**Water Level Recorders**

**2012 Final ATR Summary**

**Introduction**

The data reported in this section is related to the study “Additional Water Level Recorders” that specifically address needs related to Proposal 32 in the RA recommendations, 2012 Monitoring and Assessment Plan (MAP), and indirectly address certain aspects of other problem statements by providing a continuous record of water surface elevations to calibrate hydraulic models being used for many other aspects of Restoration Planning and Design. Six recorders were installed in Reach 1A and 1B.

**Results**

Water surface elevation data obtained from all six recorders in 2012 are presented in an excel data file as well as in Figures 1, 2, and 4 along with the data from US Geological Survey (USGS) gauges for comparison purposes (Figures 3 and 5).

Recorder 1 indicates water level fluctuations from the beginning of March 2012 through the end of April 2012 that did not match activity shown on other recorders. This issue was rectified by tightening the anchors at the end of April 2012 and no fluctuation in the data was observed after the repair work. Recorder 3 was replaced with a new one on January 2012 due to its malfunction after it was flooded during high flows on July 2011. An unusual battery exhaustion and significant fluctuation in the data were observed after flooding; therefore, the data collected from Recorder 3 between July 7, 2011 and January 17, 2012 is suspect. Recorder 4 was dry during the winter low flows (~100 cfs), since it is located in a relatively high area. As a result, data starting from November 7, 2011through mid of January 2012 is unreliable.