Restoration? A Study of Three Restored Sites in the Duwamish River

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Abstract

The Duwamish River, a superfund site in Seattle, Washington, is home to many species, including the ecologically and commercially important pink, Chinook, and sockeye salmon, as well as steelhead trout. During the summer of 2007 the efficacy of three restoration sites along the lower Duwamish River was studied. At each restoration site, measurements of the levels of dissolved oxygen, pH, temperature, salinity, depth, and amount and variety of plankton were taken and compared with reference, unrestored sites adjacent to and across the river from the restoration sites. General trends include an increased variability in all variables with nearness to the river mouth and an increase in dissolved oxygen at the restored sites compared to the reference sites. These findings suggest that there are likely more factors influencing the variables measured and that further research is needed to further elucidate the relationships. However, a preliminary conclusion suggests that the restoration is at least partially successful, increasing positive abiotic factors such as dissolved oxygen, thus potentially providing possible rest and feed spots for adult salmon traveling upstream and juvenile salmon traveling downstream.