



## Scope of Work from RFP West Bay Environmental Restoration Assessment

The City of Olympia and Port of Olympia are looking for a consultant with expertise and experience in water quality and shoreline and intertidal habitat restoration to complete a science based environmental restoration assessment of West Bay that will:

- Support the implementation of a water quality and habitat restoration strategy over time; and
- Prioritize potential restoration projects in order to inform the following efforts:
  - Capital facilities planning by the City of Olympia, Port of Olympia, Squaxin Island Tribe and other public entities
  - Project mitigation planning by public and private entities proposing projects along the shoreline of West Bay or elsewhere in Budd Inlet
  - West Bay Park and Trail master planning
  - Stormwater infrastructure planning for upland areas draining to West Bay
  - On-going riparian vegetation management

The West Bay Environmental Restoration Assessment will incorporate three main components resulting in the development of a long-term restoration strategy. These components are outlined below:

### **1. Shoreline Restoration Assessment**

An assessment of current and potential future ecological functions provided in the nearshore environment of western West Bay. The assessment will focus on the marine shoreline and intertidal environment from the 4<sup>th</sup> Avenue Bridge north to the City limits. The assessment will primarily focus on government owned property (City, County Port, State, Tribe), but may be expanded to include private properties where possible. The assessment will build on the Budd Inlet Landscape Analysis completed by the Squaxin Island Tribe in 2010.

Restoration potential on individual properties will be based on ecological processes and the extent of shoreline modifications, using established analytical frameworks (e.g., Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) or equivalent). Conceptual restoration prescriptions will be created for individual areas based on current, historic and potential future conditions, with additional information provided on resiliency under potential future scenarios of sea-level rise and Deschutes River estuary restoration. Sediment transport/deposition and water quality (e.g., circulation patterns

and dissolved oxygen) will be key factors to evaluate.

Restoration projects will be prioritized by property and for the overall study area based on ecological value, and will consider the value of project clustering. Preliminary planning level estimates of project costs will be provided.

## **2. Stormwater Basin Analysis**

Using information provided by City of Olympia, the project will evaluate the extent of existing stormwater treatment in the upland drainages above the West Bay shoreline and identify marine shoreline segments impacted by stormwater. The analysis will result in a prioritized list of upland stormwater treatment retrofits, and include a methodology to establish the relative value of upland stormwater retrofits compared to nearshore habitat restoration actions.

## **3. Lagoon Area Alternatives Analysis**

Building on the Shoreline Restoration Assessment outlined above, a more detailed review of the “Lagoon Area” adjacent to 4<sup>th</sup> Avenue will be conducted. The analysis will support the West Bay Park Master Planning efforts and include an analysis of ecological processes and habitats under four alternative configurations:

- 3.a. Current lagoon configuration with trail added on existing berm and the two overwater spans
- 3.b. Partial berm removal with new trail added on remaining berm and new overwater sections
- 3.c. Complete berm removal with new trail added on an overwater structure
- 3.d. Complete berm removal and no overwater trail

Each alternative will be evaluated based on ecological processes and the extent of shoreline modifications, using established analytical frameworks (e.g., PSNERP or equivalent). Each alternative will be assessed under current conditions, as well as potential future scenarios of sea-level rise and Deschutes River estuary restoration. Sediment transport/deposition and water quality (e.g., circulation patterns and dissolved oxygen) will be key factors to evaluate.