

SECTION 4

CONCLUSIONS

Based on all of the field observations and the analytical results of the muliwai sediment sampling program, the following conclusions were made:

- A wide range of sediment types, in terms of grain size and TOC content, were encountered in the three muliwai and two background areas. No correlation was observed between the grain size, the locations or depths of the samples, and the TOC or nitrate concentrations.
- Concentrations of metals detected in the muliwai were within the ranges found in the background samples.
- Arsenic and chromium were detected at concentrations above USEPA Region IX residential soil PRGs, but within background concentration ranges.
- All of the twelve samples that were analyzed for BTEX contained one or more of these compounds at trace concentrations. However, all of the concentrations of the BTEX chemicals in these samples were far lower than respective USEPA Region IX residential soil PRGs.
- Six of twelve sediment samples analyzed for the full suite of organic compounds contained one or more of the chemicals of concern, (with the exception of BTEX, which was detected more frequently). One sample contained one of the explosive compounds, and one sample contained one OC pesticide compound. Three chlorinated herbicides and three SVOCs were found in four samples. The detected concentrations were far below USEPA Region IX soil PRGs.
- Trace concentrations of two dioxin isomers were detected in two of the twelve muliwai sediment samples analyzed for dioxins and furans. The 2,3,7,8-TCDD isomer was detected at a concentration above the USEPA Region IX industrial soil PRG in one sample from the south muliwai, collected at a depth of approximately 37 to 40 inches. The TEQ of the

OCDD isomer found in the other sample, from the north muliwai, did not exceed the USEPA Region IX residential soil PRG.