

# Environmental Marketplace Design to Support Sustainable Nutrient-Reduction Programs

December 2020

## PROJECT SUMMARY

Between 2018 and 2020, Newtrient and its partners worked to advance environmental marketplace solutions to improve water quality through a Natural Resources Conservation Service (NRCS) Cooperative Agreement award. The project focused on expanding tools that could be used in market-based approaches to address water quality challenges in both Vermont and Wisconsin.

## IMPACTS

### VERMONT

Enhance the capacity of the Farm Phosphorus Reduction Planner (Farm-PREP) model to evaluate farm specific approaches to quantify phosphorus reduction potential based on strategic combinations of field-based practices and manure processing technologies.

Enhancements to the tool include:

#### **Manure Processing Technologies**

Expanded beyond practices to include manure management technologies as part of the Farm-PREP model

#### **Precision Feeding**

Added precision feeding as an additional practice for farms to reduce their phosphorus losses

#### **Reporting**

Added reporting to demonstrate the potential impact of weather variability on modeling outcomes

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#### **Clearinghouse Assessment**

Evaluate the concept of a Clearinghouse to facilitate participation in Wisconsin's water quality trading programs. The reports cover the following topics: (1) analysis of existing clearinghouse structures across North America; (2) evaluation of Wisconsin's water quality compliance programs for Clearinghouse framework considerations; and (3) development of a range of clearinghouse structure options

#### **Demand Analysis**

A demand analysis was completed for the Wisconsin River Basin (WRB) TMDL. The analysis estimates that 50,000 to 90,000 pounds of phosphorus reduction could be sourced from non-point sources annually. Assuming a price range of ~\$50-60 per pound, it would translate to a potential annual market of \$3-5MM for the WRB.



# PROJECT RESOURCES

## VERMONT

**Enhancement of Farm-REP P Management Optimization to Incorporate Innovative Manure Technologies**



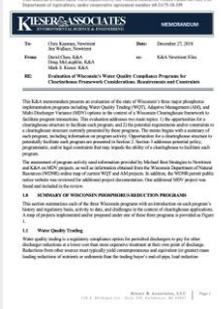


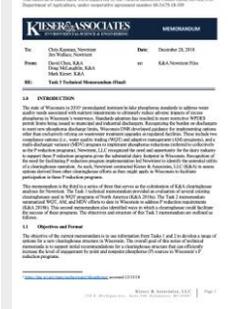
**PROJECT NO. 18-126**    **PREPARED FOR:** Client name / Account  
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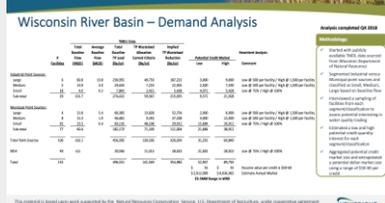
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## WISCONSIN









[Link to Full Report](#)

[Link to Reports](#)

### Who is Newtrient?

Newtrient LLC was formed by 14 leading dairy organizations and represents nearly all US dairy farmers. Created to reduce the environmental footprint of dairy and make it economically viable to do so, Newtrient delivers innovative technology, manure-based product and market-driven solutions to create added value for farmers, communities and the environment.



### What is the NRCS Cooperative Agreement?

This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under cooperative agreement number 68-3A75-18-109.





## LESSONS LEARNED

### Vermont

There has been an active dialogue in Vermont related to payment for ecosystem services. While there is interest in water quality trading, it appears that a likely next step would be to position the state as the “buyer” of environmental benefits from non-point sources. This would be an interim step toward leveraging a more traditional water quality trading approach.

### Wisconsin

The specific feedback from discussions with municipal and industrial point sources on barriers to water quality trading relate to the ease of a transaction (finding a project or partner) and regulatory certainty (concerns on project default). A well-designed Clearinghouse design should provide solutions to address these challenges.

## LOOKING AHEAD

### Vermont Pay-for-Phosphorus (VPFP) Program

In September 2020, the Vermont Agency of Agriculture, Food and Markets announced the receipt of a \$7 million RCCP-AFA award from the USDA Natural Resources Conservation Service that will enable the Agency to launch a statewide Vermont Pay-for-Phosphorus Program to further expand and support agriculture’s role in delivering clean water results for Vermont. The voluntary program will compensate farmers for quantifiable and verifiable performance reported and evaluated through the Farm Phosphorus Reduction Planner (Farm-PREP).

### Wisconsin Clearinghouse Assessment

Wisconsin passed 2019 Act 151 legislation that requires the state to establish a Clearinghouse for water quality trading. It is anticipated that the State will issue an RFP in 2021 to select a third-party entity to establish and operate the Clearinghouse.

## PROJECT PARTNERS



Located in Montpelier, Vermont, Stone Environmental provides scientific tools, information, and analyses to help their clients solve environmental challenges with integrity, expertise, and innovation. Their expertise includes: Agriculture Stewardship, Agrochemical Fate & Exposure, Environmental Assessment & Remediation, Environmental Systems Modeling, Geospatial & Data Solutions (GIS), Water Quality, Regulatory Support & Quality Assurance.



Located in Kalamazoo, Michigan, Kieser & Associates, LLC (K&A) provides scientific research and environmental consulting services to industry, commercial businesses, county, state and federal agencies, municipalities, non-governmental organizations, legal counsel and private clients. K&A focuses on environmental science and engineering applications associated with new environmental program development, water resources management and environmental compliance.