



ENVIRONMENTAL
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State Wetland Protection

Status, Trends, & Model Approaches

*A 50-state study by the
Environmental Law Institute*

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U.S. Environmental Protection Agency*

2008

Appendix: State Profiles

South Dakota

I. Overview

Wetland area in South Dakota has decreased by approximately 35 percent over the last 200 years, from 2.7 million acres to 1.8 million acres.¹ Most of these wetland losses are due to agricultural conversions, particularly in the state's prairie pothole region.² Today, wetlands compose almost four percent of the state's land area, including a vital portion of the remaining prairie pothole habitat. In the eastern prairie pothole region of the state, wetlands occupy 9.8 percent of the landscape.³ Most of western South Dakota's wetlands are found along stream and river corridors and associated riparian areas.⁴

South Dakota regulates wetlands primarily through §401 certification under the Clean Water Act (CWA), which is overseen by the South Dakota Department of Environment and Natural Resources (SDDENR). SDDENR's Surface Water Discharge Permit Program also issues permits for the discharge of pollutants from a point source into a wetland. Because most of South Dakota's wetlands are embedded in an agricultural landscape, the Swampbuster conservation provisions in the federal Farm Bill provide some of the most important protection for South Dakota's wetlands. The state's resource agencies are also active in non-regulatory wetland management and conservation efforts.⁵

II. Regulatory Programs

Wetlands definitions and delineation

South Dakota defines "waters of the state" as:

all waters with the jurisdiction of this state, including streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering on the state, but not waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA other than cooling ponds as defined in 40 C.F.R. § 423.11(m).⁶

State surface water quality regulations define "wetlands" as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that

¹ S.D. DEP'T OF ENV'T AND NATURAL RES., THE 2006 SOUTH DAKOTA INTEGRATED REPORT FOR SURFACE WATER QUALITY ASSESSMENT (2006), available at <http://www.state.sd.us/DENR/Documents/06IRFinal.pdf>.

² USGS Natural water summary on wetland resources, *Natural water summary on wetland resources, United States Geological Survey Water Supply Paper 2425*, at http://water.usgs.gov/nwsum/WSP2425/state_highlights_summary.html (last visited July 27, 2007).

³ R.R. JOHNSON & K.F. HIGGINS, WETLAND RESOURCES OF EASTERN SOUTH DAKOTA (1997), available at <http://www.npwrc.usgs.gov/resource/wetlands/sdwet/index.htm> (last visited July 27, 2007).

⁴ S.D. DEP'T OF GAME, FISH AND PARKS DIV. OF PARKS AND RECREATION, 2002 SOUTH DAKOTA STATE COMPREHENSIVE OUTDOOR RECREATION PLAN, CHAPTER FIVE: SOUTH DAKOTA WETLAND COMPONENT (2003), available at http://www.sdgfp.info/Publications/Parks/SCORP_MASTER.pdf.

⁵ Email from Tim Olson, S.D. Dep't of Game, Fish and Parks (July 20, 2006).

⁶ S.D. ADMIN. R. § 74:51:01:01(63).

under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions including swamps, marshes, bogs, and similar areas.”⁷

The state relies upon the U.S. Army Corps of Engineers’ (“Corps”) 1987 *Wetlands Delineation Manual* for delineating wetlands.⁸

Organization of state agencies

The primary state agencies involved in wetlands protection include the SDDENR, South Dakota Department of Game, Fish, and Parks (SDGFP), and the South Dakota Department of Agriculture (SDDA).

South Dakota Department of Environment and Natural Resources. SDDENR oversees §401 water quality certifications for the state. Approximately one-quarter of a full-time equivalent (FTE) is responsible for reviewing §404 applications for consistency with the state’s water quality standards and issuing §401 certifications. Because §401 certification activities are integrated into many agency activities, it is difficult to identify the specific amount or source of funding devoted specifically to certification.⁹ SDDENR provides informal comments and recommendations to the Corps on compensatory mitigation requirements under CWA §404 and also occasionally makes enforcement referrals to the Corps.¹⁰

SDDENR’s Surface Water Discharge Permit Program issues permits under the state’s National Pollutant Discharge Elimination System (NPDES) program. Any discharge of pollutants from a point source into a wetland requires a Surface Water Discharge Permit. The state does not track wetland-specific permits.¹¹

South Dakota Department of Game, Fish, and Parks. SDGFP partners with various state and federal agencies, private landowners, and other organizations on wetland management and restoration. As part of its general private- and public-land wildlife habitat programs, SDGFP promotes conservation, restoration, and where appropriate, creation of wetland habitat. SDGFP devotes four full-time biologists to its Wetland/Grassland Habitat Program. The program is funded primarily by South Dakota’s hunting and fishing license fees.¹²

The South Dakota Department of Agriculture. Under a grant from the U.S. Environmental Protection Agency (EPA), SDDA hired a wetlands coordinator to help provide consistency in wetland management across the state and to develop state wetlands guidance.¹³ The *Wetland Conservation and Management Guidelines for South Dakota State Agencies* was developed under the oversight of the Interagency Wetland Working Group (IWWG), which included

⁷ *Id.* § 74:51:01:01(64).

⁸ ENVTL. LAB., WETLANDS RESEARCH PROGRAM TECHNICAL REPORT Y-87-1, CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (U.S. Army Corps of Engineers 1987), *available at* <http://www.mvn.usace.army.mil/ops/regulatory/wlman87.pdf>.

⁹ Personal communication with John Miller, S.D. Dep’t of Env’t and Natural Res. (Apr. 19, 2006).

¹⁰ *Id.*

¹¹ Email from Kelli Buscher, NPDES Program, Dep’t of Env’t and Natural Res. (May 31, 2006) (South Dakota’s definition of point source is similar to the federal definition).

¹² South Dakota Department of Game, Fish, and Parks, *at* <http://www.sdgifp.info/> (last visited July 27, 2007).

¹³ Email from Pete Jahraus, Agric. Program Adm’r, S.D. Dep’t of Agric., (July 11, 2006).

representatives from the SDDA, SDDENR, SDGFP, and South Dakota Department of Transportation (SDDOT). The SDDA's Division of Resource Conservation and Forestry led coordination of the IWWG's activities. The IWWG is no longer active.¹⁴

§401 certification

South Dakota requires §401 certification for all activities that require a federal permit, such as a §404 permit, to ensure that projects will not violate South Dakota's surface water quality standards. SDDENR conducts the permit review and then grants, conditions, or denies §401 certification. Approximately 20 to 25 certifications are issued annually. SDDENR staff rely on best professional judgment to make certification decisions.¹⁵

Nationwide permits

Section 404 nationwide permits (NWP) are reviewed by both SDDENR and SDGFP as they are revised by the Corps every five years. Section 401 water quality certification has been issued for all nationwide permits (NWP) requiring authorization under §404 of the Clean Water Act (CWA), except for #16 (Return Water from Upland Contained Disposal Areas) and #44 (Mining Activities), which were denied certification. SDDENR requested that #27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities), #29 (Single-Family Housing), and #39 (Restoration, Commercial, and Institutional Development) be certified with conditions.¹⁶ South Dakota's action on the 2007 NWP could not be reviewed within the reporting period of this publication.

Mitigation

South Dakota has no formal guidelines, policies, or legislation (beyond what is required under CWA §404) for compensatory mitigation for permitted impacts to wetlands or streams. SDDENR and SDGFP do review and comment on mitigation during the §401 certification process and often informally comment on mitigation projects for SDDOT.¹⁷

SDDOT, in agreement with the Federal Highway Administration, SDGFP and the U.S. Fish and Wildlife Service, established an umbrella mitigation bank in 1988 to mitigate for wetlands impacted by highway construction.¹⁸ SDDOT is also developing a new mitigation banking agreement with the Corps.¹⁹

Compliance and enforcement

SDDENR is responsible for wetland enforcement actions as part of the §401 water quality certification program. Violations of §404 permits are generally elevated to the Corps, unless they specifically violate state water quality standards. Violations of water quality standards in South Dakota may result in both civil and criminal penalties.²⁰

¹⁴ *Id.*

¹⁵ John Miller, *supra* note 9.

¹⁶ Email from John Miller, Dep't of Env't and Natural Res. (May 11, 2006).

¹⁷ John Miller, *supra* note 9.

¹⁸ ENVTL. LAW INST., BANKS AND FEES: THE STATUS OF OFF-SITE WETLAND MITIGATION IN THE UNITED STATES (2002), available at <http://www2.eli.org/wmb/umbrelladetail.cfm?AgreementID=22>.

¹⁹ John Miller, *supra* note 9.

²⁰ S.D. CODIFIED LAWS § 34A-2-11 (Violation of the water quality standards, which are applicable to wetlands, is subject to § 34A-2-75, which states, "Any person subject to this section is guilty of a Class 1 misdemeanor. In

III. Water Quality Standards

South Dakota's water quality standards do not identify criteria specific to wetlands. Surface water quality standards, applicable to all "waters of the state," are applicable wetlands.²¹ The state surface water quality standards are narrative and numeric in nature and include criteria related to conductivity, nitrogen, pH, total dissolved solids, hydrocarbons, and grease. Wetlands are designated the beneficial uses of fish and wildlife propagation, recreation, and stock watering.²² Anti-degradation standards are not specifically identified for wetlands, so the provisions that apply to all "waters of the state" apply to wetlands.²³

IV. Monitoring and Assessment

Monitoring and assessment for wetlands

South Dakota does not have a monitoring and assessment program specific to wetlands.²⁴ South Dakota State University researchers, in cooperation with SDGFP and EPA, are developing a wetland rapid assessment protocol for eastern South Dakota.²⁵ The protocol uses a scoring convention to quantify the condition of six wetland variables: wildlife utilization, wetland cover-story/shrub canopy, wetland vegetative ground cover, adjacent upland/wetland buffer, field indicators of wetland hydrology, and water quality input and treatment systems. Researchers expect to report on the wetland rapid assessment protocol in early 2008. Upon completion, the protocol will be used by SDGFP's Natural Heritage and Wildlife Habitat Programs to identify reference wetlands, monitor randomly selected sites, and evaluate wetland restoration efforts.²⁶ In addition, North Dakota State University researchers are studying the health of eastern South Dakota's prairie pothole wetlands.²⁷ Using data related to riparian land-use, hydrologic functionality, habitat condition and biotic composition, these efforts will provide a measure of ecological integrity for many eastern South Dakota wetlands.

addition to a jail sentence authorized by § 22-6- 2, a Class 1 misdemeanor imposed by this chapter is subject to a criminal fine not to exceed ten thousand dollars per day of violation. The violator is also subject to a civil penalty not to exceed ten thousand dollars per day of violation, or for damages to the environment of this state, or both.")

²¹ S.D. ADMIN. R. § 74:51:01:11 ("Wetlands are waters of the state and are allowed protection under the provisions of this chapter. The discharge of pollutants from any source, including indiscriminate use of fill material, may not cause destruction or impairment of wetlands except where authorized under § 402 or § 404 of the Federal Water Pollution Control Act as amended to February 4, 1987, or under 40 C.F.R. Parts 257 and 258, Solid Waste Disposal Facility Criteria; Final Rule, as amended to July 1, 1996. The provisions of §§ 74:51:01:06 to 74:51:01:10, inclusive, 74:51:01:12, 74:51:01:34 to 74:51:01:39, inclusive, 74:51:01:52, and 74:51:01:63 to 74:51:01:65, inclusive, apply to all wetlands. In addition, the department shall evaluate wetlands to determine the applicability of such wetlands to the toxic pollutant standards provided in § 74:51:01:55 and Appendix B at the end of this chapter.")

²² *Id.*

²³ *Id.* §§ 74:51:01:34—74:51:01:39.

²⁴ Personal communication with Jim Feeney, Gene Stueven & Paul Lorenzen, DENR Watershed Prot. Program (April 19, 2006).

²⁵ *Id.*

²⁶ S.D. DEP'T OF ENV'T AND NATURAL RES., *supra* note 1.

²⁷ *Id.*

Monitoring and assessment for streams

SDDENR maintains a surface water quality monitoring network consisting of 142 active ambient monitoring stations at many of South Dakota's streams. This information is entered into a database and used to develop Surface Water Discharge permits and evaluate ambient stream quality. This data will be uploaded to EPA's WQX System. Stream reference protocols are in development, but SDDENR staff estimate five years of monitoring before the protocols are implemented.²⁸ In addition, SDDENR's Watershed Protection Program supports volunteer monitoring of lakes and streams, including the Adopt-A-Stream and Lake Monitoring programs.

V. Restoration and Partnerships

SDGFP's Wildlife Division conducts some restoration-related activities for wetlands as they relate to habitat protection and provides information to landowners on restoration programs available in South Dakota.²⁹ Because approximately 80 percent of South Dakota's land is privately-owned, most of SDGFP's restoration efforts are conducted on private land. However, SDGFP also owns and manages approximately 51,000 acres of wetlands.³⁰ Wetland restoration on public lands is conducted as opportunities arise, particularly when SDGFP acquires new land. SDDENR also helps local sponsors find funding for restoration projects.³¹

SDGFP's Wetland/Grassland Habitat Program encourages willing landowners to protect, restore, and enhance wetland and grassland habitats in South Dakota.³² The program provides technical and financial assistance for wetland restoration, creation, and enhancement and upland restoration and enhancement. For some wetland restoration projects, the program provides up to 100 percent of the cost share. SDGFP may also provide up to two-thirds of the cost of wetland creation and enhancement projects. The wetland creation program is designed to assist landowners in developing livestock water, while providing shallow water areas for wildlife such as breeding waterfowl. SDGFP also collaborates with the Natural Resources Conservation Service on the Farmable Wetlands Program (one component of the Conservation Reserve Program), which provides financial incentives for farmers to conserve wetlands in areas that are difficult to farm.³³ In 2006, SDGFP established a voluntary incentive program for landowners interested in restoring wetland hydrology on previously drained non-cropped wetlands. Landowners benefit from additional livestock water and forage production, and the restored habitat provides substantial benefits to wildlife.³⁴

²⁸ Personal communication with Paul Lorenzen, DENR Watershed Prot. Program (July 23, 2006).

²⁹ S.D. DEP'T OF GAME, FISH AND PARKS, CONSERVATION PROGRAMS FOR PRAIRIE POTHOLE WETLANDS & ASSOCIATED UPLAND HABITATS, *available at* <http://www.sdgifp.info/Wildlife/privatelands/ConservationProgramsforPrairiePotholeWetlandsandAssociatedUplandHabitats.pdf> (last visited July 27, 2007).

³⁰ Personal Communication with Tim Olson, S.D. Dep't of Game, Fish and Parks (Apr. 28, 2006).

³¹ *Id.* (SD GFP often encourages landowners to utilize federal restoration programs, which often provide more financial resources than the state programs can offer.).

³² S.D. DEP'T OF GAME, FISH AND PARKS, WETLAND/GRASSLAND HABITAT PROGRAM, *available at* <http://www.sdgifp.info/Wildlife/privatelands/WetlandGrasslandHabitatProgramHandout.pdf> (last visited July 26, 2007).

³³ S.D. DEP'T OF GAME, FISH AND PARKS, FARMABLE WETLANDS PROGRAM (2005), *available at* <http://www.sdgifp.info/Wildlife/privatelands/FWPIncentiveHandout.pdf>.

³⁴ Email from Tim Olson, S.D. Dep't of Game, Fish and Parks (June 22, 2007).

SDGFP is also an active member of the Prairie Pothole Joint Venture, a joint venture formally recognized under the North American Waterfowl Management Plan whose goal is permanent protection of 1.4 million acres of high priority, at-risk wetlands.³⁵ The partnership involves federal and state agencies, conservation groups, private landowners, scientists, universities, policymakers, resource managers, corporations interested in conservation, communicators, tribes, resource conservation districts, and land trusts, among others. SDGFP is also a member of the newly recognized Northern Great Plains Joint Venture which will focus on protection, enhancement and restoration of prairie, wetland, riparian and forest ecosystems across the Northern Great Plains.³⁶

VI. Education and Outreach

SDGFP conducts some outreach as part of their restoration initiatives, as well as wetlands education and outreach for landowners, school groups, hunters and fishers, and outdoor groups. For example, SDGFP runs the Outdoor Campus, an outdoor skills learning and nature center that offers classes such as Wet and Wild (discovering the prairie wetlands) and Wetland Ecology (exploring wetlands environments).³⁷ In addition, SDGFP private lands habitat program has expanded its communications, outreach and education efforts. Between 2005 and 2007, SDGFP conducted 22 habitat workshops for private landowners on improved and sustainable grassland and wetland habitat management. The workshops, held across the state, were attended by over 800 landowners. In addition, SDGFP has developed several brochures describing existing habitat management programs for landowners.³⁸

The SDDENR Watershed Protection Program also supports Project WET (Water Education for Teachers).³⁹ The South Dakota Discovery Center in Pierre, through §319 Information and Education Project grants from the SDDENR, provides training and information using *Wonders of Wetlands* and *Project Webfoot* materials, maintains “Wetlands Trunks” of learning activities for classrooms and youth associations, and offers §319 mini-grants to fund local information and education projects.⁴⁰ The Watershed Protection Program also published the *Citizens Guide to*

³⁵ Email from Tim Olson, S.D. Dep’t of Game, Fish and Parks (Apr. 28, 2006). See also Prairie Pothole, Who We Are, available at <http://www.ppjv.org/whoweare2.htm> (last visited July 27, 2007).

³⁶ Olson, *supra* note 34.

³⁷ Personal communication with Anne Lewis, S.D. Discovery Ctr. and Aquarium (June 22, 2006).

³⁸ Olson, *supra* note 34.

³⁹ *Id.*

⁴⁰ Email from Anne Lewis, S.D. Discovery Ctr. (July 14, 2006). (The *Wonders of Wetlands* curriculum provides a comprehensive introduction to wetlands issues and ideas. *Project Webfoot* is a nonprofit wetlands education program and curriculum created by Ducks Unlimited for educators and 4th-6th grade students.) See also Environmental Concerns Inc, *Wow! The Wonder of Wetlands*, at <http://www.wetland.org/wowteacher.html> (last visited July 27, 2007); Protect Webfoot, *About Webfoot*, at http://www.projectwebfoot.org/about_us2.htm (last visited July 27, 2007).

Lake and Watershed Restoration Projects.⁴¹ The guide assists citizens in the program's efforts to restore lakes and streams through the implementation of watershed projects.⁴²

VII. Coordination with State and Federal Agencies

SDGFP has entered into various, formal agreements for wetland and grassland restoration, management, and enhancement efforts.⁴³ Partners may include: U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program, Ducks Unlimited, Izaak Walton League, South Dakota Association of Conservation Districts, and many local conservation districts.⁴⁴ The agency also collaborates with the U.S. Department of Agriculture's (USDA) Farm Services Agency and Natural Resources Conservation Service and private landowners to promote and implement wetland and grassland conservation programs such as the Conservation Reserve, Wetlands Reserve, and Farmable Wetlands Programs. For example, SDGFP offers an additional incentive payment on certain Farmable Wetlands contracts that are ineligible for USDA payment.

Under an EPA grant, SDDA hired a wetland coordinator to provide consistency in wetland management and to develop state wetlands guidance. The resulting working group, the IWWG, consisted of members from the SDDA, SDDENR, SDGFP, and SDDOT. The IWWG developed *Wetland Conservation and Management Guidelines for South Dakota State Agencies*.⁴⁵ The SDDA Division of Resource Conservation and Forestry was charged with coordinating wetland information activities, but the IWWG is no longer active.

VIII. Acronyms and Abbreviations

Corps – U.S. Army Corps of Engineers

CWA – Clean Water Act

EPA – U.S. Environmental Protection Agency

FTE – Full-time Equivalent

IWWG – Interagency Wetlands Working Group

⁴¹ South Dakota Department of Environment and Natural Resources, *Citizens Guide to Lake and Watershed Restoration Projects*, available at: <http://www.state.sd.us/denr/DFTA/WatershedProtection/citizens.htm> (Last visited Aug. 7, 2006).

⁴² Olson, *supra* note 30.

⁴³ U.S. Fish and Wildlife Service, South Dakota Partners for Fish and Wildlife, at <http://southdakotapartners.fws.gov/> (last visited July 27, 2007) (a voluntary private lands habitat restoration program administered by the U.S. Fish and Wildlife Service).

⁴⁴ Olson, *supra* note 5.

⁴⁵ Under these guidelines, all state agencies are required to gather and share wetland information in order to make informed decisions when projects or programs affecting wetlands arise. The guidelines include: promoting awareness and understanding of wetlands, identifying personnel who can respond to public inquiry, promoting interagency consultation to develop wetland strategies, encouraging development of Best Management Practices for wetlands, ensuring state government policies and programs that encourage the maintenance of wetlands through cooperation with landowners, and gathering wetland use information to provide landowners with effective and economically feasible management options. S.D. INTERAGENCY WETLANDS WORKING GROUP, *WETLAND CONSERVATION AND MANAGEMENT GUIDELINES FOR SOUTH DAKOTA STATE AGENCIES* (2001), available at, <http://www.state.sd.us/doa/forestry/publications/wetlandmanagement.pdf>.

NPDES – National Pollutant Discharge Elimination System

NWPs – Nationwide Permits

SDDA – South Dakota Department of Agriculture

SDDENR – South Dakota Department of Environment and Natural Resources

SDDOT – South Dakota Department of Transportation

SDGFP – South Dakota Department of Game, Fish, and Parks

USDA – U.S. Department of Agriculture