

## **ABSTRACT**

### **PARADISE CREEK TMDL IMPLEMENTATION: VIEWPOINTS FROM URBAN AND RURAL PERSPECTIVES**

*Mark Cook, Director, Lewis County Public Works, 350 N. Market Blvd., Second Floor, Chehalis, Washington 98532-2626, (360) 740-1123, [mrcook@co.lewis.wa.us](mailto:mrcook@co.lewis.wa.us); Ken Stinson, District Manager, Latah Soil and Water Conservation District, 220 East 5<sup>th</sup> St., Rm. 212, Moscow, Idaho 83843, (208) 882-4560, [kstinson@moscow.com](mailto:kstinson@moscow.com)*

#### **URBAN PERSPECTIVE**

Being the first total maximum daily load (TMDL) in the State of Idaho, urban decision makers in the Palouse had little to no understanding of TMDL implications, relative to designated beneficial uses. Complicating this understanding, in the absence of primacy, decisions regarding discharge permit parameters did not come from Idaho Department of Environmental Quality (IDEQ); these decisions came from US Environmental Protection Agency (EPA) Region 10 permit staff. Further confusing the matter, State of Washington default water quality standards formed the basis of Region 10 permit writing. Lack of process understanding at the local level was underscored, when City of Moscow decision-makers enlisted legal services from a Seattle based company seeking to overturn the National Pollution Discharge Elimination System (NPDES) permit, rather than the TMDL.

On the heels of the TMDL, Moscow began immediate design of a biologic nutrient removal wastewater treatment plant, replacing the 1930s vintage trickling filter process. Subsequently, over the course of several years, Moscow succeeded in completing its new treatment plant in late 2002. This new plant cost Moscow ratepayers approximately \$14 million dollars, paid principally through rate increases. Currently, Moscow has the distinction of having the highest wastewater rates in the Palouse. Moscow residents continue struggling with the reality that the default water quality standard for Paradise Creek (cold water beneficial use) has been the driver for significant rate increases over the past several years. Of even greater frustration, is the possible need for “chillers” cooling the effluent to meet cold-water beneficial use. Many residents question this effort during summer conditions on the Palouse when Paradise Creek is primarily composed of discharge from Moscow’s wastewater treatment plant.

Recently, Moscow has begun questioning the beneficial use designation for Paradise Creek. Using IDEQ biologic sampling data (collected for and since the TMDL), Moscow has correlated biologic data sets against a recent beneficial use designated by the State of Idaho: seasonal cold. The match of fish species and benthic data is significantly aligned with seasonal cold rather than cold water beneficial use. Water Resource Inventory Area (WRIA) 34 is anxious to examine the true relationship of Palouse ambient summer temperatures on water bodies such as Paradise Creek. Conducting a Use Attainability Analysis targeting non-attainable cold water temperature beneficial use is the key to understanding appropriate beneficial use designation for Palouse area creeks and streams. Palouse decision makers do not question the need or the value of preserving appropriate beneficial use in area creeks and streams, all question the value of meeting an unattainable standard. Moscow is currently implementing (voluntarily) an Industrial

Pretreatment Program, partnering with the Latah Soil and Water Conservation District and others implementing the Paradise Creek TMDL and working with its Washington neighbors in WRIA 34 comprehensively planning water resources.

## **RURAL PERSPECTIVE - AGRICULTURE**

Rural landowners and agricultural producers have initiated voluntary efforts, as opposed to the regulatory efforts within the City of Moscow, to meet the objectives of the Paradise Creek TMDL Implementation Plan. The key to voluntary efforts was the ability to link landowner and agricultural producer management priorities with the State of Idaho's goal to improve the water quality within Paradise Creek. The management priorities of landowners and agricultural producers do not often include water quality concerns of an intermittent stream.

The Latah Soil and Water Conservation District coordinated a mixture of federal and state technical and financial resources to implement the Paradise Creek TMDL Implementation Plan on forest and agricultural lands within the watershed. Over 1,300 acres of direct seeding practices have been contracted and over 25 erosion control structures have been installed on agricultural lands within the Paradise Creek watershed. From an agricultural perspective, these practices are viewed as positive efforts designed to improve soil health, reduce field erosion and flooding, improve wildlife habitat, improve long-term crop yields, reduce operational costs, and improve farm profitability in both the short and long-terms. Subsequently, these same "farm improvement" efforts have made direct water quality improvements to Paradise Creek through reduced soil erosion and associated sedimentation.

Successful voluntary efforts to address agricultural and other non-point source issues within TMDL implementation plans must simultaneously address priority management issues of landowners and agricultural operators. Without this focus, little interest will be generated to address projects that focus primarily on select water quality parameters. Water quality will improve when strong links are made between farm management priorities and pollution reduction.