



## **Project Information Sheet NTS Pre Proposal Screening Form**

**Applicant:** South Puget Sound Salmon Enhancement Group

### **Strategic Initiative:**

Prevent Pollution from Urban Stormwater Runoff

Protect and Restore Habitat

- A6.1. Implement high priority projects identified in each salmon recovery watershed's 3 year work plan
- B2.2. Implement prioritized nearshore and estuary restoration projects and accelerate projects on public lands
- B2.3. Remove armoring, and use soft armoring replacement or landward setbacks when armoring fails, needs repair, is non protective, and during redevelopment
- C2.3. Fix problems caused by existing development
- D5.3. Enable and encourage residents to take informed stewardship actions addressing infiltration, pollution reduction, habitat improvement, forest cover, soil development, critical areas, reductions in shoreline armoring, and specific actions identified in sub-strategy D5.1
- D6.2. Incorporate and expand Puget Sound related content in diverse delivery settings (e.g., recreation, education institutions, local government, neighborhood and community groups, nonprofit organizations, businesses). Connect residents with public engagement and volunteer programs

### **Priority Near-Term Action:**

1. Titlow Armor Removal and Shoreline Restoration (2016)
2. Final Design of Titlow Estuary Restoration (2017)
3. Implementation of Titlow Estuary Restoration (2019)\*

*\*Outside of current NTA window*

### **Ecosystem threat summary**

Titlow Lagoon is a protected tidal embayment located within Titlow Park in the Tacoma Narrows. Historically, the lagoon was relatively large (>5.5 acres), with extensive marsh and forested wetlands (>25 acres). Currently, the outlet to the lagoon is impounded by a 4 ft diameter culvert beneath the BNSF railroad grade, and a tide gate controls tidal flow. Portions of the shoreline have been filled or armored, and much of the native riparian vegetation has been cleared or is degraded by invasive species.

The Titlow Estuary Restoration project embodies a location where natural processes have been degraded by a myriad of management actions, yet the site offers a suite of ecological services that are rare on the local landscape. The setting of the project within one of

Tacoma’s most popular shoreline parks along the BNSF railway qualifies the project as uniquely important to advance Puget Sound recovery efforts by forging partnerships with the BNSF Railway Company, offering a high visible project within an urban center, and providing a high quality patch of functional habitat in an important migration corridor along the Tacoma Narrows for the benefit of multiple salmon stocks (Goldsborough, Kennedy, Deschutes, Nisqually, Minter, Rocky, Chamber, Puyallup-White, Duwamish, Snohomish), surf smelt, sand lance, herring, migratory seabirds, and waterfowl.

**Project Description**

The Titlow Estuary Restoration project is a multi-faceted planning and implementation effort to remove shoreline armor, restore fish passage and tidal hydrology, reclaim estuarine and freshwater wetlands, and remediate effect of stormwater/development in Titlow Park. In the 2016-2018 NTA timeline, the project will implement the Titlow Armor Removal and Shoreline Restoration project to remove a house, garage, boat house, concrete wall, and rip rap armor from the shoreline to the north of the lagoon and complete final designs for installation of a 96’-span rail bridge across the mouth of the lagoon, removal of fill and armor to reclaim the near historic extent of the lagoon, and construction of stormwater treatment wetlands to recapture, retain, and filter flow from an existing stormwater pipe which currently conveys groundwater and stormwater from the west slope of Tacoma directly to Puget Sound via a 4-foot outfall.

**Major Tasks, Budget, and Project Schedule**

| Action   | Phase     | Budget    | Schedule       |
|--|-----------|-----------|----------------|
| Titlow Armor Removal and Shoreline Restoration     | Implement | \$522,000 | October 2016   |
| Signed BNSF Construction and Maintenance Agreement | Design    | \$1,000   | February 2016  |
| Geotechnical Investigation                         | Design    | \$64,000  | January 2017   |
| BNSF Rail Bridge 30%, 60% and Final Design         | Design    | \$172,000 | March 2018     |
| Lagoon Restoration Final Design                    | Design    | \$57,000  | March 2018     |
| BNSF Rail Bridge Construction*                     | Implement | \$4.9M    | September 2019 |
| Lagoon Restoration Construction*                   | Implement | \$1.5M    | September 2019 |

*\*Outside of current NTA window*

**Project Partnerships and Roles**

The project is being completed in partnership with Metro Parks Tacoma , the City of Tacoma who operates and maintains a stormwater system for the West Slope of Tacoma terminating in a 4ft outfall in Titlow Park, and the BNSF Railway Company who maintains mainline freight operations via a shoreline right of way inclusive of a 4-ft barrier culvert. Metro Parks has adopted the project into the Titlow Park Master Plan and is actively helping to manage the project, City of Tacoma will provide consultation on stormwater remediation, and BNSF has approved the conceptual bridge design and will be drawing up a draft construction and

maintenance agreement with Metro Parks to formalize their partnership and support of the project in January 2017.