acquired, used, or disclosed as a result of such breach. In such case, the Business Associate shall consult with the Covered Entity regarding appropriate steps required to notify third parties. The Business Associate shall reimburse the Covered Entity, without limitation, for all costs of investigation, dispute resolution, notification of individuals, the media, and the government, and expenses incurred in responding to any audits or other investigation relating to or arising out of a breach of unsecured PHI by the Business Associate.

2.4. Covered Entity Obligations

- 2.4.1. With regard to the use and/or disclosure of PHI by the Business Associate, the Covered Entity hereby agrees to:
 - 2.4.1.1. Upon request, provide the Business Associate with a copy of the notice of privacy practices that the Covered Entity provides to Individuals

pursuant to 45 CFR § 164.520, and inform the Business Associate of any changes in the form of the notice that materially affects the Business Associate's uses and disclosures of PHI under this Agreement;

2.4.1.2. Inform the Business Associate of any changes in, or withdrawal of, the authorization provided to the Covered Entity by Individuals that materially affects Business Associate's ability to use and/or disclose PHI under this Agreement; and

2.4.1.3. Notify the Business Associate, in writing and in a timely manner, of any restrictions on the use and/or disclosure of PHI agreed to by the Covered Entity in accordance with 45 CFR § 164.522, to the extent that such restriction materially affects Business Associate's use or disclosure of PHI under this Agreement.

ARTICLE 3 – AMENDMENT OF PHI

3.1. Amendments by Business Associate

Should Business Associate make any Material Alteration to PHI, Business Associate shall provide Covered Entity with notice of each Material Alteration to any PHI and shall promptly cooperate with Covered Entity in responding to any request made by any subject of such information to Covered Entity to inspect and/or copy such information. Business Associate shall not deny Covered Entity access to any such information if, in Covered Entity's sole discretion, such information must be made available to the subject seeking access to it. To the extent that Business Associate maintains PHI in a Designated Record Set, Business Associate agrees to make any amendment(s) to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 CFR § 164.526 within ten (10) days of the request of Covered Entity or an Individual, and in the time and manner designated by Covered Entity.

ARTICLE 4 – AVAILABILITY, ACCOUNTING OF DISCLOSURES, AUDITS AND INSPECTIONS

4.1. Availability of PHI

To the extent Business Associate maintains PHI in a Designated Record Set, Business Associate agrees to make PHI available to Covered Entity or, as directed by Covered Entity, to an Individual, within ten (10) days of the request of the Covered Entity and in the manner designated by Covered Entity in accordance with 45 CFR § 164.524.

4.2. Accounting of Disclosures

Business Associate agrees to make available the information required for Covered Entity to provide an accounting of disclosures in accordance with 45 CFR § 164.528. Business Associate will provide such accounting of disclosures to Covered Entity as soon as possible, but no more than ten (10) days from request by Covered Entity. Each accounting shall provide (i) the date of each disclosure; (ii) the name and address of the organization or person who received the PHI; (iii) a brief description of the PHI disclosed; and (iv) the purpose for which the PHI was disclosed, including the basis for such disclosure, or a copy of a written request for disclosure under §§ 164.502(a)(2)(ii) or 164.512.

Business Associate shall maintain a process to provide the accounting of disclosures for as long as Business Associate maintains PHI received from or on behalf of Covered Entity.

4.3. Access to Department of Health and Human Services

Business Associate shall make its facilities, internal practices, books, records, documents,

electronic data and all other business information relating to the use and disclosure of PHI received from, or created or received by Business Associate on behalf of Covered Entity available to the Secretary of the Department of Health and Human Services, governmental officers and agencies for purposes of determining Covered Entity's compliance with HIPAA. Business Associate shall promptly, and in no event later than five (5) business days after a request by the Secretary, notify Covered Entity in writing of any request made by the Secretary and provide Covered Entity with copies of any documents produced in response to such request..

4.4. Access to Covered Entity

Upon written request, Business Associate agrees to make its facilities, internal practices, books, records, documents, electronic data and all other business information available to Covered Entity within five (5) business days during normal business hours so that Covered Entity can monitor compliance with this Agreement.

ARTICLE 5 – TERM AND TERMINATION

5.1. Term

This Agreement is valid as of the Effective Date and remains effective for the entire term of the Underlying Agreement, or until terminated as set forth herein.

5.2. Termination

This Agreement may be terminated by Covered Entity for convenience upon the same number of days prior written notice to the Business Associate as set out in the Underlying Agreement, otherwise upon thirty (30) days prior written notice. The notice will specify the date of termination.

5.3. Termination for Cause

Covered Entity may immediately terminate this Agreement and the Underlying Agreement without penalty if Covered Entity, in its sole discretion, determines that Business Associate has: (a) improperly used or disclosed PHI in breach of this Agreement; or (b) violated a material provision of this Agreement. Alternatively, the Covered Entity may choose to provide the Business Associate with written notice of the existence of an alleged material breach and a period of fifteen (15) days in which to cure the alleged material breach upon mutually agreeable terms. Failure to cure in the manner set forth in this paragraph is grounds for the immediate termination of this Agreement and the Underlying Agreement.

5.4. Alternative to Termination

If termination is not feasible, the Covered Entity shall report the breach to the Secretary of the Department of Health and Human Services.

5.5. Return/Destruction of PHI

Business Associate agrees that, upon termination of the Underlying Agreement, for whatever reason, it will return or destroy, in Covered Entity's sole discretion, all PHI, if feasible, received from, or created or received by it on behalf of Covered Entity which Business Associate maintains in any form, and retain no copies of such information. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. An authorized representative of Business Associate shall certify in writing to Covered Entity, within five (5) days from the date of termination or other expiration of the Underlying Agreement, that all PHI has been returned or disposed of as provided above and that Business Associate no longer retains any such PHI in any form.

5.6. No Feasible Return/Destruction of PHI

If Business Associate determines that the return or destruction of PHI is not feasible, Business Associate shall notify Covered Entity of the conditions that make return or destruction infeasible. To the extent that Covered Entity agrees that the return or destruction of PHI is not feasible, Business Associate shall extend the protections of this Agreement to the PHI retained and limit further uses and disclosures to those purposes that make the return or destruction of the information infeasible. Business Associate shall remain bound by the provisions of this Agreement notwithstanding termination of the Underlying Agreement, until such time as all PHI has been returned or otherwise destroyed as provided in this section.

ARTICLE 6 – INDEMNIFICATION/INSURANCE

6.1. Defense and Indemnification

Business Associate shall defend, indemnify and hold Covered Entity harmless from and against all claims, liabilities, judgments, fines, assessments, penalties, awards or other expenses, of any kind or nature whatsoever, including, without limitation attorney's fees, expert witness fees, and costs of investigation, litigation, or dispute resolution, relating to or arising out of any use or disclosure of PHI in a manner not permitted by HIPAA or breach of this Agreement by Business Associate, its employees, officers, agents, or subcontractors.

6.2. Disclaimer

Covered Entity makes no warranty or representation that compliance by Business Associate with the Agreement or HIPAA or the HIPAA Rules will be adequate or satisfactory for Business Associate's own purposes or that any information in the possession of Business Associate or Business Associate's control, or transmitted or received by Business Associate, is or will be secure from unauthorized use or disclosure; nor shall Covered Entity be liable to Business Associate for any claim, loss or damage relating to the unauthorized use or disclosure of any information received by Business Associate from Covered Entity or from any other source. Business Associate is solely responsible for all decisions made by Business Associate regarding the safeguarding of PHI.

6.3. Insurance

Business Associate shall obtain and maintain cyber liability insurance coverage against improper uses and disclosures of PHI by Business Associate naming Covered Entity as an additional named insured. Promptly following a request by Covered Entity for the maintenance of such insurance coverage, Business Associate shall provide a certificate evidencing such insurance coverage.

ARTICLE 7 – COMPLIANCE WITH 42 CFR PART 2 REQUIREMENTS

In the event that Business Associate is also considered to be a Qualified Service Organization ("QSO") under the federal regulations governing the Confidentiality of Substance Use Disorder Patient Records found at 42 C.F.R. Part 2 ("Part 2"), with access to PHI that is protected by Part 2, Business Associate agrees to the following:

- a) In receiving, storing, processing, or otherwise dealing with any PHI protected by Part 2 from Covered Entity, Business Associate is fully bound by the provisions of Part 2; and
- b) If necessary, Business Associate will resist in judicial proceedings any efforts to obtain access to such PHI covered by Part 2 unless such access is expressly

permitted under Part 2.

ARTICLE 8 – MISCELLANEOUS

8.1. Construction

This Agreement shall be construed as broadly as necessary to implement and comply with HIPAA and the HIPAA Rules. The parties agree that any ambiguity in this Agreement shall be resolved in favor of a meaning that complies and is consistent with the HIPAA Rules.

8.2. Notice

All notices and other communications required or permitted pursuant to this Agreement shall be in writing, addressed to the party at the address set forth in the Underlying Agreement, or to such other address as either party may designate from time to time. All notices and other communications shall be mailed by registered or certified mail, return receipt requested, postage prepaid, or transmitted by hand delivery or telegram. All notices shall be effective as of the date of delivery of personal notice or on the date of receipt, whichever is applicable.

8.3. Modification of Agreement

The parties agree to take such action as is necessary to modify this Agreement to ensure consistency with amendments to and changes in the applicable federal and state laws and regulations, including, but not limited to, HIPAA and the HIPAA Rules. This Agreement shall not be waived or altered, in whole or in part, except in writing signed by the parties.

8.4. Invalid Terms

In the event that any provision of the terms and conditions are held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of the provisions of this Agreement will remain in full force and effect.

8.5. Transferability

Covered Entity has entered into this Agreement in specific reliance on the expertise and qualifications of Business Associate. Consequently, Business Associate's interest under this Agreement may not be transferred or assigned or assumed by any other person, in whole or in part, without the prior written consent of Covered Entity.

8.6. Governing Law and Venue

This Agreement shall be governed by and interpreted in accordance with the laws of the State of Washington in accordance with HIPAA and the HIPAA Rules without giving effect to the conflict of laws provisions. Thurston County, Washington, shall be the sole and exclusive venue for any litigation, special proceeding or other proceeding as between the parties that may be brought under, or arise out of, this Agreement.

8.7. No Third-Party Beneficiaries

Nothing express or implied in this Agreement is intended to confer, nor anything herein shall confer, upon any person other than the parties hereto any rights, remedies, obligations or liabilities whatsoever.

8.8. Binding Effect

This Agreement shall be binding upon, and shall inure to the benefit of, the parties hereto

and their respective permitted successors and assigns.

8.9. Execution

This Agreement may be executed in multiple counterparts, each of which shall constitute an original, all of which shall constitute but one agreement.

8.10. Gender and Number

The use of the masculine, feminine or neuter genders, and the use of the singular and plural, shall not be given an effect of any exclusion or limitation herein. The use of the word "person" or "party" shall mean and include any individual, trust, corporation, partnership or other entity.

8.11. Priority of Agreements

If any portion of the Agreement is inconsistent with the terms of the Underlying Agreement, the terms of this Agreement shall prevail. Except as set forth above, the remaining provisions of the Underlying Agreement are ratified in their entirety.

8.12. Survival

The obligations of Business Associate shall survive the termination of this Agreement and the Underlying Agreement.

8.13. Recitals

The preamble to this Agreement is not a mere recital of facts but consists of binding agreed upon statements that form the basis of this Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have signed this Agreement effective the day and year firstabove written.

FOR BUSINESS ASSOCIATE:		FOR TMBH-ASO and/or OHRS:	
Name:	Mark Zeigler	Name:	Mark Freedman
Title:	City Manager	Title:	TMBH-ASO Administrator
Address:	525 West Cota Street	Address:	612 Woodland Square Loop SE Ste 401
City, ST, Zip:	Shelton, WA 98584	City, ST, Zip:	Lacey WA 98506
Email:	mark.zeigler@sheltonwa.gov	Email:	mark.freedman@tmbho.org
Phone:	360.432.5194	Phone:	360.763.5828

Signature (Authorized Representative)

Signature

Date

Date