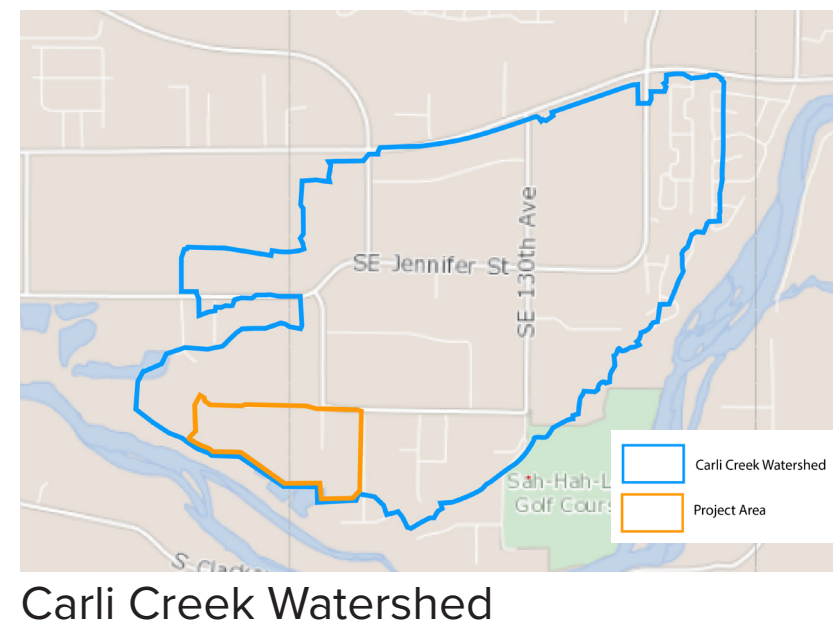


CARLI CREEK ENHANCEMENT AND INDUSTRIAL WATER QUALITY PROJECT

PROJECT NEED

The Carli Creek watershed contains over 400 acres of industrial properties and heavily-traveled roads; stormwater runoff carries harmful pollutants from this area directly into Carli Creek, and then to the Clackamas River, less than half a mile upstream of several drinking water intakes.



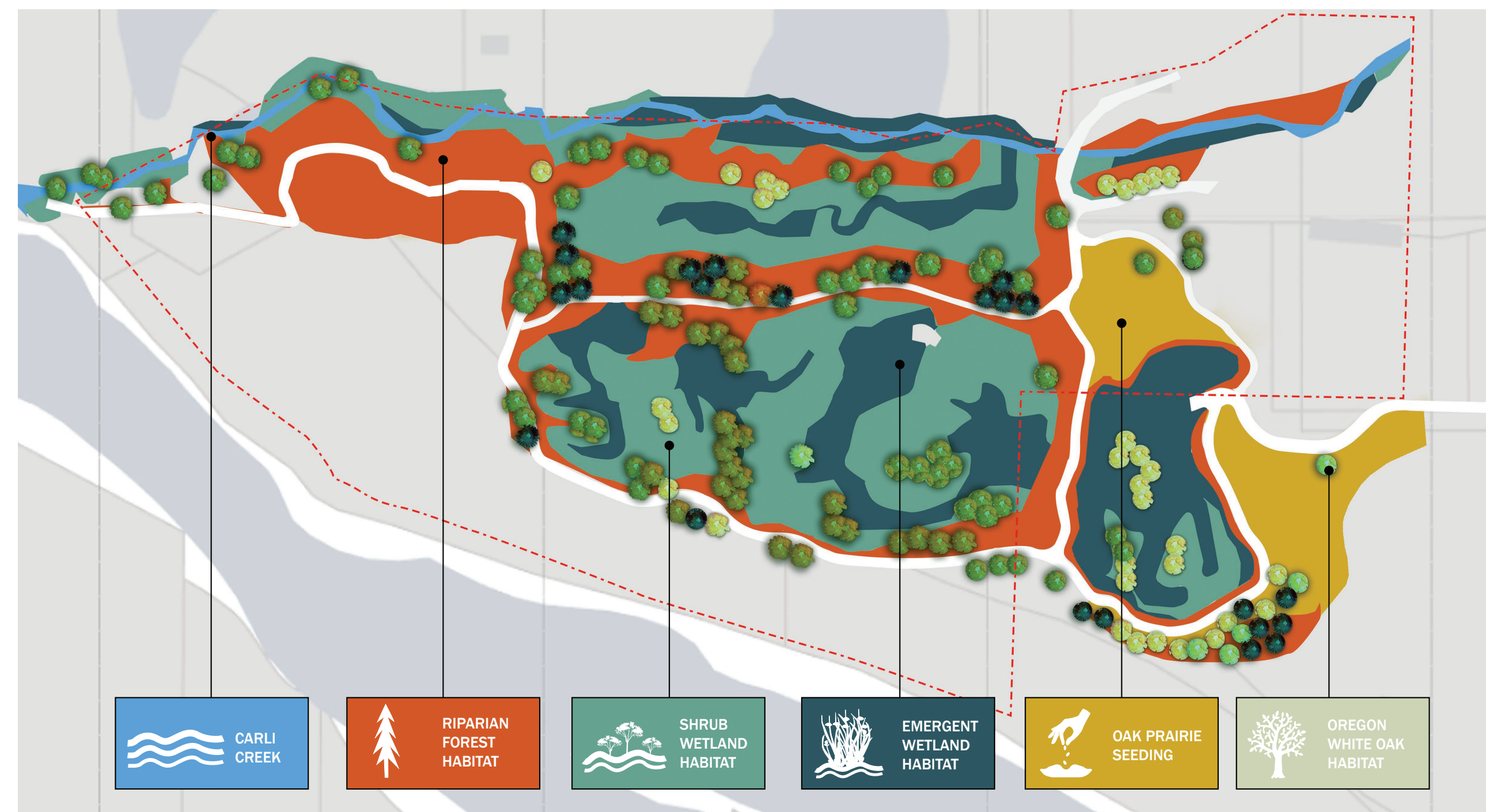
Before the project was completed, stormwater monitoring data revealed pollution levels in the watershed far exceeded standards for E. coli, copper, lead, and zinc. These pollutants posed a hazard to drinking water, Clackamas River recreationalists, fish and wildlife.

Macroinvertebrate data revealed that Carli Creek was severely degraded. Even so, the creek provided important habitat for native fish, including sculpin, dace, Coho and Chinook salmon, steelhead, and cutthroat trout. To find such a rich assemblage of fish species in an industrial tributary underscored the importance of stormwater treatment and habitat enhancement in Carli Creek.

The 15-acre property, previously farmed, was perfectly situated for a treatment project: near the confluence of the creek and river, in a farmland zone, and partially in the floodplain. The project restored 1,700 feet of Carli Creek with wood habitat structures, reshaped the soils to form new wetland basins, and installed new pipe systems to funnel stormwater runoff to the site. 70,000 native plants were planted to capture pollutants, while 83 wood structures were installed to improve habitat for fish and wildlife.



The Carli Creek facility ensures a cleaner Clackamas River, protection for endangered fish species and shows that a balance between nature and industry is possible.



PROJECT GOALS

- **Treat industrial runoff from over 400 acres** by slowing it down, allowing time for infiltration, and filtering it through a series of constructed wetland cells. Plants, soils, and microbes work together to capture/ remove pollutants.
- **Improve fish & wildlife habitat** by reducing stream erosion, adding diversity to the in-stream habitat, and creating a variety of diverse, native vegetation communities.
- **Integrate stormwater treatment and habitat improvement into the site** through grading, invasive and non-native species removal, and planting a diversity of native species, enhancing the floodplain and benefiting the entire watershed.

