The Minnesota Water Management Framework

High-level, multi-agency implementation actions needed for clean and sustainable water

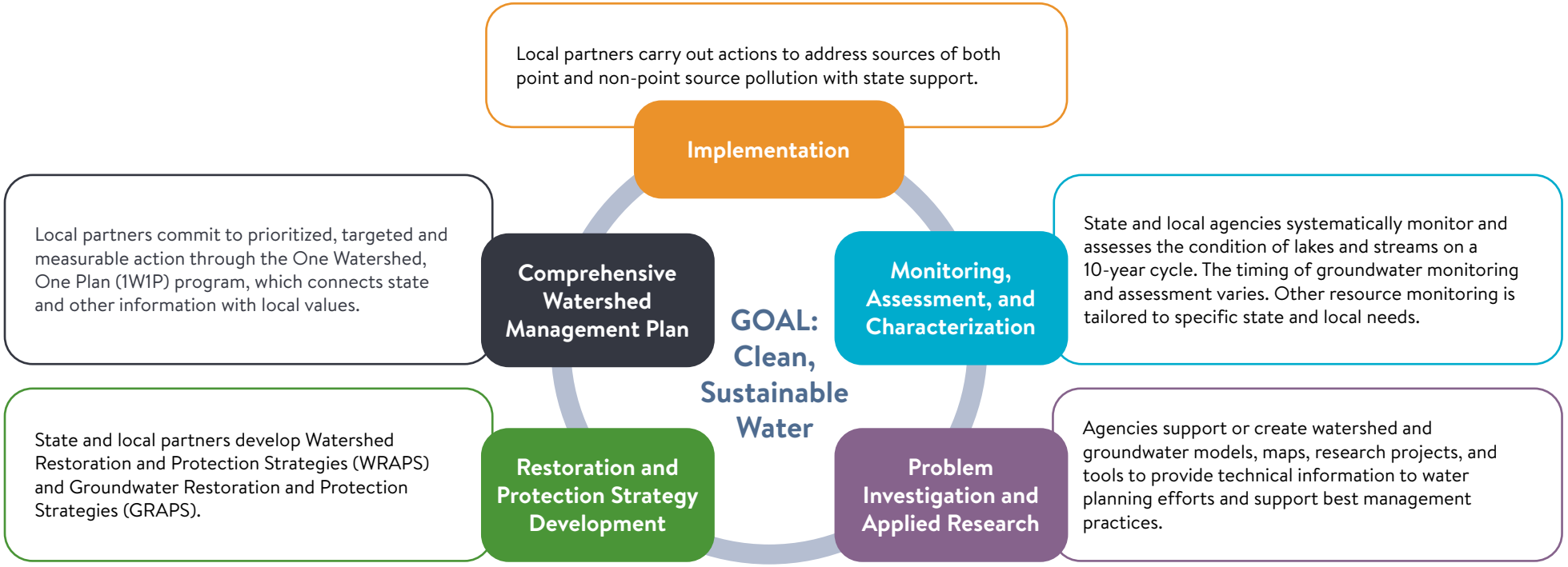
Minnesota is rich with rivers, streams, lakes, wetlands, and groundwater aquifers that support both the human and natural world. Voter passage of the Clean Water Land and Legacy Amendment in 2008 demonstrated the public's long-term commitment to actions needed for clean and sustainable water.

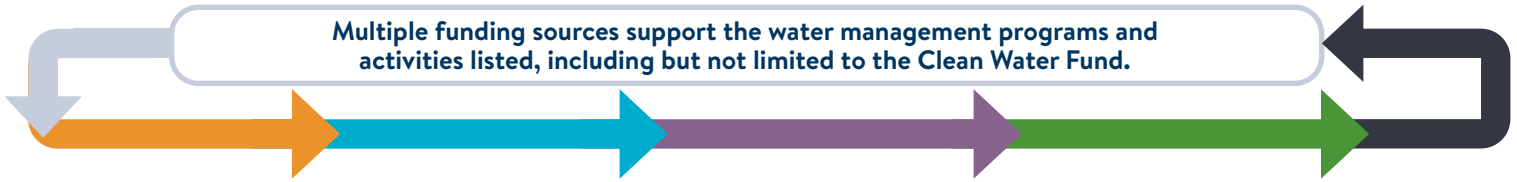
Minnesota's state water agencies developed The Minnesota Water Management Framework to clarify roles and enhance coordination at the major watershed scale.

The Framework defines five categories of work in an adaptive management approach (plan-do-check-adapt).

We deliver and coordinate our work through activities (listed on page two) in each of the framework's five categories. Through coordination and collaboration with each other and our partners, we aim to improve the effectiveness and efficiency of water management while empowering local action for clean and sustainable water statewide.

The framework connects state programs and local partners, encourages public participation, and uses the best available science to support decisions.





MINNESOTA

	Ongoing Implementation	Monitoring, Assessment, and Characterization	Problem Investigation and Applied Research	Restoration and Protection Strategy Development	Comprehensive Watershed Management Plan*
BWSR Board of Water and Soil Resources	• Funding, training, and other support for local watershed restoration and protection projects		• Remote sensing analysis to measure residue management and cover crop emergence • Share data about activities that have direct water quality benefits	• Participate on interagency watershed teams developing WRAPS (with all agencies)	• Local water and watershed plans
DNR Dept. of Natural Resources	• Technical assistance for projects • Water permits • Shoreland & floodplain management assistance • Public lands management	• Stream flow & aquifer level monitoring • Assess fish & plants in lakes • Fish tissue contaminants • Culvert & stream crossing inventories	• Stream geomorphology & hydrology analyses • Watershed health data • Aquifer level modeling • County Geologic Atlas • Lidar data stewardship & tools	• Participate on interagency watershed teams developing WRAPS (with all agencies) • GRAPS maps & data • Water supply planning and groundwater management areas	• Contribute elements from all previous columns
MDA Dept. of Agriculture	• Ag Water Quality Cert. Program • Pesticide/Fertilizer management plans • Ag BMP loans	• Pesticides monitoring in surface and groundwater • Edge-of-Field and small watershed monitoring • Groundwater modeling	• On-farm water quality research • Ag water quality Best Management Practices • Forever Green crops • Identifying pesticides as stressors	• Outreach about ag practices • Promote vegetative cover • GRAPS (data & support) • Participate on interagency teams	• Provide information on pesticide/fertilizer management plans
MDH Dept. of Health	• SWP capacity building • Private well and CEC education & outreach grants	• Monitor Public Water Supplies, new private well samples, beach bacteria levels, and CECs & health risks • Well Inspection	• Guidance for CECs • Model SWP areas and evaluation of vulnerability • Study private well contaminants	• SWP plans identify drinking water issues & strategies • Well construction management • GRAPS (data, tools, & strategies)	• GRAPS reports and decision support tools • SWP planning (local measures & strategies)
MPCA Pollution Control Agency	• Permitting and compliance programs for wastewater, stormwater, septic, and feedlots • Accountability reporting of Clean Water Fund supported activities	• Watershed pollutant load, trend, and condition monitoring and assessment of lakes, streams, and groundwater • Support local organizations for surface water monitoring	• Stressor Identification for biological impairments • Modeling of all 80 major watersheds to help target clean water strategies	• WRAPS reports provide restoration and protection strategies • Set TMDL pollution reduction targets for impaired lakes and streams	• WRAPS data, TMDLs, priorities, and strategies to inform local plans
PFA Public Facilities Authority	• Loans/grants for water infrastructure projects, priorities set by MDH and MPCA	• Watershed pollutant load, trend, and condition monitoring and assessment of lakes, streams, and groundwater • Support local organizations for surface water monitoring			
METROPOLITAN COUNCIL	• Technical assistance and demonstration projects	• Lake, stream, river monitoring (flow, chemistry, biology) • Effluent monitoring (wastewater) • Impervious surface and land cover assessments	• Surface water modeling and trend assessments • Pollutant load calculations • Groundwater mapping and characterization	• Participate in WRAPS teams • Master water supply plan • Groundwater management areas (with DNR)	• Participate in review of local water and watershed plans (metro area); local water supply plans; and comprehensive land use plans (metro area)

CEC = Contaminants of Emerging Concern
GRAPS = Groundwater Restoration and Protection Strategies
SWP = Source Water Protection
TMDL = Total Maximum Daily Load
WRAPS = Watershed Restoration and Protection Strategies
*All agencies participate on One Watershed, One Plan Advisory Committees