Carpenter Creek Estuary Restoration Project



ABSTRACT

Located where the Carpenter Creek
Estuary drains into Puget Sound near
Kingston, WA, a diverse 30-acre
estuarine ecosystem was blocked by a
10-foot wide box culvert. To restore the
ecosystem's natural flow, federal, state,
tribal, local governments, and
Stillwaters Environmental Center joined
together to remove the culvert and
help restore the environment back to
its natural state.



OBJECTIVES

- Restore natural tidal hydrology
- Reclaim historical intertidal habitat
- Remove fish passage barriers
- Reduce problems of sediment scour and deposition
- Reduce habitat fragmentation of shoreline/upstream

BACKGROUND

The Carpenter Creek Estuary is a major migratory route for Chinook, Chum,



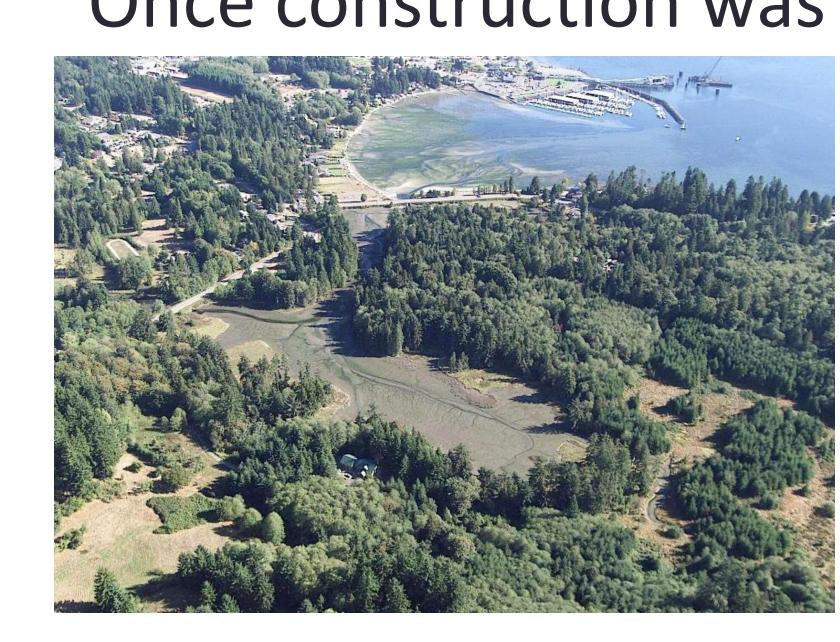
Coho, and Sea-run
Cutthroat Trout,
and key habitat
for migrating
birds, insects, and
invertebrates.

The culvert located under S. Kingston Road at the mouth of the estuary was

disrupting these migrations and creating large, deep scour holes which trapped



young fish making them easy prey.
In June 2011, after 11 years of planning, construction started to remove the culvert and build the new bridge, the Stillwaters Fish Passage.
Once construction was complete,



monitoring started and continues to assess habitat restoration success.

RESULTS



The 90-foot single span bridge restored natural tidal flow, and the Carpenter Creek Estuary restoration continues. Removing the scour holes made fish less vulnerable to predators, allowing fish and invertebrates to move into and out of the 30-acre forested estuary habitat with ease.



WHAT NOW?

Each month data is collected to determine the effects of replacing the culvert with the new bridge.

Phase II of restoration includes removal of a 5-foot culvert on W. Kingston, also replacing it with a bridge.