

Water Appropriations Systems and State Programs

Two different forms of water law are practiced in the US. In the Eastern states, Riparian rights operates and in the Western states, Prior Appropriation operates. Riparian rights evolved out of the use of water flow from a river for mill power. This form of water law involves the right to use water as a property right. Riparian rights are granted to land that is in contact with lakes and rivers. The general characteristics of riparian rights are:

- Upstream users must allow sufficient flow for downstream users
- In times of drought or shortage, users share the shortage
- Water rights are part of the riparian land and cannot be transferred for use on other lands, right remains with land when it is sold
- Water rights are not lost by non-use
- Generally regulated by “reasonable use” to allow for consumptive use of water, but varies by states

Prior Appropriation developed in the Western states as a response to the scarcity of water and the California gold rush. Most of the west was owned by the Federal government and settlers could not claim riparian rights without trespassing. The general characteristics of Prior Appropriation are:

- “First in time, first in right,” which states that the first person to divert water for beneficial use has the vested right
- In times of drought or shortage the Senior water user has rights to all water and the Junior water user may get less water or none at all
- Water rights can be transferred without relationship to land and can be transferred for use on other land
- Water rights are lost by non-use and long term water storage is common

There is also a hybrid system that has been adopted by California, Kansas, Nebraska, North and South Dakota, Oklahoma, Oregon, Texas, and Washington. Hybrid states recognize both riparian and appropriative rights. Generally, riparian land owners may claim water rights by a certain time (when the state adopted the appropriation system) and it is incorporated into the state’s prior appropriation system.

Federal Water Laws

The Clean Water Act (CWA) of 1977 gave the Federal government the authority to regulate surface water pollution by point sources such as wastewater treatment facilities. It requires facilities to prevent and respond to chemical and oil spills, and through investigation, requires remediation of ground or surface water pollution. It also regulates Nonpoint Source Pollution (NPS) by the legal directive of making water quality meet criteria for fishability and swimmability. Most of the authority for the act is given to state governments to regulate. State

governments set standards for levels of allowable pollutants in surface waters to meet the criteria and create plans to reduce pollutants in the Total Maximum Daily Load (TMDL) program which are approved by the US EPA.

Beyond the CWA there are other laws and programs that relate to water resource management such as riparian conservation easements of the Department of Agriculture and floodplain delineation programs under the Department of Homeland Security.

Minnesota Water Laws

Riparian rights in Minnesota arise from owning shoreland. Water can be used for multiple purposes (swimming, fishing, taking water for drinking or irrigation) but cannot unreasonably interfere with the riparian rights of others. Minnesota law sets priorities for water use in circumstances when there is a water shortage. From highest to lowest priority these uses are:

1. Domestic water supplies and power production with contingency water use plans
2. Uses of water consuming less than 10,000 gallons/day
3. Agricultural irrigation and processing of agricultural products
4. Power production without contingency water use plans
5. Nonessential uses of water

Minnesota “waters of the state” are any surface or underground waters that are confined. This includes all lakes, ponds, marshes, rivers, streams, ditches, springs, and underground aquifers. Surface water use is limited to waterbasins greater than 500 acres and withdrawals cannot be greater than one-half acre foot/acre/year (6 inches taken off the surface of the waterbasin). The DNR can also establish minimum protection levels for lakes and protected flows for watercourses. Ground water limitations for irrigation apply if a pumping test draws down water of nearby domestic wells.

State Agency Roles

Water planning has been mandated in Minnesota since the mid-1930s. Minnesota recognizes that water resources are best managed through many public bodies and levels of government with different levels of expertise. State agencies that have a role in water regulation and management are the BWSR, DNR, EQB, MDA, MDH, and PCA. The PCA is the largest single regulator of water in Minnesota. It enforces federal and state law including the administration of the federal Clean Water Act’s National Pollutant Discharge Elimination System (NPDES). The PCA also issues water quality certifications under §401 of the Clean Water Act.

According to a 1996 EQB report, “Minnesota’s current system of water management is the result of more than 50 years of advances in understanding of environmental problems, coupled with the public’s desire for high quality resources and federal calls for action.” An Evaluation Report on Watershed Management from the Office of the Legislative Auditor states that the interrelationships among various state agencies responsible for water management is frequently confusing for citizens and legislators to understand. Since no single entity is

responsible for the overall management of water in Minnesota, some people have recommended that all water-related programs be consolidated into a single state-level agency. In response to this, the report states that “while a consolidated state management structure might provide better accountability, there is no persuasive evidence that it would clearly produce better outcomes in terms of improved water quality [and other water outcomes].” Current state agency roles in water management programs are listed below.

Agency	Wetland Regulation	Water Quality	Water Quantity	Water Resource Monitoring	Shoreland
BWSR	Protects wetlands that are not protected by other state or federal programs through the Wetland Conservation Act on a statewide basis	<p>Coordinates resource planning activities of counties, watershed districts, soil and water conservation districts, and other local units</p> <p>Conducts education programs/research to conserve soil resources and provides assistance to landowners for installing erosion, sediment, and water quality control projects</p> <p>Engages local units to facilitate completion of comprehensive water planning</p> <p>Provides technical and financial assistance for water quality engineering projects</p>		Precipitation monitoring with Soil and Water Conservation Districts (SWCDs)	
DNR	<p>Administers the Public Waters Permit Program on certain lakes, watercourses, and wetlands in the state</p> <p>Manages Protected Waters and Wetlands Inventory</p> <p>Manages activities associated with the state Wetlands Conservation Act to promote no net loss of wetlands</p> <p>Enforces most of Minnesota's wetland regulations</p>	Provides oversight for establishment of lake improvement districts	<p>Manages Water Appropriation Permit Program, manages new ground water wells and impacts, and monitors and assesses water levels in observation wells in major aquifers across the state</p> <p>Regulates Public Water Emergency Conservation Plans</p>	County Geologic Atlas; ground water sensitivity mapping; regional hydrogeologic assessments; fish population and habitat surveys, fish contaminant monitoring program, exotic species, rare and endangered species monitoring; precipitation monitoring; Mississippi R. and stream and river flow, lake levels and other lake attributes	Manages Shoreland Management Program

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EQB		<p>Coordinates local, state, and federal agency oversight</p> <p>Oversees regulations regarding the preparation of EIS and Environmental Assessment Worksheets</p>		<p>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; including an analysis of relevant monitoring data</p>	
Local Units and Special Districts	<p>Cities, counties, townships, SWCDs and Watershed Management Organizations (WMOs) implement the Wetland Conservation Act on a local level</p> <p>Local governments may also have their own wetland ordinances and often responsible for non-DNR regulated wetlands</p>	<p>Watershed Districts develop and implement comprehensive watershed plans</p> <p>SWCDs aid in maintenance of soil and water resources through research, projects, and implementing comprehensive plans</p> <p>Lake Improvement Districts act to improve water quality and protect lakes from detrimental effects</p> <p>Local government units (outside TC metro area) use zoning, ordinance, and permitting powers and use authority to develop and implement county comprehensive water plans</p>			<p>Implements local ordinances</p>

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MDA		<p>Regulates the registration, use, handling, and storage of fertilizers</p> <p>Provides zero interest loans to local units of government who in turn provide the same to individuals for Best Management Practices that help implement agricultural NPS priorities in local water plans</p>		Agricultural chemical incidents; pesticide and nutrient monitoring in ground and surface water	
MDH			<p>Regulates and oversees well construction and sealing activities and wellhead protection plans</p> <p>Regulates and enforces Public Water Supply Program to ensure safe and adequate drinking water supplies</p>	Conducts research and analyzes results to determine health risk limits and health based values for drinking water and ground water contaminants	

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Met Council		<p>Provides technical assistance for industrial wastewater permittees to reduce pollution discharged to wastewater and distributes funds for NPS abatement</p> <p>Monitors and assesses wastewater influent/effluent quality, compliance, and ambient and nonpoint source water quality</p> <p>Conducts research on wastewater treatment and water quality management measures</p> <p>Provides technical assistance to communities, watershed organizations, nonprofit organizations, and other public agencies on water quality management, septic systems, ground water management, environmental education, water planning, and industrial waste assistance in pollution prevention, recycling and regulation</p>	<p>Does water supply planning and participates in source water protection activities</p>	<p>Conducts Lake Sampling and Stream Water Sampling programs in the Metro area to establish trends in water quality</p>	

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PCA	<p>Develops practical criteria for making decisions about impacts to high quality wetlands</p> <p>Certifies that wetland projects comply with state water quality standards</p> <p>Regulates the discharge of pollutants, including stormwater, into wetlands</p>	<p>Administers WQ rules and standards</p> <p>Manages Impaired Waters and TMDL Program</p> <p>Regulates and enforces requirements for controlling stormwater runoff from industrial and construction sites</p> <p>Creates plans to address water quality issues on a basin-wide scale</p> <p>Regulates and enforces NPDES permits for industrial and municipal waste and animal feedlots and provides loans and grants to municipalities for wastewater infrastructure improvements</p> <p>Regulates and enforces individual sewage treatment systems (ISTS) and provides grants to low income communities for installation</p> <p>Establishes and enforces in-stream discharge standards for waters of the state</p> <p>Provides financial and technical assistance to local governments for water resource restoration projects with an emphasis on watersheds, and provides loans for water suppliers for drinking water infrastructure improvements</p>		<p>Monitors and assesses ambient ground water and stream water quality and stream biological integrity, mercury in fish, toxics in streams, and specific lakes and streams</p> <p>Coordinates the Citizens Lake and Streams Monitoring Program, Lake Assessments Program, and Lake Studies Program</p>	