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**Presentation Title: Steelhead Response to the Removal of the Elwha River dams**

Abstract for the 2018 Pacific Coast Steelhead Management Meeting

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With significant contributions from many other biologists and technicians across the interagency monitoring team

This presentation provides an overview of steelhead inhabiting the Elwha River, where Elwha Dam and Glines Canyon Dam, which had blocked approximately 115 km of anadromous fish habitat, were removed from 2011 to 2014. The dam removal itself was a massive physical disturbance as 21 million m3 of sediment had been stored in the reservoirs associated with the two dams. Approximately two-thirds of this material was transported downstream, increasing turbidity and creating a highly dynamic river channel. An interagency monitoring and adaptive management program is designed to track the Elwha steelhead population through four phases of recovery: Preservation, Recolonization, Local Adaptation and Viable Natural Population. Adult abundance, measured via a SONAR system, has ranged from 890 – 1450 from 2014 – 2017. As indicated by a netting program designed to provide species composition information for the SONAR project, the majority of these adult steelhead were produced by an integrated hatchery program intended for conservation and restoration of the native Elwha steelhead population. Adult steelhead were transported upstream of the lowermost dam into two tributaries, Little River and Indian Creek, in order to remove them from potentially harmful suspended sediment loads caused by dam removal activities and to initiate recolonization. In most years, the numbers of redds observed in these tributaries exceeded the number of fish transported, providing evidence that steelhead also colonized new habitats on their own volition. By 2016, redds were observed upstream of the uppermost dam. The SONAR system has documented adult entry timing over a broad range of dates from late January through the end of June. Furthermore, snorkel surveys provided evidence for an emerging summer run, as N = 72 steelhead were observed upstream of the uppermost dam in September 2017. Although the population has demonstrated encouraging signs of recovery following dam removal, it is currently far short of long term recovery goals. The interagency collaborative monitoring team is committed to providing the information needed for adaptive management and to learn from this unique opportunity for steelhead conservation.