

Examples of Corn Grower TMDL Success Stories – April 23, 2008

Aquilla Reservoir, TX

Herbicide Atrazine, threat to drinking water supply and recreation, from

- Small urban areas
- Corn and sorghum fields covered 40% of watershed

Partners:

- TX Dept. of Agriculture
- TX Dept. of Environmental Quality
- TX Farm Bureau
- TX State Soil and Water Conservation District
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
- Brazos River Authority

Process included:

- Reservoir listed in 1998
- TMDL established in 2002
- Even before TMDL, best management practices (BMPs) included (voluntary efforts w/ Clean Water Act & Farm funding):
 - Integrated Pest Mgmt
 - Constructing filter strips
 - Ed and outreach

Success:

- 60% drop in atrazine in first year
- TX removes Aquilla Reservoir from impaired waters list

Benefits to participants:

- Public water supply use restored
- Fish and wildlife habitat uses restored
- \$2.8 M in Clean Water Act section 319 and non-federal matching funds
- \$1.9 M USDA NRCS cost-share assistance to producers

Sources:

Texas Commission on Environmental Quality, “Aquilla Reservoir: A TMDL Project for Atrazine”. Available at <http://www.tceq.state.tx.us/implementation/water/tmdl/10-aquilla.html>. Accessed November 28, 2007.

USEPA. “Section 319 Nonpoint Source Success Stories” [Aquilla Reservoir, Texas (June 2006)]. Available at <http://www.epa.gov/owow/nps/Success319/>. Accessed November 29, 2007.

South Branch Yellow Medicine River, MN

Fecal coliform

- Agricultural cropping and animal production

Partners:

- Lincoln County
- Lyon County
- Yellow Medicine County Soil and Water Conservation District

Process included:

- TMDL established in 2004
- 88 BMPs implemented, including:
 - Stream buffer initiative
 - Drain tile initiative
 - Accelerated adoption of rotational grazing
 - Conservation tillage strategy

Success to date:

- Reduction of soil loss of 1,214.4 tons/year
- Phosphorus reduction of 1,015 lbs/year

Benefits to participants:

- \$251,608 – Clean Water Partnership Grant and \$625K loan
- \$190K – Clean Water Act section 319 funds and services

Sources:

Yellow Medicine River Watershed District. *South Branch Yellow Medicine River Fecal Coliform Total Maximum Daily Load Report Implementation Plan*. September 27, 2005, Available at <http://proteus.pca.state.mn.us/publications/wq-iw7-01c.pdf>. Accessed November 30, 2007.

Yellow Medicine River Watershed District. *Yellow Medicine River Watershed: Parts of Lincoln, Lyon, and Yellow Medicine Counties*. Available at <http://www.ymrwd.org/Montevideo.pdf>. Accessed November 26, 2007.

Yellow Medicine River Watershed District and David J. Schuler. *South Branch Yellow Medicine River Fecal Coliform Total Maximum Daily Load Report*. September 2004. Available at <http://proteus.pca.state.mn.us/publications/wq-iw7-01e.pdf>. Accessed November 28, 2007.

Lower Mississippi River Basin, MN

Fecal coliform

- Primary contact / swimming use impaired
- Watershed spans 17 counties; 7,266 square miles
- Two-thirds of land is cultivated

Partners:

- Southeast MN Water Resources Board
- Eight counties
- Hiawatha Valley Resource Conservation and Development and South East Soil and Water Conservation District
- Technical Joint Powers Board
- Cannon River Watershed Partnership
- US and MN Departments of Agriculture

Process included:

- TMDL established in 2002
- Implementation included:
 - Accelerated adoption of rotational grazing
 - Manure management planning
 - Conservation tillage strategy
 - Landscape buffer initiative

Success to date includes:

- 47 homeowner education classes
- 20 newsletters / newspaper articles
- 20 small community wastewater process trainings
- Technical assistance and cost share for four feedlot improvements
- 80 manure management plans developed
- 1,800 acres of buffers installed
- Over 90 septic systems brought into compliance

Source:

Cannon River Watershed Partnership and Minnesota Pollution Control Agency. *Lower Mississippi River Basin Fecal Coliform Implementation Plan*. February 2007. Available at <http://proteus.pca.state.mn.us/publications/wq-iw9-02c.pdf>. Accessed April 23, 2008.

Bass Lake, WI

Phosphorus, low dissolved oxygen levels, fish kills from

- Runoff from cropland
- Runoff from livestock barnyards

Partners:

- Marinette County Land and Water Conservation Dept. (LWCD)
- US Fish and Wildlife Service
- WI Department of Natural Resources
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
- Town of Beaver
- Landowners

Process included:

- Water listed as impaired in 2002
- LWCD worked with landowners to install:
 - manure storage facilities
 - roof runoff controls
 - clean water diversions

Success:

- Lake can be removed from WI impaired waters list

Benefits to participants:

- No more heavy algal blooms
- Water clarity continues to improve
- No fish kills, and fish population appears healthy
- \$195K -- from State Stewardship Fund / Clean Water Act section 319 funding
- 40% of project costs (best management practices) covered by 319

Source:

USEPA. "Section 319 Nonpoint Source Success Stories" [Bass Lake, Wisconsin (September 2005)]. Available at <http://www.epa.gov/owow/nps/Success319/>. Accessed November 29, 2007.

Bokes Creek and Powderlick Run, OH

Nutrients, sedimentation, and habitat degradation from

- Mainly agricultural and storm runoff related

Partners:

- DayLay Egg Farm
- Oxbow Stream Restoration
- City of Columbus
- Union County Soil and Water Conservation District
- Scioto River Federation
- OH EPA

Process included:

- 1998 303(d) listing
- TMDLs established for phosphorus, sediment in 2002
- Implementation included:
 - Filter strips (egg farm)
 - Watershed coordinator completed watershed plan
 - Natural channel design
 - Stream bank seedling / shrub planting
 - Habitat restoration with riffles, boulders, etc.

Success:

- Bokes attaining water quality standards; Powderlick Run is very close to attaining aquatic life uses.

Benefits to participants:

- \$189K – Clean Water Act section 319 funds and matching funds from city and Oxbow Stream Restoration
- Additional funding from OH EPA

Source:

Ohio Environmental Protection Agency. *Ohio Section 319 Success Story*. February 2, 2007.

Available at

<http://www.epa.state.oh.us/dsw/nps/319DOCS/Bokes%20Creek%20Water%20Quality%20Enhancement%20Project.pdf>. Accessed November 29, 2007.