

# Biennial Report of the **Clean Water Council**



Preliminary Report

December 2012





# Biennial Report of the Clean Water Council

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This report fulfills Clean Water Legacy Act requirements for the Clean Water Council to submit a biennial report to the Legislature by December 1 of each even-numbered year (Minnesota Laws 114D.30) on activities in the current biennium and recommendations for Clean Water Fund appropriations for the next biennium, as well as other information.

This preliminary report will be finalized in January of 2013 to account for any year-end adjustments to the official revenue forecast by Minnesota Management and Budget for the Clean Water Fund, which may require revisions to the Council's FY14-15 budget recommendations.

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## List of acronyms

- AgBMP** agricultural best management practices
- BMP** best management practice
- BOC** Budget and Outcomes Committee
- BWSR** Minnesota Board of Water and Soil Resources
- CE** civic engagement
- CEC** contaminants of emerging concern
- CWA** Clean Water Act
- CWC** Clean Water Council or Council
- CWF** Clean Water Fund
- CWI** County Well Index
- CWLA** Clean Water Legacy Act
- CWP** Clean Water Partnership
- DNR** Minnesota Department of Natural Resources
- EPA** U.S. Environmental Protection Agency
- FTEs** full-time equivalents
- FY** fiscal year
- IBI** index of biological integrity
- LCC** Legislative Coordinating Commission
- LiDAR** Light Detection and Ranging
- Met Council** Metropolitan Council Environmental Services
- MDA** Minnesota Department of Agriculture
- MDH** Minnesota Department of Health
- MGS** Minnesota Geological Survey
- MMB** Minnesota Management and Budget
- MPCA** Minnesota Pollution Control Agency
- OLA** Office of Legislative Auditor
- PFA** Public Facilities Authority
- RFP** Request for Proposals
- SSTS** subsurface sewage treatment system
- SWP** source water protection
- SWCD** Soil and Water Conservation District
- TMDL** total maximum daily load
- USDA** U.S. Department of Agriculture
- WD** watershed districts
- WHP** wellhead protection program
- WRAPs** watershed restoration and protection strategies

# Clean Water Council Members September 2012

## The Clean Water Council

The Clean Water Council was established by the Clean Water Legacy Act in 2006 to advise the Legislature and the Governor on the funding and administration of state programs to restore and protect Minnesota's waters. Its diverse membership represents interests and organizations with a major role in achieving clean water, enabling consensus-building and coordination on a wide array of issues critical to the people of Minnesota.

The Clean Water Council consists of 28 members:

- 19 voting members appointed by the Governor (see affiliations in caption below).
- 9 non-voting members: five from the following state agencies (one each) – Department of Agriculture, Board of Water and Soil Resources, Department of Health, Department of Natural Resources, and Pollution Control Agency; and four legislative members – two from the Minnesota House of Representatives and two from the Senate.

**Left to right, back row:** John Harren (Freeport) – cities; Frank Jewell (Duluth) – rural counties; Matthew Wohlman – Department of Agriculture; Warren Formo (Eagan) – statewide farm organization; Patrick Flowers (Forest Lake) – businesses; Dave Leuthe – Department of Natural Resources; Gary Burdorf (Arlington) – township officials; Mark Knoff (Mankato) – cities; John Underhill (Rochester) – fishing organization

**Left to right, middle row:** Marilyn Bernhardson (Redwood Falls) – soil and water conservation districts; Scott Hoese (Mayer) – statewide farm organization; Keith Hanson (Duluth) – businesses; Louis Smith (Minneapolis) – lakes and streams nonprofit organization; Mike McKay (Red Wing) – environmental organization; Todd Renville (Minneapolis) – statewide hunting organizations

**Left to right, front row:** Gaylen Reetz – Pollution Control Agency; Linda Bruemmer – Department of Health; Pam Blixt (Minneapolis) – watershed districts; Sandy Rummel (White Bear Lake) – Metropolitan Council; Victoria Reinhardt (White Bear Lake) – metro-area counties; Deb Swackhamer (Stillwater) – state higher education system; Gene Merriam (Coon Rapids) – environmental organization

**Not pictured:** Steve Woods – Board of Water and Soil Resources; Bradley Kalk (Onamia) – tribal governments, Rep. Paul Torkelson, Rep. Kent Eken, Senator John C. Pederson, Senator Dan Sparks.

Many thanks to our former members who left the Council over the past two years: Gary Pedersen (Dover)—township officials, Steve Pedersen (Coon Rapids)—business organizations.

In memory of Dave Bennett (1946-2011), we express our heartfelt appreciation for his dedicated leadership in representing fishing organizations since the Council's inception in 2007.



## Executive Summary

The Clean Water Council's (Council) charge is to provide advice to the Legislature and the Governor on the administration and funding of programs to protect and restore Minnesota's waters. The Council is required to submit a report on activities and Clean Water Fund appropriation recommendations to the Legislature by December 1 of each even-numbered year.

The Clean Water Fund was created following voter approval of the Clean Water, Land and Legacy Amendment to the state's constitution in 2008. It receives one-third of the state sales tax portion dedicated to Legacy funding that is appropriated by the Minnesota Legislature.

This December 2012 report will be updated when the year-end revenue forecast for the Clean Water Fund is announced by the Minnesota Management and Budget (MMB). The Council will adjust its budget recommendations at that time to meet the new revenue target.

Important progress has been made over the past four years in implementing Clean Water Fund-supported programs, but this is a long-term effort and much more needs to be done to protect and restore our surface and groundwater resources.

To ensure continued progress, the Council has provided detailed biennial recommendations totaling \$185 million – the level of the latest forecast – to be appropriated from the Clean Water Fund in FY14-15. These recommendations are for activities in the following categories:

- **Monitoring and assessment: continue steady funding levels** – the Council recommends total funding for this category of activities at \$22.6 million. Steady funding levels are needed to systematically determine the health of Minnesota's surface waters over 10 years, the first cycle of which ends in 2017. Funding recommendations include intensive watershed, streamflow and pesticide monitoring.
- **Watershed restoration and protection strategies (WRAPs): continue steady funding levels** – the Council recommends funding for this category at \$22.5 million. The WRAP strategies are essential to a successful 10-year watershed approach by establishing federally-required total maximum daily loads (TMDLs) to restore impaired waters and targeting opportunities to protect non-impaired waters.
- **Groundwater and drinking water protection: increase funding levels** – the Council recommends funding at \$23.0 million, which fulfills the Legacy Amendment's requirement that at least five percent of the Clean Water

Fund be targeted to protect drinking water sources. The Council supports funding for a variety of activities, ranging from source water protection and nitrate reduction activities to groundwater monitoring and sealing of unused wells.

- **Nonpoint and point source implementation activities: increase funding levels.** The Council recommends funding for this category at \$105.1 million. The Council recognizes there are vast needs for resource protection and restoration activities, and also understands continuing needs to improve infrastructure to meet wastewater and stormwater treatment requirements. Dollars invested in implementation programs effectively leverage much more funding; each dollar invested in implementation programs in FY10-11 leveraged another \$1.45 million from local, federal and private sources. In addition, a key priority for the Council in the FY14-15 budget is to build the capacity of local government to deliver effective nonpoint source programs and funding has been designated for this purpose.
- **Applied research and tool development: increase funding levels.** The Council recommends funding of \$11.7 million for this category to develop tools and applied research that target critical areas ensuring implementation efforts are effective. Activities include research on precision conservation, improving agency and public access to water information through improved databases, and stormwater research and guidance.
- **Education and civic engagement activities: increase funding levels.** The Council strongly supports increased funding for this category, but recommends that funding for most civic engagement activities be integrated into existing clean water projects, rather than a separate budget activity. Efforts should focus on stakeholders whose behavior can have the most significant impact on improving water quality.
- **Clean Water Council administration.** The Minnesota Pollution Control Agency (MPCA) is required by statute to provide administrative support for the Council. To adequately meet this need, the Council recommends funding of \$230,000 for staffing, council meeting costs, per diem reimbursements, and other expenses.

## Introduction and Purpose

This report fulfills the requirements of the Clean Water Legacy Act (Minnesota Laws 114D.30) for the Council to submit:

- A biennial report to the Legislature on the activities for which money has been or will be spent for the current biennium, and the activities for which money is recommended to be spent in the next biennium. This charge was further revised by the Legislature in 2011 to include appropriation recommendations to the Governor and the Legislature for the Clean Water Fund. The Clean Water Fund's monies are earmarked to protect, enhance, and restore water quality in lakes, rivers, streams, and groundwater with at least five percent of the fund spent to protect drinking water sources.
- The report should also address the impact on economic development of the implementation of efforts to protect and restore groundwater and the impaired waters program.

The Council's recommendations were developed with stakeholder and public input over the last two years to improve the effectiveness and coordination of the state's water management system and its three basic components: monitor and assess existing water quality, restore and protect surface water, groundwater and drinking water, and guide implementation activities.

These activities take time to complete and environmental outcomes are not immediate. However, staying the course and allowing the system to work is necessary to maintain the integrity and purpose of the 2008 Clean Water, Land and Legacy Amendment to the Constitution.

This report will be updated in January 2013 to account for any year-end adjustments to the official revenue forecast for the Clean Water Fund by MMB.



## Clean Water Council Activities and Priorities

Since its 2010 Legislative Report, the Council has continued to increase its knowledge on statewide water issues and how to most effectively invest Clean Water Fund monies.

It gathered input from stakeholders, the public, local and national experts, and conducted field tours in Duluth and Carver County to learn about issues first hand.

The input received enabled the Council to determine appropriate funding levels, program priorities and efficiencies. See the [Council's website](#) for more information on all meeting topics.

### Activities and Priorities for 2011-12

The Council focused on the following priorities in its 2011-12 work plan:

- **Targeted Implementation:** The Council devoted a large portion of their work over the past two years to understand the tools and research used to determine where on-the-ground improvement and protection approaches are working and not working from nonpoint sources in Minnesota. Local and national experts provided a number of presentations to help build understanding of opportunities to improve effectiveness. Discussions ranged from precision conservation and targeting tools to lessons learned on the implementation efforts of local, state and national organizations. This extensive input helped guide their implementation-related budget recommendations.
- **Accountability and Outcomes:** The Council has had a long-term focus on improving the accountability of our state's water programs to achieve efficient and effective outcomes. They provided regular feedback to an interagency team charged with tracking the results of Clean Water Fund investments (detailed on page 13) which released its first report in February 2012. In addition, the Council provided ongoing review of the results and outcomes of Clean Water Legacy Act activities funded by the Clean Water Fund, and provided input on the new Legacy website, maintained by the



*In August of 2012, the Council learned about innovative best management practices in Carver County to address a variety of nonpoint pollution issues. Shown above is a visit to Hoese Dairy, a five-star certified dairy operation under the Livestock Environmental Quality Assurance program to recognize excellence in environmental stewardship. Photo by Erica Hoese Photography*

Legislative Coordinating Commission. Finally, they studied the findings of the 2011 evaluation of the Legacy amendment, conducted by the Office of Legislative Auditor and followed the report's recommendations that the Council develop a more robust conflict of interest policy.

- **Groundwater and Drinking Water:** The Council received presentations from state agencies and the Metropolitan Council to learn what is known about the quantity and quality of groundwater and drinking water, the connectivity between surface water and drinking water, and the roles and responsibilities of each agency as they relate to groundwater and drinking water management. They also discussed source water protection planning, as well as tools and approaches for protecting public water supplies.
- **Applied Research and Tool Development:** The Council investigated research needs and tool development to guide budget recommendations. They heard presentations from the University of Minnesota, state agency and other experts, including reports on Minnesota Department of Agriculture's (MDA) Clean Water Research Program, stormwater research and tools, and precision conservation to effectively target conservation practices and resources.
- **Education and Civic Engagement:** The Council's goal over the past two years was to evaluate and recommend strategies to improve education and civic engagement in water quality activities. Their work focused on how to support civic engagement through existing projects and getting the point of view of local government practitioners and University of Minnesota researchers on keys to success. They will continue this learning process this year as a comprehensive evaluation on Clean Water Fund-supported civic engagement projects is completed by the Minnesota Pollution Control Agency (MPCA).
- **Building Local Capacity:** Over the past year, the Council sought to understand the challenges of local government to effectively deliver water quality programs, particularly to address nonpoint source pollution. This issue was a key goal in their budget development process and they solicited comments from stakeholders and the public over the past four months to generate ideas on how to help meet this need.



# Summary of Clean Water Fund Progress and Activities for FY12-13

The following are selected highlights of activities from FY12-13. In addition, each state agency maintains a comprehensive list of its activities and contact information can be found on the Council's website. See the inside front cover of this report for the web address.

Recommendations support funding for existing programs administered by the following seven agencies: Minnesota Pollution Control Agency (MPCA), Minnesota Department of Agriculture (MDA), Public Facilities Authority (PFA), Minnesota Department of Natural Resources (DNR), Board of Water and Soil Resources (BWSR), Minnesota Department of Health (MDH) and Metropolitan Council (Met Council).

It is important to note that these activities mark incremental progress toward outcomes; final success can take several years or even decades to achieve depending on the severity of the problem. Additionally, the Clean Water Fund (CWF) is an important portion of the water management funding picture in Minnesota, but it is also supported by other federal, state and local programs that fund ongoing efforts to preserve and restore Minnesota's water resources.

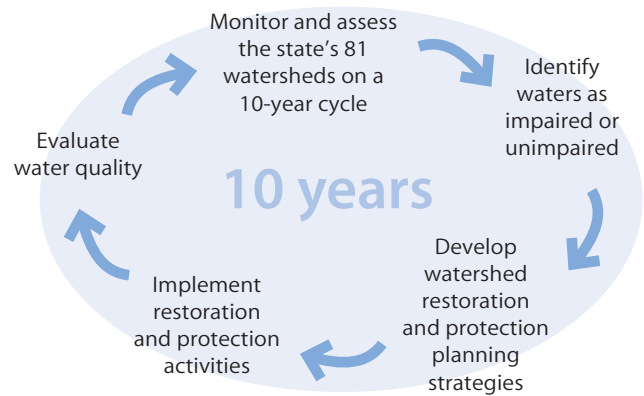
## Monitoring and assessment

Required by the federal Clean Water Act, monitoring and assessment examines the current condition of the state's waters and determines whether they meet established water quality standards. With more than 11,800 lakes and 105,000 miles of streams and rivers in the state—the most in the lower 48 states—this is an enormous task. The state's "watershed approach" is a strategy to assess the condition of Minnesota's waters via a 10-year cycle relying on a combination of state agency monitoring; monitoring by other local, and federal agencies; citizen monitoring; and remote sensing. The idea behind the watershed approach is to intensively monitor the streams and lakes within a major watershed to determine the overall health of the water resources, identify impaired waters (i.e., waters that do not meet standards and need restoration), and identify those waters in need of additional protection efforts to prevent impairments. This monitoring data is used to get an understanding of the overall health trends of Minnesota's waters.

## Highlights

- **Intensive watershed monitoring:** At the conclusion of the 2012 field season, monitoring work on 42 of the state's 81 major watersheds was completed. Overall work is on pace and 52 percent of the state's major watersheds

## Watershed Restoration and Protection Process



have been monitored or monitoring is underway. We expect that the first cycle of monitoring all of the state's watersheds will be complete in 2017, and a new cycle will begin in 2018.

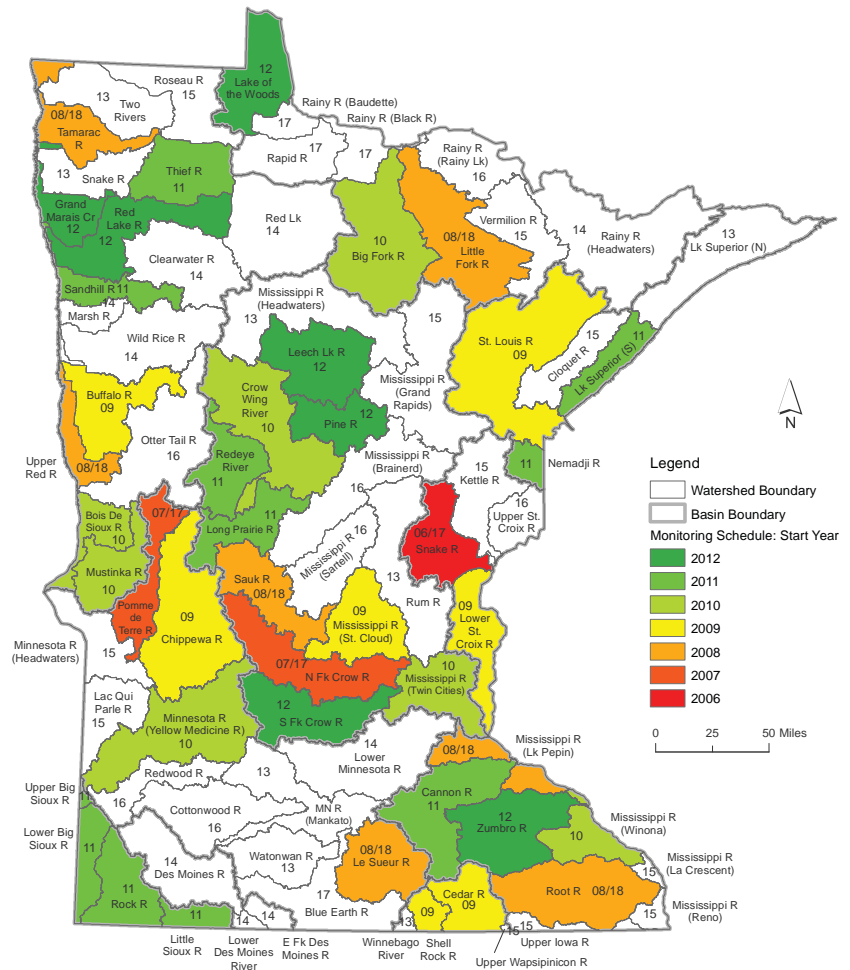
- **Pollutant load monitoring:** Characterizing water quality in all watersheds, this continued for the sixth year at the outlets of the state's major watersheds and has begun expanding to the minor watershed level.
- **Surface water assessment grants:** To significantly supplement statewide monitoring, since the inception of the CWLA, 152 Surface Water Assessment Grants and load monitoring grants totaling nearly \$8 million have been awarded to local government units and nonprofit organizations. Additionally, the Red River Basin Riverwatch program has received another \$746,000 in dedicated appropriations.
- **Pesticide monitoring:** Clean Water funding has increased the capability and capacity of MDA's pesticide monitoring program by purchasing a new analytical instrument in the MDA lab. Approximately 1,600 pesticide samples were submitted for analysis during 2010 and 2011, an increase of 600 samples per year as compared to 2009. For each sample, MDA can detect and quantify 110 different pesticides – an increase of 66 analytes compared to the previous methods.
- **Stream flow monitoring:** 240 stream flow gages were monitored to provide watershed information for the 81 major watersheds. Stream flow data are used to help establish total maximum daily load (TMDL) limits and provide an understanding of how water flows off the landscape.

# Watershed Monitoring and Restoration Process

The primary organizing approach to condition monitoring is the “major” watershed. There are 81 major watersheds in Minnesota.

## A ten-year cycle

The MPCA has established a schedule for intensively monitoring each major watershed once every ten years, and the watershed outlets every year.



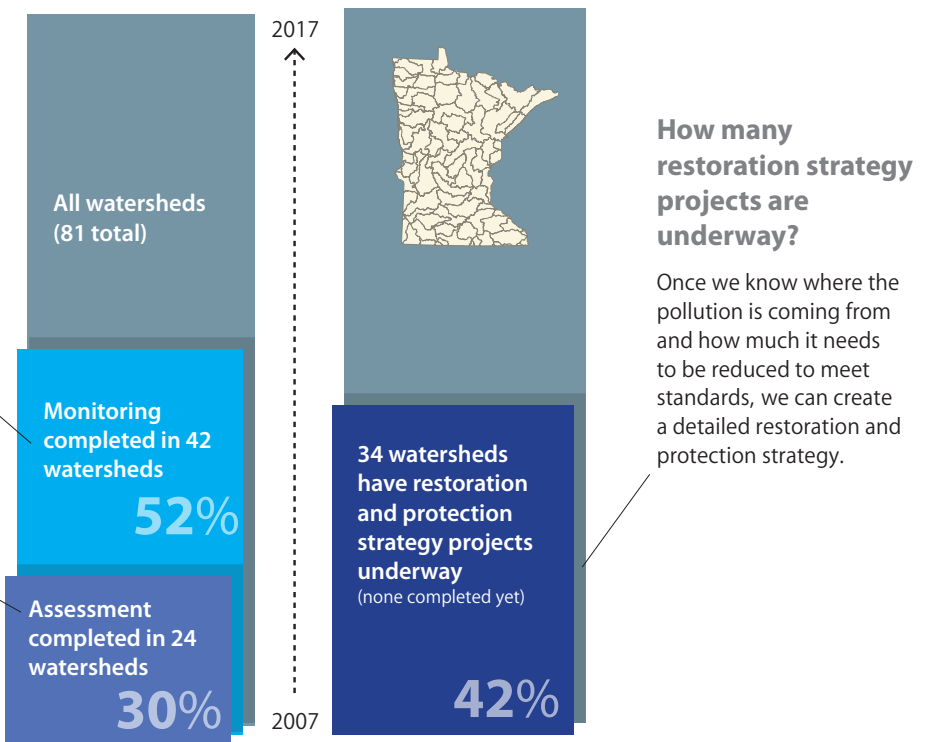
## Status of watershed approach

### How much has been tested?

Over the last four years, we have increased our monitoring efforts. To date, 52 percent of major watersheds are completely monitored. By 2017, we expect to have **all watersheds** monitored. In 2018, the cycle starts again to help us see if water quality has improved.

### How much has been analyzed?

We use the information we gather from monitoring to determine if **water quality standards** are being met to protect public health, recreation, and aquatic life.



### How many restoration strategy projects are underway?

Once we know where the pollution is coming from and how much it needs to be reduced to meet standards, we can create a detailed restoration and protection strategy.

- **Fish mercury assessments:** Clean Water funds allow fish mercury assessments on 80 sites annually; Game and Fish Fund revenues allow assessment of an additional 70 sites. With this information, the status of mercury-impaired waters and the outcomes of mercury reduction efforts can be tracked over time.
- **Fish IBIs:** Fish index of biological integrity (IBI) surveys assess the health of the overall fish community. In coordination with MPCA, DNR has developed tools for incorporating fish IBI information into the watershed assessment process and lakes will be continually be assessed on a 10-year cycle. To meet current watershed assessments, in FY12, 167 fish IBI surveys were completed by DNR on lakes throughout the state. In FY13, 128 fish IBI surveys have been completed, and approximately another 55 will be completed.

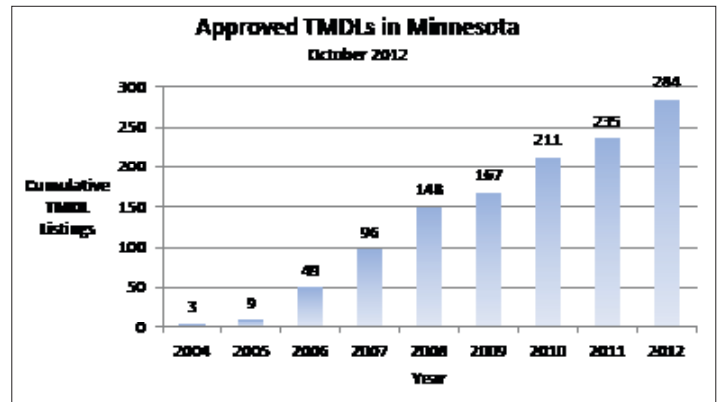
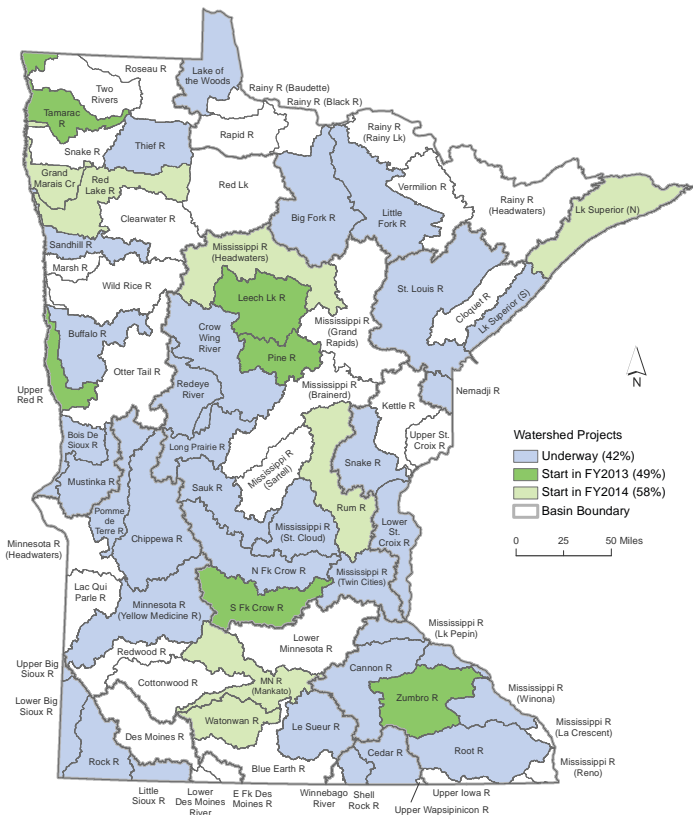
## Watershed restoration and protection planning strategies

Based on the results of watershed monitoring and assessment activities, a watershed strategy is developed. This includes: a federally required TMDL study to calculate needed pollutant reductions to restore impaired waters, and a protection strategy for maintaining and improving unimpaired

waters. Existing local water plans and water body studies are incorporated into the process. An overall water quality framework which details restoration and protection strategies is developed for each watershed with input from stakeholders and the public.

### Highlights

- **WRAP strategy development:** WRAP strategy development is underway in 34 of 81 watersheds statewide (42 percent). Six more watershed projects will start in 2013 and seven more in 2014, which means that 58 percent of the watershed strategies will have begun.
- **TMDL development:** Approximately 65 percent of all 2010 listed impairments (1,756 waters statewide) have TMDL projects underway or are in the implementation phase.
- **TMDL support:** The DNR accelerated stream geomorphology work to better understand the impacts of erosion and sediment on impaired waters and to effectively target TMDL studies for rivers.



As of October 2012, Minnesota has completed TMDL projects totaling 284 listed impairments.

## Groundwater and drinking water protection activities

These programs and activities are designed to ensure safe and sufficient drinking water for all Minnesotans through a strategic series of safeguards from source to tap.

### Highlights

- **Central Sands private well networks:** Nitrate analysis of 1,555 private wells was completed and a subset of participating homeowners has been selected to participate in long-term monitoring in the Central Sands region of Minnesota. Results will provide a better understanding of nitrate trends in the region and be used to educate private well-owners about the quality of their drinking water.

- **Nitrate water testing program:** The Nitrate Water Testing Program has provided free testing services and educational outreach to more than 2,000 families in 41 counties across Minnesota. The goal of the program is to increase public awareness of nitrates in rural drinking water supplies. Results from the testing not only educate participants but may also provide some broad information on the occurrence of nitrate 'hotspots' across the state.
- **Accelerated source water protection:** The CWF has allowed MDH to accelerate source water protection (SWP) work with communities that would have otherwise taken several decades to complete. Results are on track to meet the goal of having all 950+ community public water supplies engaged in SWP by 2020. In fiscal year 2012 (FY12), CWFs supported MDH technical assistance for SWP planning to 161 communities. Grants awarded for on-the-ground SWP activities in FY12 totaled \$0.5 million or 36 percent of the CWF dollars appropriated for accelerated SWP. Cumulative grants since April 2010 total \$1.3 million. Dollars leveraged by these grants come to \$0.9 million.

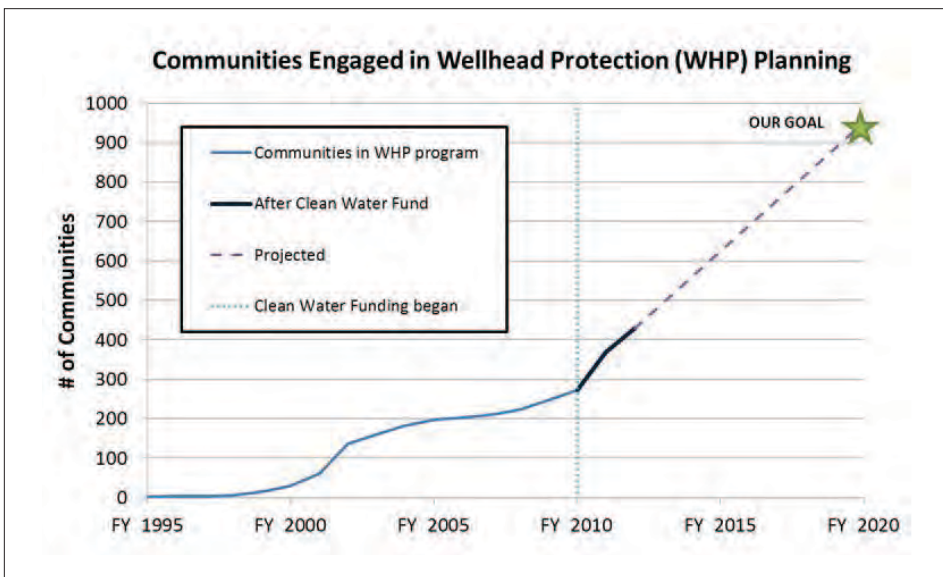
order to more efficiently submit, manage and access information about wells.

- **Well sealing cost share:** A total of \$176,575 was provided to six counties and three soil and water conservation districts (SWCDs) through BWSR to help well owners permanently seal over 200 unused wells. Sealing unused wells protects groundwater and reduces the potential threat posed by contaminated groundwater to the health of residents in these areas.
- **Contaminants of emerging concern:** In fiscal year 2012, staff completed full reviews of five "contaminants of emerging concern" (CEC) and initial evaluations of 22 contaminants for possible future review. The resulting guidance is used by multiple stakeholders to understand the implications of unregulated contaminants in the waters of the State. For example, the guidance for microcystin, a toxin sometimes released by blue-green algae, resulted in a citizen friendly information sheet, targeted protection efforts and research on effective treatment when lakes are the source for the drinking water.
- **Groundwater assessment:** The enhancements to the State's groundwater monitoring network

continued to progress during FY12-13. This network serves as an early warning network for contamination to groundwater and provides an improved understanding of how to protect our groundwater supplies. State agencies have coordinated groundwater work that included a number of efforts in FY12 such as:

- 24 new monitoring wells were installed by MPCA in FY12 to monitor for an extensive suite of non-agricultural contaminants including CECs.
- Clean water funding is being used by the MDA to increase the analytical capabilities for the analysis of pesticides in surface water and groundwater. A new analytical instrument provides for an increased number of samples and an increased list of analytes at lower detection levels.

- DNR has installed 62 new wells and established automated data collection on 300 wells that will improve enhanced understanding, management and protection of our drinking water sources.



- **County well index enhancement:** Records in the county well index provide well construction and other information for local and state agencies and the public. Over 2,500 backlogged well records have been entered by MDH and the Minnesota Geological Survey. Over 3,000 existing well records have been updated, including accurate well locations. With input from internal and external users, efforts are underway to update the database and user applications in



**Before:** Significant erosion from the Utica Ravine in the City of Savage was a large source of sediment to the turbidity-impaired Credit River.

- o This monitoring and assessment information links closely with MDH drinking water protection efforts listed in this section and enables state and local partners to better manage and protect our drinking water supplies.
- **Metropolitan area water supply plan implementation:** Four projects in the Twin Cities metropolitan area are improving the base of technical information regarding the vulnerability of drinking water to urban land use activities. Projects to study the impacts of stormwater practices on groundwater quality, to assess opportunities and barriers for water conservation by private industrial users, and to update the regional recharge model will be complete by the end of the fiscal year. Work to update the regional groundwater flow model will continue through June 2014. Results support community planning required by the Metropolitan Land Planning Act.

**Nonpoint source implementation activities**

Nonpoint source implementation includes programs and actions directed at preventing polluted runoff from fields, streets, lawns, roofs and other similar sources. Partnerships with state agencies and various local units of government, including watershed districts, municipalities, and SWCDs, are critical to implement these water quality activities. Dollars invested in some implementation programs effectively leverage much more funding from other sources in private, local and federal match requirements.



**After:** Scott WMO, working with the City of Savage and Scott SWCD, received \$130,000 from the Clean Water Fund to install this BMP to stabilize the Utica Ravine, and help restore the Credit River.

**Highlights**

- **Leveraging and results:** Since the beginning of the CWF, BWSR has awarded nearly \$45 million, and has leveraged an additional \$44 million through federal and local partnerships. This funding has resulted in:
  - o 1,280 land and water treatment practices completed
  - o 187 easements that will permanently protect more than 1,486 acres of native buffer in 23 counties
  - o 60 feedlots fixed, eliminating runoff to nearby streams
  - o 2,095 acres of native buffers established along waterways
  - o 141 septic systems replaced, preventing more than 10 million gallons of sewage per year from entering waterways
- **Restoration and protection implementation grants:** In FY1012, \$16.6 million in competitive state grants were awarded to local governments. Total requests for projects were approximately three times greater than available funds.
- **Permanent conservation easements:** Up to \$6 million is being allocated by BWSR for permanent conservation easement projects to establish buffer strips adjacent to public waters and up to \$1.3 million for conservation easements in wellhead protection areas.
- **AgBMP Loan program:** To date, \$4.7 million in loans were awarded by MDA to local governments, supporting more than 250 water quality projects.

- **Technical assistance including “edge-of-field water quality monitoring”:**

MDA provides assistance, resources, technology, and services in support of the local delivery system. MDA’s technical assistance aims to get information and tools into the hands of individuals working on project planning and implementation at the local level.

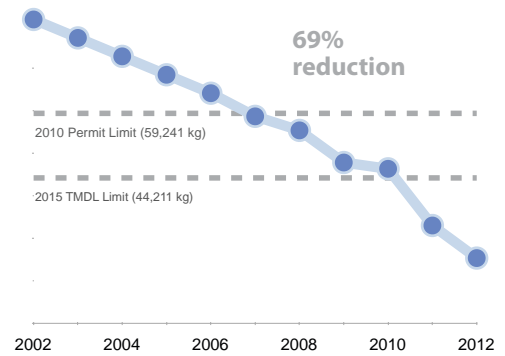
- MDA also conducts edge-of-field monitoring that provides water quality data for multiple demonstration projects including Discovery Farms Minnesota and the Root River Field to Stream Partnership. These sites provide accurate scientific data that can be used to inform on-farm management decisions. The MDA works in partnership with SWCDs and Watershed Districts (WD) to conduct this type of monitoring.

### Point source implementation activities

The focus of point source implementation activities is to improve municipal wastewater and stormwater treatment to meet pollution reductions called for by TMDLs, upgrade aging infrastructure, and to help small communities invest in new infrastructure. As with nonpoint source programs, these programs effectively leverage additional funding which will add to resources available for projects.

### Phosphorus in wastewater flowing into the Minnesota River

The MPCA regulates the amount of phosphorus discharged from **wastewater treatment** facilities. Over the last 10 years, **significant reductions** have been made. Excess phosphorus stimulates growth of algae, which can make waters unsuitable for swimming and fishing. Phosphorus comes from both point (e.g. industrial discharges) and non-point (e.g. farm land and urban areas).



### Highlights

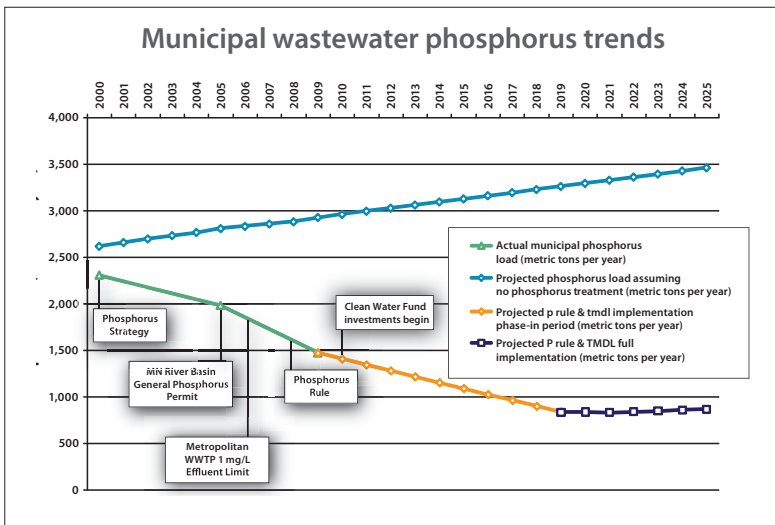
- **TMDL or Phosphorus Reduction Grants:**
  - For FY12, eight awards, totaling \$7.8 million, has leveraged more than \$8.4 million in other project funding.
  - For FY13, PFA has received applications for 21 TMDL grant applications for \$21.6 million and four Phosphorus Reduction grant applications for \$1.4 million.
- **Small Community Wastewater Treatment Grant and Loan Program:**
  - For FY12, three technical assistance grants awarded for \$81,000 to address non-conforming Subsurface Sewage Treatment Systems (SSTS) in unsewered communities.
  - For FY13, there are 21 active technical assistance grants in process with estimated construction costs of \$11 million, as well as three unsewered communities who are seeking technical assistance grants.

### Applied research and tool development activities

The goal of this activity is to inform the Council on research needs and tool development to develop future CWF investment recommendations.

### Highlights

- **LiDAR completion:** In FY12, DNR completed acquisition, publication, and distribution of LiDAR (Light Detection and Ranging) data which will complete statewide coverage of high resolution digital elevation data for use in models and conservation targeting tools. Development of a web-based map application that presents elevation data that can be viewed on standard computers or mobile devices.



*Estimated statewide reductions in phosphorus from municipal wastewater treatment facilities since the year 2000 and projections of future reductions based on current permitting policies, implementation of TMDL requirements, and Clean Water Fund investments.*

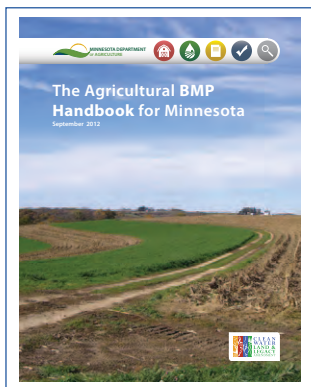
- **MDA clean water research:** To date, MDA's Clean Water Research funding has supported 21 research projects; 12 projects completed and nine on-going. Projects are selected by a diverse committee comprised of state agency and non-agency representatives with expertise in agricultural water quality and quantity issues. New projects supported in FY12 include:

- Integrated sediment budget for the Root River, southeastern Minnesota
- Controlled drainage and bioreactor-research & demonstration site
- On-farm evaluation of treatment methods for excess nutrients in agricultural subsurface tile drainage
- Sediment budget for the Greater Blue Earth basin and its response to changes in drainage and river discharge

In FY13, the MDA anticipates releasing another Request for Proposals (RFP).

- **Highlights from MDA research projects completed in FY12 include:**

- The Agricultural Best Management Practices (AgBMP) Assessment and Tracking Tool: This tool includes: an electronic database of information related to agricultural BMPs and their application toward cleaner water in Minnesota; a web-based BMP assessment tool, for use in designing BMP scenarios and quantifying their anticipated impact; web-based BMP tracking tool, for tracking the implementation of BMPs and holding information related to their installation and use in Minnesota.
- The [Agricultural BMP Handbook for Minnesota](#): A comprehensive inventory of agricultural Best Management Practices that address water quality impairments in Minnesota. This handbook includes: a definition of AgBMP that affect water quality, an estimate of the effectiveness of each AgBMP, an estimate for the cost of design, installation and maintenance, a list of the potential barriers to adoption, and a list of knowledge gaps.



## Education and civic engagement activities

The goal of this activity is to enhance education about Minnesota's water needs and increase civic engagement to ensure long-term protection and restoration of Minnesota's waters. The Clean Water Legacy Act charged the Council with developing strategies for educating and encouraging the participation of citizens, stakeholders and others to identify, restore and protect Minnesota's waters.

### Highlights

**Civic engagement in watershed projects:** The Clean Water Council, state agencies and the Metropolitan Council recognize the importance of engaging the public in the water protection and restoration process. The following examples of civic engagement in watersheds across Minnesota illustrates the success of such efforts. These collaborations between citizens, local and state agencies are part of more than 40 watershed projects initiated by MPCA and others since 2010.



*Open dialogue and information sharing among interested citizens at a Map Party in the Le Sueur River watershed.*

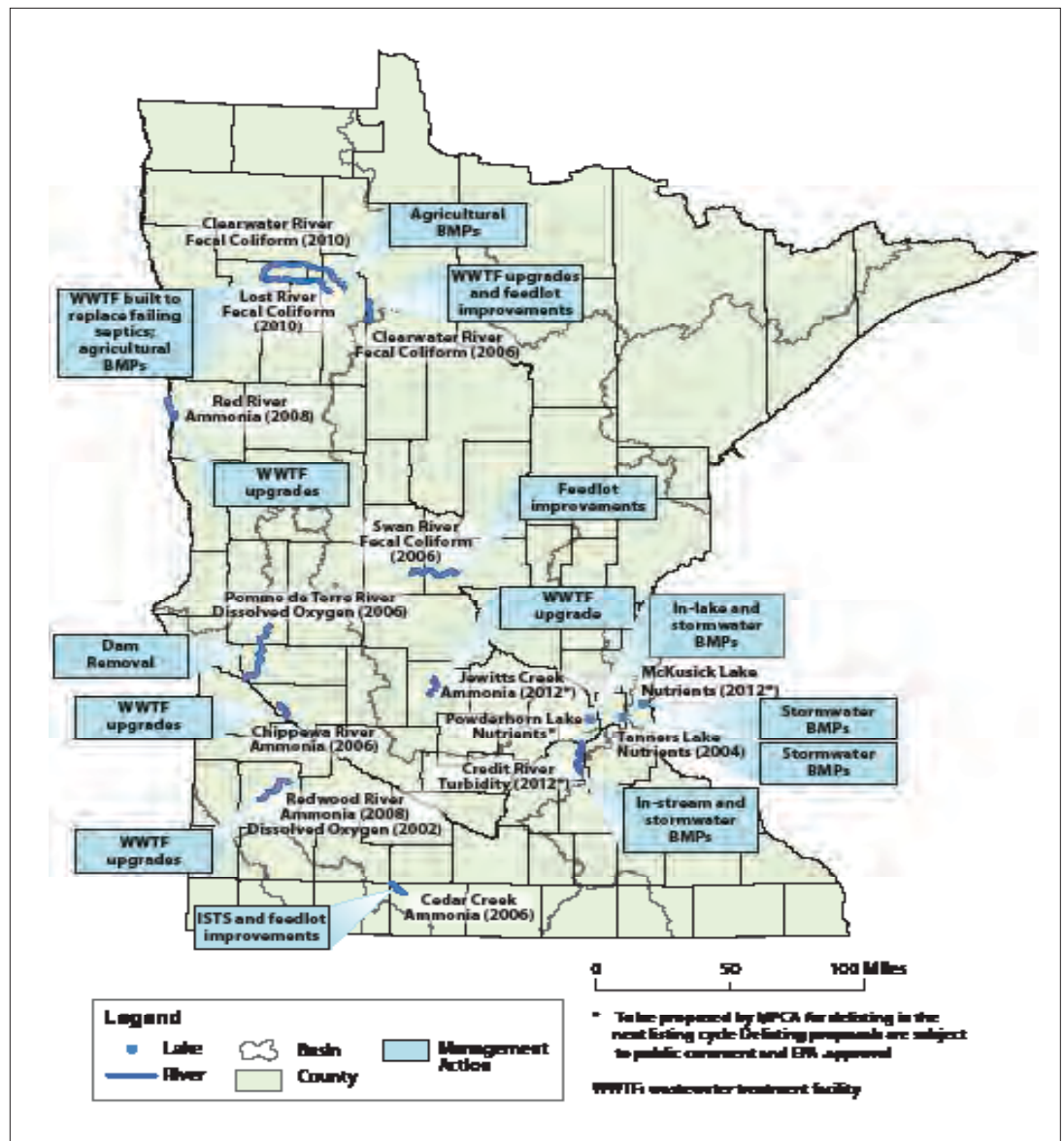
1. Le Sueur River Watershed Civic Engagement: A significant effort has been made within this watershed to create a welcoming, fun and engaging atmosphere for citizens concerned about water quality problems. Innovative approaches to engaging citizens early in the 10-year watershed cycle have included: Map party, community pot-luck dinner party, field tours, networking meetings and community dialogues. Participation in these events is strong. The good will and trust created through these events will be important to build upon over future years of the project.

2. St. Croix River Basin TMDL: Over a period of seven months, the St. Croix Basin Team, made up of federal, state and local technical experts, learned how to better integrate civic engagement into the TMDL Implementation Plan for Lake St. Croix. This led to the inclusion of civic engagement as a key strategy for meeting water quality goals in the many watersheds that drain to Lake St. Croix, including the initiation of five farmer-led watershed projects.

3. Civic Engagement as a Strategy/BMP in Southwest Minnesota: Several projects are utilizing Minnesota Extension civic engagement planning tools in conjunction with other science-based frameworks as guideposts for a systematic and holistic approach to community engagement. These projects aim to assemble local work groups that are better equipped to collaborate with agencies, while ensuring local ownership of the process. Among the eight projects involved so far, Hawk Creek, Yellow Medicine River and Chippewa River recently received InCommons/Bush Foundation support to pilot this approach.

4. Chisago County Water Planning: Chisago County develops a Local Water Plan every 10 years and updates that plan every five years. The process of updating the plan has involved significantly more citizen and stakeholder engagement than ever before. Interviews, surveys, community dialogues and a highly involved Water Policy Team are making the updated Water Plan a stronger document that better reflects the concerns and desires of county residents.

5. Civic Engagement Learning Cohorts: Working with the University of Minnesota Extension Service's Center for Community Vitality, a series of Civic Engagement Training Sessions were planned that will reach dozens of local government staff in Minnesota and Wisconsin who are working to implement civic engagement in water projects. These civic engagement learning cohorts will improve existing networks, enhance learning and the sharing of experiences, and boost greater experimentation within projects.



Long term efforts are beginning to pay off. To date, there are 15 impairments (3 lakes and 12 river segments) that are now meeting water quality standards due to corrective actions. Dozens more waters are improving. Although full restoration will take time, Clean Water Fund investments will help accelerate the pace of management activities.



## 2012 Clean Water Fund Performance Report

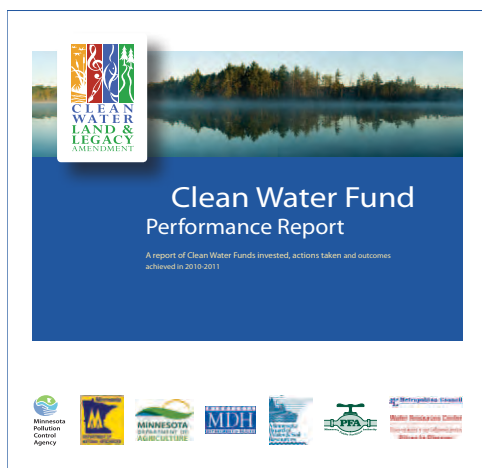
In February 2012, Minnesota agencies released their first collaborative report, the [Clean Water Fund Performance Report](#), to help Minnesotans clarify connections between Clean Water Funds invested, actions taken and outcomes achieved in FY10-11.

Eighteen measures in the report provide a snapshot of how Clean Water Fund dollars are being spent and what progress has been made. The measures are organized into three sections: investment, surface water quality, and drinking water protection. Each measure has detailed status ranking and trend information.

**Findings:** In the first biennium (FY10-11) of Clean Water Funding, approximately \$152 million was invested in water management activities. The report's findings show:

- Good progress in meeting targets for funded activities in most programs, but it was often too early to tell whether we will meet long-term outcomes. This was because water quality can vary greatly between regions – we may be meeting expectations in some areas, but others are under intense pressure and expectations exceed current efforts to meet them.
- Clean Water Fund investments are yielding results in terms of leveraging, grants and loans to local government, and broad geographic distribution of funds across the state.
- Total requests for implementation projects was approximately three times greater than available funds. This influenced the Council to recommend a large increase in competitive grants to address this need in the FY14-15 proposed budget.

The next update of the Clean Water Fund Performance Report is due in 2014 and, like the first report, the Council will be providing regular input on its development.



## Impact on Economic Development

In addition to reporting on progress and recommendations for the next biennium, the Council is required to also address the impact on economic development of the implementation of efforts to protect and restore groundwater and the impaired waters program.

While impacts on economic development are difficult to quantify, the Council has drawn from research on this topic, as well as what has been measured about the economics of CWF investments. We anticipate that information on this topic will continue to grow in future years.

### Clean water impacts on the economy

The most recent national research that was found on this topic was compiled by the U.S. Environmental Protection Agency (EPA) in its fact sheet, [The Economic Benefits of Protecting Healthy Watersheds](#). This fact sheet presents the economic benefits of protecting healthy watersheds by highlighting examples from existing peer-reviewed literature and studies that demonstrate how protecting healthy watersheds can generate revenue through property value premiums, recreation, and tourism, as well as mitigate the costs of flood control and water treatment.

Minnesota's experience in implementing the impaired waters program over the past decade supports the findings of this EPA fact sheet on the benefits of protecting and restoring water resources:

- Nationally, there are more than 30 million anglers generating one million jobs and \$45 billion in retail sales annually. In Minnesota, [fishing](#) supports 43,000 jobs in the state, generates \$2.8 billion in direct annual expenditures and contributes more than \$640 million a year in tax revenues.
- [Hunting](#) is also part of Minnesota's culture and helps support the state's economy. 597,000 people hunt in Minnesota each year. Hunters support over 14,000 jobs in Minnesota and generate \$365 million in salaries and wages. Yearly spending by hunters in Minnesota is \$482 million. The average Minnesota hunter spends \$783 each year. Hunters generate \$64 million in taxes for the State of Minnesota. The total ripple effect from hunting in Minnesota is \$1.47 billion. Statistics from the *Congressional Sportsmen's Foundation and National Survey of Fishing, Hunting and Wildlife-Associated Recreation*.
- Studies nationwide show that that home values decline significantly with declines in water quality. In Minnesota,

a 2003 Bemidji State University Study found that all else being equal, property prices paid are higher on lakes in the Mississippi Headwaters Region having higher water clarity. On the other hand, if water quality is degraded, lower property values will result, which in turn will increase demand and development pressures on remaining lakes with better water quality and ultimately may lower their water quality as well.

- The U.S. has spent an average of \$1 billion per year in stream restoration since 1990. In Minnesota, implementation plans for just 13 approved TMDL projects (out of a total of 76 projects approved so far) estimated approximately \$530 million in restoration needs. Restoration needs for the South Metro Mississippi River and Minnesota River TMDLs are anticipated to total hundreds of millions of dollars alone.
- Groundwater restoration's economic challenges were discussed in DNR's 2010 report, *Long-Term Protection of the State's Surface Water and Groundwater Resources* which emphasized that there are economic costs to society from the failure to plan for protection strategies for our groundwater resources. Utilizing ecosystem functions (protecting and restoring natural systems), managing our land uses in pollution-sensitive areas and upgrading drinking water systems are all more economically viable options compared to the costs of treatment if contamination of our aquifers occurs. Regarding drinking water, according to the 2011 *Wastewater and Drinking Water Infrastructure Needs Report*, it is estimated that more than \$6 billion will be needed to improve drinking water systems in Minnesota.
- Finally, federal Clean Water Act requirements can have a direct impact on economic growth. Until a TMDL is completed, the Clean Water Act prohibits any new or expanded discharge to an impaired water, if the discharge negatively affects the impairment. This means if TMDLs do not move forward, communities and businesses may find themselves unable to expand. This requirement has not constrained economic development in Minnesota so far; however, a 2005 court decision denying a lawsuit challenging the permit (issued prior to a TMDL for an impairment downstream) for a new wastewater treatment plant for the communities of Annandale and Maple Lake, did delay construction and reminded us of the importance of meeting our TMDL requirements as efficiently and effectively as possible.

### Economic impacts of the Clean Water Fund

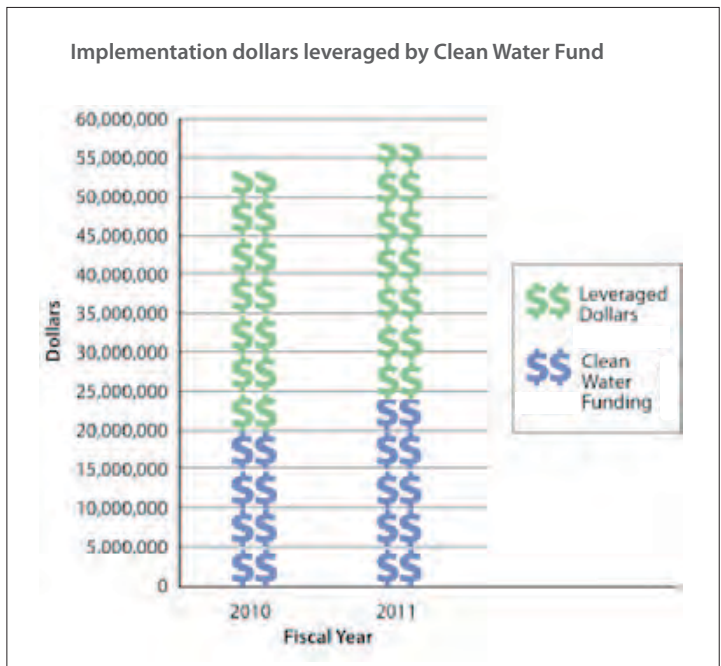
During the FY10-11 and FY12-13 bienniums, Minnesota invested more than \$152 million and \$179 million respectively in CWFs in restoration and protection-related

activities. Moreover, this investment was leveraged by tens of millions of dollars from local units of government, federal agencies and private landowners. The 2012 CWF Performance Report includes investment related-measures for surface water and groundwater that describe the impact of Clean Water dollars. For FY10-11:

- Nearly all 81 watersheds benefitted from CWF supported activities
- 45 percent of all appropriations were awarded in loans and grants to local government to do on-the-ground work
- \$68.3 million in CWF dollars were leveraged by local and federal matching dollars, or \$1.45 for every implementation dollar invested

More specifically, these CWFs supported jobs and built wastewater and stormwater infrastructure. For example:

- Over the past three years (FY10-FY12), the PFA's Clean Water Grant Funds awarded grants totaling nearly \$25 million to improve municipal wastewater and stormwater treatment and to help small communities invest in new infrastructure. Local leveraged dollars increased funds for these projects by an additional \$30 million.
- The MPCA awarded more than \$19 million to local government and nonprofit organizations in FY10-11 that supported 110 full-time equivalents (FTEs) doing clean water work. In FY12-13 the MPCA will award more than \$20 million, supporting an estimated 123 FTEs at the local level.



Clean Water Fund grants and loans leveraged \$1.45 for every dollar invested in FY10-11: \$21.4 million leveraged \$34.4 million in 2010; and \$25.6 million leveraged \$33.9 million in 2011.

## Clean Water Council FY14–15 Recommendations

As required by the Clean Water Legacy Act, the Council must provide budget recommendations for the CWF through this biennial report.

The Council's budget target for FY14-15 is \$185 million which is based on the latest revenue projections for the CWF. The CWF receives one-third of the state sales taxes allocated to the four Legacy funds, so actual funding levels depend on the state's economic activity. The next revenue forecast will be at the end of November, and the Council will adjust its budget recommendations as needed at that time to meet the new target.

### The Council's budget development process

Led by its Budget and Outcomes Committee, the Council conducted a thorough and extensive budget development process over the past two years:

- In 2011, the Council established [Budget Priorities for FY14-15](#) which were set to guide the Council's decisions on budget recommendations, including the specific percentage of the budget that should be allocated to various categories.
- The Council held several meetings with state agencies and made multiple information requests to understand agency budget proposals for existing programs throughout 2012.
- After developing draft budget recommendations, the Council solicited formal feedback by stakeholder groups represented by the Council, and then initiated a broad public outreach effort during September resulting in the submission of 110 comments.
- Following this deliberation, the preliminary budget recommendations were approved by the Council at its October 15, 2012 meeting. These will likely be updated following the year-end revenue forecast for the CWF.

### The Council's Clean Water Fund budget priorities for FY14-15

The table on pages 17-21 provides the Council's detailed recommendations for FY14-15 appropriations from the CWF for existing state agency programs. The recommendations were based on these budget priorities for activity categories:

#### **Monitoring and assessment: continue steady funding levels**

The Council recommends total funding for this category of activities at \$22.6 million. The Council endorsed the 10-year

watershed approach framework to intensively monitor Minnesota's 81 major watersheds. After the first 10-year cycle is completed in 2017, the Council will reassess this priority. Until that time, the Council anticipates funding will remain steady. For the 2014-15 biennium, the Council recommends funding these activities in the range of 11-15 percent of total CWFs available.

#### **Watershed restoration and protection strategies (WRAPs): continue steady funding levels**

The Council recommends funding for this category at \$22.5 million. The WRAP strategies are essential to a successful 10-year watershed approach by establishing federally-required TMDLs to restore impaired waters and targeting opportunities to protect non-impaired waters. Once all 81 watershed strategies have been written, the Council will reassess this priority. Until that time, the Council anticipates funding will remain steady. For the 2014-15 biennium, the Council recommends funding these activities in the range of 11-14 percent of total CWFs available.

#### **Groundwater and drinking water protection: increase funding levels**

The Council recommends funding at \$23.0 million, which exceeds the Legacy Amendment's requirement that at least five percent of the CWF be targeted to protect drinking water sources. The Council supports funding for a variety of activities, ranging from source water protection and nitrate reduction activities to groundwater monitoring and the sealing of unused wells. Although its original recommendation was to fund this category in the range of 7-9 percent, the Council concluded that funding should be higher for this category for the FY14-15 biennium.

#### **Nonpoint and point source implementation activities: increase funding levels**

The Council recommends funding for this category at \$105.1 million. The Council recognizes there are vast needs for resource protection and restoration activities, and agrees with the public's desire to see successful on-the-ground activities. The Council also understands continuing needs to improve infrastructure to meet wastewater and stormwater treatment requirements. The Council anticipates that funding for on-the-ground implementation activities will increase over time, and is encouraged by the ability of these activities to leverage much more funding from other sources. Currently, each dollar invested in implementation programs leverages another \$1.45 million from local, federal and private sources.

In addition, a key priority for the Council in the FY14-15 budget is to build the capacity of local government to deliver effective nonpoint source programs. The

Council has recommended an additional \$2.5 million in recommendations for this purpose. This will be a much needed supplement to the staffing support that local government currently receives in CWF grant and loan awards for nonpoint source programs.

For the 2014-15 biennium, the Council recommends funding implementation activities in the range of 57–60 percent of total CWFs available.

### **Applied research and tool development: increase funding levels**

The Council recommends funding of \$11.7 million for this category to develop tools and applied research that will better target critical areas ensuring implementation efforts are effective. The Council anticipates funding for these activities will remain steady over time. For the 2014-15 biennium, the Council recommends funding these activities in the range of 6-8 percent of total CWFs available.

### **Education and civic engagement activities: increase funding levels**

The Council strongly supports increased funding for this category, but recommends that funding for most civic engagement activities would be more effectively allocated through existing clean water projects, rather than through a separate budget. Successful education and civic engagement projects must actively engage local organizations, and focus on stakeholders whose behavior can have the most significant impact on improving water quality. The Council anticipates funding for these activities will increase over time.

### **Clean Water Council administration**

The MPCA is required by statute to provide administrative support for the Council. To adequately meet this need, the Council recommends funding of \$230,000 for staffing, council meeting costs, per diem reimbursements, and other expenses.



*Maplewood Mall Stormwater Infiltration Retrofit Project* was sponsored by the Ramsey-Washington Metro Watershed District. This \$3 million project was funded with \$500,000 in Clean Water Funds and leveraged other federal and local funds. The goal of the project is to eliminate as much as 50 pounds of phosphorus per year and to reduce the amount of sediment that flows into Kohlman Lake by as much as 5 tons annually, partly by filtering storm water through rock-filled trenches dug beneath the surface of the parking lot. Other state-of-the-art retrofitting was done including tree trenches, rain gardens, porous pavements and other kinds of low-impact storm-water management techniques.



# Clean Water Council Budget Recommendations

As discussed in this report, the following table summarizes the Council’s proposed budget recommendations for FY14-15.

Clean Water Fund activity	Clean Water Council FY14–15 recommendations* (in millions)
<b>Monitoring and assessment</b> – Funding range recommendation: \$20.35M-\$27.75M (11-15%)	<b>\$22.570</b>
Continue monitoring and assessment efforts to meet the 10-year cycle. (MPCA) Statewide monitoring and assessment work is on track to meet the 10-year schedule, at a rate of about 10 percent of the watersheds each year. Intensive watershed monitoring includes biological, chemical, and habitat monitoring in watersheds to assess the water conditions.	\$15.000
Pesticides monitoring in surface water and groundwater (MDA) Ongoing monitoring using clean water funded state-of-the-art laboratory instruments which provides increased capability and greater capacity.	\$0.700
Stream flow monitoring (DNR) Conduct stream flow monitoring and sediment transport analysis to support watershed assessments.	\$4.000
IBI lake assessments (DNR) Develop an Index of Biotic Integrity for a more holistic assessment of lake health.	\$2.600
Fish Contamination Assessments (DNR) Assess mercury contamination of fish, including monitoring to track the status of waters impaired by mercury and mercury reduction efforts over time.	\$0.270
<b>Watershed restoration and protection planning strategies</b> – Funding range recommendation: \$20.35M-\$25.9M (11-14%)	<b>\$22.500</b>
Watershed Restoration and Protection Strategies (TMDL development) (MPCA) WRAPs are developed with local partners to set strategies for impaired waters (which includes TMDLs) and unimpaired waters by setting reduction and protection goals, milestones and measures to guide state and local government implementation efforts.	\$18.800
Watershed Restoration and Protection Strategies (DNR) Work with state and local partners to provide expertise, data, analysis, and support for major watershed studies and the development of watershed restoration and protection strategies.	\$3.700
<b>Drinking water protection</b> – Funding range recommendation \$12.95M-\$16.65M (7-9%)	<b>\$22.982</b>
Groundwater assessment (MPCA) Monitor and enhance ambient groundwater well network to collect critical water quality data needed for drinking water protection and surface water impact analysis, including modeling to support TMDL stressor identification and contaminants of emerging concern (CECs) in a subset of monitoring wells.	\$2.250
Enhanced County inspections and SSTS corrective actions (MPCA) Support technical assistance and County implementation of SSTS program requirements (M.S. 115.55) including issuing permits, conducting inspections, identifying and resolving non-compliant SSTS, and revising and maintaining SSTS ordinances.	\$5.200
Nitrates in Groundwater (MDA) Support actions to protect and restore groundwater from nitrates, including promoting and evaluating regional and crop-specific nutrient BMPs; working directly with communities with nitrate problems, and facilitating planning by public water suppliers, farmers and fertilizer dealers.	\$3.000

\* As of February 2012, Minnesota Management and Budget (MMB) estimated the Clean Water Fund will have approximately \$185M available in FY14-15. The Council used this estimate to guide its recommendations, but will update its budget in January following MMB’s revised forecast due by the end of 2012.

Clean Water Fund activity	Clean Water Council FY14–15 recommendations* (in millions)
Irrigation Water Quality Protection (MDA) Address nitrogen contributions to groundwater from irrigated agriculture providing a regional irrigation water quality specialist (via a contract with U of M Extension), who will develop irrigation water quality BMPs and provide supporting education and guidance.	\$0.220
Aquifer Monitoring for Drinking Water Protection (DNR) Monitor Minnesota’s observation well network to collect critical aquifer level data and flow dynamics that are needed for drinking water and water supply protection. Includes analysis, modeling and work with stakeholders to address sustainability management and planning.	\$2.750
Permanent conservation easements: wellhead protection (BWSR) Permanent Conservation Easements on wellhead protection areas under MS 103F.515 Subd. 2, paragraph (d). Must be in drinking water supply management areas designated as high or very high by the Commissioner of Health.	\$2.400
Metropolitan Area Water Supply Sustainability Support (Met Council) Implement projects that address emerging drinking water supply threats, provide cost-effective regional solutions, leverage inter-jurisdictional coordination, support local implementation of wellhead protection plans, and prevent degradation of groundwater resources.	\$0.600
Regional groundwater recharge area identification and classification (Met Council) Identify and rank regional recharge areas to protect and enhance the drinking water supply in the metropolitan area. This project will demonstrate how water supply planning can be aligned with regional development planning.	\$0.166
Drinking Water Contaminants of Emerging Concern Program (MDH) Continue to protect human health by developing guidance. Develop public health laboratory capacity for research and analysis of emerging contaminants. Give grants to local organizations for community-based outreach and education activities.	\$1.887
Source water protection (MDH) Assist public water suppliers with technical support and grants for implementation of plans to protect sources of public drinking water and with management of known or potential contamination threats, with a goal to have approved wellhead protection plans for all 935 community water suppliers that use groundwater by 2020. This program leverages additional funding from other sources.	\$3.230
County Well Index (CWI) Enhancement (MDH) Improve CWI’s capabilities as the principal source of well construction information and geologic interpretations for manage MN’s groundwater, including updating the CWI database operating system, updating well records, and defining additional capabilities needed by public and private users.	\$0.779
Well sealing cost share (MDH) Supplement other efforts to properly seal unused and unsealed wells, estimated to total between 250,000-500,000 statewide, which protects both public health and groundwater.	\$0.500
<b>Nonpoint source implementation activities</b>	<b>\$81.068</b>
Great Lakes restoration (MPCA) Support Great Lakes restoration projects in the St. Louis River area of concern with local and federal partners. This program leverages additional funding from other sources.	\$1.500

\* As of February 2012, MMB estimated the Clean Water Fund will have approximately \$185M available in FY14-15. The Council used this estimate to guide its recommendations, but will update its budget in January following MMB’s revised forecast due by the end of 2012.

Clean Water Fund activity	Clean Water Council FY14–15 recommendations* (in millions)
Clean Water Partnership grants (MPCA) Continue to provide grants to study and implement solutions that protect basins and watersheds of Minnesota before water quality standards are exceeded. This program leverages additional funding from other sources.	\$1.000
AgBMP Loan Program (MDA) Continue to provide low interest loans to farmers and rural landowners throughout the state to help finance practices, structures and other improvements that reduce or eliminate water pollution. This program leverages additional funding from other sources.	\$3.000
Technical Assistance (MDA) Provide assistance, resources, technology, and services in support of the local delivery system. MDA's technical assistance aims to get information and tools in to the hands of individuals working on project planning and implementation at the local level. This program leverages additional funding from other sources.	\$3.000
MN Agricultural Water Quality Certification Program (MDA) Assist in the development and testing of a new program under development by the MDA, MPCA, DNR and BWSR, and endorsed by the EPA and USDA, to increase the adoption of on-farm conservation practices to protect water quality through a voluntary approach.	\$1.000
Nonpoint source restoration and protection activities (DNR) Support local restoration efforts statewide and water quality protection in forested watersheds, including assisting with targeting conservation practices by helping local partners plan, design and implement clean water projects.	\$2.000
Surface and drinking water protection / restoration grants (BWSR) Support grant and incentive funding for surface water and source water best management practices and projects provided through grants and contracts with local units of government, including \$2.5 million designated for local capacity grants. This program leverages additional funding from other sources.	\$40.000
Targeted local resource protection and enhancement grants (BWSR) Enhance local government efforts to develop and implement water resource protection and management measures that go beyond state minimum standards, as well as undertake related projects to restore impaired waters and protect high quality resources.	\$8.000
Measures, results and accountability (BWSR) Support conservation quality assurance by providing oversight, assessment, assistance and reporting of local government performance and results.	\$1.800
Conservation drainage management and assistance (BWSR) Improve surface water management by providing grants for pilot projects to retrofit existing drainage management systems with water quality improvement and retention practices.	\$3.400
Permanent conservation easements: riparian buffers (BWSR) Purchase permanent conservation easements on riparian lands adjacent to public waters, except wetlands. Restoration of land with buffers of native vegetation is used to exceed shoreland program requirements.	\$13.000
Technical evaluation of habitat restoration projects (BWSR) Continue implementation of statutory mandate to annually evaluate a sample of up to 10 habitat restoration projects (Laws of MN 2011, First Special Session, Ch. 6) completed with funds from the Clean Water Fund, Outdoor Heritage Fund and Parks and Trails Fund.	\$0.168

\* As of February 2012, MMB estimated the Clean Water Fund will have approximately \$185M available in FY14-15. The Council used this estimate to guide its recommendations, but will update its budget in January following MMB's revised forecast due by the end of 2012.

Clean Water Fund activity	Clean Water Council FY14–15 recommendations* (in millions)
Community partners clean water program (BWSR) Increase citizen participation in implementing water quality projects and programs to build long term sustainability of water resources, delivered through a new 'small grants partners' program to support active community groups, such as lake associations, non-profits, and conservation groups.	\$3.000
Manure Applicator Education (MDA) Develop training manuals and resource materials for training two levels of manure applicators (senior applicators and field hands), in order to reduce nutrient losses from manure application.	\$0.200
<b>Point source implementation activities</b>	<b>\$24.000</b>
NPDES wastewater/stormwater TMDL implementation (MPCA) Support staffing costs for implementation efforts.	\$2.000
TMDL grants for WWTP and stormwater (PFA) Provides 50% grants up to \$3 million to help municipalities implement wastewater and stormwater projects to comply with wasteload reductions required by TMDL implementation plans. This program leverages additional funding from other sources.	\$18.000
Small community wastewater treatment program grants and loans (PFA) Provides loans and grants to assist small communities to replace non-complying septic systems with new individual and cluster subsurface sewage treatment systems (SSTS) that will be publicly owned and operated. This program leverages additional funding from other sources.	\$4.000
<b>Total Implementation: nonpoint and point source activities</b> – Funding range recommendation: \$105.45M - \$111M (57-60%)	<b>\$105.068</b>
<b>Applied research and tool development</b> – Funding range recommendation: \$11.1M-\$14.8M (6-8%)	<b>\$11.650</b>
Watershed research and database development (MPCA) Finish development of Watershed Data Integration Project to increase the amount of water quality and watershed project management data directly available to the public online, and to make internal operations more efficient.	\$2.300
Interagency data portal development (MPCA) Begin development of a statewide water data portal. The portal would allow users to access data from multiple agencies from one webpage, rather than searching multiple agencies' websites.	\$2.000
Stormwater research and guidance (MPCA) Employ Minimal Impact Design Standards (MIDS) voluntary performance goals, credits (via new simple calculator) and ordinance goals, and measure long-term effectiveness of the MIDS package for developers and local governments to protect or restore urban waters.	\$0.550
Stormwater BMP performance evaluation and technology transfer (MPCA) Support enhanced data and information management of stormwater BMPs; evaluate BMP performance and effectiveness to support meeting TMDLs; develop standards and incorporate into state of the art guidance using MIDS as the model; implement a knowledge and technology transfer system across local government, industry and regulatory sectors.	\$1.400

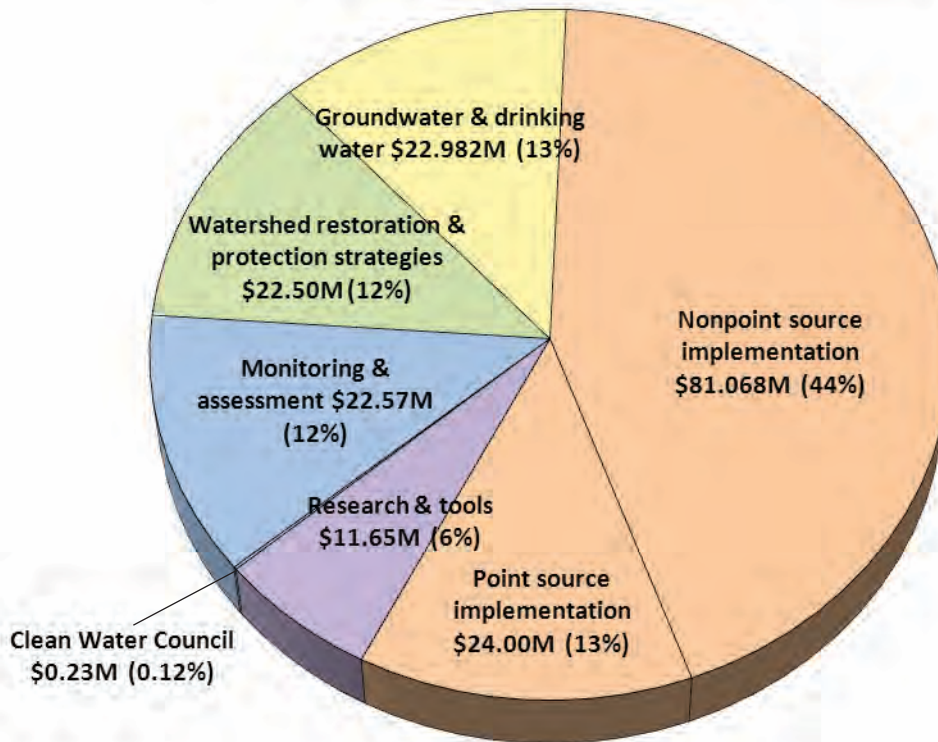
\* As of February 2012, the MMB estimated the Clean Water Fund will have approximately \$185M available in FY14-15. The Council used this estimate to guide its recommendations, but will update its budget in January following MMB's revised forecast due by the end of 2012.



Clean Water Fund activity	Clean Water Council FY14–15 recommendations* (in millions)
Academic Research/Evaluation (MDA) Support the development of agricultural BMPs and quantify agricultural contributions to impaired waters with a focus on gaining a better understanding of the processes that underlie these contributions. BMPs will be developed and evaluated to protect and restore water resources while maintaining productivity.	\$2.100
Research inventory database (MDA) Develop a user-friendly, searchable database that contains a centralized inventory of existing water-related research relevant to Minnesota that will be more readily accessible than current information sources.	\$0.250
Applied research and tools (DNR) Support research and tool development to improve cumulative impacts of drainage on watershed health, manage spatial and biomonitoring data, and assess BMP application in forested watersheds.	\$1.350
County geologic atlases (DNR) Work with the Minnesota Geological Survey to accelerate completion or updates to County Geologic Atlases that provide critical groundwater and geology information to local governments.	\$1.100
Twin Cities metro water supply plan implementation (Met Council) Provide technical information and tools to improve the local capacity of 186 metropolitan communities to better protect and manage their water supplies in order to identify the most sustainable water supply options available.	\$0.600
<b>Clean Water Council administration (MPCA)</b>	<b>\$0.230</b>
<b>Total</b>	<b>\$185.000</b>

\* As of February 2012, MMB estimated the Clean Water Fund will have approximately \$185M available in FY14-15. The Council used this estimate to guide its recommendations, but will update its budget in January following MMB's revised forecast due by the end of 2012.

## FY14-15 CWF Budget Recommendations (\$185M)



### Developing a long-term vision for Clean Water Fund investments

The Clean Water Council acknowledges that funding recommendations for these activities will change over time. Some activities will need long-term funding, others may be decreased over time and yet other activities will need to be ramped up to address the most serious water resource issues.

Beginning in 2013, the Clean Water Council will begin deliberations on a long-term vision for Clean Water Fund investments in the core activity categories (shown in the chart above) with the commissioners of MPCA, DNR, MDA, and MDH; the executive directors of BWSR and PFA, and the Chair of the Met Council. This will help guide the Council's recommendations during the life of the Clean Water Fund, until it sunsets in 2023.

The goal of the Council and the agencies is to submit this vision as part of the Council's 2014 biennial report. This will also coincide with the statutory requirement (114D.30, subd. 7) for the Council to include an evaluation of the progress in implementing the Clean Water Legacy Act and the Clean Water Fund through June 30, 2014, "and the need for funding of future implementation, and recommendations for the sources of funding".