



SENECA SAW MILL

PROJECT DESCRIPTION

In 2016, Seneca Saw Mill added several new functions to their site on Hwy 99, sparking a need to re-configure operations and leading them to think differently about how to manage water on site. Seneca has year-round water inputs, including log irrigation and process water from the kiln and Co-Generation Facility, plus stormwater from the 100+ acre site that sees 150 - 200 logging trucks a day, as many employee vehicles, and on-site equipment. When the Council reached out to Seneca, they already had an approved storm- and process-water management plan and a construction schedule, but they were open to suggestions.

Seneca's water management plan consisted of a 1200 linear foot ditch that carried most of the site stormwater to a 1.6 acre detention area where the remaining site and process water also enters the system. Log irrigation water sheet flows into both the ditch and the pond. The Council conferred with our voluntary technical team and developed a set of recommendations which focused on two primary objectives: removing sediment before water gets into the primary detention area, and turning that detention area into the ecosystem it most closely resembles: a constructed wetland. This would allow the water to connect with healthy plant and soil communities before the water enters the A1 Channel, a tributary to Amazon Creek.



The concrete forebay allows sediment to settle out of site runoff into a concrete channel, where it is easily removed.

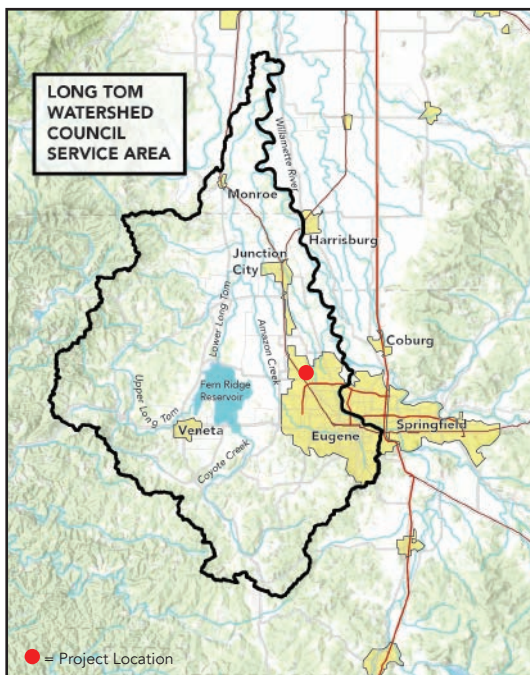


Image of the Seneca Saw Mill detention pond with permeable block edge and sediment drop.

RESTORATION TECHNIQUES

Seneca has substantially implemented several phases, all of which are **sediment reduction** strategies including:

- 1. A border of permeable blocks** where the stormwater facility is adjacent to business activities.
- 2. Forebays** at four locations where the water is funneled or piped into the stormwater management facility.

Both strategies slow water, allowing sediment to drop out and later be removed by equipment that Seneca owns. Sediment is known as ‘the carpool of pollutants’ because it readily picks up pollutants such as heavy metals and petrochemicals. Removing sediment before runoff reaches the green stormwater infrastructure results in improved function over time, reducing maintenance and upkeep.

BENEFITS

The completed rain garden offers both environmental and economic benefits including:

- **Flood resiliency** - Stormwater is delayed in facilities, allowing stormwater-receiving streams to accept the runoff over a longer period of time which reduces erosion and cut banks.
- **Urban pollutant reduction** - Heavy metals, pesticides, petrochemicals, sediment, nutrients and excessive heat can all be efficiently managed in rain gardens.
- **Wildlife & pollinator habitat** - Rain Gardens planted with at least 70% native plants provide food and shelter otherwise not available to pollinator and other native species in urban areas.
- **Improved in-stream water quality** - By slowing, cooling and cleaning stormwater in rain gardens, stormwater-receiving streams have improved fish, amphibian, and macro-invertebrate habitat.
- **Distinctive signage** - Highlighting the sight as an example of a Trout Friendly Landscape educates passers-by, visitors and employees that all landscapes have an important roll to play in healthy ecosystems!

PROJECT DATA

Seneca Saw Mill

- Facility Size: ~80,000 s.f.
- Treatment area: 3,484,800 s.f.
- Cost: Installation costs covered by owner
- Funding Partners for LTWC Technical Assistance:
ODA
City of Eugene

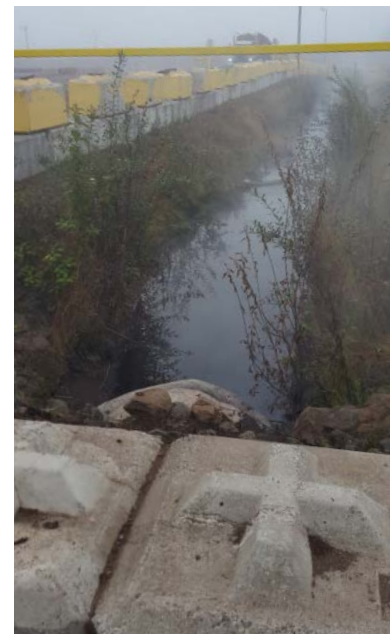


Image of the completed ditch, with permeable block edge (right).

Seneca employees pose on the maintenance road between the completed facility and forebay (below).



ACTION THROUGH UNDERSTANDING

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