

## State Water Programs – 2001-2002

### State Water Program Reorganization Project

The Omnibus Agriculture and Environment funding bill (Laws of Minnesota 2001 First Special Session, Chapter 2, Section 155) required the Director of Office of Strategic and Long-Range Planning to develop a plan for the reorganization of state water programs and functions. Work on the project began in early July; it is being conducted by staff of the Minnesota Environmental Quality Board, with advice from the Water Resources Committee.

The law provides that three goals are to be met in the plan:

- All specific plans and implementation projects should be coordinated with and relate to an overall water management plan.
- Similar programs and functions should be assigned to a single agency when feasible.
- Inherent conflicts of interest should be avoided.

The reorganization plan is to be designed to ensure regulatory efficiency and program effectiveness. The plan provides an opportunity for state agencies to re-evaluate their water-related work and then focus on the work most in line with agency missions.

Three work products are to be submitted to the Legislature in this project:

**Due August 15, 2001** – A chart listing all the current water programs and functions of state government, providing:

- A program description
- Full-time equivalent of staff (FTEs) assigned to the program
- A summary of program outcomes

In this chart, the programs are allocated to categories. Five categories were listed in the law:

- Overall water management planning
- Establishment of standards and indicators
- Monitoring and assessment
- Technical and financial assistance
- Enforcement

The planning director was given latitude to come up with different categories, as long as the plan met the three goals.

**Due November 15, 2001** – A preliminary plan for reorganizing the state water programs and functions, to include a chart similar to the first chart, showing proposed reallocation of programs, functions and FTEs in agencies and a summary of outcomes expected from each program.

**Due February 15, 2002** – A final plan with chart and draft legislative language to accomplish the reorganization. The reorganization may be staged over a number of years.

## State Water Programs – 2001-2002

### First Submittal

The programs chart constitutes the first work product. It is a simple listing of state water programs sorted by agency. The information in the table was provided by each agency, and accumulated in this table by EQB staff with little editorial control save formatting.

The following criteria were used to determine whether a program should be listed in the table:

- Programs relating specifically to water (for example, basin planning, wastewater permits, water monitoring)
- Programs relating to practices or activities that affect water (for example, best management practices for animal manure, measurement of contaminants in fish)

Areas in which state agencies are acting as regulated parties were not considered separate state programs and are not included in the chart.

Where several categories apply to a program, the primary category is listed first. In addition, three extra columns are added to the chart of state water programs to enhance the information. Columns for “Agency Role” and “Customer” are added for a better understanding of the function of the programs listed. The funding sources for each program are also listed on the chart.

Using the flexibility allowed in the law, the program categories were changed as follows:

Category in Chart	Category in Law
Planning	Overall water management planning
Standards and indicators	Establishment of water quantity and quality standards, including biological and chemical indicators
Monitoring and assessment	Monitoring and assessment
Training and assistance (includes technical assistance)	Technical and financial assistance, education and training, and implementation
Regulation and enforcement (includes permitting)	Enforcement
Financial assistance	New category, broken out separately from above category provided in legislation
Acquisition and development	New category, not in legislation
Infrastructure maintenance	New category, not in legislation

### Current State Water Programs

It is important to note that several studies similar to this have been requested by the legislature. *Crosscurrents: Managing Water Resources*, also prepared by the Office of Strategic and

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Long-Range Planning, provides background information that will help provide a context for understanding the information in the programs chart.

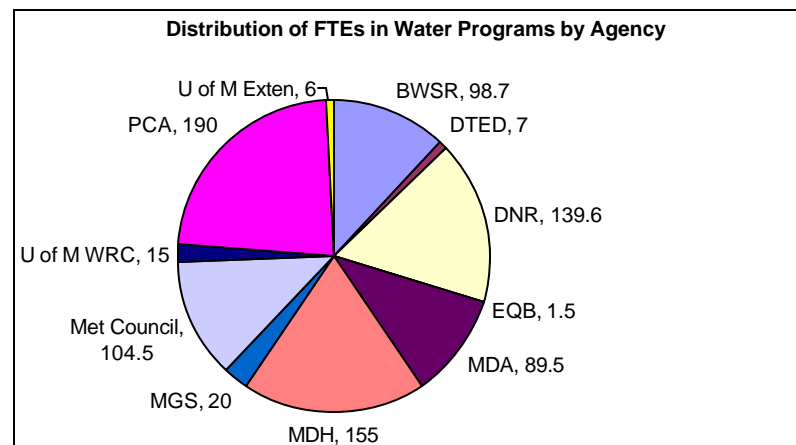
Water programs in the following agencies were included in the programs chart:

- Department of Natural Resources (DNR)
- Pollution Control Agency (PCA)
- Department of Health (MDH)
- Department of Agriculture (MDA)
- Board of Water and Soil Resources (BWSR)
- Office of Strategic and Long-Range Planning/ Environmental Quality Board (EQB)
- University of Minnesota Extension Service (U of M Extension)
- University of Minnesota Water Resources Center (U of M WRC)
- Minnesota Geological Survey (MGS)
- Public Facilities Authority/ Department of Trade and Economic Development (DTED)
- Metropolitan Council

Metropolitan Council was included because it has significant water-related responsibilities at a scale greater than local government. While the Metropolitan Council is clearly *not* state government, it is larger than local government, and plays several important roles in water management in the Twin Cities.

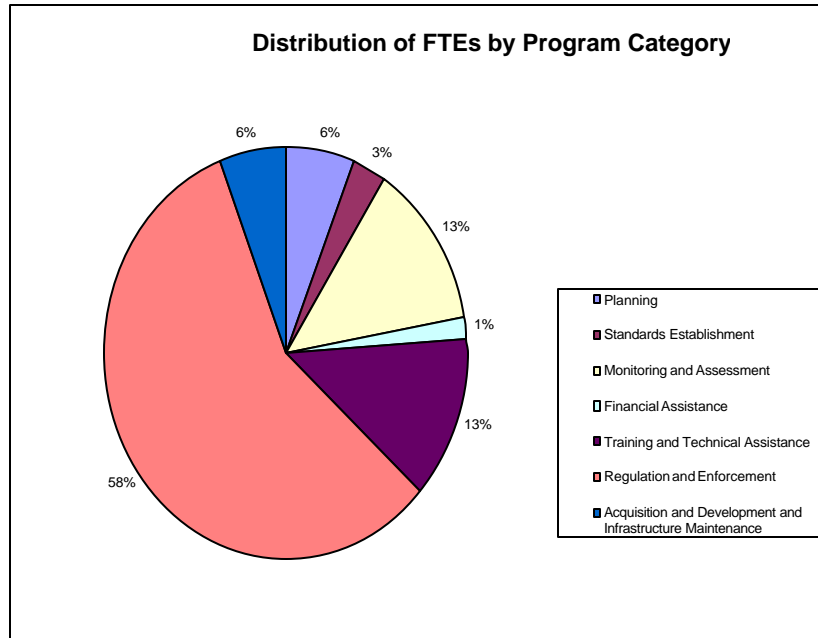
The FTEs shown in the graph below are those employed fiscal year 2001-2002 in water work. It includes full-time permanent employees, temporary and seasonal employees, and student workers. This number will change with each new fiscal year.

The graph shows that there are significant state resources dedicated to water-related work. There are approximately 827 full-time equivalents employed in the 101 programs submitted by the agencies. The accompanying diagram shows the breakdown of the 827 FTEs, by agency.



## State Water Programs – 2001-2002

Agency work has been allocated to the established categories. More than half of the state's water effort is in the regulation and enforcement category. Training and technical assistance and monitoring are the next largest categories. These three categories account for more than 80 percent of the state's water work. The accompanying graph shows the percentage of state resources attached to each category.



## Next Steps

Work on this project will focus on preparation of the draft plan for reorganization, due to the Legislature on November 15, 2001. EQB staff will seek information and advice from the EQB Water Resources Committee, in addition to conducting independent research.

**The Water Resources Committee** consists of representatives from EQB agencies that are charged with managing some aspect of water resources, and also includes other state agencies that play a key role in managing the state's waters. Two federal agencies, the United States Geologic Survey and the Natural Resources Conservation Service, serve on the committee as advisors. Key duties of the committee are to coordinate water planning activities of local, regional and federal bodies with state water planning and integrate these plans with state strategies, initiate, coordinate and continue to develop comprehensive long-range planning, and administer federal water resources planning with multi-agency interests.

For more information, contact Gretchen Sabel, Water Resources Director, at:

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## State Water Programs – 2001-2002

### Acronyms listed in State Water Programs Chart

**BMPs** – Best Management Practices  
**BWSR** – Board of Water and Soil Resources  
**CREP** – Conservation Reserve Enhancement Program  
**DNR** – Department of Natural Resources  
**DTED** – Department of Trade and Economic Development  
**DWRF** – Drinking Water Revolving Fund  
**EPA** – Environmental Protection Agency  
**EQB** – Environmental Quality Board  
**FEMA** – Federal Emergency Management Agency  
**FIFRA** – Federal Insecticide, Fungicide and Rodenticide Act  
**GIS** – Geographic Information System  
**GPS** – Global Positioning System  
**HREP** – Habitat Restoration and Protection Programs  
**HW** – Headwaters  
**ISTS** – Individual Sewage Treatment System  
**LCMR** – Legislative Commission on Minnesota Resources  
**LGU** – Local Government Units  
**LIDs** – Lake Improvement Districts  
**MCES** – Met Council Environmental Services  
**MDA** – Minnesota Department of Agriculture  
**MDH** – Minnesota Department of Health  
**MERLA** – Minnesota Environmental Response and Liability Act  
**MGS** – Minnesota Geological Survey

**MNRRRA** – Mississippi National River and Recreation Area  
**MWBAC** – Minnesota/Wisconsin Boundary Area Commission  
**NPDES** – National Pollutant Discharge Elimination System  
**NRCS** – Natural Resources Conservation Service  
**NWS** – National Weather Service  
**OHW** – Ordinary High-water Levels  
**OMB** – DNR Office of Management and Budget  
**PCA** – Pollution Control Agency  
**PCBs** – Polychlorinated Biphenyls  
**PFA** – Public Facilities Authority  
**PWP** – Permanent Wetlands Preserves  
**RIM** – Reinvest in Minnesota  
**SEMNRB** – Southeastern Minnesota Water Resource Board  
**SL** – Shoreland  
**SRF** – State Revolving Loan Fund  
**SWCD** – Soil and Water Conservation District  
**UMRBA** – Upper Mississippi River Basin Association  
**USGS** – United States Geologic Survey  
**U of M WRC** – University of Minnesota Water Resources Center  
**WRC** – Water Resource Center  
**WRP** – Wetlands Reserve Program  
**WSR** – Wild and Scenic Rivers

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Wetland Conservation Act	BWSR	Protects wetlands that are not protected by other state or federal programs. Requires replacement of most impacted acres. Public roads projects are mitigated through a wetlands bank consisting of agency and privately restored/created wetland acreage.	Regulation and enforcement Planning Training and assistance Financial assistance Acquisition and development Monitoring and assessment	Technical assistance	Local government	13.2	Local governments perform the regulatory functions related to exemptions, noticing, alternative analysis and mitigation. Goal is no <i>net</i> loss of wetland. Reported results show 2,900 acres avoided, and 380 acres replaced each year. Training of 800 people per year occurs. Public road projects require 180 acres per year to be mitigated by the state.	General fund, bonding for wetland road replacement and bank
Watershed District and Soil and Water Conservation District Oversight	BWSR	Coordinates resource planning activities of counties, watershed districts, soil and water conservation districts, watershed management organizations and other local units.  MS103B.101, subd. 9	Training and assistance Planning Financial assistance Regulatory	Oversight of activities of regulatory partners  Technical assistance  Financial assistance	Local government	8.8	Efficient delivery of conservation and resource management activities at the local level with an emphasis on private lands. There are 178 organizations working with annual budget of \$53 million to undertake local projects and plans.	General fund
Comprehensive Water Planning	BWSR	Engages local units to facilitate completion of county water plans, watershed management plans and groundwater protection plans.	Planning Training and assistance Financial assistance	Financial assistance  Technical assistance	Local government	8	Guidance and review of plans for conformance with requirements and approval of plans. There are 147 organizations who conduct periodic planning (rotating basis) every 5 to 10 years.	General fund

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Soil Conservation	BWSR	Programs to conserve soil resources including soil surveys, grazing lands, tillage management and forestry (windbreaks). Includes office of state soil scientist.	<p>Training and assistance</p> <p>Financial assistance</p> <p>Monitoring and assessment</p>	<p>Technical assistance</p> <p>Financial assistance</p>	<p>Local government</p> <p>Citizens</p> <p>Other state agencies</p> <p>Federal agencies</p>	4.9	Antiquated and incomplete soils information replaced with GIS compatible data available for community planners and scientists. Four counties are underway and will result in 1.65 million acres of soils data being catalogued and compatible.	General fund, LCMR for soil surveys
Erosion Control and Water Quality Cost-share	BWSR	Assistance to landowners through local units of government for installation of erosion, sediment, and water quality control projects. Also includes cost-share on feedlots for water quality improvements.	<p>Standards and indicators</p> <p>Training and assistance</p> <p>Financial assistance</p> <p>Monitoring and assessment</p>	<p>Technical assistance</p> <p>Financial assistance</p> <p>Standards establishment</p>	<p>Local government</p> <p>Citizens</p>	9.2	Landowner, local and federal government monies leverage state money and provide over half of total project costs. 6,000 projects were completed in 1998-99. Projects reduce 777,000 tons/yr of soil loss, 166,000 tons/yr of sedimentation, and 436,000 lbs/yr of total phosphorus.	General fund, PCA pass through (feedlot)
Education	BWSR	Joint positions with University of Minnesota Extension lead staff efforts to increase citizen involvement, improve outreach, enhance technology transfer and co-sponsor the state Envirothon and Children's Water Festival.	<p>Training and assistance</p> <p>Financial assistance</p>	<p>Technical assistance</p>	<p>Local government</p>	4.5	Reinforces the local and collaborative approach by highlighting benefits of wise management. Envirothon involved 1,200 students on 261 teams around the state.	General fund, University Extension

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Conservation Easements	BWSR	Primarily perpetual easements established over areas with a cropping history. Drained or altered wetlands are restored and native vegetation is established in upland areas. Programs include CREP, RIM, WRP and PWP.	Acquisition and development Training and assistance Financial assistance Regulation and enforcement Monitoring and assessment	Financial assistance Technical assistance	Local government Citizens Nonprofit organizations	44.8	Program has enrolled 140,000 acres of marginal farmland primarily by concentrating restoration efforts in riparian areas to maximize water quality benefits. Each acre reduces soil loss by 9.6 tons per year, sedimentation by 4.7 tons per year and total phosphorus by 5.8 pounds per year.	Bonding, federal match
Nonpoint Engineering Assistance	BWSR	Provides engineering assistance for implementation of a variety of nonpoint water quality practices on private lands.	Training and assistance Financial assistance	Technical assistance	Local government	2.7	Builds capacity on subregional level to design and implement projects by sharing of resources. Projects include construction of 430 erosion control, 300 feedlot abatement and 210 wetland restorations per biennium.	General fund
Coastal Engineering Erosion Control	BWSR	Engineering design, technical and financial assistance to North Shore communities.	Training and assistance Financial assistance Planning	Technical assistance Financial assistance	Local government Citizens	2.1	Encourages proper development and constructs shoreline stabilization measures. Since 1994 the program has attracted over \$700,000 of federal and state funding, conducted 140 site inspection/designs, and constructed 24 Lake Superior stabilization projects addressing over 7,000 feet of shoreline.	General fund, federal grants
Area II Minnesota River Basin Projects, Inc.	BWSR	Technical and financial assistance to local government in study area II for engineering, land acquisition and construction of floodwater retarding and retention structures.	Acquisition and development Planning Financial assistance	Financial assistance	Local government	0.5	Flood retention structures constructed by downsizing road culverts and creating small, short duration reservoirs behind road embankments and small dams. An average of 18 flood control projects per year are either designed or constructed.	General fund



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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Harmful Exotic Species Management Program	DNR  (Ecological Services)  (Fisheries)  (Enforcement)	Inventory, monitoring and control of infestations of purple loosestrife, milfoil, zebra mussels and other harmful exotic species. Provides general information to help educate the public and commercial fishing and aquatic farm operators in how to reduce the spread of exotics. Make rules, do boat access inspections and enforce laws that regulate the possession or transportation of certain species, provide grants for control efforts and fund research.  MS Chapter 84D & 86B.415, MR Chapter 6216	Monitoring and assessment  Regulation and enforcement  Training and assistance  Financial assistance	Technical assistance  Ambient monitoring  Training  Financial assistance  Regulation and enforcement  Compliance monitoring	Citizens  Local government  Other state agencies  Federal agencies  Nonprofit organizations (lake associations, sports groups, etc.)  Schools and educators  Legislators  Regulated parties	8	Introduction of new harmful exotic species into Minnesota is prevented. Spread of harmful exotic species within Minnesota is reduced. Effects of harmful exotic species on Minnesota's ecology, society and economy are minimized.	Water recreation account (license surcharge fees), federal cost share, game and fish
Fish Contaminant Monitoring Program	DNR  (Ecological Services)  (Fisheries)	Collects fish from lakes and streams throughout the state and then sends to a lab to be analyzed for levels of PCBs and mercury. The data is used by the Minnesota Department of Health to issue fish consumption advisories and the Minnesota Pollution Control Agency to track trends in contaminant levels.  MS 97A.045	Monitoring and assessment	Ambient monitoring	Other state agencies  Federal agencies  Schools and educators  Citizens	1	Data is collected that allows public health to be protected and the success of efforts to reduce contamination of the environment with mercury, PCBs and other persistent chemicals.	RIM funds

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Mississippi River Management	DNR (Ecological Services)	Collects and interprets long-term information on the water quality, fisheries, plant communities, etc. , of the Upper Mississippi River including Lake Pepin and various backwater lakes. Coordinate with Corps of Engineers on navigation activities, including HREP projects.  MS 97A.045	Monitoring and assessment  Training and assistance	Ambient monitoring  Chemical and biological indicator establishment  Technical assistance  Acquisition and development  Infrastructure maintenance	Local government  Other state agencies  Federal agencies  Nonprofit organizations  Schools and educators  Citizens  Legislators	7	Management decisions which impact the Upper Mississippi River will be made based on a better understanding of the river's biological status.	Federal/USGS, Game and Fish
Wetlands Review and Conservation Program	DNR (Ecological Services)	In accordance with the state Wetlands Conservation Act the following activities: coordinates review of wetland replacement pans; provides technical guidance to DNR, local governments and landowners on wetland mitigation; promotes wetland conservation by providing science-based recommendations in the development of state wetland regulations, programs and policies; and coordinates development of the Minnesota Wetlands Conservation Plan.	Monitoring and assessment  Regulation and enforcement	Technical assistance  Training  Regulation and enforcement	Regulated parties  Local government  Other state agencies  Federal agencies  Nonprofit organizations  Legislators	1	No net loss of wetland resources.	General fund

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Ground Water level Monitoring and Trend Reporting	DNR (Waters)	Measures and records water levels in observation wells in major aquifers across the state; periodically interprets the trends in water level change.	Monitoring and assessment  Planning	Ambient monitoring  Compliance monitoring  Technical assistance	Regulated parties  Local government  Citizens  Other state agencies  Federal agencies  Nonprofit organizations  Schools and educators  Legislators	3	Data is compiled and interpreted in biennial reports; longer range trends analysis under way. Data available on DNR Web page.	General fund
Ground Water Technical Analysis	DNR (Waters)	Gathers and compiles data related to specific well interference or water supply conflicts; evaluate proposed new water supply wells; investigates impacts of resource development on surface and ground waters and make recommendations to water appropriations staff and field staff relative to regulatory decision.	Training and assistance  Planning  Regulation and enforcement	Technical assistance  Regulation and enforcement	Regulated parties  Local government  Other state agencies	6	Regulatory decisions are based on sound scientific information; conflicts are avoided or addressed expeditiously.  The body of knowledge about aquifers is increased.	General fund
Geophysics	DNR (Waters)	Applies seismic reflection and refraction, electrical resistivity, electromagnetic induction techniques to determine subsurface characteristics significant to water resources issues.	Training and assistance  Monitoring and assessment	Technical assistance  Planning	Local government  Other state agencies	2	Information provided to decision makers on depth to water, location of subsurface boundaries or voids, location of buried wastes or plumes.	General fund

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
County and regional Geologic and Hydrologic Mapping	DNR (Waters)  Minnesota Geological Survey with counties	Gathers existing and generates new data, locates and log water wells, makes extensive field observations, obtains water samples for general chemistry and age analysis, and finally compiles and interprets data to produce map reports.	Technical assistance  Planning  Monitoring and assessment	Technical assistance  Planning  Training	Local government  Other state agencies  Citizens	6	Develop map reports on a county or regional basis describing geology and water resources and sensitivity of aquifers to pollution.	General fund, small contributions from each county
Locate, Inventory and Seal Wells on State Land	DNR (Waters)	Physically locates wells using magnetometer, GPS, historical records etc.; examines the condition of each well found; seals all unused or unusable wells to comply with state regulations.	Infrastructure maintenance	Infrastructure maintenance	Other state agencies  Citizens  Local government	1.5	Wells sealed and no longer a concern for water quality into future.	Bonding
Ground Water Exploration	DNR (Waters in cooperation with various communities)	Identifies locations for exploratory drilling, oversees drilling by contractor, interprets and presents results to describe the nature of the subsurface in areas where little information is available.	Planning  Monitoring and assessment	Technical assistance  Planning	Local government  Citizens  Legislators  Other state agencies  Federal agencies	.5	Aquifers located and described (or ruled out).	General fund

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Precipitation Monitoring, Data Compilation and Interpretation and Climate Studies	DNR  (Waters in cooperation with NWS, SWCDs and others)	Collects and compiles precipitation reports from observers across the state; archives the data; produces statistical summaries and interpretive maps on trends. Evaluation of the significance and likelihood of occurrence of a particular set of circumstances.	Monitoring and assessment  Planning	Technical assistance  Ambient monitoring  Training	Citizens  Regulated parties  Local government  Federal agencies  Nonprofit organizations  Schools and educators  Legislators	3	Information about magnitude and direction of precipitation and water resources made available in a timely fashion.  Climate trends and water resources implications described for users and public.	General fund
Dam Safety Program	DNR  (Waters)	Requires permits for dam construction and performs periodic dam inspections. Provides matching grants to local governments for dam projects.  MS 103G.505-531	Regulation and enforcement  Financial assistance  Training and assistance	Regulation and enforcement  Financial assistance  Infrastructure  Technical assistance	Regulated parties  Local government	3	Removal of unsafe or obsolete dams.	General fund, capital bonding, FEMA grants
Surface Water Technical Analysis Program	DNR  (Waters)	Provides hydrologic and hydraulic engineering services to support public waters permit program decisions and assist local governments and landowners.  MS 103G.111	Training and assistance  Regulation and enforcement	Technical assistance  Training	Regulated parties  Local government  Citizens	3	Technically sound information to support permit decisions.  Improved understanding of the causes and impact of flooding, lake level fluctuations, drought etc.  GIS layers for major and minor watersheds and lakesheds.	General fund

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Lake Hydrology Program	DNR (Waters)	Collects and provides information on lake levels and other lake attributes in a consolidated, web accessible database. Relies on 500+ volunteer network.  MS 103G.121, Subd. 1	Monitoring and assessment  Training and assistance	Ambient monitoring  Technical assistance	Citizens  Local government  Other state agencies	2	Web accessible information on lake levels and other lake attributes.  Information needed to perform technical analyses.	General fund
Hydrographic Services Programs	DNR (Waters)	Conducts topographic surveys on land alteration activities impacting public waters. Determines OHW levels of public waters. Performs maintenance work at 300+ state owned lake outlet dams.  MS 103G.121, Subd. 1	Training and assistance  Regulation and enforcement  Infrastructure maintenance	Technical assistance  Infrastructure maintenance	Regulated parties  Local government  Citizens	6	Ordinary high water level determinations for public waters basins.  Detailed topographic maps and survey drawings, graphics.  Functional lake outlet dams and stabilized lake levels.	General fund
Public Water Emergency Conservation Planning	DNR (Waters)	Once every 10 years, public water suppliers serving greater than 1,000 people must prepare and implement plans to conserve water, implement emergency drought procedures and reduce future demand.  MS 103G.291	Regulation and enforcement  Planning	Technical assistance  Planning  Oversight of activities of regulatory partners	Regulated parties  Local government	1	311 local plans implemented.  Per capita water use rate increase is reduced.	General fund
Lake Improvement District	DNR (Waters)	Allow for establishment of a lake improvement district with taxing and regulatory powers to protect lakes and to increase and enhance the use and enjoyment of lakes.  MS 103F.801	Planning	Technical assistance  Planning  Oversight of activities of regulatory partners	Local government  Citizens	.1	14 LIDS exist in Minnesota.	Local government, general fund
Project Wet	DNR (Waters)	Provides water education training (WET) for MN K-12 teachers including workshop and curriculum for classroom use.	Training and assistance	Training	Schools and educators  Nonprofit organizations	1	100 teachers trained as facilitators annually.  Schools using curriculum.	General fund

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Stream Maintenance Grants	DNR (Waters)	Provides cost-share grants for removal of debris, trees, brush etc.  MS 103G.701	Financial assistance	Financial assistance	Local government	0 at present	Program funding has been erratic.  Clearing of debris from Minnesota streams.	General fund
Public Waters Work Permits	DNR (Waters)  (Ecological Services)  (Fisheries)  (Wildlife)  (Enforcement)	Regulates alterations of the course, current and cross-sections of public waters by direct permit from DNR Waters to avoid or minimize damage to public waters and allow reasonable riparian uses.	Regulation and enforcement	Regulation and enforcement  Compliance monitoring  Technical assistance  Standards establishment	Regulated parties  Local government  Other state agencies  Federal  Citizens	34	Damages avoided to lakes, streams and public waters.	General fund, game and fish account
Protected Waters and Wetland Inventory	DNR (Waters)	DNR has created an inventory of waters and wetlands for which permits are required. DNR is in the process of digitizing the protected water inventory on the computerized National Wetlands Inventory map base.  MS 103G.201	Training and assistance  Planning  Regulation and enforcement	Planning  Technical assistance  Regulation and enforcement	Regulated parties  Local government  Other state agencies  Federal  Citizens	1	22,000 public waters mapped.  Better tools provided for program implementation.	LCMR, general fund

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Aquatic Plant Management Program	DNR (Ecological Services) (Fisheries) (Enforcement)	Issues permits to lake property owners to control vegetation adjacent to their property using herbicides or mechanical removal, evaluates the impacts of those control efforts, and ensures that pesticides are used appropriately. Assists in pesticide applicator training for staff, cooperators, and some operators. Assistance is also given to property owners or associations in producing long-term vegetation plans.  MS 103G.615, MS 84.091 and  MR Chapter 6280	Regulation and enforcement  Monitoring and assessment  Training and assistance	Standards establishment  Compliance monitoring  Technical assistance  Training  Regulation and enforcement	Citizens  Regulated parties  Local government  Other state agencies  Federal agencies  Nonprofit organizations (lake associations, sport groups)  Legislators	11	Riparian owners obtain access and use of lake while important habitat for fish and wildlife, or rare species are protected.	Game and fish funds, water recreation account, general funds, federal cost share \$826,273
Stream Hydrology Program	DNR (Waters)	Collects and analyzes information on river and stream flow. Provides financial support for about one-third of the cooperative federal stream gauging network in Minnesota. Provides technical assistance to others.  MS 103G.285, Subd.2	Monitoring and assessment  Training and assistance	Ambient monitoring  Technical assistance  Training	Local government  Other state agencies  Citizens	3	Statistical information on flows and flood and drought frequency needed to perform technical analyses.  Time of travel and stream temperature studies.  Community flood warning system.  Hydro-power compliance monitoring.  Information on surface water availability.	General fund, income contracts



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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Water Appropriation Permit Program	DNR (Waters)	Permits are required for appropriations of surface or ground water exceeding 10,000 gallons per day or 1 million gallons per year.  MS 103G.271	Regulation and enforcement  Training and assistance	Regulation and enforcement  Compliance monitoring  Technical assistance  Standards establishment	Regulated parties  Local government  Other state agencies  Citizens	8	6,800 permits statewide.  \$2.8 million in revenues.  Noninterference of government water supplies.  Prioritization of users in event of drought.	General fund, permit fees
Flood Plain Management Program	DNR (Waters)	Standards provide for identifying floodplains, floodways and flood fringe areas. Standards describe flood protection measures for new construction in the flood fringe. Standards require that only open space uses are to be allowed in floodway areas.  MS 103F.101	Regulation and enforcement  Standards and indicators  Planning	Oversight  Technical assistance  Regulation and enforcement  Standards establishment  Training	Local government  Other state agencies  Federal  Citizens	7	Future flood damages averted.  Number of communities participating in NFIP.  Number of flood insurance policies.	General fund, FEMA funds

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Shoreland Management and Wild and Scenic Rivers Program	DNR (Waters)	Standards have been established for development of shoreland areas; land within 300 ft. of a stream or 1000 ft. of a lake or wetland or the extent of a floodplain. Standards address subdivision of land, structure setbacks, vegetative management, land alterations, agricultural activities and sewage treatment.  MS 103F.201 (SL)  MS 103F.301 (WSR)  MS 103F.351 (Lower St. Croix)  MS 103F.361 (Miss HW Board)	Standards and indicators  Planning	Oversight  Technical assistance  Regulation and enforcement  Standards establishment  Training	Local government  Other state agencies  Citizens  Nonprofit organizations (MLA)	10	Number of communities with local ordinances.  New development and redevelopment conforms to standards.	General fund, water recreation fund-WSR
Flood Damage Reduction Program	DNR (Waters)	Provides matching grants to local units of government to implement flood damage reduction projects. Some projects have created or enhanced wetlands for flood water storage areas.  MS 103F.161	Training and assistance	Financial assistance  Technical assistance  Infrastructure maintenance  Planning	Local government  Other state agencies  Federal  Legislators	2	Flood damages reduced.  Communities protected.  Flood fighting costs reduced.	General funds, state bonding
DNR River Management Program	DNR (Waters)	Assists other federal, state and local river management efforts such as MWBAC, UMRBA, Mississippi Headwaters Board.	Training and assistance  Planning	Technical assistance  Financial assistance  Oversight  Planning	Other state agencies  Federal	.5	Comprehensive plans established and monitored on rivers.	Water recreation fund, general fund

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Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Hydropower Licensing	DNR (OMB)	Conducts reviews for hydropower proposals.	Regulation and enforcement  Training and assistance	Technical assistance  Regulation and enforcement	Regulated parties  Other state agencies  Federal agencies	.5	Hydropower relicensing is accomplished.	Water recreation fund
Coastal Resource Management	DNR (Waters)	Provides for the consistent administration of the federal coastal program in Minnesota.	Training and assistance  Planning	Financial assistance  Planning  Technical assistance  Regulation and enforcement	Citizens  Regulated parties  Local government  Federal agencies  Nonprofit organizations  Schools and educators  Legislators	2	Implementation of the coastal plan, distribution of federal funds to local project sponsors, and improved resource management.	Federal
Water Planning	DNR (Waters)	Provides review and input into the local water planning process.	Planning	Technical assistance	Local government	4.5	Local water plans are consistent with the state rule and policy. Local governments have better resource information for their plans.	General fund

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Overall state water policy coordination – includes State Water Plan, Groundwater Policy and biennial Water Priority Reports	Minnesota Planning  (EOB)	The EOB works through its Water Resources Committee to coordinate state-level water programs and develop the decennial state water plan. The 2000 plan, Minnesota Watermarks, includes statewide goals and objectives for water management, as well as goals and objectives for each of the individual basins. Water priorities, for ground water, for each biennium are developed in conjunction with the EOB's Water Resources Committee.  MS 103B.151 MS 103A.204 MS 103A.43	Planning	Planning	Legislators  Other state agencies  Citizens	1	State policies and priorities for water management are documented.	General fund
Water Unification Initiative	Minnesota Planning  (EOB)	This Governor's initiative builds upon the 2000 state water plan. Basin teams were set up to provide basin-specific information and to measure progress toward the basin goals.  MS 103A.43  Executive Order 99-15	Planning	Planning	Legislators  Other state agencies  Citizens	0.5	Local priorities are built into the state water plan and common goals established.	General fund
Statewide water research needs	Minnesota Planning  (EOB)	The EOB is to develop a water research needs and priorities report for the Legislature.  MS 103A.43	Planning	Planning	Legislators  Other state agencies	0	Water research is coordinated. NOTE: This work is conducted through the Water Unification Initiative.	No specific funding

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Water quality and quantity trends assessment	Minnesota Planning  (EQB)	EQB works with PCA, MDA and DNR to coordinate a biennial assessment and analysis of water quality and quantity, ground water degradation trends, and efforts to reduce, prevent, minimize and eliminate degradation of water. This assessment must include an analysis of relevant monitoring data.  MS 103A.43	Planning	Planning	Legislators  Other state agencies	0	Water trends and activities are documented. NOTE: This work is conducted through the Water Unification Initiative.	No specific funding
Regulation of Fertilizers, Soil and Plant Amendments	MDA  (Agronomy and Plant Protection)	Regulates the registration, use, handling and storage of fertilizers. This is accomplished by traditional product assurance, regulations on handling and storage, promotion of voluntary BMPs, regulation of product use, emergency spill response and long-term remediation and reimbursement of cleanup costs.  MS 18.C  MS 18.D  MS 18 E  MS 103.4  MS 115.B	Regulation and enforcement  Monitoring and assessment  Training and assistance  Financial assistance	Regulation and enforcement  Ambient monitoring  Compliance monitoring  Technical assistance  Training  Financial assistance	Regulated parties  Citizens	16	Registers products to ensure label compliance; permits bulk storage and containment; promotes BMPs for water quality protection; responds to emergencies; licenses commercial applicators; remediates contamination; oversees remediation and reimbursement; monitors and assesses water and practices, licenses commercial animal waste applicators, certifies soil and manure testing laboratories.	General fund, MERLA, federal and state grants

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
MN Pesticide Control Act	MDA  (Agronomy and Plant Protection)	Regulates the registration, use, handling and storage of pesticides. This is accomplished by traditional product assurance, regulations on handling and storage, licensing of applicators.  MS 18.B  MS 18.D  MS 18 E  MS 103.4  MS 115.B	Regulation and enforcement  Monitoring and assessment  Training and assistance  Financial assistance	Regulation and enforcement  Ambient monitoring  Compliance monitoring  Technical assistance  Training  Financial assistance	Regulated parties  Citizens  Federal agencies	71	Registers products; permits storage; promotes BMPs for water quality protection; monitors and assesses water and practices; licenses and certifies applicators; responds to emergencies; remediates contamination; oversees remediation and reimbursement; and collects and disposes of waste pesticides.	Pesticide fees, general fund, federal FIFRA grant, MERLA, and state and federal grants
Agriculture Best Management Practices Loan Program	MDA  (Agricultural Finance Division)  (Agricultural Development Division)	Provides zero interest loans to local units of government who in turn provide low interest loans to individuals for agricultural best management practices that help implement agricultural nonpoint source pollution priorities in local water plans. The Agricultural Finance Division administers the funding. The Agricultural Development Division works with counties, county Soil and Water Conservation Districts and local water planners to develop applications, and convenes an advisory committee (comprised of water quality agencies and local units of government) to review and rank the applications and advise the commissioner on allocation decisions.  Minnesota Statutes, 2000, Section 17.117, as amended by Laws of Minnesota 2001, First Special Session, Chapter 2, Section 25.	Financial assistance	Financial assistance  Technical assistance	Citizens  Local government  Regulated parties	2.5	Agricultural best management practices (BMPs) reduce environmental pollution.  Agricultural producers receive low interest loans to help offset costs of environmental improvements.  Improvements in environmental quality in agricultural areas.  Implementation of agricultural environmental goals in local water plans.  Increased compliance with agricultural environmental standards and regulations.	Annual allocations from PFA or General fund and revolving funds

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
MN Well Construction Code and Program	MDH  (Environmental Health)	Protects the health of those who drink well water, approx. 70 percent of state's population. It also protects ground water resources through compliance with proper construction techniques for new wells and borings, and through the timely and proper sealing of old wells and borings.  MS Chapter 103I	Regulation and enforcement	Regulation and enforcement  Oversight of activities of regulatory partners	Local government  Citizens  Other state agencies	35	Licensure and training for well related professions. Inspection of new wells and borings. Follow-up on property transfers to ensure unused wells are sealed. Maintain data on the location of wells and borings. Establish "special well construction areas" for those parts of Minnesota known to have groundwater contamination or other special conditions. Provide information and technical assistance to public and professions, including water clinics with MDA.	Regulatory fees
Public Water Supply Program	MDH  (Environmental Health)	Ensures that public water supplies provide a safe and adequate supply of drinking water to protect the health of residents and visitors. Sets maximum contaminant levels and monitoring frequencies for over 10,000 public water systems in the state.  MS 144.381 to 144.385 - General MS 115.741 – Operator cert. MS 144.145 - Fluoride MS 446A.081- DWRF	Regulation and enforcement  Infrastructure maintenance	Regulation and enforcement  Infrastructure maintenance  Compliance monitoring	Local government  Citizens  Other state agencies	90	Compliance assistance to ensure water suppliers meet standards. Monitor drinking water quality and perform on-site inspections of water system facilities and operations. Establish construction standards and review and approve plans for construction of drinking water facilities. Train and certify operators in conjunction with PCA wastewater operator program. Award loans to public water suppliers for infrastructure improvements in conjunction with DTED. Provide information, education and assistance. Fluoridation of public water supplies.	Regulatory fees, service connection fees, federal funds and revolving fund

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Wellhead/Source Water Protection Program	MDH  (Environmental Health)	Protects public wellhead and source water areas from contaminants that may adversely affect human health. Public water suppliers are required to delineate protection areas, investigate potential contaminant sources and develop a program for managing these sources.  MS 144.381 to 144.385	Training and assistance  Regulation and enforcement	Regulation and enforcement  Technical assistance  Training  Planning	Local government  Citizens  Other state agencies	25	Work with public water suppliers to develop and implement source water and wellhead protection plans that safeguard their water sources from contamination.	General fund, service connection fees, federal funds (Clean Water Act 106 and 319) and revolving fund
Health Based Standard Setting	MDH  (Environmental Health)	Established and maintains health risk limits and health based values for ground water and water contaminants.  MS 103H.201  MS 144.0751	Standards and indicators	Standards establishment  Technical assistance	Other state agencies  Nonprofit organizations (environmental and health advocacy groups)  Citizens  Legislators	5	Conducts research, analyzes results and communicates to local, regional and state programs (PCA, DNR, MDA), results of water exposure conditions.  Review and revise as necessary health risk levels (HRLs) for ground water contaminants and health based values (HBVs) for water.  Safe drinking water standards must be based on scientifically acceptable, peer-reviewed information and include a reasonable margin of safety to adequately protect the health of infants, children and adults.	General fund
Monitoring Data Coordination and Reporting	PCA	Preparation of reports, compiling of data and presentation of monitoring results.	Monitoring and assessment	Technical assistance  Ambient monitoring	Local government	8	Reports, data runs and other information compiled in useful formats.	Federal and state funding



## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Biological Monitoring	PCA	Development of stream indices of biological integrity (IBI).	Standards and indicators  Monitoring and assessment	Ambient monitoring  Chemical and biological indicator establishment	Federal Agencies  Citizens  Legislators  Nonprofit organizations	3	Criteria by which stream health can be assessed via health of biological communities.	General fund
Mercury in Fish Tissue	PCA	Determines the concentrations of mercury in fish tissue for a set of Minnesota lakes.	Monitoring and assessment	Ambient monitoring	Citizens	1	Information on the concentration and trends of mercury in fish tissues.	Federal and state funding
Toxics Monitoring	PCA	Determines the concentration of metals in streams and sources of sediment contamination.	Monitoring and assessment	Ambient monitoring	Federal Agencies	2	Information on water body contamination by toxic substances.	Federal and state funding
Project-specific monitoring	PCA	Intensive monitoring of specific lakes and streams.	Monitoring and assessment	Ambient monitoring	Local government  Citizens	6	More detailed information on the water quality of specific water bodies.	State funding
Stormwater	PCA	Minimum requirements for controlling storm water runoff from industrial and construction sites.	Regulation and enforcement	Technical assistance  Training  Regulation and enforcement	Local government  Federal agencies	14	Reduced water pollution from storm water leaving commercial sites.	Section 319 funds, legislative appropriation

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Total maximum Daily Loads (TMDLs)	PCA	Identification of impaired waters and development of implementation plans for returning water bodies to a healthy state.	Regulation and enforcement	Technical assistance Financial assistance Oversight of activities of regulatory partners Regulation and enforcement	Federal agencies Local government Nonprofit organizations Citizens	5	Implementation plans for returning water bodies to a healthy state, and eventually water bodies that meet water quality standards.	Legislative appropriation, Section 319
Ambient Stream Water Quality Monitoring	PCA	Routine monitoring provides background water quality data necessary for several agency water programs and for responses to requests from individuals and groups interested in water quality. Water samples are analyzed for a variety of chemical parameters.	Monitoring and assessment	Ambient monitoring	Federal agencies Citizens Nonprofit organizations Legislators	1	Information on stream water quality, including trends of pollutant levels.	General fund, federal 100
Citizens Lake and Streams Monitoring Programs	PCA	Volunteers assist in the assessment of water quality by measuring clarity of lakes using Secchi discs and streams using transparency tubes.	Monitoring and assessment	Technical assistance	Citizens Federal agencies Nonprofit organizations Legislators	2	Improved quantity of data on our water resources through use of citizen volunteers.	General fund, SRF loan program
Lake Assessments Program	PCA	The program is a cooperative study of a lake involving PCA staff and local citizens. The studies characterize a lakes condition and provide some basic information regarding the interaction of the lake and it watershed.	Monitoring and assessment	Ambient monitoring Technical assistance	Citizens Local government Nonprofit organizations	1	Information on the water quality of specific lakes.	EPA lake assessment grants

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Lake Studies Program	PCA	Inventories the physical, chemical and biological characteristics of Minnesota's lakes for informed decision making of state fisheries and lake management programs.	Monitoring and assessment	Ambient monitoring	Other state agencies  Citizens	1	Information on the water quality of specific lakes.	General fund
Wetlands Biological Assessment	PCA	Development of practical criteria for making decisions about impacts to high quality wetlands.	Standards and indicators	Chemical and biological indicators establishment  Ambient monitoring	Federal agencies  Local government  Citizens	2	Criteria for assessing wetland health and condition.	Federal funding
Basin Planning and Coastal Zone Management	PCA	Plans are created to address water quality issues on a basin-wide scale.	Planning	Planning	Local government  Other state agencies  Federal agencies  Citizens  Nonprofit organizations	7	Basin information documents, Basin plans, local input to state water planning efforts.	Federal funding, legislative appropriation
Water Program Development and Planning	PCA	Aggregate staff time dedicated to planning and other water program development and coordination not specified by listed programs.	Planning  Training and assistance  Regulation and enforcement	Planning	Federal agencies  Local government	4	Plans, initiatives, tracking of progress, support of programs.	Various – section 319, general fund

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Feedlot Program	PCA	Any facility that meets the definition of feedlot with greater than 1000 animal units (au) needs an NPDES permit. Any new facility greater than 300 AU needs an NPDES permit. In addition, any facility that is creating a pollution hazard may be required to get a permit.	Regulation and enforcement	Regulation and enforcement  Oversight of activities of regulatory partners  Technical assistance	Regulated parties  Local government	31.5	Inventory of feedlots and control of pollution from them.	Federal 106, Federal 319, General fund
Individual Sewage Treatment Systems	PCA	PCA has minimum standards and criteria for the design, location, installation and the use and maintenance of Individual Sewage Treatment Systems. ISTS professionals are registered and <i>licensed</i> by PCA in accordance with state standards.	Regulation and enforcement	Technical assistance  Oversight of activities of regulatory partners	Local government  Regulated parties	4.5	Information provided to ISTS owners and professionals to encourage better management of ISTS. Moving program to more local implementation.	General fund
NPDES and SDS Permit Programs	PCA	The NPDES program regulates discharges of industrial and municipal wastes into waters of the state. Permits are granted that include standards for the discharge and monitoring requirements. Some municipal sewage, sewage sludge and industrial wastes are disposed of by land application such as spray irrigation. SDS permits generally require permit holders to monitor ground water at sites where the waste is applied and to submit quarterly or annual reports.	Regulation and enforcement	Regulation and enforcement	Regulated parties  Federal agencies  Nonprofit organizations  Citizens	77	Controlled discharges of waste to surface water and land.	General fund, permit fees, Federal 106
Water Quality Standards Establishment	PCA	Establishes in-stream and discharge standards for waters of the state.	Standards and indicators  Regulation and enforcement	Standards and indicators	Regulated parties  Federal agencies	5	In-stream water quality standards and facility specific effluent limits to protect water quality.	General fund, federal funding

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Clean Water Partnership and CWA Section 319 Financial Assistance Programs	PCA	Provides financial assistance through matching grants and loans and technical assistance to local governments to lead water resource restoration and protection projects with an emphasis on watersheds.	Training and assistance	Financial assistance  Technical assistance	Local government  Other state agencies  Nonprofit organizations	14	Diagnosis of water quality problems and causes of specific water bodies and implementation of corrective measures to improve and protect water quality.	Federal 319 grants, general fund
Individual Sewage Treatment System Grant Program	PCA	Provides a 50% match grant to low income communities for the installation of ISTS and small cluster systems.	Financial assistance	Financial assistance	Local government	1	Specific small communities' wastewater treatment needs are addressed.	General fund
Water Pollution Control Revolving Fund/Wastewater Infrastructure Funding Program	Minnesota Public Facilities Authority/DTED in conjunction with PCA	Provides loans and grants to municipalities for wastewater infrastructure improvements and provides funding to state agencies for nonpoint source loan programs.	Financial assistance	Financial assistance  Infrastructure maintenance	Local government	4.5	40 wastewater projects estimated \$120 million, reduce local taxes and fees by \$35 million annually.	Loans: 6% state match, 30% federal, 14% investment earnings, and 50% revenue bonds
Drinking water Revolving Fund	Minnesota Public Facilities Authority/DTED in conjunction with MDH	Provides loans to eligible water suppliers to make drinking water infrastructure improvements and provides funding to address several mandated state functions undertaken by MDH.	Financial assistance	Financial assistance  Infrastructure maintenance	Local government	2.5	Fund 20-25 projects per year for \$15 –\$30 million annually reduce local taxes and fees by \$5 million annually.	10% State matching funds, 50% federal, 35% revenue bonds and 5% investment earnings
County Geologic Atlas and Regional Hydrogeologic Assessments	Minnesota Geological Survey  DNR  (Waters)	Geologic mapping and hydrologic characterization to identify sensitive ground water resources and to support local government planning.	Training and assistance  Planning	Technical assistance  Training	Local government  Other state agencies  Citizens  Schools and educators	10	Geologic maps (and GIS files), derivative maps, databases for land use decision-making, training of local government users.	DNR

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
County Well Index Database	Minnesota Geological Survey	Ongoing program to maintain, populate and distribute a statewide database of well records.	Training and assistance Planning Monitoring Regulation and enforcement	Technical assistance	Local government Other state agencies Citizens	3	Database of 325,000+ well records to support geologic mapping, water use investigations, spill response, regional and site-specific hydrologic investigations, code enforcement, well abandonment programs.	Minnesota Geological Survey state special appropriation, supplemental support from some DNR and MDH funded projects
Borehole Geophysical Logging Program	Minnesota Geological Survey	Ongoing program to collect, interpret and store geophysical logs of wells and boreholes to determine geologic units present, hydrologic properties, well construction.	Training and assistance Planning Monitoring Regulation and enforcement	Technical assistance	Other state agencies Local government Citizens	1	Supports many other programs by establishing aquifer(s) being used, monitored, contaminated, sampled, etc. by a particular well; used to support code enforcement by MDH; measures hydrologic properties for new hydro framework units.	Minnesota Geological Survey state special appropriation, some support from LCMR, Minnesota Department of Health
Hydro-stratigraphic Framework Studies	Minnesota Geological Survey	Ongoing, long-term program to develop a framework of rock units based on water-bearing characteristics.	Training and assistance Planning Regulation and enforcement	Technical assistance	Other state agencies Federal agencies	1+	Framework of rock units specifically for water management and code enforcement; understanding of flow paths; use in ground water flow models.	MGS state special appropriation, LCMR, others
Geologic Mapping and Database Development to Support Wellhead Protection	Minnesota Geological Survey MDH Southeast Minnesota Water Resources Board	Mapping at various scales to support ground water modeling and wellhead protection.	Training and assistance Planning	Technical assistance	Other state agencies Federal agencies Local government	2	Geologic information to delineate wellhead protection areas and to design wellhead protection plans.	MDH, SEMNWRB, others

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Karst Database Development	Minnesota Geological Survey  MDH	Design, construction and population of a statewide database of karst features.	Training and assistance  Planning	Technical assistance	Other state agencies  Local government  Citizens	1	Database of features to consider in ground water management including facility siting and non-point source management.	PCA 319
Geologic Mapping to Support Lake Management	Minnesota Geological Survey  U of MN	Geologic and hydrologic mapping to identify lake water and ground water interaction and its effects on water quality.	Training and assistance  Planning	Technical assistance  Training	Local government  Citizens  Nonprofit organizations	1	Maps suitable for land use planning, of geologic units and hydrologic conditions; derivative maps of areas contributing runoff and ground water to lakes.	Carnelian-Marine Watershed District, others
Quantitative Mapping of Recharge, Twin Cities Metro Area, and others	Minnesota Geological Survey	Identification of recharge areas, recharge rates and sustainable yields.	Training and assistance  Planning  Standards and indicators	Technical assistance	Local government  Other state agencies  Federal agencies	1	Maps of recharge areas and estimates of sustainable yield for water supply management.	MGS state special appropriation and U.S. Geological Survey (presently unfunded)
Manure Management and Utilization Education	U of MN WRC  U of MN Extension	Education on manure application for producers and private applicators.	Training and assistance	Training	Citizens  Nonprofit organizations	2	Have producers use manure effectively as a part of a comprehensive manure management plan.	MDA, Section 319
Environmental Quality Incentives Program Education	U of MN WRC  U of MN Extension	Education on conservation incentives.	Training and assistance	Training	Citizens  Nonprofit organizations	2	Educate producers about farm bill conservation incentives to obtain adoption of conservation practices.	USDA/NRCS

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
On-site Sewage Treatment Education Program	U of M WRC U of M Extension	Education, research and monitoring of standard and alternative individual sewage treatment systems.	Training and assistance  Monitoring and assessment	Training	Citizens  Nonprofit organizations  Schools and educators	3	Work with a variety of audiences to change behavior in the operation and maintenance of individual sewage treatment systems.	U of M Extension, Section 319, PCA
Shoreland and Water Quality Education	U of M WRC U of M Extension	Educates shoreland property owners and LGU staff about shoreland issues.	Training and assistance  Monitoring and assessment	Training	Citizens	2	Work with shoreland owners to revegetate shoreland.	U of M Extension, Counties, Section 319, PCA
Water Resources Education	U of M Extension BWSR	Variety of educational programs.	Training and assistance	Training	Citizens  Local government	4	Provide leadership for water quality programs and stewardship including water festivals, watershed activities, facilitation of mediation.	U of M Extension, BWSR
MinnAqua Program	U of M Extension DNR	Educates youth and citizens about lake and stream ecology.	Training and assistance	Training	Citizens	1	Conduct fishing clinics and seminars to teach people about water resources concerns and concepts	DNR, U of M Extension
Volunteer Stream Monitoring Program	U of M WRC U of M Extension Metropolitan Council	Conducts stream monitoring clinics for teachers and students in the metro area.	Monitoring and assessment  Training and assistance	Training  Ambient monitoring	Schools and educators	2	Set up monitoring program through use of student volunteers.	Met Council, U of M WRC
Lower MN River Assessment	U of M Extension Friends of the Minnesota River Boonestroo and Associates Metropolitan Council	Facilitates planning and implementation around cleaning up the Minnesota River.	Planning  Monitoring and assessment  Training and assistance	Planning  Training  Ambient monitoring	Citizens  Nonprofit organizations  Local government	1	Facilitate planning and implementation programs.	Met Council, U of M Extension



## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Lake Quality Assessment	U of M WRC DNR	Monitor trophic status of lakes using GIS.	Monitoring and assessment	Ambient monitoring	Other state agencies	1	Water quality and clarity remotely monitored.	Met Council
Drainage Practices in the Minnesota River Basin	U of M WRC MDA	Programs on drainage and water management issues.	Training and assistance Monitoring and assessment	Training Ambient monitoring	Citizens	3	Drainage practices evaluated and demonstrated.	MDA, U of M Extension, U of M WRC
Natural Resources Parks Program	Metropolitan Council (Community Development)	Provides funding to the regional park agencies for the operation, maintenance, development and acquisition for the parks in the metropolitan area.	Acquisition and development	Acquisition and development	Citizens Schools and educators	2	Recreational opportunities related to water are provided in regional parks.	Appropriations from the state legislature
Lake Sampling Program	Metropolitan Council (Environmental Services)	The Metropolitan Council has undertaken a lake sampling program since 1980 in the metro area. This program is used to assess the quality of over 150 metro area lakes. This assessment is used to establish trends in regional lake water quality. Includes a Citizens' Assisted Monitoring Program (CAMP) element.	Monitoring and assessment	Ambient monitoring technical assistance	Citizens Local government	1	Water quality objectives formalized.	Wastewater fees, small charge for CAMP cooperators
Stream Water Quality Sampling	Metropolitan Council (Environmental Services)	The Metropolitan Council samples ambient river and stream water quality, conducts special studies (Hg, PCB, endocrine disrupters, phosphorus), and does routine sampling of water and sediment occurs for nutrients, solids, toxics and biological contaminants for wastewater treatment compliance. Water quality modeling and data management are included in this category.	Monitoring and assessment	Ambient monitoring Compliance monitoring Technical assistance	Citizens Local government Other state agencies Federal agencies	14	Water quality trends within the metro area are monitored; pollutants of special interest or emerging importance are explored.	Wastewater fees, special legislative appropriation (1997, 1999)

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Pollution Prevention	Metropolitan Council  (Environmental Services)	Metropolitan Council's Industrial Waste section works with industrial wastewater permittees to reduce pollution discharged to the wastewater system.	Regulation and enforcement  Training and assistance	Regulation and enforcement  Technical assistance	Regulated parties  Other state agencies  Federal agencies	1.5	Reduced discharge of industrial waste to the metropolitan wastewater collection system.	Wastewater fees
Laboratory Analysis	Metropolitan Council  (Environmental Services)	Complete laboratory set up to assess wastewater influent/effluent quality, compliance, and ambient and nonpoint source water quality.	Monitoring and assessment  Regulation and enforcement	Compliance monitoring  Technical assistance	Regulated parties	41	Tracking compliance with regulatory requirements; monitoring water quality trends.	Wastewater fees
Water supply Planning	Metropolitan Council  (Environmental Services)	The council prepares a regional water supply plan, reviews municipal water supply plans, collects basic water use data, reviews DNR water appropriation permits, facilitates discussion groups as needed (ex. Southwest Metro Groundwater Work Group), participates in source water protection activities (ex. Miss. River Defense Network).	Planning  Training and assistance	Planning  Technical assistance	Citizens  Local government  Other state agencies  Legislators	1	Assurance that water supply remains a viable resource to support current and future metro area users.	Ad Valorem Tax Levy, wastewater fees
Grant Programs	Metropolitan Council  (Environmental Services)	The Metro Environment Partnership grant program distributes funds for nonpoint source pollution abatement. Over \$15 million will be awarded from 1994 through 2002.	Financial assistance	Financial assistance	Citizens  Nonprofit organizations  Local government	1.5	Grant funds to spur improvements in regional water quality.	Wastewater fees
Technical Assistance	Metropolitan Council  (Environmental Services)  (Community Development)	Watershed coordinators, sector representatives and staff provide technical assistance to communities, watershed organizations, nonprofits organizations and other public agencies. Assistance is offered in such areas as water quality management, special studies, septic systems, ground water management, environmental education, water planning and industrial waste assistance in pollution prevention, recycling and regulation.	Training and assistance	Technical assistance	Citizens  Other state agencies  Local government	1.5	Sharing study results, experience and technical and planning knowledge with others.	Ad Valorem Tax Levy, wastewater fees

## State Water Programs – 2001-2002

Program	Agency	Brief Description	Program Categories	Agency Role in Program	Program Customer	FTEs	Outcomes	Funding Source
Research and Development	Metropolitan Council  (Environmental Services)	Conducts research on various wastewater treatment functions and water quality management measures.	Regulation and enforcement  Training and assistance	Regulation and enforcement  Technical assistance	Local government  Citizens	7	Improved water quality through better treatment of wastewater and understanding of pollution occurrence and management.	Wastewater fees
River Corridor Planning	Metropolitan Council  (Environmental Services)  (Community Development)	Participates in several planning programs on major river corridors (for example, American Heritage Rivers Initiative). Also reviews plans for communities adjacent to the Mississippi River (MNRRA, Critical Area).	Planning	Planning	Citizens  Local government  Federal agencies	1	Improved coordination among corridor stakeholders and incorporation of regional perspective in land use planning along rivers.	Ad Valorem Tax Levy, wastewater fees
Regional Environmental Planning Program	Metropolitan Council  (Environmental Services)  (Community Development)	The Metropolitan Council has been charged by the Legislature to prepare regional plans and policy documents that include an environmental component. This provides the basis for council environmental project and permit review through numerous agencies. The council reviews and comments on local government comprehensive plans. If the council determines that the local comprehensive plan will impact on the metropolitan systems, the council can require the local plan be modified to be consistent with council planning.	Planning	Planning	Citizens  Other state agencies  Regulated parties  Local government	13	Review of natural resources component of local comprehensive plans; compile a GIS-based natural resources inventory program to help establish standards and guidelines for preservation and protection of natural features; prepare regional policy plans to assure the orderly and economic growth of the region.	Ad Valorem Tax Levy, charge-backs to regional agencies, wastewater fees
Industrial Waste and Pollution Prevention (Pre-treatment)	Metropolitan Council  (Environmental Services)	MCES administers this EPA/PCA delegated program for the metro area, including permitting, monitoring and enforcement; program required under federal NPDES system.	Regulation and enforcement	Regulation and enforcement	Citizens  Regulated parties  Local government	20	Compliance with federal regulations, and safe and efficient operation of industrial wastewater collection and treatment; beneficial reuse of residual industrial wastes.	Wastewater and permit fees