

Accounting for Human Intervention in Streamflow Forecasting

Investigators:

Dr. Lawrence C. Sager, Dr. Yuri Levchuk, Dr. Georgiy Levchuk, Dr. Kevin Gildea, Dr. Lawrence Wolpert

Aptima, Inc.

B. Abstract

River regulation (reservoir operations, river diversions for water supply and irrigation, returns, consumption sue, etc.) complicates the forecasting of streamflow for a number of reasons, such as availability of planned reservoir releases and water derivations, deviations from those plans when available, and the very complex problem of addressing water rights, especially in the Western United States. The research program outlined in this proposal addresses the problem of accounting for river regulation activities by presenting a method for predicting how different classes of water management agencies will react to a given set of current river conditions and forecasts. The proposed approach is intended to be both compatible with, and to extend the capabilities, of existing NWS forecasting techniques.

Total Project Cost: **\$249,993**

Period of Performance: **June 1, 2008 – May 31, 2010**