Upper Teton River Nutrient and Beneficial-Use Monitoring

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During the 2012 growing season (July-October) the Teton River (headwaters to Highway 33, near Driggs, ID) was monitored to confirm water quality and beneficial uses were not being impaired by nutrients. Four monitoring locations were sampled approximately weekly for total phosphorus (TP), total kjeldahl nitrogen (TKN), nitrate plus nitrite as nitrogen (NO3 + NO2 as N), and chlorophyll-a. These constituents were selected to indicate if the narrative nutrient criteria were being exceeded. TP did not exceed 0.048 mg L-1 and averaged 0.018 mg L-1. TKN did not exceed 0.54 mg L-1 and averaged 0.36 mg L-1, whereas NO3 + NO2 as N did not exceed 1.3 mg L-1 and averaged 0.9 mg L-1. Chlorophyll-a did not exceed 10.0 ug L-1 and averaged 1.5 ug L-1. Before the growing season (March-June) there were samples with greater concentrations that are attributed to snowmelt driven run-off. However, TP did not exceed 0.1 mg L-1, TKN did not exceed 0.8 mg L-1 and NO3 + NO2 as N did not exceed 2.7 mg L-1. The timing of these maximum nutrient concentrations was prior to the growing season and therefore these samples do not contribute to nuisance growth and are inconsistent with other monitoring locations on that date. There was biological monitoring for macroinvertebrates and fish. Preliminarily, these biological communities rated/scored in the highest assessment categories for the State of Idaho. Long-term parameters for temperature, specific conductivity, pH and dissolved oxygen were also collected and the (preliminary) results indicate that there were no exceedances to the water quality standards that are indicative of nutrient exceedances. Taking nutrient, biological and other chemical data into consideration, DEQ concludes the narrative standard for nutrients is being met and beneficial uses are supported.