



# Ohio River Basin Trading Project

March 2015

Project Update

## The Project Receives United States Water Prize!

The U.S. Water Alliance selected The Electric Power Research Institute's (EPRI's) Ohio River Basin Water Quality Trading Project for its 2015 United States Water Prize that honors individuals, institutions, and organizations that have made an outstanding achievement in the advancement of sustainable solutions to national water challenges. "American Electric Power is very pleased that EPRI's Ohio River Basin Water Quality Trading Project has been selected for the 2015 U.S. Water Prize," said Nick Akins chairman, president, and CEO of American Electric Power. "We have recognized for years the importance of protecting the water and ecosystems in the Ohio River Basin and have been a partner in the trading program since its inception. This project gives us an entirely new option for meeting our broader sustainability targets, supports farmers, and contributes to our community. We congratulate EPRI on this effort and look forward to their next steps when the project will engage many more stakeholders." (Continue on Page 2)



## Manager Message

The Ohio River Basin Water Quality Trading (WQT) Project is applying rigorous systems to test whether WQT can be economically, socially, and ecologically viable over the long run. After more than 6 years of building a program, we are confident that the credits are scientifically defensible and ecologically valid. We have also demonstrated that the program can work socially with more counties interested in participating than we can fund. The question now is whether, after building a program that is ecologically and socially viable, can we sell enough credits to keep the cash-credit cycle flowing?

We are excited to announce that we will hold the first public auction of voluntary stewardship credits on May 20th of 2015. 100% of proceeds from the auction will be re-invested back into the program for more conservation. As another innovative lift on this project, we are testing opportunities to sell the credits to meet broader corporate sustainability goals, offsetting supply chain impacts, and recognizing the credits in sustainability "standards" such as the Global Reporting Initiative (GRI). We know that sustainable companies are financially outperforming their counterparts, experiencing lower corporate risk, and creating new business opportunities. Purchasing quantified, verified, and state-approved credits from this program provides a rigorous opportunity for turn-key corporate benefits.

A lot of work has been leading up to this. This past summer was the second growing season of the project and we saw 30 farms implement conservation practices including cover crops, heavy use areas, and cattle exclusion fencing. All told, these practices will reduce the equivalent of nearly 130,000 pounds of nutrients. All conservation practices have also been verified by the state agricultural agency and the state permitting authority. Check out the "Projects" tab on our online registry, which provides full details as part of our commitment to transparency.

We would like to say "thank you" to team members, collaborators, and technical reviewers who continue to ensure robust project implementation.



Jessica Fox  
EPRI Technical Executive

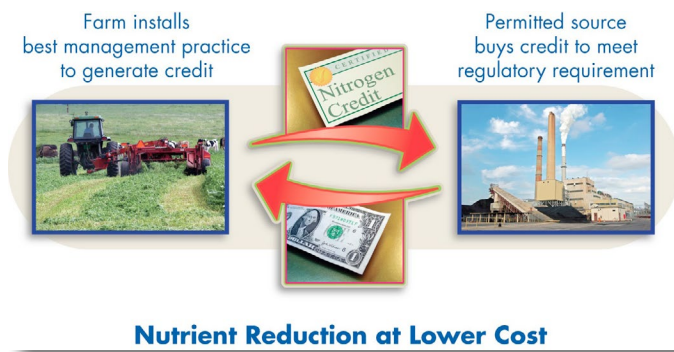


The project received letters of support from the following:

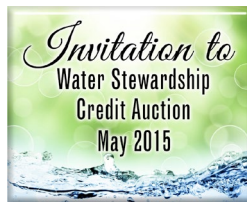
- Nick Akins, CEO, American Electric Power
- Bob Perciasepe, President, C2ES (Former Deputy Administrator, EPA)
- Dave White, President, Ecosystem Service Exchange (Former Chief, USDA-NRCS)
- John Hardin, President, Hardin Farms (Former President, National Pork Producers)
- Tom Easterly, Commissioner, Indiana Department of Environmental Management
- Steve Hohmann, Commissioner, Kentucky Department of Natural Resources

The U.S. Water Alliance emphasizes the importance and value of each aspect of the water cycle and promotes more sustainable management of water. Receiving this honorable prize is a reflection of the commitment of those who have spent time on this project. It is the diligent work of many who make such a complex effort possible. On behalf of the entire project team and supporting organizations, Jessica Fox will humbly accept the award on April 13 during a ceremony at the National Geographic Headquarters in Washington, DC.

### Water Stewardship Credit Auction



Private dollars have been invested in farm management practices to reduce nutrient runoff, support farmers, and provide important ecosystem benefits in the Ohio River Basin. Now, the resulting credits are available for purchase in the effort's first public auction. Backed by science, metrics, and state approvals, "stewardship credits" can be applied toward sustainability goals, offsetting supply chain impacts, or even Supplemental Environmental Project (SEP) obligations in Ohio, Indiana, and Kentucky.



Credit auction will be May 20th in the New York Times building, New York City.

#### Benefits to Buyers

- Document and register offsets for supply chain impacts
- Achieve corporate sustainability goals and commitments
- Tell compelling stories about proactive corporate sustainability efforts
- Support local farmers and enhance agricultural sustainability

- Meet Supplemental Environmental Project obligations in Indiana, Ohio, and Kentucky
- Gain experience and recognition in the world's only interstate water quality trading program
- Credits backed by metrics, modeling, and full state approvals
- 100% of proceeds are re-invested back into the program for more conservation

Buyers must be a public, private or nonprofit organization that is duly organized, validly existing and in good standing, with power and authority to perform its obligations as part of the auction process. Individuals with prior written approval from EPRI may also participate. Minimum purchase commitment \$10,000 for publically traded companies, or \$2,500 for individuals, non-profits, and municipalities. Proof of financial capability is required upon request. While the credits being offered are "compliance-grade," credits sold during this auction cannot be applied towards compliance with National Pollutant Discharge Elimination System permit obligations. As a condition of sale, EPRI will be restricting use of these credits to immediate "retirement" in order to promote broader societal benefits.

You MUST be cleared to participate in the auction. Submit Interest to Jessica Fox, [jfox@epri.com](mailto:jfox@epri.com)

### EPRI Transacts First Credits in World's Largest Water Quality Trading Program (March 2014)

The Electric Power Research Institute (EPRI) in March of 2014 transacted the first interstate credits for water nutrients in the United States, officially launching water quality pilot trades in the Ohio River Basin. The goal was to test water quality improvement strategies in the world's largest and only interstate water quality trading program. Duke Energy, Hoosier Energy, and American Electric Power were the first buyers in the program. Collectively, the companies purchased 9000 stewardship credits, agreeing to retire the associated nutrient and ecosystem benefits, rather than apply them towards possible future permit requirements. Representatives from Ohio River Basin states, the U.S. Department of Agriculture, Natural Resources Conservation Service, U.S. Environmental Protection Agency, credit buyers and other stakeholders witnessed the first credit sales in the program. Read more about the March 2014 event [here](#). Wall Street Journal, February 20, 2014. "Trading System Tackles Waste --- New Plan Pays Farmers to Curb Agricultural Runoff That Pollutes the Gulf of Mexico." [Link](#).



## Congressional Testimony

In April of 2014, EPRI provided [written testimony](#) to the U.S. House of Representatives, Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment. The testimony, titled “The Role of Trading in Achieving Water Quality Objectives,” notes that the defensibility of WQT rests largely on the specific protocols of each WQT program, which vary considerably across the country. The testimony summarizes the credit verification requirements, modeling tools, and lessons learned. Peter Tennant, Executive Director of the Ohio River Valley Water Sanitation Commission (ORSANCO), also provided testimony on behalf of the Ohio River Basin Trading Project and the Association of Clean Water Administrators on March 25, 2014. See video [here](#) (@ 13:31).

## FIRST Peer-Reviewed Article Assesses Appropriate Trade Ratios for Water Quality Trading

In June of 2014, Dr. Arturo Keller, Jessica Fox and other researchers published the first peer-reviewed article to rigorously assess appropriate trade ratios for WQT transactions: “[Attenuation Coefficients for Water Quality Trading](#)” in Environmental Science and Technology. The methodology itself can be applied to other water quality trading programs, and may have broader application for determining safety margins for related modeling efforts, such as determination of Total Maximum Daily Loads. This is an important step for ensuring that credits represent the offsets towards which they are applied at the point of compliance, and if the methods are enforced through program design, adds to the integrity and defensibility of water quality trading. A recording of a webcast on the research is available: [view the public webcast](#).



Caption: Check out credit registry provider Markit's video explaining the registry for the Ohio River Basin Water Quality Trading Project: [Project registry video](#)

## NEW EPRI Technical Reports Related to Water Quality Trading Nationally

[Case Studies of Water Quality Trading Being Used for Compliance with National Pollutant Discharge Elimination System Permit Limits](#) (Report # 3002001454).

While there is a great deal of published work describing, instructing and analyzing water quality trading, there lacks research regarding the permits in which water quality trading is operationalized to meet compliance obligations. This report aims to provide transparency to National Pollutant Discharge Elimination System (NPDES) permits that incorporate water quality trading through a series of eighteen case studies. The research did not attempt to provide comprehensive coverage of every NPDES permit using water quality trading. Rather, case studies of eighteen NPDES permits are provided as a sample of permits known to allow water quality trading to meet compliance obligations. The case studies focus on the language within the permit itself, supplemented with external information to inform the context of water quality trading in the permit.

[Development of Water Quality Trading Standards](#) (Report # 3002003619).

This report presents a summary of the developments in the U.S. towards creating standards for water quality trading. The research team reviewed publically available reports, project documents, articles, and online resources regarding federal agency and practitioner activities related to standards development. For the purposes of this report, we consider “standards” to be methodologies for ensuring the implementation, monitoring and verification of credits, which might include “best practices,” “principles,” and “technical guidelines,” and could be either agency or independently developed. While the 2003 EPA policy on water quality trading provides certain federally issued guidance, the need for more explicit details to direct the formation of programs has created several ad hoc efforts aimed at clarifying criteria for defensible programs. The report provides background on developments in water quality trading standards, and reviews examples of standards development in other environmental markets.



Check out our U-Tube Video that summarizes the Project! <http://wqt.epri.com>

Ohio River Basin Water Quality Trading Project - by the Numbers	
Number of credits (pounds) sold to date:	9,000
Number of farmers funded:	32
Pounds of Total Nitrogen Contracted:	98,314
Pounds of Total Phosphorous Contracted:	28,699
Acres of land under seasonal practices:	516.2
Credits available in May 2015 Auction:	~100,000

## Key Project Participants

### Technical Team:

- ▶ Electric Power Research Institute
- ▶ American Farmland Trust
- ▶ Ohio Farm Bureau Federation
- ▶ ORSANCO
- ▶ Troutman & Sanders
- ▶ University California Santa Barbara
- ▶ Markit

### States:

- ▶ Ohio
- ▶ Indiana
- ▶ Kentucky

### Agencies:

- ▶ USEPA
- ▶ USDA

### External Advisory Groups:

- ▶ Electric Power Industry
- ▶ Environmental Groups
- ▶ Municipal Wastewater Treatment Plants
- ▶ Agriculture

## Project Overview

Water quality trading is a market-based approach to achieving water quality standards through programs that allow permitted dischargers to purchase pollution reductions from another source. EPRI's Ohio River Basin Trading Project is a first-of-its-kind interstate trading program with initial participation from Ohio, Indiana, and Kentucky. The successful implementation of this Project will allow power companies, farmers, and other industrial and municipal dischargers to work together to improve water quality, minimizing costs to the public and stakeholders. The Project will benefit receiving water bodies that are now threatened by nitrogen and phosphorus pollution, which drain to the Gulf of Mexico. New developments in the project are leading towards selling "stewardship" credits, rather than only selling credits used towards meeting a permit requirement.

### Project Contact

Jessica Fox, Technical Executive  
 Phone: 650-855-2138  
 Email: JFox@epri.com  
 Project e-mail: ohiovertrading@epri.com  
<http://wqt.epri.com>

EPRI intends to support a collaborative process for the development of this project. The project website was designed to facilitate communication of important project materials, and to solicit questions, comments, and feedback from the many interested stakeholders. Please visit the project website for more information and to download meeting materials, related EPRI reports, Frequently Asked Questions, and additional project resources.



### Electric Power Research Institute

3420 Hillview Avenue, Palo Alto, California 94304-1338 • PO Box 10412, Palo Alto, California 94303-0813 USA  
 800.313.3774 • 650.855.2121 • [askepri@epri.com](mailto:askepri@epri.com) • [www.epri.com](http://www.epri.com)