

Project-level Effectiveness Monitoring in the Estuary and Response in Fish Communities

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CREST is very active in environmental planning, habitat restoration and effectiveness monitoring in the Columbia River Estuary. Utilizing grant funds, and contracts with other agencies and academic institutions, CREST biologists and wetland specialists collect data at a variety of locations throughout the estuary to assess the ecological impact of restoration projects, particularly juvenile salmonid use of restored wetlands. Using standardized methods developed for the region through the US Army Corps "Cumulative Effects" Study, CREST gathers pre- and post-project, as well as reference site, data on hydrology, water quality, sedimentation, vegetation and fish communities. Field data on salmonids is augmented with laboratory analysis of prey utilization, prey availability and genetic stock. In accordance with Action Effectiveness Monitoring requirements in the 2008 Biological Opinion, CREST participates in the Estuary Partnership led program to develop intensive long-term datasets at four restoration sites in different reaches (Fort Clatsop, Scappoose Bottomlands, Sandy River Delta and Mirror Lake), whereas monitoring of other projects is less consistent according to the availability of funding. This presentation will present an overview of lessons learned, and policy implications, from juvenile salmon effectiveness monitoring in Grays Bay, WA and Youngs Bay, OR.