Nutrient Pollution in the Midwest
Legal Issues and Case Studies

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Nutrient pollution is a huge problem

• Massive nitrogen and phosphorus impairments throughout the Midwest; “dead zone” in the Gulf

• Significant, largely uncontrolled loading from agricultural nonpoint sources;

• Very slow progress at the state and federal level under the CWA.
Nutrient Delivery to the Gulf of Mexico

Source: USGS NAWQA
It’s not just a Gulf of Mexico problem!
Issue #1 – GRN v. Jackson
What are “numeric nutrient criteria”? 

- Water quality standards consist of three main components
- “Criteria” are intended to protect and support the designated “beneficial uses” of waterways
- Can be “narrative” or “numeric”

Nutrient criteria – very slow progress

Progress Toward Clean Water Act
Adopted Numeric Nutrient Criteria

Legend
- Statewide numeric nutrient criteria for one or more classes of water bodies
- Some site-specific numeric nutrient criteria
- No numeric nutrient criteria
- N for rivers/streams
- P for rivers/streams
- N for lakes/reservoirs
- P for lakes/reservoirs
- N for wetlands
- P for wetlands
- N for estuaries
- P for estuaries

Protecting the Midwest's Environment and Natural Heritage
In 2008, Mississippi River environmental groups petitioned U.S. EPA to protect the Mississippi River and Gulf of Mexico by establishing numeric water quality criteria and TMDL’s for nitrogen and phosphorus:

“It is clear that action by EPA is needed now—not simply more studies, reports, task forces and conferences…EPA should establish numeric nutrient standards to control nitrogen and phosphorus pollution…to protect the Gulf of Mexico and the mainstem of the Mississippi.”
In July 2011, the EPA denied the petition, but did not determine that numeric criteria were “not necessary”:

“The EPA agrees that N and P pollution presents a significant water quality problem facing our nation…”

HOWEVER …

“The EPA believes that the most effective and sustainable way to address widespread and pervasive nutrient pollution …is to build on” existing technical support efforts “and work cooperatively with states and tribes to strengthen nutrient management programs.”

“In taking this action, the EPA is not determining that numeric nutrient criteria are not necessary to meet CWA requirements…”
In March 2012, the Gulf Restoration Network and ten other Mississippi River environmental groups filed a federal complaint in the Eastern District of Louisiana:

“EPA’s denial of Plaintiff’s Petition fails to provide reasons for the denial that conform to the relevant statutory factors in Section 303(c)(4)(B) of the CWA, in that it does not provide reasons why revised or new water quality standards to address nutrient pollution in the Mississippi River Basin are not ‘necessary to meet the requirements of the CWA.””
In September 2013, granted Plaintiff’s Motion for Summary Judgment, in part, and remanded the issue to EPA:

“EPA could not simply decline to make a necessity determination in response to Plaintiff’s petition…”

HOWEVER …

“Nothing in the authorizing statutory text of the CWA expressly precludes EPA from considering the very factors that it cited in the Denial.”

“EPA shall respond to Plaintiff’s rulemaking petition … within 180 days from entry of this Order.”
Issue #2: Water Quality Trading

Farm installs best management practice to generate credit

Permitted source buys credit to meet regulatory requirement

Source: Electric Power Research Institute
EPA supports trading in concept

• Water Quality Trading Policy
  “EPA believes that market-based approaches such as water quality trading provide greater flexibility and have potential to achieve water quality and environmental benefits greater than would otherwise be achieved under more traditional regulatory approaches.”
  (Jan. 2003)

• Water Quality Trading Toolkit
  “The Toolkit is intended to facilitate trading by providing NPDES permitting authorities with the tools they need to facilitate trading and to authorize and incorporate trading in NPDES permits”
  (June 2009)
Where is it happening?

Source: Environmental Trading Network
Wisconsin phosphorus rules

- Phosphorus criteria adopted in 2010 (NR 102)
- “Implementation procedures” include trading provisions (NR 217)
- Trading guidance adopted in 2013
- 4 year, $3 million pilot program underway in Yahara River watershed, led by Madison Sewage District, City of Madison, and Dane County
Ohio River Basin Trading Project

- Interstate trading platform across 8 Ohio River basin states (includes 230,000 farms)
- Funded and organized by EPRI
- Includes both N & P credits
- “Pilot trades” in 2013-2015 (focus on OH, IN, and KY)
- BMPs beginning to be installed in Middle Ohio watershed.
Challenges

• Philosophical opposition to market-based regulation.
• Many states lack an effective “cap” or other regulatory driver.
• May be difficult to incorporate trades into state CWA programs.
  – Permitting?
  – Public participation?
  – Enforcement?
Nutrient Trading Resources

- EPA Trading Policy Statement
- EPA Water Quality Trading Toolkit for Permit Writers
  - [http://water.epa.gov/type/watersheds/trading/WQTToolkit.cfm](http://water.epa.gov/type/watersheds/trading/WQTToolkit.cfm)
- Chesapeake Bay TMDL Appendix S
- Ohio River Trading Program (EPRI)
- World Resources Institute’s *Nutrient Trading In the MRB*
- Willamette Partnership’s *In It Together* series and *Opportunities for Action*
Thank you.

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