

## WHERE IS NUTRIENTNET BEING DEVELOPED?

*NutrientNet* is currently being used to support trading programs in the Kalamazoo River in Michigan and in the Chesapeake Bay.



Kalamazoo River Watershed, Michigan



Chesapeake Bay Watershed

## CAN NUTRIENTNET BE ADAPTED FOR USE IN MY WATERSHED?

YES! If you would like to use *NutrientNet* to explore trading as an option for your watershed, please contact the Economics Program at the World Resources Institute for more information:



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*“NutrientNet provides the necessary communication vehicle between buyers and sellers.”*

Robert Campbell  
Business Council for Sustainable Development,  
Gulf of Mexico

*“What I like about NutrientNet is that it is an open market forum that easily brings buyers and sellers together.”*

Dale Finnegaard  
BARR Eng. Company

### About the World Resources Institute

The World Resources Institute (WRI) is an environmental think tank that goes beyond research to create practical ways to protect the planet and improve people's lives.

### About the Economics Program

The Economics Program at WRI works to identify and promote economically sound solutions to some of today's most pressing environmental problems.

### Acknowledgments

In addition to the generous support of several individuals, the development of *NutrientNet* has been made possible by the support of the Curtis and Edith Munson Foundation, the Joyce Foundation, The McKnight Foundation, the National Fish and Wildlife Foundation, the Oak Foundation and the U.S. Environmental Protection Agency.

[www.nutrientnet.org](http://www.nutrientnet.org)

NUTRIENT NET



A PROJECT OF  
THE  
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INSTITUTE

Taking Watershed-based Trading On-line

## WHAT IS NUTRIENT TRADING?

Nutrient trading is a market-based approach for protecting and improving water quality. It works by setting limits on the amount of nutrients allowed to enter a watershed. Once nutrient allowances are allocated among farms, water treatment plants, factories and others, those with low-cost pollution reduction options have an incentive to reduce their nutrient loads beyond what is required of them and to sell their excess credits to others who are unable to make reductions because of higher costs. Through this trading, pollution reduction efforts are re-allocated to those sources with the most economical pollution reduction solutions. This flexibility greatly reduces the cost of improving water quality.

## WHY USE NUTRIENTNET?

Trading programs, as traditionally proposed, have high transaction costs, which can preclude trading. The credibility of reduction credits are also questionable because of the lack of standard estimation methods and tools for public oversight. *NutrientNet* was specifically designed to solve these problems by providing:

- ♦ A simple way for buyers and sellers to locate each other
- ♦ Standardized, consistent estimation methods for all users
- ♦ A readily accessible record of trades

## HOW DOES NUTRIENTNET WORK?

1  
step

### Locate your facility

Using a series of maps, users are able to quickly and easily locate their facility within a given watershed. The location of a user's facility is important because nutrient loads have different impacts on water quality depending on how close or how far they are to a waterway. This information is then used to estimate the user's current nutrient loadings.

2  
step

### Explore your reduction options

Armed with estimates of nutrient loadings, users can then investigate various reduction options and their likely costs to determine the most economical reduction strategy for their situation. After selecting a management strategy, users are given an estimate of the number of nutrient reduction credits available for trading.

3  
step

### Buy or sell your credits

Through *NutrientNet's* marketplace users are able to post or respond to offers to buy or sell nutrient reduction credits. Users can also view a summary of trading activity by watershed, rules for trading, and a contract for completing trades.



The screenshot shows the 'WORKSHEETS' page with a table of reduction options. The table lists various practices and their associated costs and credits.

Practice	Cost per year	Cost per pound of Phosphorus runoff reduced	Cost per pound of Phosphorus reduction credit	Phosphorus reduction credits available for trading (Click to post offer)
Filter strip	\$400.00	\$42.80	\$85.50	3
Conservation tillage	\$300.00	\$11.70	\$23.30	6
Conservation tillage	-\$900.00	-\$35.00	-\$70.00	0
Conservation tillage	-\$1,350	-\$11.50	-\$23.00	0
Filter strip	\$400.00	\$13.10	\$26.20	15
85th options	-\$950.00	-\$7.85	-\$15.70	0

The screenshot shows the 'MARKETS' page with a table of offers to sell phosphorus credits. The table lists the quantity, price, and details of each offer.

Quantity	Price	Submitted by	Offer date	Close date	Actions
86 credits	\$5.00	mhanderson	November 12, 2002	November 26, 2002	Details... Respond... Edit/Delete...
741 credits	\$4.00	skunce	November 12, 2002	November 26, 2002	Details... Respond... Edit/Delete...
1483	\$5.50	mkula	November	November	Details...