South Dakota's Surface Waters

Issue Memorandum **2025-XX**

SOUTH DAKOTA LEGISLATURE
LEGISLATIVE RESEARCH COUNCIL

Introduction

Historically, South Dakota has recognized both the rights of the state's inhabitants to use water for domestic and other beneficial uses and the obligation to protect groundwater and surface water so that it remains available for wildlife, recreation, and other purposes. South Dakota legislation to protect the state's waters was enacted in the first year of statehood and has continued through the decades, with a new emphasis on water quality starting in the 1970s.

This report will provide an overview of the federal and state regulatory frameworks for water quality. It will also examine the state's ongoing water quality issues and administrative challenges as the federal government moves toward a policy of "cooperative federalism" intended to empower states with more responsibility to protect their own natural resources.[1]

The Federal Clean Water Act

The first major law intended to protect United States waters from pollution was the Federal Water Pollution Control Act of 1948, [P.L. 80-845, 62 Stat. 1155]. When extensively amended and expanded in 1972, it became known as the Clean Water Act (CWA), 33 U.S.C. § 1251 *et seq*. The CWA required states and Indian tribes to inventory their waters, assess the condition, and take steps to protect the waters or improve waters already affected by pollution.

Federal regulations, promulgated under the authority of the CWA, require each state to establish a water quality standard that defines the goals for a water body. A water quality standard designates the beneficial use or uses for that body of water and sets criteria to protect those uses. Federal regulations state that:

> [W]ater quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.[2]

Environmental Protection Agency

Section 303(c) of the CWA gives the Environmental Protection Agency (EPA) the authority to review and either approve or disapprove state-adopted water quality standards. As provided for in 40 C.F.R. § 131.5 (May 2, 2024), the EPA reviews a state's plan to determine:

- Whether the state's designated water uses are consistent with the Clean Water Act requirements;
- Whether the state's criteria to protect designated water uses are based on sound science;
- Whether the state has adopted an antidegradation policy and antidegradation methods consistent with federal requirements; and
- Whether the state is following sound science and good administrative practices on other issues involved in managing water quality.

[1] FY 2026 EPA Budget in Brief, p. 3, https://www.epa.gov/system/files/documents/2025-05/fy-2026-epa-bib.pdf
[2] 40 C.F.R. § 131.2 (August 21, 2015)

South Dakota's Department of Agriculture and Natural Resources (DANR) issues a report every two years to inform the EPA and the residents of the state about the condition of the state's surface water and to serve as the basis for management decisions.

Table 1 – An Overview of South Dakota's Surface Waters

State population in 2020 Census	886,667
State surface area in square miles	77,123
Number of water basins in state	14
Total number of river/stream miles	149,753*
Number of perennial river miles (subset)	11,929*
Number of intermittent and ephemeral streams (subset)	135,128*
Number of border river miles of shared rivers/streams (subset) (Missouri River, Big Sioux River, Bois de Sioux River)	316*
Miles of ditches and canals (man-made waterways)	995*
Number of classified lakes/reservoirs/ponds	577
Acres of classified lakes/reservoirs/ponds	249,009
Acres of freshwater wetlands	1,870,790**

*Estimated from USGS (2022) National Hydrography Dataset
**National Wetlands Inventory

Source: 2024 South Dakota Integrated Report for Surface Water Quality Assessment

South Dakota Law

The South Dakota Legislature set forth legislative findings and policy about water quality in SDCL chapter 34A-2-1. The Legislature articulated that water pollution "constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish, and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water."

The statute goes on to provide that it is the policy of South Dakota to:

- Conserve the waters of the state and to protect, maintain, and improve the quality thereof for water supplies, for the propagation of wildlife, fish, and aquatic life, and for domestic, agricultural, industrial, recreational, and other legitimate uses;
- Provide that no waste be discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate and beneficial uses of such waters;
- Provide for the prevention, abatement, and control of new and existing water pollution; and
- Cooperate with other agencies of the state, agencies of other states, and the federal government in carrying out these objectives.

Water Pollution Control

South Dakota protects surface water quality by using the water quality standards it has established to ensure that each lake and stream in the state meets the beneficial uses that have been assigned to it. DANR issues surface water discharge permits to entities that are known to discharge pollutants through point sources such as pipes, and uses voluntary programs that rely on best management practices to reduce nonpoint source pollution that cannot be traced to any particular point of origin. South Dakota conducts regular monitoring of its surface water at locations across the state and gives detailed reports to the EPA, as required by federal law.

Water Quality Standards

Water quality standards are "provisions of state, territorial, authorized tribal or federal law approved by EPA that describe the desired condition of a water body and the means by which that condition will be protected or achieved."[3] SDCL § 34A-2-10 directs the Water Management Board to promulgate rules for classifying all waters in the state according to "their present and future beneficial uses." SDCL § 34A-2-11 directs that the Water Management Board promulgate rules to establish water quality standards to help meet those beneficial uses.

Chapter 74:51:01 of the Administrative Rules of South Dakota establishes surface water quality standards. Chapter 74:51:02 assigns one or more beneficial uses to each lake in the state, and chapter 74:51:03 assigns one or more beneficial uses to each stream or part of a stream.

Total Maximum Daily Load

A total maximum daily load (TMDL) is the maximum amount of a specific pollutant that a body of water can receive and still meet water quality standards for its designated uses. To manage the pollutants coming into a body of water, SDCL § 34A-2-6 allows the secretary of DANR to establish a continuing planning process consistent with federal requirements, including establishment of maximum daily loads of pollutants. A TMDL includes the amount of a pollutant from known point sources such as industrial discharge pipes or municipal sewage treatment plants; the amount of that pollutant coming from nonpoint sources that cannot be traced to a single point of origin, such as runoff from agricultural lands or urban areas; and a built-in "margin of safety" that allows for some uncertainty in calculations.

Permits

Permits are an essential tool in helping the state regulate which pollutants may come into a body of water when the pollutants are from a known source. SDCL § 34A-2-36 requires a person to obtain a permit before discharging waste into surface waters; SDCL § 34A-2-36.2 requires a concentrated animal feeding operation (CAFO) to operate under a general or individual water control permit; and SDCL § 34A-2-31 allows DANR to issue, suspend, revoke, modify, or deny permits for discharges of sewage, industrial wastes, or other wastes into state waters. SDCL § 34A-2-35 requires an opportunity for a public hearing before the state issues a permit.

[3] "What are Water Quality Standards," United States Environmental Protection Agency, https://www.epa.gov/wqs-tech/what-are-water-quality-standards.

In 2024, South Dakota issued nearly 600 new permits to protect surface waters. They included:

- Three new CAFOs added under the general permit for CAFOs, setting conditions and requirements to prevent pollution of waters of the state;
- Twenty new permits under the National Pollutant Discharge Elimination System;
    - Two were pretreatment permits that allowed the discharge of industrial wastewater into a sanitary sewer system; and
    - Eighteen were permits tailored to individual facilities that typically allow the discharge of treated wastewater into surface waters, with monitoring and treatment requirements;
- 564 general permits;
    - 501 were construction stormwater permits that authorized the discharge of stormwater from construction sites into surface waters during construction activities. These permits cover sites of one acre or larger and require the permittees to develop and implement stormwater pollution prevention plans;
    - Forty-nine were temporary discharge permits that authorized discharge into surface waters from certain temporary activities such as trenchwork and hydrostatic testing;
    - One was an aquatic invasive species permit that authorized the discharge of pesticides into surface waters for the purpose of controlling aquatic invasive animal species; and
    - Thirteen were industrial stormwater permits that authorized the discharge of stormwater from certain regulated industrial facilities. The permits require permittees to develop and implement stormwater pollution prevention plans.

Appendix A of this report describes by category all active permits protecting surface water quality in South Dakota.

Nonpoint Source Pollution

Nonpoint source pollution cannot be traced to any one point of origin, and therefore it is difficult to regulate by permit. To help minimize nonpoint source pollution, DANR administers Clean Water Act Section 319 nonpoint source management programs, 33 U.S.C. § 1329 (December 23, 2022), which support locally led, voluntary, incentive-based watershed scale projects that work with landowners and producers to implement best management practices and conservation techniques. Section 319 projects also serve as a conduit to leverage resources from other local, state, and federal entities with similar water quality goals.

Reports by the Public

Reports by the public of surface water pollution are an additional means of monitoring waters across the state. DANR investigates all water pollution complaints and, if necessary, takes enforcement actions to address violations. DANR's Water Pollution Control Act complaint form is available online at https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/default.aspx. SDCL § 34A-2-111 provides that the complaint must remain confidential, but requires that it be signed by the person making the report.

Water Quality Monitoring

Water quality monitoring is an essential part of what DANR does to protect surface waters. DANR operates 154 ambient stream monitoring stations across the state. In addition, DANR monitors thirty-five lakes annually and has collected data from 150 lakes statewide. Data from the lake and stream monitoring effort is used to identify problems, document improvements, and show overall trends in water quality. Results are logged into a national database called the Water Quality Exchange.

Pass-Through Funding

Pass-through funding from the federal government helps DANR carry out several programs to protect surface water. South Dakota established the nonpoint source program, the water quality monitoring program, the clean lakes program, and a wetlands grant program in SDCL § 46A-1-95. The programs use federal pass-through grants for purposes authorized by the Clean Water Act. In fiscal year 2025, DANR spent more than $4.5 million from federal funds; general funds; and fees on regulatory services, monitoring, and implementation projects to protect and preserve surface water in South Dakota. In addition, since 2021, DANR has invested more than $5.7 million in state and American Rescue Plan Act dollars to establish buffers and implement best management practices through its Riparian Buffer Initiative.

Integrated Reporting

Integrated reporting allows South Dakota to summarize the status of its surface waters every two years. South Dakota completes an analysis of the state's surface water quality and reports the condition of state waters to citizens and the EPA. The most recent report, from 2024, gives the latest summary of water quality in the state. The 2024 South Dakota Integrated Report for Surface Water Quality Assessment is available online, and the following information summarizes some of the data about the state's surface waters.

Rivers and Streams

There are 11,929 miles of perennial rivers and streams in the state, and 135,128 miles of intermittent and ephemeral streams that run only seasonally or after precipitation events. Over a five-year period from October 2018 through September 2023, 6,148 stream miles were evaluated to characterize stream conditions.

- 1,349 stream miles, or 21.9 percent of the miles evaluated, fully support their assigned beneficial uses;
- 4,799 stream miles, or 78.1 percent of the miles evaluated, do not support one or more of their beneficial uses;
- Total suspended solids contamination from nonpoint sources and natural origin was the primary reason some streams did not support their assigned beneficial uses for fish or aquatic life;
- E. coli contamination from livestock and wildlife was the primary reason some streams did not support recreational uses; and
- Eighty-nine streams or stream segments are listed as impaired and in need of TMDL development, or plans to manage the total maximum daily load of specific pollutants; and
- One hundred percent of stream miles that were assessed for alkalinity, ammonia, arsenic, cadmium, chloride, chromium, copper, cyanide, lead, mercury, nickel, nitrate, radium, silver, uranium, sulfate, and zinc met water quality standards.

Table 2 – Rivers and Streams Beneficial Use Status (Percent of Stream Miles Tested)

Use	Supporting	Nonsupporting
1. Domestic water supply	83.0%	17.0%
2. Coldwater permanent fish life	61.7%	38.3%
3. Coldwater marginal fish life	96.7%	3.3%
4. Warmwater permanent fish life	44.1%	55.9%
5. Warmwater semipermanent fish life	36.4%	63.6%
6. Warmwater marginal fish life	78.6%	21.4%
7. Immersion recreation	45.5%	54.5%
8. Limited contact recreation	50.3%	49.7%
9. Fish, wildlife, recreation, stock watering	85.2%	14.8%
10. Irrigation	76.9%	23.1%
11. Commerce and industry	100%	0%

Source: 2024 South Dakota Integrated Report for Surface Water Quality Assessment

Lakes

There are 577 lakes and reservoirs in South Dakota that have designated beneficial uses for recreation, and for warmwater fish life, coldwater fish life, or both. DANR has assessed 180 of those 577 lakes, and the lakes that have been assessed cover 171,110 lake acres.

- Forty-seven lakes do not support one or more of their assigned beneficial uses but have approved TMDLs that will enable better management;
- Eighty-seven lakes do not support one or more of their assigned beneficial uses and need TMDL development;
- Those numbers taken together mean that 134 lakes failed to support one or more beneficial uses;
- Forty-six lakes fully support all assessed beneficial uses;
- Mercury in fish tissue is a key reason for the low number of lakes meeting all assigned beneficial uses;
- About half of lake acres assessed show chlorophyll-a beyond acceptable levels. Chlorophyll-a indicates the amount of algae and cyanobacteria present, with high levels often indicating nutrient-rich conditions that could lead to harmful algae blooms and depletion of dissolved oxygen;
- 6.2 percent of assessed lake acres are impaired for levels of dissolved oxygen; and
- Eleven percent of assessed lake acres have high pH levels, another possible indicator of excessive productivity due to nutrients in the water.

Table 3 – Beneficial Use Status for Lakes (Percent of Acres Tested)

Use	Supporting	Nonsupporting
1. Domestic water supply	89.4%	10.6%
2. Coldwater permanent fish life	2.5%	97.5%
3. Coldwater marginal fish life	0.0%	100%
4. Warmwater permanent fish life	29.3%	70.7%
5. Warmwater semipermanent fish life	18.9%	81.1%
6. Warmwater marginal fish life	22.2%	77.8%
7. Immersion recreation	50.4%	49.6%
8. Limited contact recreation	51.2%	48.8%
9. Fish, wildlife, recreation, stock watering	38.9%	61.1%
10. Irrigation	82.5%	17.5%

Source: 2024 South Dakota Integrated Report for Surface Water Quality Assessment

Future Water Quality Challenges and Trends

In coming years, South Dakota may face new administrative challenges brought about by the changing role of the federal government and the regulation of water quality, as well as continued challenges inherent in the state's geography and land use patterns.

Cooperative Federalism

The EPA has announced it will give more responsibility to states, tribes, and local governments to protect water and other resources through a renewed policy of "cooperative federalism," putting new emphasis on an idea that began in the New Deal era of the 1930s.

> States, tribes, and local governments are best positioned to address the unique environmental challenges facing their communities. In FY 2026, the Agency will empower state and local governments to achieve environmental protection at a local level, encouraging more efficient and innovative ways to meet their responsibilities while EPA focuses on meeting core statutory requirements to protect human health and the environment where there is a unique federal role. The Budget recognizes that EPA has invested hundreds of billions of dollars over several decades building state and local capacity and many programs are mature or have accomplished their purpose.[4]

[4] *FY 2026 EPA Budget in Brief*, p. 10.

The EPA's budget proposal for 2026 calls for a fifty-four percent decrease in funding from the 2025 budget year and would cut the equivalent of more than 1,200 full-time federal employees. The agency has stated that it will realign resources to streamline operations so that permitting and environmental reviews can be completed faster and for less cost.[5]

Several of DANR's programs to protect surface water quality have traditionally relied upon federal pass-through grant funds to carry out purposes authorized by the Clean Water Act. Those include the programs authorized in SDCL § 46A-1-95: the state clean lakes program, the nonpoint source program, the water quality monitoring program, and the wetland grant program.

Wetlands Ruling

South Dakota has about 1.87 million acres of wetlands. At a minimum, these wetlands are assigned beneficial uses of propagating fish and wildlife, recreation, and providing water for livestock.[6] South Dakota is also notable for its location in the Prairie Pothole Region, an area of the Northern Plains in the United States and Canada that produces vast numbers of ducks.

The 2026 EPA budget brief addresses the issue of wetlands when it speaks of the agency's intent to provide "greater regulatory clarity and certainty to landowners in alignment with the Supreme Court decision in *Sackett*" as one of its goals for the new budget year.[7]

Sackett v. EPA, 598 U.S. 651 (2023), involved a couple who bought property in Idaho and began backfilling the lot with dirt in preparation for building a home. The EPA intervened, informing the Sacketts that their property contained wetlands and that by filling those wetlands, they had violated the Clean Water Act, which protects "waters of the United States."

The Sacketts sued, contending the wetlands on their property were not "waters of the United States." Lower courts agreed with the EPA's argument that the Clean Water Act covers waters with an "ecologically significant nexus," or link, to traditional navigable waters. The EPA classified the wetlands on the Sacketts' land as waters of the United States because they were near a ditch that fed into a creek, which fed into a navigable lake.[8]

However, the United States Supreme Court reversed the lower court, while acknowledging the importance of the Clean Water Act:

> By all accounts, the Act has been a great success. Before its enactment in 1972, many of the Nation's rivers, lakes, and streams were severely polluted, and existing federal legislation had proved to be inadequate. Today, many formerly fetid bodies of water are safe for the use and enjoyment of the people of this country. There is, however, an unfortunate footnote to this success story: the outer boundaries of the Act's geographical reach have been uncertain from the start. The Act applies to "the waters of the United States," but what does that phrase mean? Does the term encompass any backyard that is soggy enough for some minimum period of time?[9]

[5] Ibid.
[6] The 2024 South Dakota Integrated Report for Surface Water Quality Assessment, p. 10.
[7] *FY 2026 EPA Budget in Brief*, p. 6.
[8] Supreme Court of the United States, *Sackett v. Environmental Protection Agency -- Syllabus*, p. 1.
[9] Supreme Court of the United States, *Sackett v. Environmental Protection Agency -- Opinion of the Court*, p. 1.

The Supreme Court ruled that for a wetland to fall under federal agency protection as "waters of the United States," it must have a continuous surface connection to a navigable body of water to the point that is it "indistinguishable" from those waters. "The wetlands on the Sacketts' property are distinguishable from any possibly covered waters," the opinion states.[10]

While the opinion suggests that fewer wetlands will be subject to federal oversight, allowing landowners greater freedom from regulation in how they manage areas with wetlands, it is unclear how federal regulations and state rules may change. Currently, South Dakota Administrative Rule 74:51:01:11 protects all wetlands as "waters of the state" from the introduction of any pollutant, "including indiscriminate use of fill material," unless the project is authorized under the national pollutant discharge elimination system, 33 U.S.C. § 1342 (January 14, 2019); under federal law regarding permits for dredged or fill material, 33 U.S.C. § 1344 (February 4, 1987); or under the federal law for solid waste disposal facilities and practices, 40 C.F.R. §§ 257.1 to 258.75, inclusive (September 29, 2025).

Drainage Trend

SDCL chapter 46A-10A gives county drainage commissions authority to manage drainage. The use of drainage has implications for water quality across South Dakota. DANR has noted that the installation of drain tile to drain small wetlands or wet pockets in fields to increase tillable acres could "expedite the discharge of nutrients to other surface waters and bypass the soil's natural filtering capabilities."[11]

A recent trend shows South Dakota losing small temporary wetlands while gaining acreage in seasonal or semipermanent wetlands. By 2009, studies showed eastern South Dakota's portion of the Prairie Pothole Region had an estimated 1,870,790 acres of shallow water wetlands, up from 1,780,859 acres in the mid-1990s. That is, wetland acreage increased, even though the number of wetlands declined by 2.8 percent. The 2024 South Dakota Integrated Report for Surface Water Quality Assessment addressed this trend in the data:

> The general loss of small temporary wetlands and gain in larger seasonal and semipermanent wetlands can be attributed to agricultural drainage practices. Portions of eastern South Dakota lack open channel ditch networks to convey water from wetland depressions in agricultural fields to riverine systems. Drainage from small temporary wetlands is often conveyed by drain tile networks to downstream basins contributing to the increase in seasonal or semipermanent wetland habitats. The general loss of temporary wetlands and overall increase in acreage of seasonal and semi-permanent is likely the present trend.[12]

Mercury in Fish Tissue

The fact that only a low number of lakes and reservoirs in the state meet all their assigned beneficial uses "is mostly due to mercury in fish tissue," DANR's 2024 report states. Only about one in every four lake acres, or 24.5 percent, were within acceptable mercury levels in the latest surveys. A TMDL plan in 2016 documented that mercury from other locations is deposited in South Dakota through the air:

> The TMDL documented that the primary source of mercury in South Dakota comes from global atmospheric deposition. Therefore, the high incidence of nonsupport for lakes is not likely to improve until measures to reduce mercury are implemented at a global scale.[13]

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[10] Ibid., pp. 27-28.
[11] The 2024 South Dakota Integrated Report for Surface Water Quality Assessment, 62.
[12] Ibid., p. 61.
[13] Ibid., p. 39.

Some mercury is released into the atmosphere naturally from sources such as volcanoes and the ocean. The EPA states that the top five sources of human-caused mercury releases into the atmosphere are from small-scale mining, stationary combustion of coal, nonferrous metals production, cement production, and waste from products.[14]

Mercury moves from the atmosphere to the earth through wet processes such as rain or snow, and dry processes such as the settling of particles on surfaces. Natural processes convert inorganic mercury to methylmercury, the highly toxic form found in fish tissue.[15]

Natural Sources of Suspended Solids

South Dakota has highly erodible soils in the Badlands, in the exposed shale formations in the Missouri River Basin, and in large areas of loess soils in the southeastern part of the state. As a result, storms with moderate to heavy precipitation contribute to suspended sediment problems across large areas of the state. *E. coli* levels also increase during times of precipitation and runoff. Because erodible soils are spread across a wide area of South Dakota, DANR encourages best management practices by farmers, ranchers, and landowners to reduce the amount of suspended solids getting into surface waters.

State Efforts to Improve Water Quality

Riparian Buffer Initiative

The state's Riparian Buffer Initiative reduces the flow of sediments, nitrogen, phosphorus, and bacteria reaching waterways through runoff and erosion. The program pays landowners to set aside pastureland or cropland along approved waterways for periods of ten years and plant buffer strips up to 120 feet wide. The vegetation provides bank stabilization and slows down runoff so that some pollutants filter out, and it allows plants to make use of the nutrients before the nutrients get into the water. The additional forage benefits wildlife as well as livestock.

Nonpoint Source Pollution Program

The nonpoint source pollution program awards EPA grants for projects around the state that try to reduce pollution which cannot be traced to a single point of origin. Local and in-kind resources must match at least 40 percent of the amount awarded. The program's 2023 report indicates the projects that were put in place for that year reduced the sediment load in water by 13,737 tons, reduced phosphorus by 30,988 pounds, and reduced nitrogen by 135,566 pounds. The projects involved agricultural waste systems, conservation tillage, cropland best management practices, grazing management, information and education, irrigation water management, perennial vegetation, riparian restoration and protection, and urban best management practices to reduce lawn fertilizers and other urban wastes from getting into drains that lead to water.[16]

Harmful Algal Blooms Program

DANR developed a comprehensive Harmful Algal Blooms program in 2020. The program includes cyanotoxin monitoring, a response plan, and web-based information and tools to increase public awareness about blue-green algae, some of which are capable of producing toxins that can be harmful or fatal to humans, pets, and livestock.

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[14] "Mercury Emissions: The Global Context," https://www.epa.gov/international-cooperation/mercury-emissions-global-context.

[15] "Mercury in the Atmosphere & Environmental Effects," National Atmospheric Deposition Program, https://nadp.slh.wisc.edu/wp-content/uploads/2022/01/NADP_Hg_Brochure.pdf.

[16] South Dakota Nonpoint Source Pollution Program Annual Report, Federal Fiscal Year 2023, p. 2.

PFAS Testing

Chemicals called perfluoroalkyl and polyfluoroalkyl substances (PFAS) have been used by industry and in consumer products since the 1940s. These chemicals are sometimes emitted into the air near manufacturing facilities and then can get into surface water during rain events. The chemicals can affect health because they do not break down easily in the environment or in the human body. The EPA announced drinking water standards for six PFAS in 2024. DANR is currently sampling surface water at sites across South Dakota to establish baseline data regarding where the chemicals are found. DANR chooses the sampling sites based on geography, population density, and whether the surface water sampled contributes to a drinking water supply. There are twenty-six water systems in South Dakota that depend on surface water for drinking water. The EPA has stated its focus in 2026 will include actions to address forty PFAS in surface water, groundwater, and wastewater.[17]

Conclusion

Water quality is jointly regulated by the federal government and state governments. While cutting the budget of the Environmental Protection Agency, the federal government is entrusting states, tribes, and local governments with more responsibility to manage water and other natural resources under a renewed policy of "cooperative federalism." These changes may require greater planning by water management specialists as the state transitions to this new model.

These changes may also bring greater flexibility for the state in managing its own waters through the permitting process and other means.

[17] *FY 2026 EPA Budget in Brief*, p. 6.

Appendices

Appendix A: Total Active Water Permits, by Category

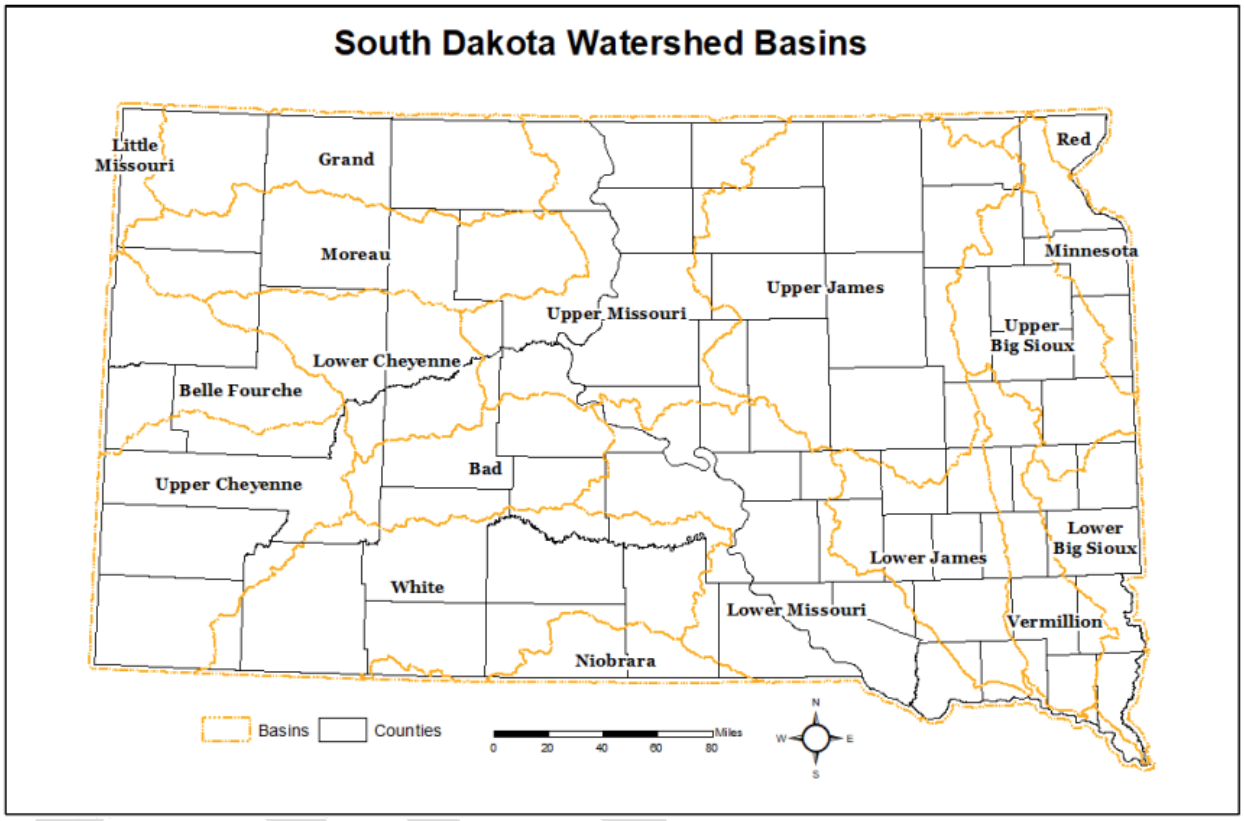
Total Active Individual Surface Water Discharge Permits as of 09/17/2025
Total: 236
• Individual National Pollutant Discharge Elimination System Permits: 223
• Individual Pretreatment Permits: 11
• Individual Biosolids/Sludge Permits: 2
○ These permits allow for the handling and disposal of biosolids.
Total Active General Permit Covered Facilities (No CAFOs included) as of 09/17/2025
Total: 2,685
• Water Treatment Plant Permits: 94
○ This permit covers the discharge of potable water from drinking water distribution systems into surface waters as well as discharges of untreated or partially treated intake water and discharges from filter backwash.
• Discharge Permits: 24
○ This permit allows the discharge of treated wastewater into surface waters with the designated uses of: Fish and Wildlife propagation, recreation, and stock watering waters and Irrigation waters. See (9) and (10) of 74:51:01:42.
• Metal Finisher Permits: 20
○ This permit allows the discharge of wastewater from metal finishing facilities into sanitary sewer systems.
• No Discharge Permits: 128
○ This permit was designed for facilities where no discharge is expected. It provides requirements and expectations in the event of an unavoidable discharge (emergency discharge).
• SD DOT Rest Area Permits: 15
○ This permit is very similar to the No Discharge Permit. It is tailored to wastewater treatment facilities located at DOT-maintained rest areas. This permit provides SD DOT the convenience of submitting one application for coverage of all appropriate facilities.
• Biosolids/Sludge: 19 facilities covered under a general permit
○ This permit allows for the handling and disposal of biosolids.
• Construction General Permit– Construction Stormwater: 1,227 sites covered under general permit
• Municipal Separate Storm Sewer: 16
○ This permit is required of all cities/towns with a population over 10,000. This permit covers the discharge of stormwater into surface waters from cities/towns of a specified size. Sioux Falls has an individual permit; 15 other systems are covered under a general permit.
• Temporary Discharge: 144 sites covered under a general permit
• Aquatic Invasive Species: 15 locations covered under a general permit
• Industrial Stormwater: 983 sites covered under a general permit
Total CAFO General Permit Covered Facilities – as of 01/01/2025
Total: 437

Source: South Dakota Department of Agriculture and Natural Resources

Appendix B

There are fourteen major river basins in South Dakota with specific water issues that are directly related to South Dakota geography. Below are short summaries of some of the issues in those river basins. More information on each river basin is available starting on page forty-seven of The 2024 South Dakota Integrated Report for Surface Water Quality Assessment.

Map 1: Location of the Fourteen Major Drainage Basins in the State



Source: 2024 South Dakota Integrated Report for Surface Water Quality Assessment

Bad River Basin

The Bad River Basin drains approximately 3,175 square miles between the White and Cheyenne River Basins in the west-central part of the state. A main characteristic of the basin has been a lack of constant river flow. While the upper portion of the Bad River receives water from the Badlands and artesian wells in the Philip area, there are prolonged periods of low or no flow in the Bad River from Midland to the Missouri River. DANR has assessed seven lakes within the basin and has one water quality monitoring site located on the Bad River.

Belle Fourche River Basin

The Belle Fourche River Basin drains approximately 3,271 square miles in western South Dakota between the Cheyenne and Moreau River Basins. The upper portion of the basin contains one active and several historic hardrock mining operations, several small placer mines, and several large decorative stone and bentonite mines. The middle and lower portions of the basin are mainly used for livestock watering and irrigation. DANR has assessed eight lakes and maintains twenty-six water quality monitoring sites on many streams within the Belle

Fourche Basin. Most of the streams are routinely monitored for toxic pollutants such as heavy metals because of the history of hardrock mining in the area.

Big Sioux River Basin

The Big Sioux River Basin drains approximately 5,382 square miles in South Dakota and an additional 3,000 square miles in Minnesota and Iowa. The basin's primary economic activity is agriculture, but it also contains much of the state's light manufacturing, food processing, and wholesale industries. Four state educational institutions, several vocational schools, and Sioux Falls, the state's largest city, are located within the basin, making it the most heavily populated basin in the state. DANR has assessed forty-five lakes and maintains twenty-five water quality monitoring sites within the Big Sioux Basin. Seventeen water quality monitoring sites are located on the Big Sioux River.

Cheyenne River Basin

About 9,732 square miles of the state drain into the Cheyenne River Basin, which includes part of the Black Hills and Badlands as well as rangeland, irrigated cropland, and some mining areas. DANR has assessed nineteen lakes and maintains thirty-five water quality monitoring sites within the basin.

Grand River Basin

The Grand River Basin drains 4,596 square miles in northwestern South Dakota and southwestern North Dakota, a sparsely populated region with a population density of about one person per square mile. DANR has assessed six lakes and evaluated data from eight water quality monitoring sites in the basin. Due to uranium mining in the past, some sites in the basin are monitored for uranium.

James River Basin

The James River Basin is the second most populous basin in the state and drains 14,729 miles as it crosses the state north to south. DANR has assessed fifty-two lakes and maintains eighteen water quality monitoring sites within the basin. Thirty-nine waterbodies in the basin were monitored for mercury in fish tissue; eleven met the criterion, while twenty-eight did not. Reduced levels of dissolved oxygen is another factor affecting water quality.

Little Missouri River Basin

The Little Missouri River enters northwestern South Dakota from Montana and drains 583 square miles before it flows into North Dakota. About ninety percent of land in the basin is devoted to agriculture. Most is rangeland. DANR has one water quality monitoring station on the Little Missouri River.

Minnesota River Basin

The Minnesota River Basin in the northeast corner of the state drains 1,637 square miles of South Dakota. DANR has assessed ten lakes and maintains nine water quality monitoring sites in the basin. Most stream impairments are due to bacteria. Lake impairments are due to temperature and mercury in fish tissue.

Missouri River Basin

The Missouri River is the largest body of water in South Dakota, and the Missouri River Basin is the largest basin, draining about 15,865 miles. There are four dams on the main stem of the Missouri River in the state: Oahe Dam near Pierre forms Lake Oahe; Big Bend Dam at Fort Thompson forms Lake Sharpe; Fort Randall Dam at Pickstown forms Lake Francis Case; and Gavins Point Dam at Yankton forms Lewis and Clark Lake. DANR has assessed twenty-five lakes and maintains eleven water quality monitoring stations within the basin.

Moreau River Basin

The Moreau River Basin drains an area of 4,995 square miles in the northwestern part of the state. DANR has assessed two lakes and maintains four water quality monitoring sites in the basin. Some sediment in the Moreau River Basin comes from erosion of Cretaceous shales. This results in high levels of total dissolved solids, primarily sulfate, iron, manganese, sodium, and other minerals.

Niobrara River Basin

Keya Paha River and Minnechaduza Creek in south-central South Dakota are tributaries of the Niobrara River that drain approximately 1,742 square miles in South Dakota. DANR has assessed two lakes and maintains one water quality monitoring site on the Keya Paha River.

Red River Basin

The Red River Basin includes 627 square miles in the extreme northeastern corner of the state. DANR has assessed two lakes and does not maintain any water quality monitoring sites in the basin.

Vermillion River Basin

The Vermillion River Basin drains about 2,673 square miles in southeastern South Dakota in an area about 150 miles in length and ranging from twelve miles wide in the north to thirty-six miles wide in the south. Streams in the Vermillion River Basin drain to the Vermillion River, which drains to the Missouri River near Vermillion, South Dakota. It is estimated that ninety-six percent of the total surface area in the basin is devoted to agriculture. The remaining areas include municipalities, sand and gravel operations, and other uses. DANR has assessed eight lakes and maintains six water quality monitoring sites within the basin.

White River Basin

The White River Basin drains 8,246 square miles of the state. Most of the land in the basin is used as rangeland or cropland. DANR has assessed one lake in the White River Basin and maintains four water quality monitoring sites within the basin. Runoff from the western Badlands contributes suspended and dissolved solids to the White River. The entire length of the basin is subject to severe erosion and leaching of soils.