

**PERCIVAL CREEK RECHANNELING:  
A SALMON HABITAT RESTORATION PROJECT  
FOR THE DESCHUTES URBAN WATERSHED**

11-18-15

**PROPOSAL SUMMARY**

The Percival Creek Rechanneling Project is a \$7.5 million investment to enhance South Budd Inlet/Deschutes Watershed natural salmon spawning production while retaining the community benefits of Capitol Lake. It supports the new \$46 million Pioneer Park Fish Hatchery while retaining the State Capitol Campus and Olympia Waterfront for cultural, environmental, economic, and historical design benefits for all Olympia, Thurston County, and Washington State citizens. This proposal was created in response to the recommendation from the Ruckelshaus Center which urged participants in the Capitol Lake issue to offer ameliorative proposals.

**BRIEF BACKGROUND**

The long term management of the lower Deschutes Urban Watershed has been a community priority since the early 1950's when the 5th Avenue tide gate/fish ladder and later the Falls Terrace fish ladders were constructed to improve water quality, social/aesthetic, and fisheries benefits in the Deschutes River Watershed. Prior to the construction of the Capitol Lake Tide Gate and fish ladder systems, the only natural salmon fishery in the Deschutes watershed was that associated with Percival Creek, currently a tributary to Capitol Lake. (The Tumwater Falls blocked virtually all fish passage to the upper Deschutes River Watershed –preventing spawning of anadromous (seagoing) fish above the Falls.)

Capitol Lake serves as a rearing area for juvenile hatchery Chinook and as a transit area for in-migrating Chinook adults. It should be noted that some degree of these fishery benefits have been lost due to the failure of the state and local governments to continue the required maintenance dredging of Capitol Lake on at least an every ten year basis. The Lake has not had maintenance dredging since the mid 1980's when WDFW also terminated its use of Percival Cove as a salmon rearing pond.

Spawning numbers of salmonids in Percival Creek have likely been markedly reduced over the past several decades due to destruction of riparian shading, loss of structure, massive storm water runoff from the Capitol Mall area and other areas of human development. Also, some fish biologists feel that Capitol Lake could be contributing to these lower numbers as the Lake presents an interruption between the faster flowing freshwater of the Creek and the brackish waters of Budd Inlet. CLIPA makes this proposal to address the latter concern.

The 2009 CLAMP proposal to remove the Fifth Avenue Tide Gate forming the Deschutes River Impoundment (Capitol Lake) to open up the tidal mud flat (estuary strategy), would cost in today's dollars over \$258 million over a 20 year period (compared to the \$40 million cost of retaining the Lake). It should be noted that CLIPA studies show that no water quality benefits will accrue from the removal of the 5th Avenue Tide Gate.

CLAMP also briefly evaluated a "hybrid alternative that would construct a berm that divided Capitol Lake into a reflection pond and river route, but not address the sediment management problem". Their hybrid is more expensive than the \$258 million alternative, and will solve few problems.

## **CLIPA's PROPOSAL**

CLIPA is proposing a different option, "The Percival Creek Rechanneling Project". This proposal would construct a new streambed west of the Deschutes Parkway between Budd Inlet and Percival Cove (see pictorial and diagram). The streambed would bypass Capitol Lake providing estuarial tidal exchange between Budd Inlet, Percival Creek, Percival Cove, and additionally to Capitol Lake. WDFW has constructed similar stream beds that are successful in Western Washington. The Percival Creek waterway would pass under the existing 4th and 5th Avenue bridges and meander along the west side of the Deschutes Parkway through unoccupied land and abandoned railroad right of way.

Two newly constructed small bridges would provide access to the homes along the route and the railroad access to West Olympia. It would provide Percival Cove and Percival Creek direct access to brackish water for about 3% of what the original CLAMP proposal would cost.

## **Project Effects**

By restoring tidal processes to Percival Creek, Percival Cove, and Capitol Lake the project provides reportedly valuable nursery habitat for threatened species of juvenile salmon such as Chinook, increasing their survival and supporting population recovery in Puget Sound.

The project establishes intertidal and shallow subtidal areas which could encourage the growth of kelp and eelgrass, increasing nearshore productivity for fish, birds, and other marine species.

The project continues to allow the "oxygen superpower" capability of Capitol Lake to remain, and continue to improve the water quality of Budd Inlet and South Puget Sound. This attribute obviously is of benefit to fish, birds, and other marine species in this area.

It allows the community's dream of a freshwater public swimming area in Capitol Lake to continue to be a viable option.

Capitol Lake would continue to be managed for other urban recreation, an efficient sediment trap that is essential to retain an economically important Port of Olympia and shoreline businesses, support for the salmon transition zone as a part of the new \$46 million upstream hatchery, and continued downtown flood protection from the Deschutes River.

## **PRELIMINARY DESIGN AND COST ESTIMATES**

The Preliminary Design has been completed by professional engineers and environmental scientists with many years of past and current design, permitting and construction experience. See the attached "Percival Creek Salmon Run Channel--Estimate of Cost" for more details. The draft estimate with a 30% cost added contingency totals \$7,394,537.

Site plans are available for discussion.