2017 State Water Plan

Overview

The 1972 State Legislature established the State Water Plan to ensure the optimum overall benefits of the state's water resources for the general health, welfare, safety, and economic well-being of the people of South Dakota through the conservation, development, management, and use of those resources. The Legislature placed the responsibility for this plan with the Board of Water and Natural Resources (the board).

The State Water Plan, as established in SDCL 46A-1-2, consists of two components – the State Water Facilities Plan and the State Water Resources Management System. To be considered for the State Water Facilities Plan, projects must meet criteria established by the board. These eligibility criteria are used as guidelines by the board and the Department of Environment and Natural Resources (the department) when considering a project for inclusion on the State Water Facilities Plan. Additions to or deletions from the State Water Resources Management System can only be made by the State Legislature.

State Water Facilities Plan

The State Water Facilities Plan (Facilities Plan) is a list of potential water projects. The Facilities Plan includes projects such as rural, municipal, and industrial water supply, wastewater collection and treatment facilities, storm sewers, groundwater protection, and watershed restoration. The board is responsible for approving the placement of projects on the Facilities Plan. The board can provide direct assistance to projects on the plan and placement on the plan may influence federal and other state agency funding decisions.

In November 2016, the board considered 34 applications requesting placement on the State Water Plan. The board placed 34 projects on the Facilities Plan, bringing the total number of projects on the 2017 State Water Facilities Plan to 176 (Table 11 and Table 12).

The projects in Table 11 have received either partial or full funding. Projects that have received funding from the board remain on the Facilities Plan until project completion and remain eligible to request additional funding.

The projects in Table 12 had not received funding as of December 31, 2016. Projects placed on the plan in November 2015 or that were amended onto the plan during calendar year 2016 remain on the Facilities Plan through December 2017. The 34 projects placed on the plan in November 2016 remain on the Facilities Plan through December 2018.

Additional projects may be placed on the Facilities Plan during the year. Projects placed on the Facilities Plan through the amendment process remain on the plan for the balance of the calendar year and the following year. Once a project is removed from the Facilities Plan, the project sponsor must submit a new state water plan application to be eligible to seek assistance.

Table 11 - 2017 State Water Facilities Plan Funded Projects

Sponsor	Project Description	Amount Funded	Total Project
Andover	Wastewater Treatment Facility Improvements	$305,000	$305,000
Astoria	Wastewater Treatment Facility Expansion & Diversion Channel Rehabilitation	$744,000	$744,000
Beresford	SD Highway 46 Water Improvements	$605,000	$605,000
Beresford	SD Highway 46 Wastewater Improvements	$745,000	$745,000
Big Sioux Community Water System	Water Meters	$900,000	$900,000
Big Sioux Community Water System	Connection to Minnehaha Community Water Corporation and the City of Madison	$3,014,000	$3,014,700
Bison	Wastewater Treatment and Sanitary Sewer Collection	$419,000	$419,000
Box Elder	Ghere Reservoir and Well Project	$3,562,950	$3,562,950
Brandon	Drinking Water System Improvements	$12,425,000	$12,425,000
Brandon	Lift Station to Sioux Falls	$2,598,000	$2,598,000
Bridgewater	Main Street Water Distribution Improvements	$121,000	$121,000
Bristol	Wastewater and Storm Sewer Improvements	$1,343,000	$1,343,000
Bristol	Water Improvements	$1,979,000	$1,979,000
Britton	Wastewater Collection Improvements	$2,500,000	$2,500,000
Britton	Water Distribution System Improvements	$4,656,000	$4,656,000
Brookings	Wastewater Treatment System Improvements	$30,600,000	$30,600,000

Sponsor	Project Description	Amount Funded	Total Project
Brookings-Deuel Rural Water System	Automatic Meter System	$250,000	$250,000
Buffalo	Water Distribution System Improvements	$1,695,000	$1,695,000
Canistota	Main Street Wastewater Improvements	$378,000	$378,000
Canistota	Main Street Water Improvements	$96,000	$96,000
Canton	Well Replacement Project	$1,550,000	$1,550,000
Canton	Dakota Street Wastewater Improvements	$1,648,000	$1,648,000
Canton	Dakota Street Water Improvements	$760,000	$760,000
Cavour	Wastewater Improvements	$795,000	$845,000
Chancellor	Sanitary Sewer Improvements	$574,000	$574,000
Chancellor	Water Meter Replacement	$180,000	$180,000
Clark	Total Retention Wastewater Treatment Facility Construction	$6,485,000	$7,000,000
Clear Lake	Sanitary Sewer Line Improvements	$700,000	$3,200,000
Colman	Phase 2 - Sewer Line Replacement	$1,800,000	$1,800,000
Colman	Phase 2 and 3 - Watermains and Tower Replacement	$2,800,000	$2,800,000
Conde	Water Distribution and Storage Improvements	$2,333,000	$2,333,000
Day Conservation District	Northeast Glacial Lakes Implementation	$115,000	$1,585,420
Dell Rapids	Sequencing Batch Reactor Wastewater Treatment Facility Construction	$5,758,000	$5,758,000
Dell Rapids	2016 Wastewater Improvements	$1,037,000	$1,037,000
Dell Rapids	2016 Water Improvements	$705,000	$705,000
Dimock	Wastewater Improvements	$528,000	$568,000
Dupree	Wastewater Treatment and Lift Station Improvements	$240,000	$1,117,450

Sponsor	Project Description	Amount Funded	Total Project
Eagle Butte	Willow Street Water System Improvements	$250,000	$490,000
Eagle Butte	Sanitary and Storm Sewer Improvements	$2,410,000	$2,410,000
Eagle Butte	Water Distribution System Improvements	$725,000	$725,000
Edgemont	Water System Upgrades	$3,890,000	$3,890,000
Elk Point	Rose Street Wastewater Improvements	$235,000	$235,000
Elk Point	Rose Street Water Improvements	$564,000	$564,000
Emery	Citywide Wastewater Collection Replacement	$3,084,000	$3,084,000
Emery	Citywide Watermain Replacement	$2,355,000	$2,355,000
Ethan	Water Meter Project	$178,000	$178,000
Faulkton	Wastewater System Improvements	$500,000	$5,151,000
Florence	Water System Improvements	$2,255,000	$2,355,000
Grant-Roberts Rural Water System	Milbank Service Area Improvements	$4,500,000	$4,500,000
Haakon County School District	Geothermal Wastewater Treatment System	$597,600	$747,000
Harrisburg	Wastewater Regionalization Development Charge	$3,177,000	$3,677,000
Hisega Meadows Water, Inc.	Acquisition of and Improvements to Water System	$546,000	$546,000
Hoven	Highway 47 Wastewater Replacement	$656,000	$656,000
Hoven	Highway 47 Water Replacement	$403,000	$403,000
Howard	Wastewater Televising and Lagoon Expansion	$979,000	$1,764,000
Humboldt	Wastewater Collection Improvements	$2,086,000	$2,086,000
Irene	Wastewater Improvements	$1,656,000	$1,913,500
Irene	Water Improvements	$1,546,000	$1,546,000

Sponsor	Project Description	Amount Funded	Total Project
James River Water Development District	South Central Watershed Implementation	$275,000	$1,833,333
Kennebec	Wastewater Collection and Treatment Improvements	$1,160,000	$1,160,000
Keystone	Wastewater System Improvements	$431,000	$431,000
Keystone	Well Retrofit Project	$98,000	$98,000
Kingbrook Rural Water System	Water Service to Sinai	$1,290,000	$1,569,000
Kingbrook Rural Water System	2017 Water System Improvements	$9,000,000	$9,000,000
Lake Madison Sanitary District	Lift Station and Forcemain Replacement	$428,000	$428,000
Lake Poinsett Sanitary District	Wastewater Collection and Treatment Expansion	$3,729,000	$3,729,000
Lead	Sewer Separation and Replacement	$937,000	$937,000
Lead	Watermain Replacement	$939,000	$939,000
Lead	Water Meter Replacement	$427,000	$427,000
Lennox	2016 Storm and Sanitary Sewer Improvements	$2,433,000	$2,733,000
Lesterville	Water Meter Replacement	$53,000	$53,000
Letcher	Collection System Replacement and Lagoon Riprap	$775,000	$775,000
Mid-Dakota Rural Water System	Automatic Meter Reading Project	$2,535,000	$2,535,000
Midland	Ground Storage and Looping	$225,000	$715,000
Miller	2016 Wastewater Infrastructure Improvements	$1,000,000	$4,541,000
Miller	2016 Water Infrastructure Improvements	$2,112,000	$2,112,000
Miller	Wastewater Improvements	$242,000	$242,041
Mina Lake Sanitary District	Wastewater Improvements	$559,000	$559,000

Sponsor	Project Description	Amount Funded	Total Project
Minnehaha Community Water Corporation	Connection to Big Sioux Community Water System and the City of Madison	$900,000	$1,800,000
Mobridge	Wastewater Treatment Facility Improvements	$1,475,000	$1,475,000
Onida	Water System Improvements	$1,805,000	$2,305,000
Perkins County Rural Water System	Highways 12 and 73 Watermain Realignment	$1,722,000	$1,722,000
Pierre	2016 Wastewater Treatment Facility Improvements	$3,821,000	$3,821,000
Pierre	Hilger's Gulch Sanitary Sewer	$1,450,000	$1,450,000
Powder House Pass Community Improvement District	Wastewater Treatment and Collection System Construction	$2,575,218	$2,575,218
Prairie Meadows Sanitary District	Wastewater Collection System Rehabilitation	$1,388,000	$1,388,000
Pukwana	Water Meter Project	$227,000	$227,000
Rapid City	East Rapid City Water Expansion	$5,626,000	$7,126,000
Rapid City	Canyon Lake Sediment Removal	$155,000	$415,000
Raymond	Wastewater Collection Improvements	$900,000	$900,000
Sinai	Total Retention Treatment Facility	$1,500,000	$1,500,000
Sioux Falls	Brandon Road Lift Station Parallel Forcemain	$11,979,457	$11,979,457
Sioux Falls	Outfall Sewer Replacement	$26,060,000	$26,060,000
Sioux Falls	Basin 14D Sanitary Sewer Extension	$9,287,000	$9,287,000
Sioux Falls	East Side Sanitary Sewer System Improvements	$20,108,000	$21,608,000
Sioux Falls	Sioux River South Interceptor Phase 2	$12,464,000	$12,464,000
Sioux Falls	Sioux River South Interceptor Phase 1	$14,711,614	$14,711,614
Sioux Rural Water System	Water System Improvements and System Expansion	$4,515,000	$4,564,600
Tabor	Water System Improvements	$1,530,000	$1,530,000

Sponsor	Project Description	Amount Funded	Total Project
TC&G Water Association	Water System Improvements	$1,600,000	$2,100,000
Tripp County Water User District	Internal Improvements and Expansion	$11,750,000	$11,750,000
Turton	Wastewater Improvements	$596,000	$596,000
Tyndall	Water Distribution and Storage Upgrades	$1,570,000	$1,570,000
Vermillion	Prentis Street Lift Station	$812,000	$812,000
Viborg	Sanitary Sewer Replacement	$105,000	$105,000
Viborg	Water Distribution System Replacement	$606,000	$606,000
Viewfield Rural Water Association Inc.	Water Treatment Improvements	$250,000	$250,000
Wakonda	Water System Upgrades and Water Tower Rehabilitation	$1,930,000	$1,930,000
Waubay	Wastewater Treatment Facility Improvements	$2,170,000	$3,344,400
Wessington Springs	Wastewater Improvements	$443,000	$443,000
Wessington Springs	Water Improvements	$259,000	$259,600
Westport	Water Meter Project	$100,000	$100,000
Westport	Lift Station Replacement and Storm Sewer Upgrades	$617,000	$617,000
Woodland Hills Sanitary District	Water System Improvements	$481,000	$481,000
Yale	Wastewater Treatment Facility Expansion and Riprap	$1,826,300	$1,942,869
Yankton	East Highway 50 Lift Station	$3,330,000	$3,330,000
Yankton	New Collector Well	$12,850,000	$12,850,000
	Total	**$323,679,139**	**$348,485,152**

Table 12 - 2017 State Water Facilities Plan Unfunded Projects

Sponsor	Project Description	On Plan Through	Projected State Funding	Total Project
Avon	Water Meter Replacement	2018	$469,860	$469,860
Belle Fourche	8th Avenue Utility Improvements	2017	$2,300,000	$4,000,000
Big Stone City	Connection to Grant-Roberts Rural Water System	2017	$2,000,000	$2,000,000
Blunt	Water System Improvements	2017	$645,000	$645,000
Blunt	Wastewater System Improvements	2018	$1,310,000	$1,310,000
Blunt	Stormwater Improvements	2018	$920,000	$920,000
B-Y Water District	Water Treatment Plant Reservoir	2018	$4,300,000	$4,372,488
Canova	Drinking Water Improvements	2018	$225,920	$225,920
Centerville	Main Street Storm Sewer Improvements	2018	$214,000	$214,000
Colton	Sanitary Sewer and Watermain Improvements	2018	$2,668,759	$2,668,759
Dell Rapids	Water and Sewer Improvements - Phase I	2018	$14,427,000	$14,427,000
Doland	Water Meter Replacement	2018	$104,300	$104,300
Elk Point	Lagoon Cell Number 3 Rehabilitation	2018	$283,000	$283,000
Faith	Wastewater System Improvements	2018	$1,472,814	$1,472,814
Fort Pierre	Wastewater System Improvements	2018	$2,229,300	$2,229,300
Gregory	Felton Street Improvements	2017	$334,000	$334,000
Harrisburg	Wastewater Treatment Facility Construction	2018	$23,917,000	$23,917,000
Hermosa	New Well/Water Source	2018	$199,000	$199,000
Hot Springs	Houston Avenue Sewer Main Replacement	2017	$197,000	$197,000
Hot Springs	North 24th Street Sewer	2018	$270,000	$270,000

Sponsor	Project Description	On Plan Through	Projected State Funding	Total Project
Hot Springs	Water System Supply and Storage	2017	$3,850,000	$3,850,000
Humboldt	Water Meters and Phase 2 Wastewater Replacement	2018	$3,049,030	$3,049,030
Lake Norden	Wastewater Collection System Improvements	2018	$510,000	$510,000
Lake Norden	Water Filter Replacement	2017	$500,000	$500,000
Lake Poinsett Sanitary District	Wastewater System Expansion	2017	$10,000,000	$10,000,000
Langford	Water Distribution and Storage Improvements	2018	$1,922,000	$1,922,000
Lead	Prospect Avenue Storm Sewer Installation	2017	$48,905	$48,905
Lead-Deadwood Sanitary District	Peake Ditch Pipeline Rehabilitation	2018	$1,061,000	$1,061,000
Lebanon	Sanitary Sewer Replacement	2017	$1,270,641	$1,270,641
Lesterville	Watermain Replacement and Looping	2018	$448,000	$448,500
Martin	Watermain Improvements 4th and 5th Avenue	2017	$633,000	$633,000
North Sioux City	Northshore Forcemain	2018	$557,000	$557,000
Onida	Wastewater Collection Improvements	2018	$7,900,000	$7,900,000
Philip	Water Meter	2018	$340,000	$340,000
Piedmont	Central Wastewater System	2017	$4,500,000	$4,500,000
Piedmont	Water Tower and Well	2017	$2,200,000	$2,200,000
Pine Cliff Park Water and Maintenance, Inc.	Water System Improvements	2018	$398,000	$398,000
Plankinton	Water Meter Replacement	2017	$240,000	$240,000
Platte	Wastewater Collection Improvements	2017	$1,075,000	$1,130,000

Sponsor	Project Description	On Plan Through	Projected State Funding	Total Project
Salem	Sanitary Sewer and Watermain Improvements	2018	$3,357,424	$3,768,990
Sioux Falls	Primary Digester Mixing Improvements	2017	$8,115,000	$8,115,000
Sioux Falls	Terry Avenue and 43rd Street Drainage Improvements	2017	$5,646,000	$5,646,000
South Shore	Water System Improvements	2018	$500,000	$2,650,000
Summerset	Wastewater Treatment Improvements	2018	$2,769,000	$2,769,000
Sturgis	Wastewater Treatment Improvements	2018	$19,256,000	$19,256,000
Tea	Brian Street Water and Sewer Extension	2017	$1,691,000	$1,691,000
Tea	Ceylon Avenue Water and Sewer Extension	2017	$1,550,000	$1,550,000
Tea	271st Street Watermain and Sanitary Sewer Extension	2018	$1,563,000	$1,563,000
Terry Trojan Water Project District	Water System Rehabilitation	2017	$1,087,377	$1,087,377
Valley Springs	Water and Sewer System Improvements	2018	$15,324,000	$15,324,000
Veblen	Drinking Water System Improvements	2017	$2,976,100	$2,976,100
Veblen	Wastewater System Improvements	2017	$2,137,000	$2,137,000
Volga	Lift Station Construction	2018	$619,200	$619,200
Walworth County	Landfill Expansion	2017	$500,000	$500,000
Watertown	Kittelson Addition Sanitary Sewer Extension	2018	$832,896	$832,896
WEB Water Development Association, Inc.	Mainline Improvements	2018	$22,504,300	$22,504,300
Wessington Springs	Water Meter Replacement	2017	$568,000	$568,000

Sponsor	Project Description	On Plan Through	Projected State Funding	Total Project
Worthing	Water Meter Replacement	2018	$120,000	$120,000
Yankton	Water Treatment Plant Construction	2017	$34,500,000	$34,500,000
		Total	**$224,605,826**	**$228,995,380**

State Water Resources Management System

The State Water Resources Management System (SWRMS) identifies large, costly water projects that require specific state or federal authorization and financing. These projects are placed on the list when recommended by the board and approved by the Governor and the Legislature. The SWRMS list (Table 13) serves as the preferred priority list to optimize water resources management in the state. Once a project is placed on the SWRMS list, it remains on the list until removed by legislative action.

The current SWRMS list is shown on Table 13:

Table 13 – State Water Resources Management System Projects

Project	Description
Belle Fourche Irrigation	Upgrade Project
Big Sioux Flood Control Study	Watertown Flood Control
CENDAK Irrigation Project	Irrigation Project - Central SD
Gregory County Pumped Storage Site	Multi-Purpose Water Utilization
Hydrology and Water Management Studies	Statewide Water Resources
Lake Andes-Wagner/Marty II Irrigation Unit	Irrigation - Charles Mix County
Lewis & Clark Rural Water System	Bulk Water System - Southeastern SD
Sioux Falls Flood Control Project	Increased Flood Protection
Southern Black Hills Water System	Rural Water System - Southern Hills
Vermillion Basin Flood Control Project	Flood Control on Vermillion River

SWRMS Project Status

A brief summary of each project and its status is presented on the following pages. The year in the title indicates when the project was placed on the State Water Resources Management System (SWRMS).

Belle Fourche Irrigation Upgrade Project - 2012

- The 2012 Omnibus Bill added the Belle Fourche Irrigation Upgrade project to the SWRMS list. The project is for the construction of a $5,000,000 Belle Fourche Irrigation Upgrade Project to include replacement of the Indian Creek siphon, the Horse Creek siphon, the north canal control house, the south canal control house, repair of the Belle Fourche River siphon, and removal of sediment from the south canal intake for the purpose of stabilizing crop and forage production in central western South Dakota to offset the effects of drought conditions which naturally devastate South Dakota's economic viability.
- South Dakota Codified Law 46A-1-13.12 authorized a state cost share commitment of up to $2,500,000 in grant and $2,500,000 in loan assistance to provide funding for the Belle Fourche Irrigation District Upgrade Project.
- The appropriations for 2012 included a $1,250,000 grant and a $1,250,000 loan for engineering design, preconstruction, and construction of the facilities associated with the Belle Fourche irrigation upgrade project.
- During calendar years 2012 and 2013, engineering design of siphons and the canal gatehouse was ongoing.
- The appropriations for 2013 included a $750,000 grant and a $750,000 loan for engineering design, preconstruction, and construction of the facilities associated with the Belle Fourche irrigation upgrade project.
- The appropriations for 2014 included a $500,000 grant and a $500,000 loan for engineering design, preconstruction, and construction of the facilities associated with the Belle Fourche irrigation upgrade project. This completed the state cost share commitment to the upgrade project.
- Bids were opened and awarded for the Indian Creek and Horse Creek siphons in 2013, and construction started in October of 2013. The Indian Creek siphon was completed in 2014 and was operational for the 2014 irrigation season. The Horse Creek siphon was completed in 2015 and was operational for the 2015 irrigation season.
- Bids were opened and awarded for the canal gatehouse upgrade in 2015, and construction started in the fall of 2015. The canal gatehouse upgrade was completed in the spring of 2016 and was operational for the 2016 irrigation season.
- In May 2014, bids were opened for dredging of the reservoir intake structure. Dredging operations were approximately 10 percent complete prior to 2016 when the contractor experienced difficulties with their methods to hydraulically dredge the reservoir. The dredging contractor returned to the site in late summer of 2016 with larger equipment to

resume dredging operations. Dredging completion for the intake is scheduled to be completed in the spring of 2017.

Big Sioux Flood Control Study (Watertown & Vicinity) – 1989

- The Corps of Engineers completed a reconnaissance report titled "Flood Control for Watertown and Vicinity." The study concluded the best alternative for flood protection for Watertown, Lake Kampeska, and Pelican Lake was a $16 million dry dam on the Big Sioux River at the Mahoney Creek site.
- The Corps of Engineers, in cooperation with Watertown, East Dakota Water Development District, Codington County, Lake Kampeska Water Project District, and the Department of Environment and Natural Resources, initiated a feasibility study in 1988. State appropriations of $150,000 were provided to help meet the nonfederal cost share.
- The final draft feasibility report was distributed in June 1994 for public review and comment. A public hearing in July 1994 in Watertown presented findings of the report and gathered comments. City and county elections were held, and residents voted against further local participation in the project.
- The project regained momentum after severe spring flooding in 1997 forced 5,000 residents from their homes. The Watertown City Council scheduled an election in February 1998, calling for a citywide vote on the proposed Mahoney Creek Dam. The record turnout of voters again rejected the proposed dam.
- In June 2001, the residents of Watertown called for a citywide vote on the proposed Mahoney Creek Dam project. The voters approved the project. City officials proceeded with updating the original Corps of Engineers feasibility study and obtaining support and financing for the project.
- After the affirmative vote, Watertown began negotiations with the Corps of Engineers to complete a General Re-evaluation Report of the city's flood control alternatives. Negotiations continued in 2003, and the scope of work to be reviewed by the report continued to be evaluated. The cost of the re-evaluation report was estimated at $2.8 million.
- In 2003, Watertown returned $450,000 of state funds appropriated in 2003 for local participation during the General Re-evaluation process. Because of cost share and scope of work issues, Watertown decided to step back from participation in the re-evaluation and turned over all work to the Corps of Engineers.
- The Corps of Engineers received $246,000 in 2003, $473,000 in 2004, $176,000 in 2005, and $344,000 in 2008 to continue with the General Re-evaluation Report. Alternatives to be considered included the Mahoney Creek Dry Dam, three to five medium sized dams, 800 small dams, and a diversion between Lake Kampeska and Lake Pelican.
- A stakeholder's group consisting of representatives from the Lake Pelican and Kampeska water project districts, the Corps of Engineers, the city of Watertown, Codington County

Commissioners, and landowners was created in 2010. The group held several public meetings to discuss and develop a flood control plan.

- U.S. Army Corps of Engineers have indicated that the most cost-effective solution is the Mahoney Creek Dry Dam. The city of Watertown voted to support the Mahoney Creek Dry Dam for flood protection. The cost-benefit study of the dam is anticipated to take two years, and the total project cost is estimated at $40 million dollars.
- In 2015, the city of Watertown indicated its intent to partner with the Corps of Engineers to conduct a feasibility level study update to investigate flood risk management solutions for Watertown.
- In 2016, the $225,125 in grant funds appropriated by the 2016 legislature was placed under agreement with the city of Watertown. This grant will fund half of the nonfederal cost share for the flood control feasibility study to be completed by the Corps of Engineers.

CENDAK Irrigation Project – 1982

- This proposed irrigation project would supply Missouri River water to 474,000 acres in Hughes, Hyde, Hand, Spink, Beadle, and Faulk counties in central South Dakota. South Dakota will pursue development of the project when federal policies are more supportive of large-scale irrigation projects. No activity occurred on the project in 2016.

Gregory County Pumped Storage Project – 1981

- The Gregory County Pumped Storage Project is a proposed peak generation hydroelectric facility in northern Gregory County. The Water Resources Development Act of 1986 (Public Law 99-662) authorized the construction of a $1.3 billion hydroelectric pumped storage facility by the Corps of Engineers. The Act also authorized up to $100 million for construction of the associated Gregory Unit of the Pick-Sloan Missouri Basin Program.
- After extensive geotechnical and environmental studies of the site, the Corps was forced to abandon the investigation when its mission was altered and hydroelectric development projects were no longer federally funded.
- Hydroelectric Component – The South Dakota Conservancy District authorized a feasibility study to determine if the State of South Dakota should sponsor a continuation of the project with nonfederal funding. To protect the site during these studies, the District applied for and received a 3-year preliminary permit from the Federal Energy Regulatory Commission (FERC) effective August 1, 1988. The State's preliminary permit expired August 1, 1991.
- Water Supply Component – The project has the potential to provide water for irrigation and municipal, rural, and industrial purposes using the hydroelectric project's upper bay as a water supply source. The Bureau of Reclamation completed a *Special Report on the Gregory Unit of the Pick-Sloan Missouri Basin Program, South Dakota* in 1992.
- On June 20, 2001, Dakota Pumped Storage, LLC, a Minnesota corporation, filed a FERC preliminary permit application for a pumped storage hydroelectric facility in Gregory County. On September 25, 2001, South Dakota filed a Motion to Intervene and a Notice of

Intent to File Competing Application for Preliminary Permit by the State of South Dakota. An Application for preliminary permit for the Gregory County Pumped Storage Hydroelectric Facility was filed with FERC by the South Dakota Conservancy District on October 12, 2001.

- The FERC issued a 3-year preliminary permit to the South Dakota Conservancy District on August 12, 2002. FERC denied the application by Dakota Pumped Storage, LLC.
- The 2002 Omnibus Bill appropriated $100,000 to the South Dakota Department of Environment and Natural Resources to complete preliminary permit and full permit applications to FERC. The department solicited Requests for Proposals from firms interested in providing the research to support the FERC permit. Four proposals were received. Black & Veatch was selected.
- The Black & Veatch study was completed in 2004 and determined that it was not cost-effective to pursue the pumped storage project at that time. These findings were presented to the Board of Water and Natural Resources in June 2004. The state's preliminary permit expired in 2005.
- In 2010, South Dakota Energy, LLC submitted a preliminary permit application prepared by Symbiotics, LLC to FERC to study the feasibility of the South Dakota Energy Hydroelectric Project located on the Missouri River in Gregory County, South Dakota. On July 21, 2010, the Commission issued a preliminary permit to South Dakota Energy. The preliminary permit issued to South Dakota Energy expired on July 1, 2013.
- On July 3, 2013, Gregory County with Schulte Associates, LLC as its designated agent, filed a preliminary permit application to study the feasibility of the proposed Gregory County Energy Project.
- On July 30, 2013, Western Minnesota Municipal Power Agency, a municipal corporation and political subdivision of the state of Minnesota, filed a preliminary permit application to study the feasibility of the proposed Gregory County Pumped Storage Project. Western Minnesota MPA finances the construction and acquisition of the generation and transmission facilities for members of Missouri River Energy Services.
- On December 19, 2013, FERC released an order issuing a preliminary permit and Granting Priority to File License Application for the project to Western Minnesota Municipal Power Agency. The preliminary permit expires in December 2016.
- In March 2016, the BWNR adopted a resolution to not retain Future Use Permit No. 2472-2 and to allow the permit to expire. The future use permit was up for a seven-year review by the Water Management Board to determine whether a reasonable need exists for the reserved water. The permit was for 24,000 acre-feet of water from Lake Francis Case to accommodate the weekly cycle of drawdown and refill of the project's upper storage reservoir. Legislation that went into effect July 1, 2009, requires state agencies to pay filing fees to retain future use permits. The fee to continue to reserve 24,000 acre-feet for this non-consumptive use would have been $2,055.

Hydrology and Water Management Studies – (2015 - Present)

Black Hills Hydrology and Water Management Study – (1982 – 2015)

- The hydrology study compiled water resource data to assess the quantity, quality, and distribution of surface and groundwater resources in the Black Hills area. These resources have been stressed by increasing population, periodic drought, and developments related to expansion of mineral, timber, agricultural, recreational, municipal and urban needs. The U.S. Geological Survey provided $3.4 million from federal fiscal years 1988 through 2001 to establish the hydrologic monitoring system, collect the data, and complete data analysis.
- The hydrology study entered Phase II in federal fiscal year 1997 and was completed in 2002. The study emphasis during Phase I was data collection. The emphasis shifted to analytical activities and publication of maps and reports during Phase II.
- The hydrology study produced 31 technical reports including a lay reader summary, a comprehensive report on the hydrology of the Black Hills area, and a comprehensive lay reader atlas of water resources in the Black Hills area.
- The water management study provided interested parties with the tools needed to assist in making informed management decisions about development of water resources. Data gathered during the hydrology study was used in the water management study. Congress appropriated funds in federal fiscal year 1991 to initiate the Federal Black Hills Water Management Study by the Bureau of Reclamation.
- The Black Hills Water Management Study was completed in federal fiscal year 2003. The study focused on needs assessment, management alternatives, and a final report.
- The 2004 Omnibus Bill appropriated $100,000 for the development, evaluation, and review of studies related to development of regional water supply systems in or near the Black Hills. The Fall River Water User District sponsored a regional water supply study for an area that included all of Custer and portions of Fall River and southern Pennington counties.
- The 2005 Omnibus Bill appropriated $100,000 for the development, evaluation, and review of studies related to development of regional water supply systems in or near the Black Hills. The Southern Black Hills Water System, Inc., a nonprofit corporation, was formed to continue the feasibility study of a regional water system in Custer, Fall River, and southern Pennington counties. The Southern Black Hills Water System requested additional funds to continue activities begun by the Fall River Water User District. In June 2005, the board awarded $50,000 for these activities.
- The 2006 Omnibus Bill amended the State Water Resources Management System to add the Southern Black Hills Water System to its list of preferred, priority objectives for South Dakota. The bill also provided an initial appropriation of $125,000 to allow the Southern Black Hills Water System to continue activities begun by the Fall River Water User District.
- In December 2006, the Lead-Deadwood Sanitary District submitted a request to have the remaining $50,000 of SFY 2006 Black Hills Water Management Study funding placed under agreement with the District to conduct a regional water study in the Lead, Deadwood, and

Central City area. The funding was awarded in January 2007, and the sanitary district selected an engineer in June 2007. The Lead-Deadwood Area Water Study Final Report was issued on July 18, 2008. The study provided an analysis of the Lead-Deadwood Sanitary District intake and water treatment plant, a review of the Lead and Deadwood distribution systems, an analysis of the development in the surrounding area, and analyzed the ability of the Lead-Deadwood Sanitary District to serve them.

- The 2009 Omnibus Bill appropriated $65,000 for hydrology studies. These funds were awarded to West Dakota Water Development District to cost share the United States Geological Survey groundwater aquifer study in the Black Hills.
- Several microgravity surveys were completed during 2010 and 2011 at three study sites in the Black Hills. Collected data was analyzed spatially to help characterize the heterogeneity of the Madison and Minnelusa aquifers and possibly the transition zone between the two aquifers. Time-series data was analyzed at each of the three study sites and correlated with water levels in Madison aquifer wells. This analysis helps characterize vertical heterogeneity and effective porosity at selected sites.
- A report entitled "Microgravity Methods for Characterization of Groundwater-Storage Changes and Aquifer Properties in the Karstic Madison Aquifer in the Black Hills of South Dakota" was completed in 2012.
- The 2015 Omnibus Bill appropriated $250,000 for statewide hydrology and water management studies. In June 2015, the Department of Environment and Natural Resources was awarded a $47,000 grant to conduct aquifer isotope analysis in eastern South Dakota. The department's Geological Survey program will be conducting this work.
- The 2016 Omnibus Bill appropriated $750,000 for the development of a Big Sioux River Basin Hydrologic model. In March 2016, the appropriation was placed under agreement with the Department of Environment and Natural Resources to hire a consulting firm to develop the hydrologic model for the Lower Big Sioux River Basin.
- In May 2016, DENR issued a Request for Proposals to consulting firms to develop the hydrologic and hydraulic model. Nine firms submitted proposals for review. In August 2016, after review by all involved state agencies and interviews of several firms, RESPEC was selected as the consulting firm to complete the hydrologic and hydraulic model. Completion of the model is anticipated by December 2018.

Lake Andes-Wagner/Marty II Irrigation Unit – 1975

- The 45,000-acre Lake Andes-Wagner Irrigation project and 3,000-acre Marty II Irrigation project are federally authorized Pick-Sloan Missouri Basin Units in Charles Mix County (Public Law 102-575). Estimated construction costs are $175 million and $24 million, respectively.
- In 1990, a plan of study was developed for a 5,000-acre research demonstration program to determine best management practices for irrigating glacial till soils containing selenium.

- The 1992 State Legislature authorized the construction of the Lake Andes-Wagner/Marty II project and provided a state loan cost share commitment of $7 million. Both the state and federal project authorizations are contingent upon the successful completion of the 5,000-acre research demonstration program.
- In 1995, Congress approved $250,000 for the research program. State and federal agencies revised the 1990 plan of study to re-scope the demonstration program and identify the specific issues and research components that are of national significance. A nine-year, $11.3 million effort was projected.
- In 1999, the Bureau of Reclamation (BoR) received $150,000 to prepare an environmental assessment for the demonstration program.
- The BoR completed the environmental assessment and issued a Finding of No Significant Impact for the demonstration program in 2000. Significant federal funding must be secured before the demonstration program can proceed.
- The Board of Water and Natural Resources placed $15,000 in 2002 and $50,000 in 2003 under agreement. The Lake Andes-Wagner Irrigation district continued to seek federal funding for the demonstration program.
- The 2009 Omnibus Bill appropriated $35,000 for the Lake Andes-Wagner/Marty II research demonstration program. These funds were awarded to the project sponsor to continue its efforts to get this project moving forward.
- During 2010, the sponsor worked to assemble information and research data from multiple resources. Discussions with BoR continued regarding the possibility of funding and placing the project into the BoR's program proposal.
- The 2011 Omnibus Bill appropriated $55,500 for the Lake Andes-Wagner/Marty II research demonstration program. However, these funds will not be awarded unless the federal government makes the decision to begin funding the project at levels that will ensure project completion in a reasonable timeframe.
- In June 2012, a portion of South Central Water Development District's future use permit reserving water from the Missouri River was transferred to the Lake Andes-Wagner Irrigation District. The District's transfer was for the reservation of 96,000 acre-feet of water annually from the Missouri River for future development including irrigation, municipal, stock watering, fire protection, industrial, and public recreation use. The seven-year review of this permit as required by statute was conducted in October 2013 before the Water Management Board, and the permit was allowed to remain in effect for 96,000 acre-feet annually, subject to the required fee being submitted. No activity occurred on the project in 2016.

Lewis & Clark Regional Water System – 1989

- The Lewis & Clark Regional Water System is a bulk delivery system providing treated Missouri River water to communities and existing rural water systems in southeastern South Dakota, northwestern Iowa, and southwestern Minnesota. South Dakota

membership includes eight communities and three rural water systems. Approximately 155,000 South Dakotans will receive water from Lewis & Clark.

- President Clinton signed Public Law 106-246 on July 13, 2000, authorizing the federal construction of the Lewis & Clark Regional Water System. The federal legislation also approved a federal appropriation of $600,000 to continue project engineering and begin construction. The Board of Water and Natural Resources placed $200,000 of state funding under agreement in 2000 to assist with these same project activities.
- Iowa and Minnesota sponsors provided funding support for project development in proportion to their service capacity needs. The Iowa and Minnesota State Legislatures authorized the project for construction and completed their cost share commitments.
- The South Dakota Legislature authorized Lewis & Clark's South Dakota project features ($200 million) in 1993. In 2002, the state cost share commitment of $18,585,540 in 1993 dollars was established for the Lewis & Clark Regional Water System.
- The 2002 Omnibus Bill appropriated $750,000 for the project. These funds, combined with federal and other local sources, completed the federal environmental review, the final engineering report and initiated construction. Lewis & Clark Regional Water System's final engineering report completed its initial required 90-day congressional review on September 8, 2002. The federal Office of Management and Budget (OMB) determined that Lewis & Clark could not submit its final engineering report to Congress until OMB had approved it. Lewis & Clark worked with OMB to get its final engineering report approved and resubmitted to Congress. Lewis & Clark held its groundbreaking on August 21, 2003.
- In 2005, Lewis & Clark agreed to provide Sioux Falls an additional 17 million gallons of water per day, bringing the total delivered capacity to 45 million gallons per day. Sioux Falls financed the cost of the additional capacity.
- In May 2007, Lewis & Clark elected to change the project's name from "Rural" to "Regional". The project will be doing business as the Lewis & Clark Regional Water System.
- Through June 30, 2008, the South Dakota Legislature had appropriated and the Board of Water and Natural Resources had placed under agreement $19,275,000 toward South Dakota's cost share commitment.
- In May 2008, Lewis & Clark began operating its first segment of pipeline – a nine-mile emergency connection between Sioux Center and Hull, Iowa. Until Lewis & Clark water arrives, Lewis & Clark is purchasing water from Sioux Center and reselling it to Hull.
- In July 2008, a $20.8 million contract was awarded for the first phase of the water treatment plant, which included a three million gallon underground reservoir, high capacity pumps, electrical building and two standby generators. This infrastructure is separate from the main treatment plant building.
- In July 2008, work was completed on a $5.5 million contract that included one mile of river bank stabilization southwest of Vermillion to protect Lewis & Clark's main well field from erosion, as well as two well houses, four valve vaults, and various piping. Utilizing a

permanent easement, Lewis & Clark's main well field is located on land owned by the SD Department of Game, Fish & Parks (Frost Game Production Area).

- In September 2008, Lewis & Clark began operating its second segment of pipeline, a 12-mile emergency connection for Tea and Harrisburg. Until Lewis & Clark water arrived, Lewis & Clark purchased water from Sioux Falls and re-sold it to Tea and Harrisburg.
- The 2009 Omnibus Bill appropriated $6.3 million for the engineering design, preconstruction activities, and construction.
- In April 2009, Lewis & Clark was approved to receive $56.5 million from the Bureau of Reclamation as part of the American Recovery and Reinvestment Act.
- In May 2009, a $64.1 million contract was awarded for Phase II of the water treatment plant. In July 2009, Phase II construction of the water treatment plant commenced.
- In July 2009, a $5.04 million contract was awarded for the construction of the 85th Street Tower, which has a three million-gallon storage capacity, located in Sioux Falls.
- In August 2009, a $9.5 million contract was awarded for the construction of two above ground reservoirs to be built near Tea. These two reservoirs along with the 85th Street tower serve as Lewis & Clark's primary storage facilities.
- In September 2009, a $3.7 million contract was awarded for the first segment of the "Minnesota Transmission Line." This segment is a five-mile pipeline constructed in South Dakota and serves Minnehaha Community Water Corporation, all Minnesota users, and Rock Rapids, Iowa.
- In September 2009, a $2.8 million contract was awarded for construction of the Parker and Centerville service lines. These service lines included almost fourteen miles for the Parker service line and five miles for the Centerville service line.
- Lewis & Clark received $10 million in federal funding in 2009 under the 2010 Energy and Water Appropriation bill.
- In November 2009, the last section of the Treated Water Pipeline, which is the main trunk between the water treatment plant and the city of Sioux Falls, was completed.
- A contract for five new wells was awarded in April 2010 for $6.8 million. The five new wells will provide Lewis & Clark with an estimated 10 million gallons a day of additional capacity. Including the six previously drilled wells, Lewis & Clark's total well capacity will be 28 million gallons per day.
- A $4.2 million bid was awarded in May 2010 for the Treated Water Pipeline - segment 11. This five-mile segment connected Beresford to the main truck line. This is the first segment of the "Iowa Transmission Line." Eventually this line will connect to Sioux Center, Hull and Sheldon.
- In June 2010, the $6.3 million approved by the 2010 Legislature was put under agreement. This completed the State's cost share commitment to the project.

- In October 2010, Lewis & Clark was awarded approximately $3.5 million in reprogrammed American Recovery and Reinvestment Act funding through the Bureau of Reclamation.
- In October 2010, a $7.55 million contract was awarded for the Minnesota – segment 1 pipeline, which runs along the South Dakota - Iowa border from just west of the Big Sioux River to a point six miles west of Rock Rapids.
- Lewis & Clark received $1,996,000 in federal funding, through the Bureau of Reclamation in FFY 2011. Lewis & Clark was also allocated an additional $306,000 in funding for FFY 2011 in reprogrammed funds.
- In May 2011, Lewis & Clark awarded a $1.6 million dollar contract for the Pipeline Commissioning. This contract provided for testing, disinfecting, and cleaning 85 miles of pipes from the water treatment plant near Vermillion to Sioux Falls.
- Lewis & Clark received $5.5 million in federal funds for FY 2012. Lewis & Clark initiated operation of its water treatment plant and began to serve water to eleven of its twenty members in July 2012.
- The 20 members and three states have prepaid 100 percent of the nonfederal cost share. Because the prepayments made by the 20 members and three states, which total just under $154 million, have been fully utilized, the schedule to connect the remaining nine members is entirely dependent upon future federal funding.
- In 2014, Lewis & Clark was provided $22 million in advance federal funding from Minnesota. These funds will be used to construct transmission lines to Luverne and Magnolia.
- In 2014, Lewis & Clark received a $1 million reimbursable grant for advance federal funding from South Dakota. These funds were made available by the joint appropriations committee in Senate Bill 53. These funds will be used to acquire easements and pay for engineering costs for two of the five segments of the Madison service line.
- In 2014, Lewis & Clark delivered water to 11 of the 20 members. The system provided an average of 9 million gallons per day to the connected members and a peak day production of 19.6 million gallons. Water demand increased by 20 percent from 2013 production numbers.
- In 2015, Lewis & Clark was provided $19 million in advance federal funding from Minnesota. These funds will be used to connect the Lincoln Pipestone Rural Water System, construct a 4 million-gallon storage reservoir southwest of Luverne, install a booster station southeast of Luverne, acquire easements, and complete design for the pipeline between Adrian and Worthington.
- In 2015, Lewis & Clark received a $7.7 million loan for advance federal funding from South Dakota. These funds were made available by Senate Bill 173. These funds will be used to construct segments one and five of the Madison service line. Madison is the only South Dakota member system not yet connected; however, construction of segments 1 and 5 does not get a drop of water to Madison. In 2016, the agreement was amended to include construction of segments 2 through 4 and is estimated to cost more than $22 million.

- DENR worked with three regional water systems and the city of Madison to develop a wheeling option as an alternative to providing federal fund advances to construct the balance of the Madison service line. The wheeling option builds on the construction of segments 1 and 5. Segment 1 provides Minnehaha Community Water Corporation (MCWC) with its second Lewis & Clark connection a mile west of Crooks. That connection increases the delivery of Lewis & Clark water to MCWC to 1.1 million gallons per day and with $1.8 million in wheeling upgrades, and frees up water from MCWC's water treatment plants to feed its Tower 3B near Colton. Tower 3B will then feed water into a new 12-inch Big Sioux Community Water line going north and west to connect with Lewis & Clark's segment 5 to deliver 1 million gallons per day of water to Madison costing $3 million to construct. The wheeling option saves the state more than $17 million in federal fund advances and gets Madison its needed 1 million gallons per day of water from a regional system supplier as early as November 2016.
- In 2015, Lewis & Clark delivered water to 12 of the 20 members. The system provided an average of 12.7 million gallons per day to the connected members and a peak day production of 21 million gallons. Water demand has increased by 44 percent from 2014 production numbers.
- In January 2016, the first of several contracts for the wheeling option to provide water to Madison was awarded. The contract was awarded by MCWC, and construction of the additional lines to free capacity elsewhere within MCWC's distribution system was completed in the fall of 2016. This work was funded partially by a $900,000 Consolidated grant.
- In May and July of 2016, the Big Sioux Community Water System awarded bids for their portion of the Madison wheeling option. The work includes construction of new water distribution line to connect MCWC to a new Lewis & Clark line east of Madison and a new pump station to provide the pressure needed to move the water. Construction will be completed in late 2016. This work was funded by a $2,000,000 Consolidated grant and a $1,014,000 Drinking Water SRF loan.
- In April 2016, Lewis & Clark awarded the contract for construction of the Madison meter building and Crooks meter building/pump station. These buildings will supply metering and pressure for water to get to Madison. Construction will be completed in late 2016.
- In June 2016, the final bids for the Madison wheeling project were awarded by Lewis & Clark for construction of segments 1 and 5 of the Lewis & Clark lines and connections to Minnehaha CWC and Big Sioux CWS. Construction of this work is anticipated in June 2017.
- In 2016, Lewis & Clark delivered water to 13 of the 20 members, with Luverne being connected in March 2016. The system provided an average of 13.4 million gallons per day to the connected members and a peak day production of 21.67 million gallons. Water demand has increased by 25 percent from 2015 production numbers and the treatment plant is now staffed 24 hours per day 7 days a week.

- Through FY 2015, the federal government has appropriated $229 million to the project. Recent federal funding levels include $9.54 million in FY16 and $2.775 million proposed for FY 2017.

Sioux Falls Flood Control Project – 1989

- In 1961, the Corps of Engineers completed a channelization, levee, and diversion system to provide 100-year flood protection on the Big Sioux River and Skunk Creek.
- Because of subsequent flooding events on the Big Sioux River and Skunk Creek, the Corps of Engineers reanalyzed the flood criteria in the early 1980s and determined that the 1 percent chance of flood occurrence was greater than previously established. The Corps then recommended that the levee system be upgraded so that it would continue to provide Sioux Falls with 100-year flood protection on the Big Sioux River and Skunk Creek. Project upgrades included constructing a dam on the Big Sioux River just above the confluence of Skunk Creek as well as raising the levees along the Big Sioux River from Skunk Creek to Interstate 229, raising the levees along Skunk Creek from Marion Road to the Big Sioux River, raising the levees above and along the diversion channel, modifying the spillway chute, replacing the stilling basin, and modifying some bridges.
- The 1992 State Legislature authorized project construction and a state cost share commitment of $4.55 million. Federal authorization was completed as part of the 1996 Water Resources Development Act on October 12, 1996 (Public Law 104-303). The Act authorizes a $34.6 million construction project under the Corps of Engineers.
- In 1999, a $2.2 million federal appropriation was provided to the Corps of Engineers. A Project Cooperation Agreement between the Department of the Army and the city of Sioux Falls for final design work was executed.
- Construction of Phase 1A of the Big Sioux River/Skunk Creek Flood Control Project was completed in 2001 and addressed the spillway and stilling basin area at the outfall of the diversion channel. Later that year bids were accepted on Phase 1B of the project addressing the levies adjacent to Morrell's downstream to Cliff Avenue.
- Sioux Falls continued to work with the Corps of Engineers on final design and construction of the project from 2001 to 2007. Sioux Falls continued to secure required easements and properties for the project.
- Construction of Phase 2A of the project continued in 2007. Phase 2A work included improvements to the levees on the Big Sioux River from 49th Street to Interstate 229.
- Phase 2B of the project was completed in 2008. This work included the levee and associated structures on the east side of the Big Sioux River from 41st Street to 49th Street. The city advanced sufficient funds to the US Army Corps of Engineers to complete Phase 2 work in the next two years. This was an ambitious schedule, but reduced the high cost of flood insurance for many properties now being placed in Flood Zone A of the National Flood Insurance Program.

- Phase 2C raised two miles of existing levees approximately two to five feet in order to provide 100-year flood protection along the Big Sioux River within the city of Sioux Falls. In October 2009, the Corps of Engineers accepted proposals for this phase of the project. Phase 2C of the Sioux Falls Flood Control project was awarded in February 2011 for approximately $12 million. The project was completed by the end of calendar year 2011.
- In December 2009, the city issued $27 million in taxable revenue bonds; $17 million of the total was advanced to the Corps of Engineers for levee and dam construction. The balance was to pay for the 41st Street Bridge project.
- As part of the 2010 Energy and Water Appropriation bill, $1.84 million was appropriated to the Corps of Engineers for the Sioux Falls Flood Control Project.
- In March 2010, the city of Sioux Falls reconstructed the existing 41st Street bridge in order to raise the levee system. The project was substantially completed in September 2010.
- The 2011 Omnibus Bill appropriated $3.31 million for project design and construction.
- Phase 3 was awarded at $8.8 million, and work began above the diversion dam and on the diversion channel where the levees were raised two to four feet. Phase 3 was completed by the end of calendar year 2012 and is the final phase of construction.
- The Corps of Engineers is in the process of preparing documents for certification of the remaining uncertified levees within the city. Once these documents are complete, FEMA will begin the process of revisiting the flood insurance rate maps within the city limits. Upon completion of the new rate maps, the Sioux Falls Flood Control Project will be complete.
- In 2013, the project reached substantial completion. The new levee system building was built, and all of the gates and posts for the closure structures were received. Testing of the controls for the dam was conducted, and the operation of the gates was successfully completed. The Corps of Engineers has awarded and is completing a new project to replace a deficient drainage structure through the levee next to the Sioux Falls zoo.
- In 2015, the major work on the levee system was completed; the Corps of Engineers submitted the application to FEMA for a physical map revision. The FEMA review and eventual issuing of new flood insurance rate maps should result in 1,500 properties in Sioux Falls being taken out of the floodplain.
- In 2016, the $2,036,375 in grant funds appropriated by the 2016 legislature was placed under agreement with the city of Sioux Falls. This funding provides the final portion of the state's cost share commitment to provide half of the nonfederal cost share to the city, and all necessary work has been completed.

Southern Black Hills Water System – 2006

- The 2006 Omnibus Bill amended the State Water Resources Management System to add the Southern Black Hills Water System to the list of preferred, priority objectives for South Dakota. The bill also provided an initial appropriation of $125,000 to allow the Southern

Black Hills Water System to continue activities begun under the Black Hills Hydrology and Water Management Study.

- The project objective is to construct a rural regional water system capable of delivering quality drinking water to rural residents and area communities in Custer, western Fall River, and southern Pennington counties. Communities involved include Custer, Edgemont, Hermosa, Hill City, Hot Springs, Keystone, and Pringle.
- Project sponsors worked with representatives from the Department of Agriculture Rural Development Program to secure funding for the construction of the North Hot Springs service area. In 2007, negotiations with the city of Hot Springs for a permanent water source failed to produce a contract.
- Local support continued to be strong for the project with area-wide rural signups near 500 individual homes. Additionally, strong interest continues to be expressed by the Custer State Park, the Mount Rushmore National Park, the Crazy Horse Foundation, and the various area communities for water service from the system.
- In 2009, Southern Black Hills Water System secured an initial water source and received a water permit for a future well site. Southern Black Hills Water Systems secured easements for construction of pipeline and a storage reservoir.
- In 2009, Southern Black Hills Water System secured funding through Department of Agriculture Rural Development Program for Phase I construction.
- The 2010 Omnibus Bill appropriated $350,000 for the engineering design, preconstruction activities, and construction. The 2010 Omnibus bill established the state cost share commitment at $12 million.
- In 2010, Southern Black Hills opened bids and awarded three contracts for Phase I of the project. Phase I consisted of a water treatment plant, an underground reservoir, and approximately 30 miles of distribution pipeline. Southern Black Hills received more than $4.5 million in Rural Development loan and grant funding to assist with Phase I.
- The 2011 Omnibus Bill appropriated $2,000,000 for the engineering design, preconstruction activities, and construction. These funds were awarded to the project sponsor to continue Phase I construction, Phase II engineering design and preconstruction, and the Cascade Area engineering design and preconstruction.
- In September 2011, a portion of Phase I was completed and approximately 200 customers received water.
- The 2012 Omnibus Bill appropriated $4,000,000 for the engineering design, preconstruction activities, and construction. These funds were awarded to the project sponsor to continue Phase I construction, Phase II engineering design and preconstruction, and the Cascade Area engineering design and preconstruction.
- Final plans and specifications for Phase II of the project were completed in 2012. Phase II will serve approximately 230 customers, consist of 72 miles of pipes, a booster station, and a water storage tank.

- Southern Black Hills was issued a Forest Service Special Use Permit in September 2012. This allows construction and installation of the water transmission pipeline associated with Phase II to cross 2.7 miles of National Forest System lands in the Black Hills National Forest.
- The 2013 Omnibus Bill appropriated $3,800,000 for the engineering design, preconstruction activities, and construction. These funds were awarded to the project sponsor to continue Phase II engineering design, preconstruction and construction, and the Cascade Area engineering design and preconstruction.
- In May 2013, bids were opened for the Phase II distribution project and the Junction storage tank. The bids were awarded in June of 2013 with construction on both projects starting in September 2013.
- Construction continued in 2014 for both the Phase II distribution project and the Junction storage tank. The original portions of these projects were scheduled for completion in the fall of 2014. The Phase II distribution project added the Red Canyon sub-development to the project. This portion of the project was completed in August of 2015.
- In 2016, Southern Black Hills continued efforts to acquire wells and provide regional water to the town of Hermosa and surrounding developments. Discussions of providing water in the Cascade Road area south of Hot Springs have also taken place with local residents to gauge interest levels in a potential project.

Vermillion Basin Flood Control Project – 1987

- The project objective is to address the severe flooding problems in the Vermillion River Basin. The basin covers 2,697 square miles in parts of 14 counties and is about 150 miles long with an average width of about 20 miles.
- In 1993, the Corps of Engineers completed The *Vermillion Basin Flood Control Reconnaissance Report* but failed to identify a feasible federal project. The project sponsors re-evaluated project alternatives for nonfederal development. Local project sponsors submitted a pre-application notification for a Federal Emergency Management Agency (FEMA) Hazard Mitigation grant for a *Feasibility Study of Flood Control Alternatives* for the basin. In 1994, more than 70 technical experts met to develop a multi-objective plan to reduce flooding impacts in the Vermillion River Basin. The National Park Service compiled the group's issues and suggestions and formulated the multi-objective plan.
- The Vermillion River Watershed Authority was incorporated in December 1997 and is comprised of representatives from the Clay, Miner, Turner, McCook, and Lake county commissions.
- The Vermillion River Watershed Authority proposed to use FEMA Hazard Mitigation grant funds to widen the channel at the outlet of Lake Thompson and construct a control structure to retain the natural outlet elevation, channel maintenance along 19 miles of the Vermillion River and its tributaries, and wetland restoration and development throughout the basin. The cost benefit ratio for the outlet of Lake Thompson was found to be in error. The ratio was actually less than one; consequently, all FEMA Hazard Mitigation funds were withdrawn. The Authority withdrew its request to set the outlet elevation on Lake

Thompson and moved to dissolve after financial records are completed. No activity occurred on the project in 2016.

Recommendations to the Governor and State Legislature

In November 2016, the board conducted a public meeting on the State Water Resources Management System (SWRMS) projects. The board adopted Resolution #2016-109 recommending that all current projects be retained on the SWRMS list. The board also adopted Resolution #2016-110 providing its recommendations to the Governor and the Legislature for the Water and Environment Fund (WEF) and WEF subfunds fiscal year 2018 appropriation levels. A summary of the board's recommendations are summarized below. Full resolutions are in Appendix B.

Table 14 – Board of Water and Natural Resources Funding Recommendations

WATER AND ENVIRONMENT FUND (WEF)

SWRMS	
Statewide Hydrology and Water Management Studies	$450,000
Consolidated Water Facilities Construction Program	$10,500,000
Solid Waste Management Program	$2,250,000

WEF SUBFUNDS

Clean Water State Revolving Fund (SRF) Admin Surcharge Fees	
Water Quality Grants	$1,000,000
SRF Application and Administration Assistance	$150,000
Drinking Water SRF Set-Asides and Admin Surcharge Fees	
SRF Application and Administration Assistance	$150,000
Local and Small System Technical Assistance	$150,000
WEF Subfund Total	$1,450,000
Total	**$14,650,000**