

A Tidal Habitat Restoration Success Story – The Union Slough (WA) Restoration Project

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Abstract: In February 2001, dikes were breached to restore tidal circulation to a $\pm$ 20-acre, former agricultural parcel along Union Slough in the lower Snohomish Estuary, near Everett Washington. Before dike breaching, the site was graded to provide desired elevations for brackish marsh development, and to provide a deep dendritic channel that would allow maximum accessibility by juvenile salmonids; also, a new inner dike was built to protect Interstate 5 from flooding.

Substantial numbers of small invertebrates and fish were using and feeding in the site as early as the April following dike breaching. Summer and fall seining demonstrated use by 6 species of juvenile anadromous salmonids with chinook and coho juveniles remaining in the site through November, 2001. Benthic productivity

appears to be high and a variety of shorebirds and waterfowl have been observed. Marsh vegetation has rapidly colonized elevations between about +7 and +11 feet MLLW and several pieces of large woody debris recruited to shorelines within the site during winter 2001 – 2002 flooding. This and several other sites in the Snohomish Estuary clearly demonstrate that breaching dikes to restore tidal action is a relatively certain and often low-cost means of providing real and immediate increases in habitat function.

This project was completed, in part as mitigation for filling of 6 acres of nearshore habitat in the Port of Everett industrial area. Remaining ecological credits are available to the Port as mitigation for unavoidable adverse impacts of future Port projects.