

**2004 ANNUAL REPORT**  
~~and~~  
**2005 STATE WATER PLAN**



*South Dakota*  
Board of  
Water and Natural Resources



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

JOE FOSS BUILDING  
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Governor M. Michael Rounds  
and Members of the Eightieth  
Legislative Session

As required by state law, transmitted herewith is the 2004 Annual Report/2005 State Water Plan of the Board of Water and Natural Resources. The Annual Report describes water development and waste management activities during the past year. The State Water Plan outlines the projects on the State Water Facilities Plan and State Water Resources Management System.

Throughout this document you will see the on-going needs for water, wastewater, and solid waste projects statewide and how critical state assistance is to get these projects constructed. Over the past year, the board awarded nearly \$55.6 million in grant and loan funds for the planning, design, and construction of municipal drinking water systems, wastewater facilities, lake/watershed restoration projects, rural water systems, solid waste disposal, and recycling projects. These awards were a critical link in having environmental project totaling \$163.1 million going forward last year.

The Department of Environment and Natural Resources (DENR) sincerely appreciates the interest and help of all who have contributed to the success of the State Water Plan in the past. DENR will continue to work together with the Governor, the Legislature, the Board of Water and Natural Resources, local project sponsors, and the general public to make South Dakota an even better place to live.

Sincerely,

\\Signed//

Steven M. Pirner  
Secretary

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**To  
Governor M. Michael Rounds  
and the  
Eightieth Session, Legislative Assembly  
2005**

**2004 ANNUAL REPORT  
~~and~~  
2005 STATE WATER PLAN**

**Board of Water and Natural Resources**

**January 2005**

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# PREFACE

The purpose of this document is to fulfill the statutory requirements placed on the Board of Water and Natural Resources. These requirements are generally outlined as follows:

*SDCL 46A-2-2 To prepare and submit to the Governor and Legislature a yearly progress report on the State Water Plan*

*SDCL 46A-1-10 To make recommendations to the Governor and Legislature concerning projects for the State Water Resources Management System*

*SDCL 46A-1-14 To make an annual report on all activities during the preceding year and funding recommendations necessary to implement the water plan*

This report consists of two principal sections – the 2004 Annual Report and the 2005 State Water Plan. The annual report provides progress reports on each program and on board activities during calendar year 2004. The second section sets forth the projects included on the State Water Facilities Plan and the State Water Resources Management System. A Water and Environment Fund Special Condition Statement that projects the status of the Water and Environment Fund as of the end of fiscal year 2005 is included in Appendix A. A copy of the resolutions approved by the Board of Water and Natural Resources that provide recommendations to the Governor and the Legislature on the funding levels for the various Water and Environment Fund programs and the retaining, placement, or removal of projects on the State Water Resources Management System component of the State Water Plan is included in Appendix B.

# 2004 ANNUAL REPORT



# Board of Water and Natural Resources

## Overview

South Dakota Codified Law 46A-1-14 requires an annual report of the Board of Water and Natural Resources. The report summarizes the board's 2004 activities, including a detailed account of expenditures from the Water and Environment Fund.

In November 2003, the board placed 30 projects on the 2004 State Water Facilities Plan. During the year, the board amended an additional 26 projects onto the plan. This made the projects eligible for financial assistance from a variety of federal and state sources.

The board awarded nearly \$55.6 million in grant and loan funds for construction of municipal drinking water systems, wastewater facilities, lake/watershed projects, rural water systems, solid waste disposal, and recycling activities. These awards resulted in \$163.1 million in total activity. The loan and grant funds helped provide South Dakotans with safe and dependable environmental infrastructure.

## State Water Resources Management System

On February 25, 2004, Governor Rounds signed the 2004 Omnibus Bill (Senate Bill 203) which provided an appropriation of \$4.1 million for State Water Resources Management System (SWRMS) projects.

Individual project appropriations approved as part of the 2004 Omnibus Bill can be found beginning on page 9 in the 2004 State Water Development Legislation section of this report. During the year, the board placed \$23,000 of prior year appropriations and \$4.1 million of 2004 appropriations under agreement (Table 1).

Information on individual SWRMS project accomplishments and activities is summarized on pages 16 through 30 in the State Water Plan section of this document.

Table 1

### 2004 State Water Resources Management System Funding Awards

<u>Project</u>	<u>Amount</u>	<u>Type</u>
James River Restoration	\$ 250,000	Grant
Lake Andes-Wagner/Marty II Irrigation	23,000	Loan
Lewis and Clark Rural Water Supply System	2,500,000	Grant
Perkins County Rural Water System	1,250,000	Loan
Southern Black Hills Water Supply System	<u>100,000</u>	Grant
TOTAL	\$4,123,000	

**State  
Revolving  
Fund Bond  
Issue**

The South Dakota Conservancy District issued its Series 2004 bonds for the State Revolving Fund (SRF) programs in July 2004. The purpose of the bond issue was to provide State match for the Drinking Water SRF program for 2004 through 2006, provide additional leveraged bonds for the Drinking Water SRF program to satisfy the high loan demand, and refund prior series of Clean Water SRF bonds. The 2004 bond issue was rated AAA by Standard and Poor and Aaa by Moody's. These are the highest ratings assigned by each agency. The bonds were marketed on June 28 and 29, 2004, and the final value of the bond was \$38.46 million. The True Interest Cost was 4.48 percent and the Net Interest Cost was 4.60 percent.

The refunding of the 1994, 1995, and 1996 series of bonds resulted in a net present value savings of \$986,412. This savings was higher than anticipated but was a secondary benefit of the refunding. The refunding was done primarily to adopt a new Master Trust Indenture under which both SRF programs operate rather than each program having a separate indenture. The new Master Trust Indenture allows the district to more readily transfer funds between programs, and the earnings from one program can pay debts on the other program, if needed (cross-collateralization).

In conjunction with the bond issue, a Guaranteed Investment Contract (GIC) was awarded to AIG Matched Funding Corp. The GIC earns 5.07 percent and up to \$60 million of bond proceeds and repayments from the 2001 and 2004 bond issues can be invested under this agreement. A GIC agreement was never executed for the 2001 issue because of extremely low interest rates due to the depressed financial markets following the September 11<sup>th</sup> event. The 2001 bond issue was originally scheduled to be sold on September 11, 2001.

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**Clean Water  
State  
Revolving  
Fund Loan  
Program**

The Clean Water State Revolving Fund Loan Program, which began in 1988, is designed to provide low-interest loans to governmental entities including municipalities, sanitary districts, and other special districts. The loans are used for construction of wastewater facilities, storm sewers, and nonpoint source pollution control projects. To date, 156 loans totaling more than \$155 million have been made from the program. During 2004, the board approved 10 loans totaling nearly \$11.37 million (Table 2).

In March 2004, the board lowered the base interest rate for the program from 3.5 percent rate to 3.25 percent for up to 20 years and established alternative term rates of 2.0 percent for up to 3 years as an interim financing rate and 2.5 percent base rate for loans up to 10 years. The board also established a separate rate for nonpoint source projects at 1.5 percent for loans with a term of 10 years or less and 2.25 percent for loans

with a term greater than 10 years. Projects for traditional wastewater or stormwater projects that include a nonpoint component may receive the nonpoint source rate. The annual principal and interest payments will be calculated for a loan at the higher base interest rate. Using the lower nonpoint source interest rate, a loan will be sized using the annual payment previously calculated. The difference in the two loan amounts will be the amount of funding available for the nonpoint source component of the project. The program's rates and terms are reviewed annually by the board.

Table 2

### 2004 Clean Water State Revolving Fund Loan Awards

<u>Sponsor</u>	<u>Description</u>	<u>Amount</u>	<u>Interest</u>	
			<u>Rate</u>	<u>Term</u>
Clear Lake	Wastewater Collection Improvements	\$910,000	3.25%	20
Fort Pierre	New Wastewater Lagoon	450,000	3.5%	20
Gayville	Wastewater Lagoon Project	275,000	3.25%	20
Lake Cochrane San. Dist.	Wastewater Collection Improvements	160,000	3.5%	20
Parker	Wastewater System Improvements	824,000	3.25%	20
Sioux Falls	Wastewater System Improvements	3,951,000	2.5%	10
Sioux Falls	Storm Water Detention Pond Retrofit	801,000	2.5%	10
Valley Springs	Wastewater Collection Improvements	350,000	3.25%	20
Vermillion	Wastewater Treatment Improvements	3,548,351	3.25%	20
Willow Lake	Wastewater System Improvements	<u>100,000</u>	3.5%	20
TOTAL		\$11,369,351		

### Drinking Water State Revolving Fund Loan Program

The Drinking Water State Revolving Fund Loan Program was created under the federal Safe Drinking Water Act Amendments of 1996. The program is designed to provide low-interest loans to nonprofit corporations and governmental entities including municipalities, sanitary districts, and other special districts. The loans are used for construction of drinking water facilities. To date, 79 loans totaling nearly \$125 million have been made from the program. During 2004, the board approved 11 loans totaling nearly \$27.4 million (Table 3).

In March 2004, the board lowered the base interest rate from 3.5 percent for the program to 3.25 percent for up to 20 years. The board also established alternative term rates of 2.0 percent for up to 3 years as an interim financing rate and 2.5 percent base rate for terms up to 10 years. The program's rates and terms are reviewed annually by the board.

Disadvantaged communities continue to be eligible to extend the maximum allowable repayment period from 20 to 30 years and may receive an interest rate below the base rate. To qualify as disadvantaged, the water system's monthly residential water bill must be at least \$20 per 5,000 gallons usage for municipalities and sanitary districts or \$50 per 7,000 gallons usage for all other community water systems.

Additionally, the median household income of the community must be below the statewide median household income. Communities with a median household income less than the statewide median household income (MHI) but greater than 80 percent of the MHI are eligible for an extended 30-year term loan at the base rate of 3.25 percent interest. Communities with a household income between 60 percent and 80 percent of the MHI are eligible for an extended 30-year term loan at 2.5 percent interest. An average household income less than 60 percent of the MHI is necessary to be eligible for an extended 30-year term loan at zero percent interest.

Table 3

**2004 Drinking Water State Revolving Fund Loan Awards**

<u>Sponsor</u>	<u>Description</u>	<u>Amount</u>	<u>Interest Rate</u>	<u>Term</u>
Aberdeen	Water Treatment Plant Improvements	\$8,300,000	3.5%	20
Centerville	Water Distribution Improvements	870,000	3.25%	30
Crooks	Water Distribution Improvements	302,900	3.25%	20
Elk Point	Water Treatment Plant Improvements	570,000	3.25%	20
Groton	Water Distribution Improvements	365,900	3.25%	20
Keystone	Water System Improvements	762,000	3.25%	20
Lennox	Water System Improvements	2,000,000	3.25%	20
McLaughlin	Water Distribution Improvements	350,000	2.5%	30
Parker	Water Distribution Improvements	730,000	3.25%	20
Platte	Water Distribution Improvements	400,000	2.5%	10
Sioux Falls	Water System Improvements	12,749,000	2.5%	10
TOTAL		\$27,399,800		

**State Revolving Fund – Planning and Water Quality Grants**

Beginning in 2001, the Board of Water and Natural Resources began setting aside funds under both the Clean Water and Drinking Water state revolving fund programs for the Small Community Planning Grant Program. The program was established to encourage proactive planning by small communities. Grants are available to systems serving populations of 2,500 or less to assist in preparing an engineering study. Participating systems are reimbursed 80 percent of the costs of the study, up to a maximum of \$4,000. An additional \$2,400 is available for wastewater studies that include an infiltration/inflow analysis as part of the overall system evaluation.

In 2003, the Board expanded the Clean Water program to provide funding for existing livestock auction barns. The program helps develop alternatives to assist livestock auction barns comply with environmental permits and regulations. Funding is provided to communities with existing livestock auction barns located in the community or within a three mile radius. The planning studies evaluate items such as clean water diversions, manure handling, and wastewater treatment options to include connection to the community’s sanitary sewer system. The

auction barn planning grant reimburses 60 percent of the cost of an engineering study up to a maximum of \$4,200.

In 2004, the Board expanded the program again to offer assistance for water or wastewater utility rate analysis. The program provides 80 percent of the costs of a rate analysis up to a maximum of \$1,600.

In 2004, the board also awarded funding to the Department of Agriculture to help initiate a program to assist in the design of manure management systems for concentrated animal feeding operations (CAFOs). The Department of Agriculture's CAFO design program provides up to 60 percent grants, not to exceed \$12,000 per system, to local conservation districts to assist producers with engineering design. Completed plans and specifications must meet department design requirements.

To date 41 wastewater, 54 drinking water, eight auction barn planning grants, and one CAFO design grant have been awarded obligating a total of nearly \$977,000. During 2004, 16 wastewater, 18 drinking water, three auction barn planning grants, and one CAFO design grant were awarded obligating a total of \$733,669. (Table 4).

Table 4

### 2004 Planning Grant Awards

<u>Sponsor</u>	<u>Project</u>	<u>Grant Amount</u>	<u>Total Project</u>
Agriculture, Dept. of	Concentrated Animal Feeding Operations	\$580,000	\$966,700
Buffalo Gap	Drinking Water Study	1,880	2,350
Delmont	Wastewater Study	4,000	5,000
Edelweiss Mountain Improve	Wastewater Study	4,000	5,000
Ethan	Drinking Water Rate Analysis	800	1,000
Ethan	Wastewater Study & Rate Analysis	7,200	22,350
Fall River Water Users Dist.	Drinking Water Study	4,000	6,000
Fort Pierre	Auction Barn	3,000	5,000
Geddes	Wastewater Study	6,400	12,500
Golden Hills Homeowners	Drinking Water Study	4,000	5,000
Harrisburg	Wastewater Study	4,000	8,475
Harrisburg	Drinking Water Study	4,000	7,265
Hitchcock	Drinking Water Study	4,000	5,000
Hosmer	Drinking Water Study	2,000	2,500
Jefferson	Wastewater Study	6,400	8,000
Jefferson	Drinking Water Study	4,000	5,000
Lesterville	Wastewater Study	6,400	8,000
Longview San. Dist.	Wastewater Study	4,000	5,000
Longview San. Dist.	Drinking Water Study	4,000	5,000
Marion	Wastewater Study	4,000	5,000
Martin	Auction Barn	4,200	7,000
Monroe	Drinking Water Study	4,000	5,000
Montrose	Wastewater Study	4,000	6,964
Montrose	Drinking Water Study	3,485	4,356

<u>Sponsor</u>	<u>Project</u>	<u>Grant Amount</u>	<u>Total Project</u>
New Underwood	Drinking Water Study	4,000	9,140
Philip	Wastewater Rate Analysis	800	1,000
Philip	Drinking Water Rate Analysis	800	1,000
Prairie Hills Water Co.	Drinking Water Study	4,000	9,979
Redfield	Auction Barn	4,200	7,000
Rosholt	Wastewater Study & Rate Analysis	7,200	9,000
Rosholt	Drinking Water Study & Rate Analysis	4,800	6,000
St Onge Sewer & Water Co.	Wastewater Study	3,864	4,830
Tea	Wastewater Study	6,400	36,870
Tea	Drinking Water Study	4,000	22,598
Terry Trojan Water Dist.	Drinking Water Study	4,000	5,000
Toronto	Wastewater Study	6,400	8,000
Westview Homeowners Assoc.	Drinking Water Study	3,040	3,800
Woonsocket	Wastewater Study	<u>6,400</u>	<u>8,000</u>
TOTAL		\$733,669	\$1,245,677

## **Watershed Protection – EPA Section 319 Grants**

The South Dakota Watershed Protection Program is designed to assess nonpoint water pollution sources and to reduce or eliminate their impact on water quality throughout the state. Nonpoint source refers to the polluted run-off from urban, agriculture, and forest lands. The program provides technical and financial assistance to local watershed project sponsors in the planning and management of assessment and implementation projects. Additionally, the program administers state and federal grants, monitors the effectiveness of implementation projects, provides information and education materials, and develops pollution prevention programs.

Applications for Section 319 grants must be approved by the board prior to submission to EPA. In 2004, the board recommended that EPA award nearly \$2.6 million to watershed projects (Table 5).

Table 5

### **2004 EPA Section 319 Grants**

<u>Sponsor</u>	<u>Project</u>	<u>Amount</u>	<u>Total Project</u>
Belle Fourche Watershed Partnership	Belle Fourche River TMDL Implementation	\$189,000	\$843,900
Dakota Central RC&D	Upper Snake Creek TMDL Implementation	750,000	1,563,200
Deuel Conservation Dist.	Deuel County Lakes TMDL Implementation	286,100	621,850
Discovery Center (Pierre)	Nonpoint Source Information & Education	200,000	341,050
SDSU	Precision Manure Management	255,000	461,300
SDSU	Performance of Vegetated Treatment Areas	260,300	553,700
SDSU	Phosphorous Loss on a Watershed Scale	72,600	120,400
Watertown	Upper Big Sioux TMDL Implementation	<u>570,000</u>	<u>1,140,000</u>
TOTAL		\$2,583,000	\$5,645,400

## Solid Waste Management Program

The 2004 State Legislature appropriated \$800,000 for the Solid Waste Management Program (SWMP) and \$800,000 for Regional Landfill Assistance to provide grants and loans for fiscal year 2005. These 2004 appropriations, combined with unobligated prior year authority, resulted in nearly \$1.73 million being available for project awards for recycling, waste tire, and solid waste disposal projects.

Funds to support these programs are generated from two sources – a \$1.00 per ton landfill surcharge on municipal solid waste and a \$0.25 per tire vehicle registration fee. A minimum of 50 percent of the SWMP funds appropriated is reserved for recycling activities.

The board awarded twelve grants and seven loans totaling \$2,184,600 (Table 6). Of these awards, five were for recycling activities and thirteen were for municipal solid waste or waste tire cleanup activities. These awards helped leverage more than \$2.17 million in total project activities.

Table 6

### 2004 Solid Waste Management and Regional Landfill Assistance Awards

#### Municipal Solid Waste

<u>Sponsor</u>	<u>Description</u>	<u>Loan Amount</u>	<u>Grant Amount</u>	<u>Total Project</u>
Brown County Landfill	Waste Tire Cleanup		\$30,000	\$60,000
B-Y Water District	Lime Sludge Disposal Cell	\$155,000 #	21,000	176,000
DENR	Waste Tire Cleanup		100,000 *	100,000
Mitchell	Regional Landfill	450,000 *		450,000
Northwest Regional Landfill	Landfill Cell #2 and Equipment	250,000 *	82,000	550,000
Pennington County	Waste Tire Cleanup		72,000	144,000
Solid Waste Management Assoc.	MOLO and Operator Training		37,425	49,900
Sioux Falls	Waste Tire Cleanup		21,875	43,750
LaVern Stippich (Perkins County)	Waste Tire Cleanup		4,000	8,000
Walworth County	Landfill Equipment	255,000 @	50,000	367,500
Yankton	Transfer Station	285,000 *		285,000
	<b>TOTAL</b>	<b>\$1,395,000</b>	<b>\$418,300</b>	<b>\$2,234,150</b>

#### Recycling

<u>Sponsor</u>	<u>Description</u>	<u>Loan Amount</u>	<u>Grant Amount</u>	<u>Total Project</u>
Anti Freeze Recycling Inc.	Antifreeze Recycling Equip.	\$ 80,000		\$80,000
Freeman	Compost Turner		\$10,750	21,500
Watertown	Household Hazardous Waste		15,550	20,750
Yankton	Recycling Center	75,000	190,000	265,000
	<b>TOTAL</b>	<b>\$155,000</b>	<b>\$216,300</b>	<b>\$387,250</b>

\*Awards from Regional Landfill Assistance appropriation.

#Award made in March 2004, rescinded by BWNR in September at Sponsor's request.

@Award made in June 2004, rescinded by BWNR in September for statutory issues.

## Consolidated Water Facilities Construction Program

The 2004 State Legislature appropriated \$4.5 million for the Consolidated Water Facilities Construction Program to provide grants and loans for water development projects on the State Water Facilities Plan. Additionally, \$551,000 of prior year funding was available for award in 2004.

The board considered 39 new applications and two amendments and awarded 32 grants, three loans, and two amendments totaling more than \$6.30 million (Table 7). The 2004 awards leveraged more than \$36.5 million in total project activities.

Table 7

### 2004 Consolidated Awards

<u>Sponsor</u>	<u>Description</u>	<u>Amount</u>	<u>Total Project</u>
Aberdeen	Elm Lake Animal Waste Management	\$57,300	\$382,000
Aurora-Brule RWS	Water Treatment Plant Improvements	150,000	2,785,672
Brookings-Deuel RWS	Distribution Expansion	150,000	950,000
Clay RWS	Distribution System Improvements	200,000	1,060,000
Clear Lake	Wastewater Collection Improvements	350,000	1,310,000
Corsica	Water/Wastewater Expansion	300,000	2,301,595
Crooks	Water Distribution System Improvements	100,000	952,900
Doland	Wastewater Pipeline Replacement (loan)	33,000	33,000
Elk Point	Water Treatment Plant	350,000	1,014,750
Faith	Water/Sewer to New School Buildings	5,600	8,000
Fort Pierre	Wastewater Treatment Improvements	150,000	604,000
Freeman	Water/Wastewater Improvements	100,000	630,000
Gayville	Wastewater Treatment Improvements	100,000	463,000
Hartford	Water Supply	500,000	3,174,000
Hecla	Wastewater Treatment	500,000	1,200,000
Hermosa	Water Distribution Improvements	300,000	655,000
Joint Well Field, Inc.	Regional Water Supply	350,000	1,400,000
Kingbrook	Distribution Expansion	150,000	3,400,000
Lake County Cons. Dist.	Borne Slough Restoration	19,200	192,000
Lake Hendricks San. Dist.	Wastewater Collection (loan)	67,000	131,051
Lake Hendricks San. Dist.	Wastewater Collection (grant)	50,000	
Lake Poinsett San. Dist.	Wastewater Collection Expansion	200,000	875,000
Lead	Water/Wastewater Pipeline Replacement	75,000	657,100
Lead-Deadwood San. Dist.	Water Source Improvements	225,000	580,000
Lennox	Water Distribution Improvements	500,000	3,808,240
Miller	Water Distribution Expansion	25,000	212,800
Parker	Water/Wastewater Improvements	300,000	1,214,000
Platte	Water Distribution Replacement	25,000	479,000
Pringle	Water Distribution Construction	27,000	295,000
Sioux RWS	Water Distribution Expansion	225,000	1,175,000
Tyndall	Regional Water Supply Hookup	75,000	1,026,100
Valley Springs	Wastewater Collection Replacement	75,000	500,000
Waubay	Wastewater Improvements	400,000	2,430,000
Whitewood	Wastewater Disinfection (loan)	41,000	81,300
Wolsey	Water Distribution Replacement	100,000	558,196



**AMENDMENTS \***

Lake Cochrane San. Dist.	Wastewater Collection (grant)	15,000	15,000
Lake Cochrane San. Dist.	Wastewater Collection (loan)	10,000	10,000
TOTAL		<u>\$6,300,100</u>	<u>\$36,563,704</u>

\* Amendment reflects increase to prior year obligation.

**2004 State  
Water  
Development  
Legislation**

**Project Authorization**

On February 25, 2004, Governor Rounds signed Senate Bill 203, the Omnibus Water Funding Bill. Sections 4 and 5 of the Bill authorized the placement of the Perkins County Rural Water System on the State Water Resources Management System list identifying the project as a preferred, priority objective of the state. The authorization also provided for a state cost share commitment of \$4.5 million in loan and \$2.5 million in grant funds for project construction. The loan authorization stipulates that no interest may accrue on the loan until the Board of Water and Natural Resources certifies the completion of the project.

The 2004 Omnibus Bill also contained the following appropriations:

**Appropriations From the Water and Environment Fund**

- Big Sioux Flood Control Study (Watertown & Vicinity) – Repealed \$450,000 grant appropriation provide in 2003 Omnibus bill at sponsor’s request;
- Consolidated Water Facilities Construction Program – \$4,500,000 to provide grants and loans for community drinking water, wastewater, and lake improvement projects;
- Lewis and Clark Rural Water System – \$2,500,000 grant to provide nonfederal cost share for planning, engineering design, preconstruction, and construction of the regional water supply system;
- Perkins County Rural Water System – \$1,250,000 loan to provide nonfederal cost share for planning, engineering design, preconstruction, and construction of the regional water supply system;
- James River Restoration Activities – \$250,000 grant to provide nonfederal cost share for a feasibility phase study and

environmental impact statement covering activities along the James River;

- Black Hills Hydrology and Water Management Study - \$100,000 grant to local project sponsors to be used for the development, evaluation, and review of water management studies related to the development of regional water supply systems in or near the Black Hills of South Dakota;
- Regional Landfill Assistance - \$800,000 to provide grants or low interest loans for the construction, enlargement, or upgrading of regional landfills. The appropriation also provided that up to \$100,000 of these funds may be used by the department for the statewide clean up of waste tires and solid waste;
- Solid Waste Management Program – \$800,000 to provide grant or low interest loans for recycling, solid waste disposal, or waste tire projects.

### **Appropriations From Other Sources**

Section 13 of the bill appropriated \$100,000 from the Environment and Natural Resources Fee Fund to the department for the determination of Total Maximum Daily Load (TMDL) limits on selected South Dakota water bodies. Sections 14 and 15 of the bill appropriated \$655,000 from the Clean Water State Revolving Fund Program and \$160,000 from the State Drinking Water Revolving Fund Program to the Department of Environment and Natural Resources for the purpose of providing water quality and small system technical assistance grants to project sponsors.

# 2005 STATE WATER PLAN

# 2005 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 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 for the board, the department, and the water development districts when considering a project for inclusion on the State Water Facilities Plan. Addition to or deletion from the State Water Resources Management System can only be accomplished 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 facilities, storm sewers, groundwater protection, and watershed restoration. The board is responsible for approving the placement of projects on the Facilities Plan. Once a project is placed on the Facilities Plan, it remains on the plan for two years. If a project requests funds after this two-year period, it must submit a new State Water Plan application.

In November 2004, the board approved 32 projects for placement on the Facilities Plan, bringing the total number of projects on the 2005 State Water Facilities Plan to 66 (Table 8). Projects on the Facilities Plan are eligible to seek state and federal financial assistance. The board can provide direct assistance to projects on the plan and can influence federal categorical grant decisions and funding decisions from other state agencies.

Projects that have received full or partial funding, but that have not been on the plan longer than two years, are not included in Table 8. These projects technically remain on the Facilities Plan for the two-year period so supplementary funding requests may be considered by funding agencies.

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.

Table 8

**2005 STATE WATER FACILITIES PLAN**

<u>Sponsor</u>	<u>Project Description</u>	<u>On Plan Through</u>	<u>Proposed Funding Source*</u>			<u>Total Project</u>
			<u>CWFCP</u>	<u>CWSRF</u>	<u>DWSRF</u>	
Aberdeen	Wastewater Treatment Plant Improvements	2005	1,000,000	11,303,000		12,303,000
Bridgewater	Wastewater Collection and Treatment	2006	400,000	321,600		721,600
Brookings	Ground Water Protection – Landfill	2006	0	475,000		632,400
Brookings-Deuel RWS	Water Distribution and Treatment	2006	350,000		1,200,000	2,350,000
Burke	Water and Wastewater Replacement	2005	147,000			247,000
Clark	Wastewater Improvements	2005	70,000			167,600
Clay Rural Water System	Distribution System Improvements	2006	200,000			1,060,000
Clay Rural Water System	South Union County Expansion	2006	500,000		3,186,824	4,280,852
Colton	Wastewater Collection and Treatment	2005	100,000	200,000		300,000
Dell Rapids	Water/Wastewater Improvements	2006		862,017	453,983	1,718,000
Deuel County Cons. Dist.	Fish Lake and Alice Lake	2006	34,400			621,830
East Dakota WDD	Central Big Sioux River Watershed	2006				21,081,000
Enemy Swim San. Dist.	Wastewater Collection and Treatment	2005	600,000			3,900,000
Fall River Water User Dist.	Rural Water System Expansion	2005	748,000		610,088	1,358,088
Gettysburg	Wastewater Improvements	2006				133,680
Green Valley San. Dist.	Wastewater System Construction	2005	965,605	631,237		3,218,685
Green Valley San. Dist.	Water System Construction	2005	800,000		517,392	2,659,784
Hartford	Water Distribution System Improvements	2006	500,000		1,123,556	3,133,556
Hermosa	Water Distribution & Supply Improvements	2005	250,000		2,317,920	2,917,920
Highmore	Storm Drainage	2005		256,380		640,950
Highmore	Wastewater System Extension	2005		78,640		196,600
Hill City	Water/Wastewater Improvements	2006				774,070
Hill City	Municipal Wastewater Improvements	2005				2,835,000
Hosmer	Water Storage and System Improvements	2006	236,168		157,445	393,613
Humboldt	Wastewater Treatment & Collection	2006		122,000		122,000
Humboldt	Water Pump Enclosure	2005	36,000		100,000	136,000
Humboldt	Water and Sewer Infrastructure	2005	1,000,000	1,000,000		9,284,629
Keystone	Water System Improvements	2006			76,200	76,200
Kingbrook RWS	Water Distribution Improvements	2006			2,115,000	2,115,000
Lead	Infrastructure Extension	2005	1,522,000	994,000	528,000	4,806,000
Lead	Highway 85 Utilities	2006	192,000	100,000		382,000
Milbank	Wastewater System Improvements	2005	1,000,000	4,649,000		7,649,000
Milbank	Water System Improvements	2006	750,000		3,700,000	6,345,000
Montrose	Wastewater/Storm Water Improvements	2006	75,000	265,800		340,800
Nisland	Wastewater System Improvements	2005		182,824		457,060
Parkston	Wastewater and Water Replacement	2005	55,000			91,595
Pickrel Lake San. Dist.	Wastewater Erosion Control	2005	34,880			87,200
Pine Cliff Park Water & Maint.	Water System Improvements	2006	413,993		388,993	827,986
Pollock	Lift Station Improvements	2005		70,000		70,000
Randall Community Water	Rural Water Expansion	2005				243,775
Rapid Valley San. Dist.	Water Treatment Plant Construction	2005			1,968,750	2,018,750
Redfield	Main/6 <sup>th</sup> Ave. Water/Wastewater Improv.	2006	236,000	332,500	157,000	772,500
Redfield	Southwest Wastewater Expansion	2006		794,000		844,000
Salem	Water/Wastewater/Storm Water	2006	75,000	400,012	317,417	928,381
Sioux Falls	BMP Implementation	2005		1,121,000		1,121,000
Sioux Falls	Drinking Water Improvements	2005			15,294,560	15,294,560
Sioux Falls	Wastewater System Improvements	2005		24,302,000		24,302,000
Sioux Falls	Storm Sewer Improvements	2006		25,949,349		25,949,349
Sioux Rural Water System	Water System Improvements	2005	225,000			1,175,000
Sisseton	Water System Improvements	2006			537,936	537,936
Sisseton	Wastewater System Improvements	2006		200,000		1,025,000
Sisseton	Storm Sewer Improvements	2006				935,000
Terry Trojan Water District	Water Distribution Improvements	2005	20,000			60,000
TM Rural Water District	Water Treatment Plant Improvements	2005	300,000			2,267,000
Tri-County Water Association	Emergency Water Supply	2006	50,000			150,000
Tyndall	Main Street Water Main Improvements	2005	300,000		140,000	715,600
Tyndall	Storm Drainage Improvements	2006	100,000	500,000		902,000
Union County	Richland Ditch Relocation	2005	100,000	293,696		393,696
Vermillion	Water Treatment Plant Improvements	2006	250,000		2,925,000	3,425,000
Wall	Water/Wastewater Extension	2005	126,000	248,350		374,350

<u>Sponsor</u>	<u>Project Description</u>	<u>On Plan Through</u>	<u>Proposed Funding Source*</u>			<u>Total Project</u>
			<u>CWFCP</u>	<u>CWSRF</u>	<u>DWSRF</u>	
Waubay	Water System Improvements – Phase I	2005	330,000		800,000	1,130,000
Waubay	Wastewater System Improvements – Phase	2005	300,000			1,300,000
Wessington Springs	Water and Sewer System Extension	2006	100,000			286,200
Whitewood	Water System Improvements	2006				547,419
Woonsocket	Wastewater Treatment Improvements	2005	132,200	92,810		232,010
Yankton County	Gayville Storm Drainage Project	2006	75,000	100,000		195,000
TOTALS			\$14,699,246	\$75,845,215	\$38,616,064	\$187,561,224

\* CWFCP - Consolidated Water Facilities Construction Program  
CWSRF - Clean Water State Revolving Fund Loan Program  
DWSRF - Drinking Water State Revolving Fund Loan Program

## 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 (Table 9) serves as the preferred priority list to optimize water resources management in the state. Once a project is placed on the list, it remains until removed by legislative action.

At its November 2004 meeting, the board recommended that all projects on the current SWRMS list be retained.

Table 9

### STATE WATER RESOURCES MANAGEMENT SYSTEM PROJECTS

<u>Project</u>	<u>Description</u>
Bad River Watershed Project	Rehabilitation of Bad River Watershed
Big Sioux Flood Control Study	Watertown Flood Control
Black Hills Hydrology & Water Management Study	Black Hills Water Resources
Brennan Reservoir	Proposed Reservoir near Rapid City
CENDAK Irrigation Project	Irrigation Project - Central SD
Gregory County Pumped Storage Site	Multi-Purpose Water Utilization
James River Improvement Program	Watershed Improvements
Lake Andes-Wagner/Marty II Irrigation Unit	Irrigation - Charles Mix County
Lewis & Clark Rural Water System	Bulk Water System - Southeastern SD
Mni Wiconi Rural Water System	Rural Water System - Western SD
Perkins County Rural Water System	Rural Water System - Northwest SD
Pick-Sloan Riverside Irrigation	Pick-Sloan Integration of Irrigation
Sioux Falls Flood Control Project	Increased Flood Protection
Slip-Up Creek	Proposed Reservoir near Sioux Falls
Vermillion Basin Flood Control Project	Flood Control on Vermillion River

## **SWRMS Project Status**

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

### **Bad River Watershed Project – 1994**

- The Bad River drains 3,209 square miles from the Badlands between Wall and Kadoka to the Missouri River at Fort Pierre. The Bad River annually delivers millions of tons of sediment into Lake Sharpe, primarily from eroding gullies and stream banks. The sediment negatively impacts fishing and other recreation in the Pierre-Fort Pierre area.
- Increased groundwater elevations caused by the sediment-induced river elevation contribute to flooding in the Pierre-Fort Pierre area during winter peak power releases from the Oahe Dam when ice cover restricts downstream flow. To reduce flooding, power generation from the dam must be reduced during the coldest days of the year. Estimated economic losses from decreased power and recreation are about \$15 million annually.
- The U.S. Army Corps of Engineers proposed building levees in the Pierre-Fort Pierre area to allow greater releases and maximize power generation. Many local interests believe that a combination of watershed treatment and localized dredging in Lake Sharpe is a more acceptable and effective solution than levees. Congress appropriated \$35 million to relocate more than 100 houses and utilities affected by the sediment increased water levels in Pierre and Ft. Pierre. The South Dakota congressional delegation is seeking additional funds to relocate more homes.
- State authorization of the \$21 million project was approved in 1995 and included a state cost share commitment of \$875,000 in grants. State appropriations totaled \$875,000 from 1995 to 1999.
- In December 2000, the Board of Water and Natural Resources placed the remaining state cost share of \$525,000 under agreement.
- Studies determined that two-thirds of the sediment in the Bad River discharge to Lake Sharpe originated in the lower one-third of the basin. Land management efforts now focus on ranches in the lower basin.

- As of September 2001, more than 2.6 million acres of the Bad River Watershed Project were under improved management for sediment reduction using a combination of 21 Best Management Practices. State expenditures were matched by federal and local expenditures at a 4.7:1 ratio.
- US Geological Survey records since 1948 have shown the annual sediment delivery from the Bad River to Lake Sharpe to be 3.25 million tons. The Corps of Engineers in its "Missouri River Oahe Dam to Lake Sharpe Sedimentation Study," released in 2001, noted that the delivery rate has dropped to 1.95 million tons per year, a reduction of 1.3 million tons per year or 40 percent.

### **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 on the best alternative for flood protection concluded that the construction of a \$16 million dry dam on the Big Sioux River at the Mahoney Creek site would provide flood protection for Watertown, Lake Kampeska, and Pelican Lake.
- The Corps of Engineers initiated a feasibility study in 1988 in cooperation with the city of Watertown, East Dakota Water Development District, Codington County, Lake Kampeska Water Project District, and Department of Environment and Natural Resources. State legislative appropriations of \$150,000 were provided to assist local sponsors in meeting the nonfederal cost share.
- The final draft feasibility report was distributed in June 1994 for public review and comment. A public hearing was held in July 1994 in Watertown to present the findings of the feasibility report and gather comments. City and county elections were held, and residents voted against further local participation in the flood control 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 on February 24, 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 again called for a citywide vote on the proposed Mahoney Creek Dam project. The voters approved the project. City officials are now proceeding with updating the original Corps of Engineers feasibility study and



obtaining support and financing for the proposed dam project.

- In 2002, Watertown began negotiations with the Corps of Engineers to complete a General Re-evaluation Report of the flood control alternatives for the city. Negotiations continued in 2003 and the scope of work to be reviewed by the report continued to be evaluated. Cost of the re-evaluation report is estimated at \$2.8 million.
- In 2003, Watertown notified the Board of Water and Natural Resources that they would not need the \$450,000 of state funds appropriated to the project and the funds were reverted back to the WEF in the 2004 Omnibus Bill, Senate Bill 203. Because of cost share and scope of work issues, Watertown decided to step back from participation in the re-evaluation and turn over all work to the Corps of Engineers. In 2004 the Corps of Engineers continued to develop the plan of study and to identify the tasks necessary to complete the general re-evaluation study.

### **Black Hills Hydrology and Water Management Study – 1982**

- The hydrology study compiled water resource data to assess the quantity, quality, and distribution of the surface and ground water 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 has provided a total of \$3.4 million from Federal Fiscal Year 1988 through Federal Fiscal Year 2001 to establish the hydrologic monitoring system, collect the data, and complete analysis of the data.
- The hydrology study entered Phase II in Federal Fiscal Year 1997 and was completed in 2002. The emphasis of the Study during Phase I was data collection, and 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 will provide local project sponsors with tools to assist them in making informed management decisions about the development of water resources. Data gathered during the hydrology study will be utilized in the water management study. Congress appropriated funds in Federal

Fiscal Year 1991 to initiate a Federal Black Hills Water Management Study by the Bureau of Reclamation.

- The Black Hills Water Management Study was projected to be completed during FFY 2002; however, due to staff changes within the U.S. Bureau of Reclamation, as well as minimal activity on most final products, the project was not completed until the end of FFY 2003. The focus for the remainder of the Study was on water needs assessment, water management alternatives, and development of final reports.
- The 2004 Omnibus Bill made \$100,000 available to local project sponsors for the development, evaluation, and review of water management studies related to development of regional water supply systems in or near the Black Hills. The district agreed to sponsor the evaluation of a regional water supply project for an area south of Rapid City consisting of all of Custer and Fall River counties and a portion of southern Pennington County. The engineering study is scheduled to be completed in early 2005.

#### **Brennan Reservoir – 1991**

- The purpose of the Brennan Reservoir/Rapid City Wastewater Recycling project was to determine the feasibility of constructing wetlands at the upper end of a proposed reservoir to provide tertiary wastewater treatment for Rapid City. Water stored in the reservoir could also be used to irrigate about 5,000 acres located in the Rapid Valley Water Conservancy District.
- In October 2000, the Bureau of Reclamation completed the “Rapid City Wastewater Reclamation and Reuse: Concluding Report” for the project. The city of Rapid City is pursuing alternative wastewater treatment process improvements that will not include the development of the Brennan Reservoir and associated wetlands. No activity occurred on the project in 2004.

#### **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 2004.

## **Gregory County Pumped Storage Project - 1981**

- Hydroelectric Component – The Gregory County Pumped Storage Project is a proposed peak generation hydroelectric facility located in northern Gregory County. In 1988, the Federal Energy Regulatory Commission (FERC) issued the preliminary permit to the board for development of the project. The state's preliminary permit expired in August 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.
- 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.
- On June 20, 2001, a Minnesota corporation, Dakota Pumped Storage, LLC, filed an application for a FERC Preliminary Permit for a pumped storage hydroelectric facility at the Gregory County site. 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 in Gregory County, South Dakota 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. Additionally, FERC denied the application by Dakota Pumped Storage, LLC.
- The 2002 Legislature appropriated \$100,000 from the Water and Environment Fund to the South Dakota Department of Environment and Natural Resources. In 2003, 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 study, completed in 2004 by Black & Veatch, determined that it did not appear to be cost effective to pursue the pumped storage project at this time. These findings were presented to the Board of Water and Natural Resources in June 2004.

## **James River Improvement Program – 1984**

- The Water Resources Development Act of 1986 (Public Law 99-662) authorized \$20 million for flood control and stream flow improvements. A draft Environmental Impact Statement was completed in 1987.
- The James River Water Development District has completed a number of improvement projects. Projects completed include channel cleanout of trees and other debris, tributary drainage control through tree plantings, and other watershed improvements including the construction and repair of small dams and bank stabilization.
- The 1992 State Legislature authorized the project with a state cost share commitment of \$2.5 million. State legislative appropriations to the district totaled \$1,760,000 from 1988 through 2002 for restoration and study activities.
- In 1997, as a result of the severe spring flooding, a \$5 million federal appropriation was approved through the Corps of Engineers budget in the 1997 Disaster Relief Bill. The James River WDD utilized these funds to remove dead timber and debris under a plan approved by the Corps of Engineers.
- In 1998, the James River WDD selected 11 bridge sites for debris removal along the river. In March 2000, the debris removal project was completed. The project was completed eight months ahead of schedule and removed more debris than originally estimated.
- In 2000, the James River WDD identified 35 sites along the James River in Spink County in need of bank stabilization and channel restoration work. After consultation and review with the Corps of Engineers, the James River WDD agreed to monitor three sites where channel restoration/debris removal was accomplished and three control sites where no work was completed. Contrasting and comparing these sites over a three-year period will provide the basis to determine if additional channel restoration/debris removal is feasible.
- In 2002, the James River WDD was informed by the federal government that an Environmental Impact Statement (EIS) must be completed before additional work within the watershed could be approved. The Corps of Engineers has determined that an EIS is required to address the cumulative effects of the work being completed within the James River watershed. This EIS is anticipated to take up to two years to complete if sufficient federal funding can be secured. The project sponsor is working with the

South Dakota congressional delegation to secure the federal funding.

- In 2003, the James River WDD continued to work with the Corps of Engineers on the completion of the EIS. James River WDD has completed the aerial photography and river topographic survey required by the EIS.
- Work continued on the Corps of Engineers' EIS in 2004. James River WDD provided additional survey data and general information to the COE about bridges and other river issues. The James River WDD continues to be ahead of the COE on its required cost share requirements.

### **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 prepared 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 cost share commitment of \$7 million. Both the state and federal project authorizations are contingent upon the successful completion of the research demonstration program.
- In 1995, Congress approved \$250,000 for the research program. State and federal agencies revised the 1990 plan of study to rescope 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 for federal fiscal year 2000 to prepare an environmental assessment for the demonstration program.
- In 2000, the BoR completed the environmental assessment and issued a Finding of No Significant Impact for the demonstration program. Significant federal funding must be secured before the demonstration program can proceed.

- In 2002, a \$15,000 loan was approved for the project and placed under agreement by the Board of Water and Natural Resources on June 27, 2002.
- In 2004, the Board of Water and Natural Resources placed \$23,000 of the \$50,000 appropriated for this project in 2003 under agreement. The Lake Andes-Wagner Irrigation district continued to seek federal funding for the demonstration program.

### **Lewis and Clark Rural Water System - 1989**

- The proposed Lewis and Clark Rural Water System will be 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 133,000 South Dakotans would receive water from Lewis and Clark.
- Iowa and Minnesota project sponsors have provided funding support for project development proportionate to their respective service capacity needs. Iowa and Minnesota have authorized the project for construction.
- The 1993 State Legislature authorized Lewis and Clark's South Dakota project features (\$200 million). In 2002, the state cost share commitment of \$18,585,540 in 1993 dollars was established for the Lewis and Clark Rural Water Supply System.
- On July 13, 2000, President Clinton signed Public Law 106-246 authorizing the federal construction of the Lewis and Clark Rural Water System. Additionally, the legislation that authorized the project also approved an initial federal appropriation of \$600,000 for project engineering and construction. The Board of Water and Natural Resources also placed \$200,000 of state funding under agreement with the project to assist with these same project activities.
- In federal fiscal years 2001 and 2002, the project received \$3.0 million in federal appropriations for the completion of the Final Engineering Report, National Environmental Protection Act compliance and for the drilling of test wells along the Missouri River to assist with the final design of the intake system.
- In 2002, \$750,000 of state cost share assistance was provided for

the project. These state funds, combined with federal and local sources, were used to complete the environmental review and the Final Engineering Report and will be used to initiate construction. Lewis and Clark Rural Water System's Final Engineering Report completed the federally required 90-day congressional review period on September 8, 2002.

- In 2003, the federal Office of Management and Budget (OMB) informed Lewis and Clark that it could not submit its Final Engineering Report to Congress until that office had approved the report. Lewis and Clark worked with OMB to get its Final Engineering Report approved and resubmitted to Congress. Lewis and Clark held its formal groundbreaking on August 21, 2003.
- In 2004, the Office of Management and Budget approved the Lewis and Clark RWS Final Engineering Report and submitted it to Congress. Lewis and Clark accepted bids for the construction of its raw water pipeline, and the contractors have begun work. Additionally in 2004, the Lewis and Clark RWS completed work on a test/production supply well and secured the water treatment plant site. Additional work planned for later this year includes awarding bids on a treated water pipeline from Sioux Falls towards Tea.

### **Mni Wiconi Rural Water System – 1989**

- Public Law 100-516, as amended in 1994, authorizes a \$263 million federal project to provide high quality Missouri River water to 50,000 western South Dakota citizens in a 10-county area extending south and west of Fort Pierre through the Pine Ridge Indian Reservation.
- The Oglala Water Supply System component encompasses the distribution facilities on the Pine Ridge Indian Reservation and the off-reservation core system facilities including the Missouri River intake and water treatment plant. The Rosebud and Lower Brule components include the delivery and distribution facilities associated with service to their respective reservations. About \$200 million of the project costs are allocated to the tribal systems as non-reimbursable federal costs. Operation and maintenance for the tribal systems are a federal trust responsibility.
- West River/Lyman-Jones Rural Water System, Inc. (WR/LJ) is the non-Indian distribution component. The cost share for construction is 80 percent federal and 20 percent nonfederal. WR/LJ is responsible for its operation and maintenance costs.

- The 1992 State Legislature authorized the construction of the Mni Wiconi project. In 1995, the authorization was amended to reflect the \$263 million project and the state cost share commitment of \$12.9 million.
- WR/LJ initiated construction of advance features in 1993. These features were distribution systems that had access to interim ground water supplies. In June 1993, the Oglala Sioux Water Supply System also initiated construction of advanced features in White Clay and Wakpamni districts of the Pine Ridge Reservation.
- In July 1996, the Oglala Sioux Water Supply System along with the West River/Lyman-Jones, Rosebud, and Lower Brule rural water systems held Mni Wiconi core facilities groundbreaking ceremonies at Echo Point near Fort Pierre.
- In 1997, the Oglala Sioux Water Supply System awarded a \$16.4 million contract for the construction of the water treatment plant near Fort Pierre. Construction activities began in 1997 and were completed in 2002.
- The WR/LJ has constructed over 1,500 miles of main transmission and distribution pipelines and provides quality drinking water to more than 850 rural taps and the communities of Wall, Philip, Presho, Vivian, Kennebec, Reliance, and White River. WR/LJ has also developed three groundwater wells in Pennington County as interim drinking water sources.
- In 2001, the state appropriated a \$1.7 million loan for the continued construction of the Mni Wiconi Rural Water Supply System. This appropriation completed the state's cost share commitment to the project.
- In 2002 the Oglala Sioux Tribe's Missouri River water treatment plant, located near Ft. Pierre, was completed as well as nearly 45 miles of main transmission pipeline features of the Mni Wiconi Rural Water Supply System. Main transmission pipelines from the water treatment plant to the Vivian/I-90 junction as well as approximately 30 miles of the main transmission pipeline to Murdo were completed in 2003.
- All three tribal members of the Mni Wiconi Rural Water Supply System have continued to develop on-reservation systems. The tribes are developing the supplemental water supplies identified in the final engineering report. The Lower Brule Sioux Tribe upgraded its Missouri River water treatment plant in late 1999 and



began providing water to on-reservation and WR/LJ customers in the Reliance area. The Rosebud Sioux Tribe has developed local groundwater resources enabling them to serve tribal customers and construct a main core transmission pipeline segment from the reservation to White River. Rosebud also provides water to WR/LJ for a portion of its customers in Mellette County, including White River. The Oglala Sioux Tribe has developed local groundwater resources enabling it to provide water to tribal members on the reservation and continues to design and construct both on-reservation distribution and Mni Wiconi main core transmission pipelines.

- In 2003, WR/LJ continued to construct distribution pipelines in municipal and rural service areas. WR/LJ replaced the water distribution systems in Draper, Interior and Reliance and took over operation and maintenance responsibilities of these systems.
- IN 2004, WR/LJ continues to construct rural water distribution pipelines and has accepted bids and started or completed construction on the Okaton, Mellette East, and Moenville rural service areas and the Quinn community distribution system. The system also constructed two water storage reservoirs. The first was a 350,000-gallon ground storage tank in the Moenville service area, and the second was a 107,000-gallon ground storage tank in the Ft. Pierre North service area. The WR/LJ portion of the project is being constructed within its authorized ceiling, and WR/LJ continues to coordinate construction efforts with the tribal project sponsors.

#### **Perkins County Rural Water System – 2004**

- The Perkins County Rural Water System was originally placed on the State Water Resources Management System list in 1993. The project was removed in 2000 when the original \$1.0 million state cost share commitment was provided and expended.
- The proposed Perkins County RWS will provide quality drinking water to the communities of Lemmon, Bison, and Lodgepole. Additionally, the system will provide 185 rural users with domestic and livestock water needs.
- The State Legislature provided \$50,000 per year in 1993 and 1994 to assist the project with its initial feasibility study and federal authorization.
- In 1994, a feasibility study was completed and identified hooking up to the Southwest Pipeline Project in North Dakota as the

preferred alternative.

- In May 1996, the Perkins County Rural Water System signed a water service agreement with the North Dakota State Water Commission. Contracts were awarded in North Dakota that brought water to the border at a total cost of \$898,478.
- The 1996 State Legislature authorized the construction of the Perkins County RWS project and approved a state cost share commitment of \$1 million. The 1996 Legislature also appropriated \$450,000 of the \$1 million commitment. In 1997, the state Legislature appropriated the remaining \$550,000 for the Perkins County project providing the cost share required by North Dakota to bring water service to the Perkins County area. The state cost share was advanced to ensure capacity for the Perkins County system was maintained in the North Dakota pipelines as construction advanced to the South Dakota border.
- Federal construction legislation for the rural water system was introduced in Congress on August 2, 1996. The legislation provides for a 75 percent federal cost share and 25 percent nonfederal cost share. Federal legislation was reintroduced in 1999. On August 4, 1999, the House Committee on Resources conducted a hearing and amended the preference power language. The amended bill passed the House by unanimous consent on October 26, 1999. The bill was sent to the Senate and on November 22, 1999, also passed by unanimous consent. The Perkins County Rural Water System Act of 1999 was signed by President Clinton on December 7, 1999 (Public Law 106-136).
- In November 2003, the Board of Water and Natural Resources approved a resolution recommending the placement of the Perkins County Rural Water System on the State Water Resources Management System list. Additionally, the board recommended revising the state cost share commitment to \$2.5 million in grant and \$4.5 million in loan.
- The Perkins County Rural Water System was placed on the SWRMS list and the state cost share recommended by the board was approved by the legislature in 2004. Project sponsors held an official groundbreaking on May 1, 2004 in Hettinger, North Dakota. The project began construction in South Dakota with the award of bids on the Lodgepole area distribution system. Construction will include providing water to nearly 100 sites in the Lodgepole area and the construction of the system's main booster pump station. Additionally, main transmission pipelines toward Lemmon and Bison were also begun.

### **Pick-Sloan Riverside Irrigation – 1987**

- This proposal is an attempt to integrate existing irrigators along the Missouri River corridor into the Pick-Sloan Missouri Basin Program. The project would provide irrigators with an opportunity to utilize Pick-Sloan power and the potential to obtain power revenue assistance. No activity occurred on this project in 2004, and future activities are uncertain.

### **Sioux Falls Flood Control Project – 1989**

- In 1961, the Corps of Engineers completed a channelization, levee, and diversion system to provide 30-year flood protection on the Big Sioux River and 20-year flood protection on Skunk Creek.
- The Corps of Engineers completed a feasibility study in 1993 that recommended upgrading the existing project to provide Sioux Falls with 100-year flood protection on the Big Sioux River and Skunk Creek. Project upgrades include raising the levees above and along the diversion channel, modifying the spillway chute, replacing the stilling basin, and modifying some bridges.
- In 1992, the State Legislature authorized project construction and a state cost share commitment of \$4.55 million in grants.
- The Sioux Falls Flood Control Project was authorized as part of the 1996 Water Resources Development Act on October 12, 1996 (Public Law 104-303). The Act authorizes the construction of a \$34.6 million 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.
- In 2001, construction of Phase 1A of the Big Sioux River/Skunk Creek Flood Control Project was completed. Phase 1A addressed the spillway and stilling basin area at the outfall of the diversion channel. In late 2001, bids were accepted on Phase 1B of the project. Phase 1B addresses the levies adjacent to Morrell's downstream to Cliff Avenue. The two bids received on Phase 1B were approximately \$400,000 above the engineer's estimate. The Corps of Engineers re-advertised the project with a completion date in 2002.

- The Governor's 2002 Omnibus Bill (Senate Bill 186) provided an additional \$2.0 million of state cost share for the project. These state funds will be combined with federal and local sources to complete the acquisition of required rights-of-way and construction of flood control features. To date, \$2.9 million of state assistance has been appropriated for this project.
- Sioux Falls continues to work with the Corps of Engineers on the final designs and construction of the project. The city continues to obtain the easement and property acquisitions required to complete the project.

### **Slip-Up Creek – 1981**

- This project includes a dam, reservoir, and pumping plant on Slip-Up Creek, a pumping plant on the Big Sioux River, and pipelines connecting the river pumping plant to the reservoir and the city's water treatment plant. The project proposes to store Big Sioux River water for municipal use by Sioux Falls and for recreation and fish and wildlife activities. No activity took place on the project in 2004.

### **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 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 Federal Emergency Management Agency (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 has withdrawn its request to set the outlet elevation on Lake Thompson and has moved to dissolve after financial records are completed. No significant activity occurred on the project in 2004.

**Recommendations to the Governor and State Legislature**

In November 2004, the board conducted a public meeting on the State Water Resources Management System (SWRMS) projects. The board adopted Resolution #2004-107 recommending that all the projects currently on the SWRMS list be retained. The board also adopted Resolution #2004-108 providing its funding recommendations to the Governor and the Legislature for Water and Environment Fund fiscal year 2006 expenditure authorization levels. A summary of the board's recommendations is provided below (Table 10). The full resolutions are in Appendix B.

*Table 10*

**2006 WATER AND ENVIRONMENT FUND RECOMMENDATIONS**

Black Hills Hydrology and Water Management Study	100,000
James River Restoration Project	100,000
Lewis and Clark Rural Water System	1,500,000
Perkins County Rural Water System (loan)	<u>1,500,000</u>
Total	\$3,200,000
Consolidated Water Facilities Construction Program	\$3,500,000
Regional Landfill Construction Assistance	\$800,000
Solid Waste Management Program	\$800,000
Brownfields Revolving Loan Program	\$200,000

# APPENDIX A

WATER AND ENVIRONMENT FUND

SPECIAL CONDITION STATEMENT

**WATER AND ENVIRONMENT FUND  
Special Condition Statement  
As of 7-1-04**

**Cash Balance from MSA - 6-30-04** **\$15,634,396**

**Projected FY2005 Revenues**

Capital Construction Fund	\$5,900,000
Contractor's Excise Tax	\$500,000
Investment Interest (Earned '04 deposited '05)	\$500,000
Loan Principal & Interest Payments (Water)	\$175,000
Loan Principal & Interest Payments (SW)	\$90,000
Solid Waste Fees	<u>\$1,400,000</u>
<b>Subtotal</b>	<b>\$8,565,000</b>

**Projected FY2005 Expenditures (Authorized in General Bill)**

Administrative Fee Fund	<u>(\$400,000)</u>
<b>Subtotal</b>	<b>(\$400,000)</b>

**Revenues Less Expenditures** **\$8,165,000**

**Projected Fund Balance Available for Expenditure** **\$23,799,396**

**Obligations (Signed contract by 7/1)**

**Prior Year**

Consolidated	(\$6,927,935)
Solid Waste & RLA Grants/Loans	(\$731,264)
SWRMS Grants/Loans - Major Projects	(\$5,004,811)
TMDL Assessment WEF (grant)	(\$100,000)
Waste Tire 2000 (SFY 2004)	(\$10,068)

**Current Year - 04 Omnibus (2005 authority)**

Lewis & Clark RWS	(\$2,500,000)
Perkins County RWS	(\$1,250,000)
Consolidated Grant or Loan	(\$3,292,000)
Solid Waste & RLA Grants/Loans	<u>(\$1,497,000)</u>

**Subtotal** **(\$21,313,077)**

**Ending Unobligated Fund Balance** **\$2,486,319**



**Ending Unobligated Fund Balance** (from previous page) **\$2,486,319**

**Project Expenditures Authorized by the Legislature - No agreement signed**

**Current Year (SFY 2005) Authority**

James River WDD (grant) (\$250,000)  
Black Hills Hydrology Study (\$100,000)

**Prior Year Authority**

Lake Andes-Wagner ('03 loan) (\$27,000)

**Subtotal** **(\$377,000)**

**Program Expenditures Authorized by the Legislature - No agreement signed**

Consolidated Program Authority (2005 Authority) (\$1,213,600)  
Consolidated Program Authority (Prior Year) (\$276,346)

Solid Waste Program Authority - Prior Year (\$209,768)  
Solid Waste Program Authority - 2005 Authority (\$103,000)

**(\$1,802,714)**

**Surplus/(Deficit) Funds Available (as of 6/30/05)** **\$306,605**

# APPENDIX B

BOARD OF WATER AND NATURAL RESOURCES

RESOLUTIONS

STATE OF SOUTH DAKOTA  
BOARD OF WATER AND NATURAL RESOURCES  
RESOLUTION # 2004-107

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR THE BOARD OF WATER AND NATURAL RESOURCES RECOMMENDATIONS FOR STATE WATER RESOURCES MANAGEMENT SYSTEM DESIGNATION.

WHEREAS, the board pursuant to SDCL 46A-1-2, annually provides recommendations to the State Legislature and Governor regarding deletions and additions to the State Water Resources Management System component of the State Water Plan; and,

WHEREAS, SDCL 46A-1-2.1 designates the water resources projects included on the State Water Resources Management System component of the State Water Plan that serve as the preferred, priority objectives of the State; and,

WHEREAS, the Board has reviewed the list of projects currently included on the State Water Resources Management System component of the State Water Plan; and

WHEREAS, the Board has reviewed the applications submitted from various South Dakota water resource projects for inclusion onto the State Water Plan.

NOW THEREFORE BE IT RESOLVED, that the board recommends to the Governor and the State Legislature that all water resource projects currently on the State Water Resources Management System be retained as preferred, priority objectives of the State.

Dated this 5th day of November, 2004.

BY:

\\Signed//

Chairman, Board of Water and  
Natural Resources

(SEAL)

ATTEST:

BY:

\\Signed//

Secretary, Board of Water and  
Natural Resources

STATE OF SOUTH DAKOTA  
BOARD OF WATER AND NATURAL RESOURCES  
RESOLUTION # 2004-108

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR THE BOARD OF WATER AND NATURAL RESOURCES RECOMMENDATIONS FOR WATER AND ENVIRONMENT FUND FISCAL YEAR 2006 APPROPRIATION LEVELS.

WHEREAS, pursuant to the authority provided in SDCL 46A-1-2, the Board of Water and Natural Resources (the board) annually provides recommendations to the Governor and the State Legislature regarding deletions and additions to the State Water Resources Management System component of the State Water Plan; and,

WHEREAS, pursuant to the authority provided in SDCL 46A-1-7, the board is responsible for approving all projects placed onto the State Water Facilities Plan, an annual listing of potential water related projects; and,

WHEREAS, pursuant to the authority provided in SDCL 46A-1-12 and 46A-1-13, the board may recommend state funding levels to the Governor and the State Legislature; and,

WHEREAS, the board has reviewed the projected funding needs of projects on the State Water Resources Management System component of the State Water Plan; and,

WHEREAS, the board has reviewed the projected funding needs of projects on the State Water Facilities Plan component of the State Water Plan; and,

WHEREAS, the board has reviewed potential funding needs of solid waste disposal, recycling, waste tire, and regional landfill projects that may require funding from fees deposited in the Water and Environment Fund; and,

WHEREAS, the board conducted a public meeting on November 5, 2004, to take statements from all interested parties regarding water development and solid waste funding needs.

NOW THEREFORE BE IT RESOLVED, that the board recommends to the Governor and the State Legislature the Water and Environment Fund fiscal year 2006 appropriation level of three million five hundred thousand dollars (\$3,500,000) for the Consolidated Water Facilities Construction Program; and,

IT IS FURTHER RESOLVED, that the board recommends to the Governor and the State Legislature the following Water and Environment Fund fiscal year

2006 line-item appropriation levels for projects on the State Water Resources Management System:

Black Hills Water Management Study	\$ 100,000
James River WDD	\$ 100,000
Lewis and Clark RWS	\$ 1,500,000
Perkins County RWS (loan)	<u>\$ 1,500,000</u>
SWRMS Total	\$ 3,200,000

IT IS FURTHER RESOLVED, that the board recommends to the Governor and the State Legislature the Water and Environment Fund fiscal year 2006 appropriation level of eight hundred thousand dollars (\$800,000) for the Solid Waste Management Program; and

IT IS FURTHER RESOLVED, that the board recommends to the Governor and the State Legislature the Water and Environment Fund fiscal year 2006 appropriation level of one million dollars (\$1,000,000) for continued funding of the construction, enlarging, and upgrading of Regional Landfills.

Dated this 5<sup>th</sup> day of November, 2004.

BY:                     \\Signed//                      
Chairman, Board of Water and  
Natural Resources

(SEAL)

ATTEST:

BY:                     \\Signed//                      
Secretary, Board of Water and  
Natural Resources

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