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WETLAND MITIGATION AND FISH CONSERVATION BANK DEVELOPMENT

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Restoring lost ecological functions to more than 40 acres of wetland, stream and floodplain habitat in the lower Puyallup River watershed.



GEOENGINEERS /

PROJECT GOAL

"...restore hydrology, floodplain connectivity, and aquatic resource habitat for anadromous fish and aquatic-dependent avian and wildlife species"

PROJECT OVERVIEW

The project was initially proposed as advance mitigation, but the USACE requested the Port shift it to a wetland mitigation and fish conservation bank.

PROJECT OUTCOME

Coordinating and negotiating the bank has been challenging, but consensus among stakeholders improves the long-term ecological viability of the site.

Historically in the Puget Sound lowlands, small streams and their floodplains were developed into agricultural areas due to the flat topography. At the Upper Clear Creek Mitigation Bank site, historical agricultural practices impacted Clear Creek and the associated floodplain wetlands. Clear Creek was diverted into a straight, excavated ditch and isolated from its historic path with a side-cast berm levee that impeded surface water connectivity during low to moderate flows. During larger floods, the creek and floodplain connected, however as the water receded the levee trapped return flows and fish.

By removing agricultural features, re-establishing the floodplain and wetland, and realigning the creek, the site's instream habitat was improved and increased, off-channel habitat was created, floodplain connectivity was restored and riverine wetland processes were rehabilitated. The restoration activities reduced the number of invasive plants and increased habitat diversity for fish and wildlife.

CREDIT GENERATION

BANK ACTIVITY	CREDIT GENERATION AREA (ACRES)	CREDIT RATIO (ACTIVITY AREA: NO. OF CREDIT)	NUMBER OF CREDITS ANTICIPATED
Wetland Re-establishment	3.13	1:1	3.13
Wetland Rehabilitation	18.32	2:1	9.16
Wetland Rehabilitation (PAB only)	0.76	3:1	0.24
Forested Upland Enhancement	0.13	5:1	0.03
Total	22.34		12.56

MITIGATION BANKING INSTRUMENT

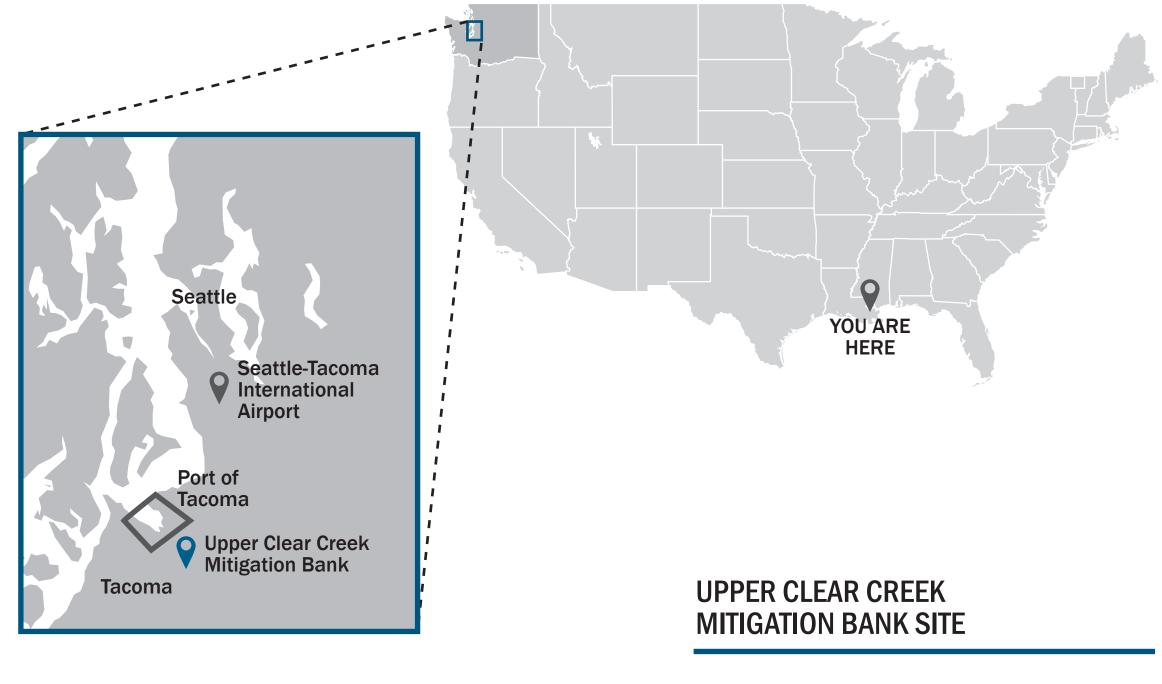
- Basic Agreement
- General Bank Information

Fish Credits (DSAYs) = 273.16

- Bank Development Plan & Design
- Bank Objectives & Performance Standards
- Credit Generation & Award Schedule
- Procedures for Use of Bank Credits & Debit Use

1 Wetland Credit = 21.74 DSAYs

- Establishment Period Monitoring, Reporting, Maintenance & Remedial Action
- Long-Term Protection & Management
- Financial Assurances





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OBJECTIVE 2 RE-ESTABLISH WETLAND **HYDROLOGY** PERFORMANCE STANDARD 2C WETLAND HYDROLOGY CRITERIA MET FOR MINIMUM OF 26 ACRES OF SITE **MONITORING METHOD** PERFORM WETLAND DELINEATION, MONITORING SURFACE AND GROUNDWATER **DOCUMENTATION** WETLAND DELINEATION REPORT

CREDIT RELEASE