EXHIBIT A

Executive Summary

The purpose of this project is to construct a multi-stock salmon population model and management strategy evaluation (MSE) tool that addresses the cross-linkages between water use and fishery ecosystem response. Recent federal court judgment concluded that insufficient evidence was provided for prescribing specific flow restrictions in two recent conservation measures. The inability to provide adequate evidence was a byproduct of not having the correct quantitative tools at hand. We propose to build these tools by furthering technological developments of previous analyses of Central Valley Chinook population dynamics. Specifically, our work will integrate multiple salmon populations together into a single model that can reconstruct historical population dynamics such that environmental conditions and water resource use can be used as predictors of biological responses of multiple populations. Our goal is to integrate populations into a single model so that the effect of water management and fishery management policies can be examined in light of all fish populations simultaneously. This pertains to the biological interactions between the populations as well as the way in which fisheries impact individual populations depending on growth and maturation rate of each population. All analysis will be framed in the context of historical and proposed water use patterns.