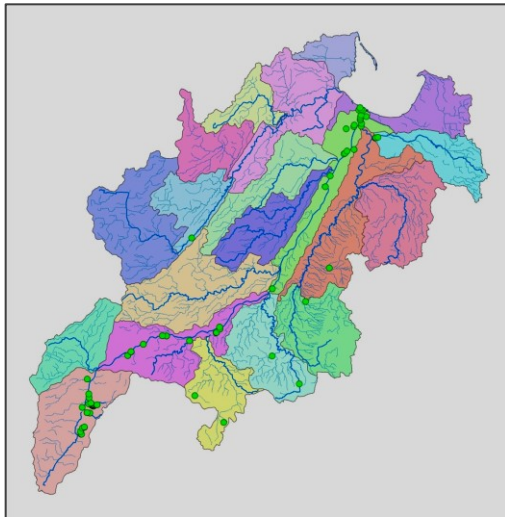


Lower Fox River Basin Water Quality Trading Economic Feasibility Assessment

Kieser & Associates, LLC (K&A) was retained by the Great Lakes Commission (GLC) to assess the economic feasibility of a Water Quality Trading (WQT) program for total phosphorus (TP) and total suspended solids (TSS) in the Lower Fox River Watershed (LFRW) of Wisconsin. The LFRW has had an approved Total Maximum Daily Load (TMDL) since 2012. This Lower Fox River Basin Water Quality Trading Economic Feasibility Assessment was one element of a larger “Fox P Trade Project” in response to this TMDL. The Fox P Trade Project was directed by the GLC in cooperation with the USDA-Natural Resources Conservation Service (NRCS), and the Wisconsin Department of Natural Resources (WI DNR). K&A was supported by XCG Consultants Ltd. (Oakville, Ontario) and Troutman Sanders LLP (Washington D.C.).



Evaluating the economic feasibility of water quality trading in the LFRW involved three key steps: 1) assessing demand for water quality credits; 2) assessing supply of credits that could be generated by rural nonpoint sources; and 3) analysis of demand compared to supply to identify key gaps and recommendations to advance trading.

Findings suggested the potential generation of 95,701 interim (5-year) and 5,019 long-term TP credits (lbs/yr), and 29,504 interim and 10,278 long-term TSS credits (tons/yr) within the LFRW. Demand for these credits varied between wastewater treatment facilities (WWTFs) and Municipal Separate Stormwater Systems (MS4s). Estimates of annual TP credit demand for individual WWTFs that may seek to trade ranged from 357 to 81,863 lbs of TP/yr while demand from all MS4s ranged from 369 to 5,968 lbs of TP/yr and 39 to 1,973 tons of TSS/yr.

The overall potential for TP water quality trading appeared low for WWTFs and MS4s due to an inadequate supply of long-term phosphorus credits within the LFRW. TSS-based trading by MS4s may be more favorable due to substantially higher costs associated with municipal stormwater treatment compared to much lower TSS credit costs and a more adequate supply stemming from rural nonpoint source controls.

Contact:

Victoria Pebbles
Program Director
Great Lakes Commission
2805 S. Industrial Hwy. Suite 100
Ann Arbor MI 48104
734-971-9135
vpebbles@glc.org

Project Costs:
\$78,000 (K&A)
\$600,000 (Total)

Project Duration:
2014-2015