

Impervious Area Restoration Work Plan

Timeline	Management Strategies & Goals
<p style="text-align: center;">Year 1 07/01/18 – 06/30/19</p>	<ul style="list-style-type: none"> ✓ Develop impervious area baseline assessment. ✓ Perform watershed assessments and identify water quality problems and opportunities for restoration. ✓ Develop restoration work plan for MDE review & approval. ✓ Assess opportunities and timelines for implementing water quality BMPs. ✓ Determine funding needs and develop a long-term budget. ✓ Develop a list of specific projects to be implemented for restoration and identify on the Restoration Activity Schedule.
<p style="text-align: center;">Year 2 07/01/19 – 06/30/20</p>	<ul style="list-style-type: none"> ✓ Collect contractor proposals, select contractor, and start the first restoration project (Silo Hill SWM basin retrofit). ✓ Apply for restoration grants / assess opportunities to form partnerships. ✓ Evaluate and refine budget needs for project implementation. ✓ Update and submit Urban BMP database. ✓ Maintain inspection records for all BMPs. ✓ Form a partnership with StreamLink Education & Daughters of Charity for the second restoration project (planting trees on pervious urban – 27 acres).
<p style="text-align: center;">Year 3 07/01/20 – 06/30/21</p>	<ul style="list-style-type: none"> • Continue implementation of Silo Hill SWM basin restoration project. • Emmitsburg Community Park, PH 1 - CPv Pond Outfall Stabilization. • Apply for restoration grants / assess opportunities to form partnerships. • Update and submit Urban BMP database and documented maintenance and inspection status for all BMPs. • Develop adaptive management strategies for BMP implementation that identify opportunities for improved processes and procedures. • Continue to identify opportunities for water quality improvement projects and collaborative partnerships to meet restoration requirements.
<p style="text-align: center;">Year 4 07/01/21 – 06/30/22</p>	<ul style="list-style-type: none"> • Continue implementation of Silo Hill SWM basin restoration project. • Septic connection to WWTP – 500 East Main Street. • Septic connection to WWTP – 502 East Main Street. • Start implementation of tree planting restoration project. • Update and submit Urban BMP database and documented maintenance and inspection status for all BMPs. • Submit narrative describing progress and updated adaptive management strategies toward implementing restoration projects.
<p style="text-align: center;">Year 5 07/01/22 – 06/30/23</p>	<ul style="list-style-type: none"> • Finalize Silo Hill SWM basin restoration project. • Finalize implementation of tree planting restoration project. • Update and submit project implementation status in the Restoration Activity Schedule.
<p style="text-align: center;">Year 6 07/01/23 – 06/30/24</p>	<ul style="list-style-type: none"> • Extra time if needed.

Restoration Activity Summary

Silo Hill SWM Pond (FR15POI000531)

- The Silo Hill extended detention pond was constructed in 2002. The design of this facility consists of a dry pond with multi-stage riser, although the pond appears to be functionally wet. This facility has a total drainage area of 22.22 acres and intercepts runoff from the Silo Hill subdivision. Total untreated impervious within the drainage area is 7.96 acres. The Town will retrofit this basin, which will cost \$224,000.00.

Planting Trees / Forestation on Pervious Urban

- The Town will conduct forestation on 27 acres of pervious urban land. Approximately 11 acres of trees will be planted at the Town's wastewater treatment plant, and the remaining 16 acres at a neighboring property. The Town has formed a partnership with the non-profit groups of StreamLink Education and the Daughters of Charity for this project. The projected cost to the Town is \$12,000.00 for a grant match. The total cost of the project is \$434,712.63.
- Calculating impervious acre credit:
 - Acres of reforested land multiplied by 0.38 = acres of credit
 - 27 acres x 0.38 = **10.26 acres of credit**

Mechanical Street Sweeping

- The Town's Department of Public Works will mechanically sweep 1.66 miles of Town streets each month and track the weight of dry material collected per permit year.
- Monthly sweeping schedule:
 - Creamery Road from East Main Street to East Lincoln Avenue:
 - 320' (0.06 miles) x 10' wide = 3,200 square feet.
 - 3,200 square feet = .07 acres
 - East & West Main Street Parking Spaces from Welty Avenue to Creamery Road:
 - 6,336 feet (1.2 miles) x 8' wide = 50,688 square feet.
 - 50,688 square feet = 1.16 acres
 - West Lincoln Avenue from South Seton Avenue to Patterson Avenue:
 - 2,112 feet (0.4 miles) x 10' wide = 21,120 square feet.
 - 21,120 square feet = 0.48 acres
 - TOTAL MILEAGE = 1.66
 - TOTAL ACREAGE = 1.71
- Calculating impervious acre credit:
 - Tons of dry materials collected multiplied by 0.40 = acres of credit

- _____ x 0.40 = _____
 - 2018/2019: 1.23 tons x 0.40 = 0.492 acres
 - 2019/2020: 0.46 tons x 0.40 = 0.184 acres
 - 2020/2021: 0.72 tons x 0.40 = 0.288 acres
 - 2021/2022: _____ tons x 0.40 = _____ acres
 - 2022/2023: _____ tons x 0.40 = _____ acres
 - AVERAGE: **0.321 acres of credit**

Catch Basin Cleaning

- The Town’s Department of Public Works will clean catch basins as needed and track the weight of dry material collected per permit year.
- Calculating impervious acre credit:
 - Tons of dry material collected multiplied by 0.40 = acres of credit.
 - _____ x 0.40 = _____
 - 2018/2019: 0.0275 tons x 0.40 = 0.011 acres
 - 2019/2020: 4.7 tons x 0.40 = 1.88 acres
 - 2020/2021: 0.57 tons x 0.40 = 0.228 acres
 - 2021/2022: _____ tons x 0.40 = _____ acres
 - 2022/2023: _____ tons x 0.40 = _____ acres
 - AVERAGE: **0.706 acres of credit.**

Emmitsburg Community Park, PH 1 - CPv Pond Outfall Stabilization

- The Town hired a contractor in 2021 to stabilize this SWM pond’s outfall. Work included installation of a 4’x4’x1’ gabion stone splash pad, grade area to achieve positive water flow, and stabilization with seed, fertilizer, and curlex. Total project cost was \$3,358.16.
- Calculating impervious acre credit:
 - Linear feet of outfall stabilized multiplied by 0.01 = acres of credit. Maximum credit is 2 acres per project.
 - _____ x 0.01 = _____
 - 4 feet x 0.01 = **0.04 acres of credit**

Septic Connections to Waste Water Treatment Plant (WWTP)

- The Town will connect two units within the Town boundary to the WWTP in 2021:
 - Unit 1 - 500 East Main Street
 - Unit 2 - 502 East Main Street
- Both properties were previous connected to ground septic systems (cesspool).

- Calculating impervious acre credit:
 - Units connected to a WWTP multiplied by 0.39 = acres of credit.
 - Unit 1 ($1 \times 0.39 = 0.39$ acres of credit)
 - Unit 2 ($1 \times 0.39 = 0.39$ acres of credit)
 - TOTAL = **0.78 acres of credit.**