

Introduction

Wisconsin's Nutrient Reduction Strategy is a broad overview of nutrient management activities for both point sources and nonpoint sources in Wisconsin. This strategy documents ongoing activities whether they are implemented by federal, state or local agencies. It identifies areas where further progress is needed.

This strategy is in part a response to two federal initiatives. The *Gulf Hypoxia Action Plan 2008*, developed and approved by representatives of a number of federal agencies and 12 states, calls for each agency and state in the Mississippi River Basin to develop a nutrient reduction strategy by 2013. The *Gulf Hypoxia Action Plan 2008* further calls for the strategies to target watersheds contributing the greatest amount of nutrients and to focus implementation where both local water quality needs and Gulf of Mexico needs can be met. Similarly, in March 2011, Nancy Stoner, Acting Assistant Administrator for Water for the U. S. Environmental Protection Agency (EPA,) released a memorandum encouraging EPA Regions to work with states to develop state nutrient reduction frameworks. That memo identifies and recommends eight elements essential to adequate state nutrient reduction programs. Neither of these initiatives call for EPA approval, although EPA may review and comment on the strategy. It also includes needs for the Great Lakes consistent with Annex 4 of the Great Lakes Water Quality Agreement of 2012.

While the federal initiatives are important, it is also important to develop a state Nutrient Reduction Strategy to meet water quality needs within Wisconsin to most effectively and efficiently coordinate resources. That is, incorporate needs associated with eliminating water quality problems in local impaired streams and lakes as well as in local drinking water. Within Wisconsin, about half of the streams and rivers do not meet water quality standards for phosphorus. Analysis of water quality data collected over more than three decades at 15 of 38 sites across the state show increases in nitrogen concentrations. In addition, many local public drinking water wells have concentrations exceeding or approaching the drinking water quality standard for nitrates. Many of these well owners are facing increased costs to remove nitrates.

Gulf Hypoxia Components and EPA Framework Elements

The Gulf Hypoxia Action Plan and the March 2011 EPA memo call for similar elements in the state reduction strategies or frameworks². The Table I.1 below presents a comparison of the elements.

² For this document, "strategy" is used to mean both the Gulf Hypoxia Action Plan 2008 strategy and the March 2011 EPA memo framework.

State Nutrient Reduction Strategy Components and EPA Framework Elements ³	
Essential Strategy Components Identified by States	EPA Framework Elements
Characterizing Watersheds and Identifying Nutrient Sources and Contributions	1. Prioritize Watersheds on a Statewide Basis for Nitrogen and Phosphorus Loading Reductions
Priority Setting	
Evaluating and Selecting Appropriate Analytical Tools	
Establishing Quantitative Reduction Targets	2. Set Watershed Load Reduction Goals Based upon Best Available Information
Establishing Current Status and Historical Trends	
Examining Current Regulations, Programs, and Policies	
Identifying and Documenting Appropriate Management Practices and Technical Assistance Programs (Input Management, Water Management, Proven and Innovative Nonpoint Source BMPs, Point Source Management)	3. Ensure Effectiveness of Point Source Permits in Targeted/Priority Sub-watersheds for WW facilities, CAFOs, and Urban Storm water
	4. Agricultural Areas
	5. Storm Water and Septic Systems
	6. Accountability and Verification Measures
Designing and Implementing Effective Monitoring	
Identifying and Creating Economic Incentives and Funding Sources	
Additional Strategy Components Identified by States	EPA Framework Element
Involving and Engaging Stakeholders	
Effective Education and Outreach	
Tracking and Reporting Progress	7. Annual Public Reporting of Implementation Activities and Bi-annual Reporting of Load Reductions and Environmental Impacts Associated with Each Management Activity in Targeted Watersheds
Developing Numeric Nutrient Standards	8. Develop Work Plan and Schedule for Numeric Criteria Development

Figure I.1 Comparison between Gulf Hypoxia Task Force components and March 2011 EPA memo elements.

Development of Strategy

Although development of Wisconsin’s Nutrient Reduction Strategy was coordinated by the Department of Natural Resources with assistance from the University of Wisconsin – Extension, the intent is to provide a brief compendium of federal, state and local programs being implemented in Wisconsin to reduce nutrients reaching surface waters and groundwater. To meet this intent, the strategy was developed with substantial input from staff of federal, state, and local agencies and stakeholders. It covers both point sources and nonpoint sources as well as both urban areas and rural areas.

³ Gulf Hypoxia Coordinating Committee

This strategy was developed with the presumption that Wisconsin has many nutrient reduction programs in place and that we, as a state, are not “starting from scratch”. This does not mean that program implementation is complete. Filling programmatic gaps and enhancing coordination were two areas of emphasis in developing this strategy. This strategy does not call for new regulations for either point sources or nonpoint sources.

It is anticipated that completion of an adequate state Nutrient Reduction Strategy will enable the state to be eligible for grants from EPA and other federal agencies. In the future, an adequate state Nutrient Reduction Strategy may also be necessary to maintain current grants to states, such as the section 319 nonpoint source management grant from EPA.

While this document attempts to represent current programs and activities, it is anticipated that periodic updates will be needed to keep the document up-to-date. Updates will be part of the annual reports and presented at both public meetings and the nutrient reduction website: [specific site TBD following draft review].