



## EDUCATION

B.S., Civil Engineering, Michigan Technological University, 1994  
M.S., Civil Engineering, Michigan Technological University, 1996

## PROFESSIONAL REGISTRATIONS & MEMBERSHIPS

Oregon Professional Engineer (#60015PE)  
Washington Professional Engineer (#50331)  
Certified Professional in Erosion & Sediment Control (#5749)  
River Restoration Northwest

## EXPERIENCE

Senior Engineer, Cascade Environmental Group, LLC,  
Portland, Oregon, 2013 – Present  
Volunteer Engineer, NRCS Earth Team, Portland, Oregon,  
2012 – 2013  
Senior Civil Engineer, URS Corporation, Portland, Oregon,  
1998 – 2012  
Civil Designer, Balfour Consulting, Inc., West Linn, Oregon,  
1997 – 1998  
Civil Designer, EMCON, Medford, Oregon, 1996 – 1997

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## QUALIFICATIONS

Mr. Rod Lundberg, P.E., is a Senior Engineer with Cascade Environmental Group, LLC. Rod is responsible for leading the engineering and design components of Cascade's natural resources and habitat restoration projects. He has more than 20 years of experience as a civil engineer working on habitat restoration and enhancement, stormwater management, site design, and contaminated site remediation projects. He participates in all project phases from project identification and planning; alternatives analysis, conceptual design, and permitting; through development of final design reports, plans and specifications, and construction.

Rod has extensive experience working on multi-disciplinary project teams, which are critical to the success of habitat and natural systems restoration and enhancement efforts. He is able to communicate effectively with professionals in other disciplines because he understands and respects the underlying processes at work in natural systems, and he understands and respects the need for collaboration with each discipline. His specific areas of expertise include hydrology and hydraulics; grading, erosion, and sediment control; stormwater management; and site design plans, specifications, and cost estimating.

## SELECTED PROJECTS

### Dahl Beach Mitigation Project – Port of Portland, Oregon

Project Engineer. Coordinated the technical design team and developed demolition and restoration plans to remove a failed steel sheetpile bulkhead structure on the Willamette River, and to remove a portion of a paved parking lot that lies below ordinary high water at the confluence of the Clackamas and Willamette rivers. Restoration included regrading slopes to blend with existing adjacent river bank contours and revegetation above the scour line. Rootwad structures were constructed at the parking lot site to provide high water habitat for juvenile fish and to improve site stability. Resource agencies also required the design of a vegetated stormwater management facility to treat runoff from an existing upslope parking lot that drains to the project area. Construction began in 2016 and was completed in 2017.

### Wallooskee-Youngs Confluence Restoration Project – Cowlitz Indian Tribe, Astoria, Oregon

Project Engineer. Coordinated the technical design team and developed design plans for this significant levee breach project near Astoria, Oregon. The project restored more than 160 acres of tidal marsh at the confluence of the Youngs and Wallooskee rivers. The project includes significant highway protection measures including a structural wall, an earthen berm, and riprapped embankments as well as drainage improvements and guardrail treatments. Riprap exposed to tidal inundation was designed to be backfilled and seeded to provide an ecologically softer interface with the aquatic environment. Construction was completed in 2017.

### Rinearson Natural Area Restoration Project – City of Gladstone, Oregon

Project Engineering Support. Coordinated the technical design team to develop the project hydraulic and habitat designs, geotechnical parameters, and sediment management aspects of this fish passage and habitat improvement project in Gladstone, Oregon. The project included substantial removal of a small earthen dam on Rinearson Creek, a tributary to the Willamette River, and design of a roughened channel to improve fish passage to potential rearing and backwater refuge habitat for juvenile salmonids. Assisted with permitting and developed an erosion and sediment control plan for the site. Construction was completed in 2018.



**Clatskanie #2 Restoration Project Feasibility Study – Cowlitz Indian Tribe, Clatskanie, Oregon**

Project Engineer. Completed the initial feasibility study for this large lower Columbia River estuary levee breaching project. A significant component of the project was to assess how geomorphic, hydrologic, and sediment routing processes will contribute to raising grades to marshplain elevations at this severely subsided site. The feasibility study included assessment of infrastructure protection elements including a setback levee to protect existing utilities and transportation infrastructure. The feasibility study was completed in 2018.

**Shoalwater Bay Wetland Mitigation Feasibility Study – Shoalwater Bay Tribe, Tokeland, Washington**

Project Engineer. Developed a conceptual layout and construction cost estimate with project team members as part of a feasibility study to restore approximately 150 acres of tidal wetlands on Willapa Bay on the Washington coast. The project would include a levee breach or complete levee removal, removal of a tidegate, construction of an access road and setback levee, and construction of two new tidegates. The project is currently in preliminary design.

**Hopkins Demonstration Forest Amphibian Ponds – Forests Forever, Inc. Oregon City, Oregon**

Project Engineer. An old fire pond within Hopkins Demonstration Forest had previously been breached, resulting in the loss of habitat for amphibians. Cascade started with a conceptual design developed by ODFW to create two shallow pools within the former fire pond footprint for open water habitat. Rod developed the engineering design including grading, hydrologic and hydraulic calculations and site stabilization requirements to control water flow between the two pools. Logs were used as grade control structures to create the water depth profiles requested by the ODFW biologist. Construction was completed in Summer 2018, with planting scheduled for Fall or Winter 2018-2019.

**Portland Harbor Restoration Site – Confidential Client, Portland, Oregon**

Project Engineer. Developed concept-level design plans for a tidal floodplain restoration project near Scappoose, Oregon. The project would include removing berms and water control structures to restore tidal flushing over approximately 50 acres of former marshplain, and a crevasse-splay channel reconnection to Multnomah Channel.

**Yoncalla Log Pond Mitigation Bank – North Douglas Betterment, Yoncalla, Oregon**

Project Engineer. Currently in preliminary design to restore approximately 20 acres of wetlands within a substantial portion of an abandoned log pond along Yoncalla Creek in the Umpqua River watershed. The design includes a cross-levee to preserve a portion of the open water pond for public use. The existing levee will be removed along the project area to allow the creek to completely connect with the restored floodplain.

**Mitchell Creek Wood Placement Project - Private Mining Client, Chehalis, Washington**

Construction Support. Completed final review of this wood placement and design remedy project and provided construction support during implementation. The project included the construction of earth berms to permanently disconnect previously excavated alcoves that had become fish stranding sites. Worked with the contractor to optimize wood placement based on site conditions. He developed enhanced erosion control measure recommendations to address forecast heavy fall rainstorms.

**Portland Eastside Streetcar Loop - Portland Streetcar, Inc., Portland, Oregon**

Project Engineer. Completed preliminary engineering evaluations through final design and provided construction support for a comprehensive stormwater management plan required for this major extension of the Portland Streetcar system. More than 30 stormwater facilities were constructed to meet City of Portland requirements. The significantly built-out urban environment created a significant challenge in locating potential sites for surface treatment and infiltration facilities.

**Matson Creek Wetlands Mitigation - Coos Bay North Bend Water Board, Coos Bay, Oregon**

Project Manager. Managed this project which developed and evaluated alternatives for a wetland mitigation permitting project near Coos Bay, Oregon. The project ultimately converted a dairy pasture to tidal wetlands, which was its original condition prior to the construction of a levee and county road a number of decades ago. The preliminary design included breaching the levee with a number of large-diameter culverts to allow unimpeded tidal action onto the parcel.

**Ward Cove Gravity Outfall - Ketchikan Pulp Company, Ketchikan, Alaska**

Project Engineer. Rod completed the design of a unique outfall for the KPC landfill leachate treatment system, including a four parallel pipe bundled discharge to meet minimum discharge velocity requirements per an EPA-approved mixing zone. Outfall design elements include heavy armoring with rip-rap within the highly variable tidal zone to protect against environmental forces.