

Project Information Sheet

Applicant: Town of Eatonville

Strategic Initiative: Stormwater – Retrofits and non-Permit Code

Priority Near-Term Action: 1

Ecosystem threat summary

The Town of Eatonville, uniquely positioned between the Mashel River and Lynch Creek in south Pierce County, is located in a critical area for salmon habitat and watershed health, and the Mashel River and Ohop Creek are the two highest priority salmon bearing tributaries to the Nisqually River. Approximately 80% of Eatonville's stormwater is directed away from the Mashel River and sent untreated into Ohop Creek via Lynch Creek. Lynch Creek has been listed by the Washington State Department of Ecology (DOE) for fecal coliform exceedance. The Mashel River has low flows in the summer and early fall causing the river to be too warm for young fish and too low for adult fish to get upstream. The Mashel River has been listed by DOE for temperature exceedance.

The Town received a grant from the EPA through the Nisqually Indian Tribe to update its Stormwater Management Program, drafted in 2003, but never officially adopted. The Comprehensive Stormwater Plan (drafted 2013) was developed on the premise that addressing stormwater in Eatonville is a critical part of salmon habitat restoration in the Mashel River, Ohop Creek, and Lynch Creek. The Town is not yet subject to the requirement for a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit. Although the Town is not yet subject to this permit, the updated Stormwater Management Program provides a framework for future permit requirements.

Due to extensive budget cuts, the Town has been unable to implement projects listed in the plan and is unable to fund a stormwater operation and maintenance program of any kind.

Project Description

In order to manage the Town's stormwater for critical habitat areas, Eatonville's Comprehensive Stormwater Plan must be implemented in its entirety. The 2013 update identifies documented drainage problems, along with potential project solutions intended at correcting the issue(s). One of the plan's objectives is to increase the amount of surface water entering the solid in an effort to increase summer base flows in local waterways. Infiltration opportunities exist throughout the Town in the form of both small and larger capital improvement projects (CIPs). Smaller projects, such as individual practices (e.g., dry well or raingarden), can be located in public rights of way, while larger drainage retrofit designs, such as regional stormwater detention/infiltration facilities, may be integrated into the design of larger road and infrastructure projects as they are constructed throughout the Town. Green Street projects are effective ways to integrate multiple LID drainage design retrofit projects into the retrofit and redesign of major road segments.

Drainage problems throughout the Town were documented by modeling the capacity of the Town's existing drainage system. Low impact development and conventional retrofit designs were evaluated. Selected designs were developed to create an updated and prioritized list of LID-based capital improvement projects (CIP) and associated costs. The list of CIPs proposed in the 2003 Program were reviewed and confirmed, along with the identification of new CIPs.

Major Tasks

As mentioned, CIPs were rated and ranked, based on a rating criteria consisting of five distinct categories: flood hazard reduction, infiltration potential, environmental, and community considerations, along with any additional project information (LID and location). The Town wishes to put forth the top six projects for listing as Near Term Actions in the Puget Sound's Action Agenda. Ranking criteria, raw scores, and project location map can be found in the full comprehensive plan, available at: <http://www.eatonville-wa.gov/planningdocuments>.

1. *Bioretention Trench East of Madison Avenue*

This project will mitigate flooding of up to a depth of 3" during the 25-year storm event at Catch Basin (CB) 994. This project will also provide water quality treatment of half of Madison Avenue South through converting 400 linear feet of roadside into a bioretention swale.

2. *Infiltration Pond at Sewage Lagoon*

This project will mitigate flooding of up to 6" during the 25-year storm event at CB 1056. This project will provide water quality pretreatment through 200 linear feet of a bioretention swale before discharging into an infiltration pond constructed by modifying the existing sewage lagoon.

3. *Green Street and Bioretention Trench on Center Street #1*

This project will mitigate flooding of a depth of up to 6" during the 25-year storm event at CB 1309. This project will reconstruct approximately 650 feet of Center Street and provide water quality treatment for half of Center Street between Antonie Avenue North and Cedar Avenue North by adding 400 linear feet of roadside bioretention.

4. *Green Street and Bioretention Trench on Center Street #2*

This project includes 3 blocks of reconstructed roadway including installation of 800 feet of bioretention swales. This project includes relocation of approximately 1,000 lineal feet of 36-inch diameter stormwater trunkline.

5. *Drywell at Rainier Avenue South*

The project will mitigate flooding of up to a depth to 3" during the 25-year storm event at CB 1331. This project includes constructing a 72-inch diameter and 6-foot deep drywell.

6. *Green Street and Bioinfiltration Trench at Pennsylvania Avenue North*

This project will mitigate flooding of a depth of up to 3” during a 25-year storm event at CB 1325. This project will reconstruct approximately 600 feet of Pennsylvania Street and provide water quality treatment of half of Pennsylvania Street by constructing 400 linear feet of roadside bioretention.

Budget

Summary of CIP Costs

Cost opinions are reflective of 2013 dollars and do not include future escalation, any related financing, or operation and maintenance. Final costs will be dependent on actual labor and current material costs. The Town anticipates final expenses to be closer to \$5 million. Detailed cost summaries for each project can be located in Appendix F of the comprehensive plan, available at: <http://www.eatonville-wa.gov/planningdocuments>.

Project #	Project Name	Opinion of Cost Total
CIP#1	Bioretention Trench East of Madison Avenue	\$120,000
CIP #2	Infiltration Pond at Sewage Lagoon	\$690,000
CIP #3	Green Street and Bioretention Trench on Center Street #1	\$540,000
CIP #4	Green Street and Bioretention Trench on Center Street #2	\$1,780,000
CIP #5	Drywell at Rainier Avenue South	\$90,000
CIP #6	Green Street and Bioinfiltration Trench at Pennsylvania Avenue North	\$530,000
Total		\$3,750,000

Project Schedule

Projects are in need of permitting, full design work, and budget updates to reflect current costs. This work could begin as soon as awards are made available. It is the Town’s intention to begin with CIP #1, moving down the list until funds are fully exhausted.

Project Partnerships and Roles

The Town of Eatonville will be the primary sponsor for this project and will be the lead for all operations and maintenance. Located in a critical area for salmon habitat and watershed health, the Town will

work very closely with the Nisqually River Lead Entity, specifically the Nisqually Indian Tribe's Salmon Recovery Program. For purposes of outreach, communication, and potential volunteer components, other partners could include the Nisqually River Foundation, Pierce Conservation District, South Puget Sound Salmon Enhancement Group, and the Nisqually Land Trust.