

AAPA 2001 Environmental Awards Competition - Mitigation Category

Project Summary – Union Slough Saltmarsh Mitigation Project

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The Union Slough Mitigation Project was constructed in February 2001, in part as compensation for habitat functions lost after completion of the Port of Everett's Marine Terminal Improvement (MTI) project. The Union Slough project converted 19.3 acres of diked agricultural land to its probable pre-historic habitat types: tidal estuarine marsh and mudflats. The project required construction of a dike to protect an adjacent freeway and included excavation of a dendritic channel system before the existing dike was breached to restore tidal circulation.

Long-term monitoring will be required to quantify the **ecological benefits** of the project; however, qualitative observations within a few months of project completion confirm **a high level of immediate productivity**. A variety of **important resource species** have been seen using the site, including mysids, juvenile salmon, shorebirds, waterfowl, and wading birds. Increases in ecological functions are expected over the next several decades. The project includes **public access** and educational materials.

Port staff planners and engineers were integral in all phases of planning, negotiating, design, and construction monitoring of the project. The MTI and the associated Union Slough Mitigation included **several innovative elements**, including: using **voluntary sediment cleanup** with **nearshore confined disposal** to create new terminal backup land; using a regional planning process to gain approval for **off-site, out-of-kind mitigation**; using a tidal habitat quality **model to optimize habitat function** in the mitigation site; working behind existing dikes to gain efficiency and reduce environmental impacts; **sequentially breaching** the protective dike during low tide cycle; and constructing a large mitigation project and retaining excess mitigation credits as a **mitigation bank**. Nearshore confined disposal of contaminated sediments was a **low-cost** way to acquire 6 acres of new deepwater port backup land. The **cost per acre** of mitigation provided by the project is **about one-third of the average** for other industrial port areas in Puget Sound. Construction effectiveness was achieved by working in the dry.

All of the innovative features of the project described above are **applicable and transferable** to other ports and other waterfront projects.