The Ohio River Valley Water Sanitation Commission (ORSANCO) is engaged in a study of the Wabash River to determine the amount of nitrogen and phosphorous the Wabash contributes to the Ohio River.

The Wabash River is 491 miles long and flows southwest, forming the southern Indiana-Illinois border before draining into the main stem of the Ohio River.

The Wabash has been identified as one of the largest contributors of nitrogen to the hypoxic zone in the northern Gulf of Mexico. In addition, data has shown that the area where the Wabash enters the Ohio River (at the upstream end of the Smithland Pool) has lower dissolved oxygen levels and is designated as “impaired” in ORSANCO’s 2008 Assessment of Water Quality Conditions.

ORSANCO is studying the output of the Wabash through a grant from the American Recovery and Reinvestment Act, administered through the Indiana Department of Environmental Management.

The study has two objectives:

1. Estimate the annual load of total nitrogen and total phosphorous exiting the Wabash River.

2. Determine the Wabash River’s contribution and causes of low dissolved oxygen in the Smithland Pool. (The Smithland Pool is the area between J.T.Myers Lock and Dam and the Smithland Lock and Dam.)

To achieve these goals, ORSANCO has monitoring equipment (datasondes) located on the Wabash River at New Harmony (near Evansville, IN) and on the Ohio River at the J.T. Myers Locks and Dam and Smithland Locks and Dam. The datasondes measure temperature, pH, turbidity, dissolved oxygen, conductivity, and chlorophyll. Data from the Wabash can be accessed remotely and is available on a daily basis; data from the Ohio is downloaded manually and is available every two weeks.

Water samples are collected every two weeks from the Wabash (at New Harmony) and at the two Ohio River locks. The samples are analyzed for total phosphorus, ammonia-nitrogen, nitrate/nitrite-nitrogen, Total Kjeldahl Nitrogen, total suspended sediments (TSS), biological oxygen demand (BOD), and phytoplankton.

The data is available online at [www.orsanco.org](http://www.orsanco.org). An annual progress report is available on the web
The project began in the summer of 2010 and will conclude in the spring of 2015.

ORSANCO, headquartered in Cincinnati, OH, is the water pollution control agency for the Ohio River and its tributaries. Member states include: Illinois, Indiana, Kentucky, Pennsylvania, Ohio, New York, Virginia and West Virginia. The federal government is also represented.

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