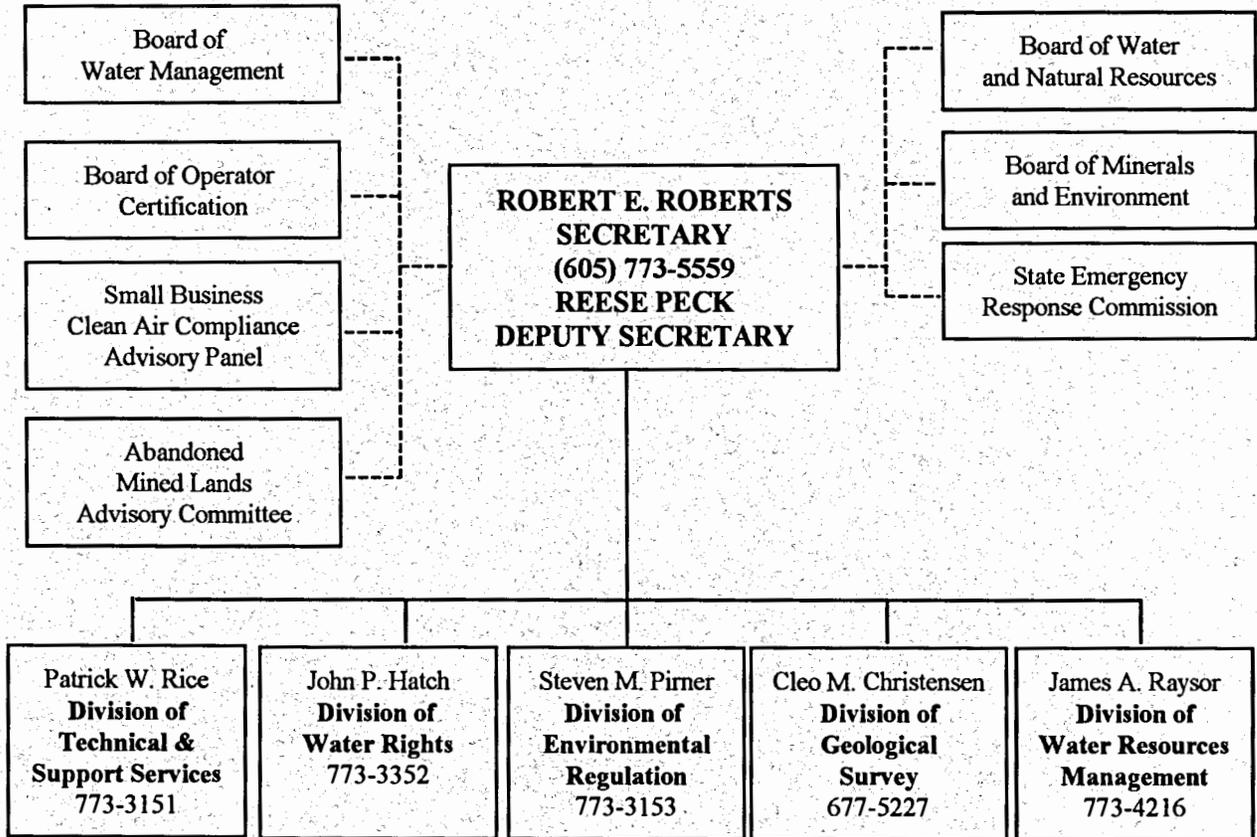


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DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

ORGANIZATIONAL CHART



Fiscal
Personnel
Press & Public Relations
Computer Graphics
Training & Public Ed.
Network Management
Regional Offices
Technical Information Transfer
EPA Liaison
Geographic Information Systems
Legislation

Water Rights Permits, Inspection & Regulation
High & Low Water Marks
Driller Licensing
Safety of Dams
Groundwater Monitoring
Surface Water Measurement
Water Use Data
Drainage Technical Assistance
Well Construction Compliance

Air Quality Permits Certification:
- Asbestos Certification
- Laboratories
- On-Site System Installers
- Water & Wastewater Operators
- 401 Water Quality Discharge Permits
Drinking, Air, Surface & GW Quality Standards
Environmental Monitoring
Exploration & Mining Permits
Groundwater Quality
Oil & Gas Permits
Radiation
Haz. Materials Title III Reporting
Haz. Material & Petroleum Spills
Haz. Waste & Solid Waste Permits
Recycling & Source Reduction
Safe Drinking Water Regs.
Sand & Gravel Licensing
Storage Tanks Regs.
Surface Water Quality
Toxics Control Strategies
Underground Injection Permits

Urban/Rural Groundwater Studies
County Groundwater Studies
Geological Studies
Hydrologic & Geologic Research
Black Hills Hydrology Study
GW Research & Public Ed. Grants
Basic Data Collection & Compilation

Project Management & Development
Policy Formulation
Lake Rehabilitation
Non-Point Source Activities
Wastewater Facilities
Construction Grants & State Revolving Fund Loans
Project Financing
Water Planning
Solid Waste Grants

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

1994 ANNUAL REPORT



Robert E. Roberts
Department Secretary



A. Reese Peck
Deputy Secretary

**The mission
of the Department of Environment and Natural Resources is
to manage the allocation, use, development and quality of the state's water resources;
to analyze and evaluate surface and underground water and mineral resources;
to promote and regulate mineral, oil and gas exploration and production;
and to maintain and enhance the quality of the environment.**

Secretary's Report

I will be leaving state government with the change in administration on January 7. This is a natural time to look at what we have accomplished over the last several years.

We have accomplished all these things, and more, with an agency which did not grow. Fiscal year 1996 will be the 10th consecutive year that staffing in DENR remained within a plus or minus two and one-half percent range. We actually have fewer people in the Department than we did ten years ago.

Here is a brief look at some of our major achievements:

Legislative Action

The most comprehensive environmental protection act in South Dakota history. While that bill affected almost everything we do, here is one example of its long-term importance: Because we had an approved solid waste management plan, we were able to establish landfill design requirements rather than have the federal government do it. We have saved local communities more than \$1.23 million per year in landfill requirements that would have been necessary if the federal government had been running the program.

The first-ever dedicated revenue for water development. Because we "put our money where our mouth was" by providing in advance where our share would come from, we have almost a half billion dollars in water construction approved for the state -- on terms which make it possible for South Dakota to contribute its share.

Helping Small Towns

A major program to assist small towns. Included are pilot programs in allowing local government officials to prioritize their environmental problems in the order they think is important, not in the order that the state or the federal government thinks is important.

- A self-help program which can reduce the cost of infrastructure projects more than a third, making it possible for the smallest of towns to have good drinking water and wastewater systems.
- Representation on the national Small Town Task Force and national Local Government Task Force that advises EPA on this subject.

Awards

Award-winning education and outreach programs, such as the Water Festivals and Project SAVE which are now in both elementary and high schools (EPA Outstanding Achievement Awards). Other accomplishments which have received outside recognition include:

- Innovations in funding of infrastructure projects (regional award from the Council of State Governments).
- The first-ever department-wide EPA Outstanding Achievement Award.

Common Sense Regulation

Examples where we forced some sense into environmental regulation.

- EPA proposed to establish an enforceable level of sulfate in drinking water. More than 30 percent of South Dakota's drinking water systems would have been out of compliance, and the cost to fix them would have been between \$40 and \$50 million. We led the effort to oppose the rule because we don't believe sulfate is dangerous, and its effects are temporary. The final rule, now being announced, will provide alternatives that do not require spending the tens of millions of dollars which might have been required.
- EPA proposed classifying petroleum contaminated material as a hazardous waste. Again, we would have been severely impacted. Our best estimate was about \$200 million of cleanup would have been required. At the same time that EPA would have classified material contaminated from an aboveground tank as hazardous, they would have classified material contaminated from an underground tank as regular non-hazardous waste. We said that didn't make any sense, and after a while, EPA withdrew the rule.

Other Accomplishments

A host of smaller projects:

- The Governor's Environmentally Safe Schools Initiative which gave every school in the state the opportunity to test its drinking water and to test its air for radon.
- A directory of recycling activities across the state.
- A successful Toxic Cleanup Day project which established how such projects should be done.
- Successful resolution of the potential conflict between environmental regulations and feedlot operators.
- Completion of the Floyd L. Matthew Environmental Education and Training Center.

Customer Service

Putting Customers First. Most important, we provided service for customers. When you call DENR, you really don't care what our accomplishments are, and you don't care what percentage we have of the state budget. What you care about is the problem you call about. You want response to your concerns -- we know that, and we are much better at it now than we were four years ago.

As you read this report, you will find programs and projects described which touch the lives of almost all South Dakotans. DENR affects the cleanliness of the water we drink and the air we breathe. And increases our knowledge about the nature and extent of our natural resources. And protects the public health helps to finance drinking water and wastewater systems and facilities for handling solid waste. And protects our natural resources by administering water rights. And provides education and information programs which make people smarter about our natural resources and better able to participate with the Department in deciding what to do next.

Almost every day, almost every one in this state is affected in some way by how we do our job. We never forget that fact.

Finally, I want to thank all the men and women of the Department whose hard work, dedication and skill have made possible these accomplishments. The state has a wonderful resource in these people; they deserve our thanks and respect.

And to all the people across the state who have made the last four years and five months so enjoyable for me and for my family, thank you for making us feel at home. Good-bye.



Robert E. Roberts
Secretary

Division of Environmental Regulation



Steve Pirner
Division Director

The mission of the Division of Environmental Regulation is to provide environmental regulation that is service and customer oriented, protects the public health and preserves natural resources, and promotes economic development.

The Division is composed of engineers, scientists, geologists, hydrologists, and secretaries. The highly motivated staff is dedicated to achieving all aspects of the Division mission. Highlights in each category of the Division mission are listed below.

Quality Customer Service

Providing information is one of the Division's most important services, and many efforts were made throughout the year to improve communication and interaction with customers. Some of the ways the Division has enhanced its services include:

- **Public Workshops:** More than 2,500 people attended workshops and presentations by Division staff to educate and help the public solve problems related to environmental compliance.
- **Accessibility of Personnel:** Face-to-face contact is often the best way to provide assistance to our customers. By transferring many vacant positions to Rapid City, Watertown and Sioux Falls, regulatory service personnel are even more accessible.
- **Speak and Write in Plain English:** Average acronym use in Division correspondence has decreased from 3.7 per page to 1.7 per page.

Other initiatives to improve the service provided by the Division include:

- **Federal Program Delegation:** The Division continued to work to obtain delegation of all possible EPA-administered programs. Better customer service is achieved because the Division administers those programs with flexibility to meet the needs of South Dakota.

**Protection of
Public Health and
Preservation of
Natural Resources**

- **Environmental Fees:** To make the payment of environmental fees as easy as possible, the Division calculated drinking water, surface water discharge, and air quality fees for all facilities. The response was excellent -- more than 99 percent of fees due in 1993 were collected.

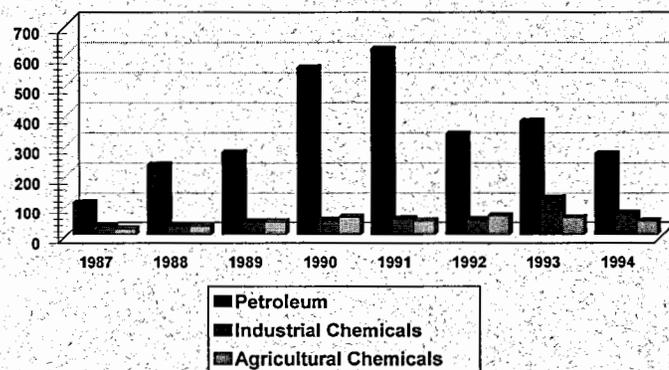
By providing technical assistance and information first, and using enforcement only when necessary, the Division helped achieve high rates of compliance in 1994.

- **Drinking Water:** Over 90 percent of community water suppliers had all water samples meet the Drinking Water Standards. These systems supplied safe water for 206,344,560 customer days, for a compliance rate of more than 98 percent. There were no waterborne disease outbreaks.
- **Wastewater Discharges:** Permitted treatment plants provided 157,080,506 customer days that met all standards, for 98.1 percent compliance.
- **Air Quality Standards:** 251,670,320 customer days of clean air were provided, for a compliance rate of 99.8 percent.
- **Mineral and Mining Operations:** Mining, oil and gas operators had 8,398 permitted acres in full compliance, for a 99 percent compliance rate.

The status of South Dakota's environment can be measured by many different factors. Below are descriptions of the condition of contaminated sites, and what the Division is doing to ensure that they are properly cleaned up.

Figure 1

**Spill/Release Data
Comparison of Products Released**



Edited September 28, 1994

- **Spills:** Fifty-eight percent, or 2,229, of identified sites have been cleaned up and closed out. Figure 1 shows the type of spills that occurred in 1994, as compared to other years.

- The Division instituted a new procedure to increase closeouts and reduce clean-up costs. A site can now be designated as "inactive" if the probability of the contamination affecting anything is low and monitoring has shown no movement of the contamination.
- **Williams Pipeline Spill Near Renner:** More than 172,000 gallons of petroleum have been recovered and about 157,000 cubic yards of contaminated soil has been excavated to be treated onsite. As a result of the settlement agreement with the Department, Williams installed a new seamless pipeline across the Big Sioux Aquifer and a high technology leak detection system.
- **Whitewood Creek Superfund Site:** During 1994, county ordinances banning future excavation and construction on tailings remaining along the creek were adopted by Lawrence, Butte and Meade counties. The site has entered the Operations and Maintenance phase, and is expected to be deleted from the EPA National Priorities Superfund List soon.
- **Williams Pipe Line Superfund Site:** EPA completed all sampling necessary to document the extent of nonpetroleum contamination from the 12th Street facility's unlined "burn pit." No solvents, pesticides, or PCBs above regulatory concern were identified by this sampling effort; arsenic was identified in onsite groundwater. With the concurrence of DENR, EPA plans no further remedial action with a minimum of two years of quarterly monitoring.
- **Ellsworth Air Force Base Superfund Site:** Field work performed in 1994 concentrated on delineating groundwater contaminant plumes, filling hydrologic and ecologic data gaps, and initiating pilot-scale treatability studies. Site specific human health and ecological risk assessments were also performed. The project management team from the Department, EPA and the U.S. Air Force is studying several alternatives to expedite cleanup.
- **Black Hills Army Depot:** Results of the Corps of Engineers' Phase I of the Ordnance and Explosive Waste Investigation were reported in 1994. Many surface and subsurface metal objects were found on most of the areas surveyed, including the proposed location of Fall River Properties' ash monofill. The contractor for the Corps began field work for Phase I of the Hazardous and Toxic Waste Investigation in September. Soil, surface and groundwater sampling is expected to be completed by mid-December.
- **Annie Creek Mine Tailings Proposed Superfund Site:** This site was proposed for inclusion on the EPA Superfund List in 1991 due to high levels of arsenic. To perform investigations and complete remediation prior to final listing, Wharf Resources, EPA and the Department applied innovative procedures. Dirt work was completed this past summer, and institutional controls were being implemented.

- **Acid Mine Drainage at the Richmond Hill Gold Mine:** In February the Board of Minerals and Environment approved the mine's long-term mitigation plan and increased the reclamation bond to \$10.7 million. Richmond Hill backfilled the waste dump into the open pit and began placing a cap over it to prevent acid generation. The reclamation project should be completed next year.
- **Acid Mine Drainage at the Brohm Gold Mine:** Brohm was issued a Notice of Violation for acid mine drainage that occurred in 1993. The NOV has not yet been settled, but Brohm has taken interim measures and has submitted a long-term mitigation plan. Brohm removed 110,000 cubic yards of old relic tailings, removed old tailings in Strawberry Creek, and began sealing off old underground workings in the pit areas.

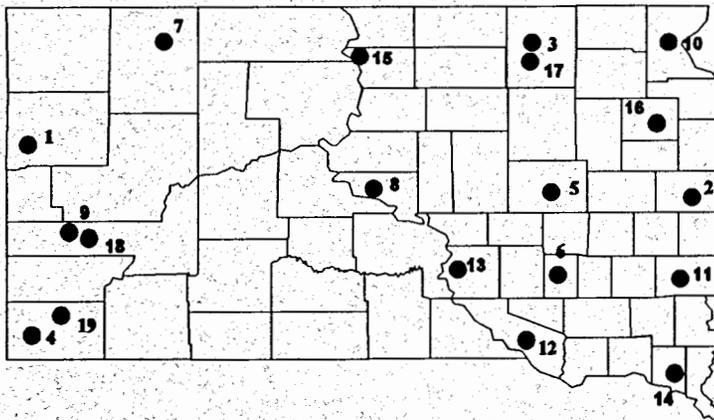
The Division operates several programs and undertakes many activities to protect and enhance the high quality of our environment.

- **Environmentally Safe Schools Initiative:** The Department launched this program in late 1993 to test the lead in drinking water and radon levels in the air in South Dakota schools. The Division is in the process of evaluating the results and working with the schools with high readings. About seven percent of the water samples are higher than the recommended standards for lead, while about 20 percent of the radon samples are high.
- **Wellhead Protection:** This program is designed to help local governments establish preventative programs to protect their drinking water supplies. Thirty-eight percent of South Dakotans use public water supplies that rely on groundwater which is covered by local wellhead protection ordinances.
- **Storage Tanks:** Division inspections have shown about 77 percent of the underground facilities are in compliance. Division staff approve both underground and aboveground tank systems before installation and conduct compliance inspections to ensure the requirements are met.
- **Leaking Underground Storage Tank Trust Fund:** The Division uses these federal funds to deal with special petroleum releases. Thirty-one projects are underway, with 22 more pending. In the past year, the Division has used the funds to relocate families from homes with high benzene levels, provide drinking water filter systems for rural homes with contaminated groundwater, install vapor extraction systems where explosive levels of gasoline vapors existed, and remove gasoline that was floating on top of groundwater.
- **Tribal/State Meetings:** Division staff organized two meetings with Tribal officials to discuss mutual environmental concerns, protection efforts, and improvement projects. The meetings proved very successful in exchanging information and creating ideas for future cooperative efforts.

- **Minuteman II Missile Deactivation:** The Division has spent much time working to ensure that environmental concerns of adjacent landowners are addressed as 150 missile launch facilities and 15 launch control facilities are deactivated.
- **Discharges from Large Scale Gold Mines Permitted:** The Division developed surface water discharge permits last year for all discharges from large scale gold mines. Surface Water Discharge Permits help detect pollution problems so they are addressed before the environment is affected.
- **Major discharges to Big Sioux River Permitted:** The Division used new computer modeling it developed to set site specific standards that could be met by John Morrell and the City of Sioux Falls, and yet also ensure protection of the downstream beneficial uses of the river.
- **Landfills:** Twenty-five small town dumps were properly closed out in 1994, bringing the total to 60. Eleven regional landfills are now in operation, with the final four to be constructed in 1995 (see Figure 2).

Figure 2

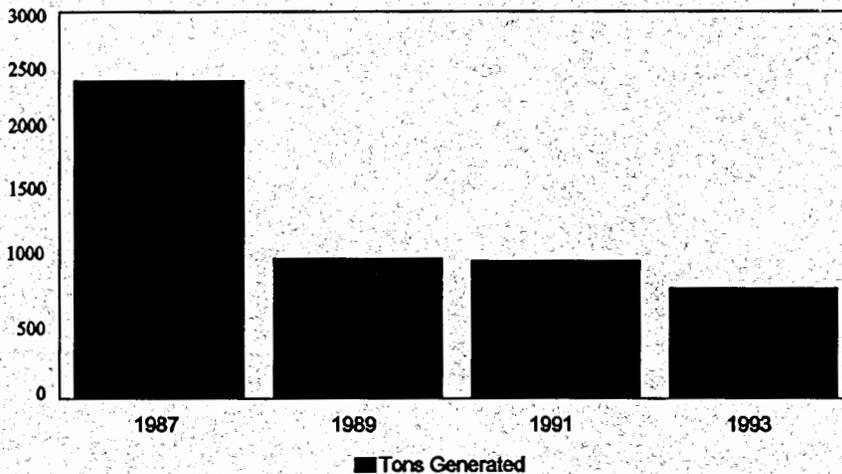
LOCATION OF REGIONAL SOLID WASTE FACILITIES



- **Waste Oil:** The program, initiated in 1993 by the Division and Amoco Oil Company, continued to operate. Participating service stations across the state accept used oil free of charge for recycling.
- **Hazardous Waste Minimization:** This has been a special focus for many years because waste minimization reduces the amount of raw materials needed, reduces waste, prevents pollution and creates a safer working environment. The latest figures show a continuing decline in the amount of hazardous waste generated, even though industry production did not decrease (Figure 3).

Figure 3

HAZARDOUS WASTE GENERATION



Promoting Economic Development

From work on specific projects to changes in the way we conduct business, the Division staff made many efforts to provide environmental regulation that also assists economic development.

- **Work with Governor's Office of Economic Development:** Major projects worked on in 1994 include the proposed Minnesota Corn Processors feedlot in Brookings County, the Dunbar Resort near Deadwood, and the proposed ProGold Corn Processing Plant near Milbank.
- **Big Savings for Regional Landfills:** By having a state solid waste program, the Division was able to save landfills last year an estimated \$1.23 million. These savings result from site-specific, risk assessment permitting versus the one-size-fits-all standards that are applied by EPA.
- **Advocating Flexible Environmental Regulations:** The Department has advocated major changes in EPA proposed rules over the years, and consequently saved small towns and businesses millions of dollars. During 1994, the Division worked to get changes made to the Federal Safe Drinking Water Act for the benefit of South Dakota systems. Congress worked on a bill until the last day, but was unable to come to a compromise.
- **Streamlined Permit Process:** The Division staff are evaluating existing permitting processes, looking for ways to streamline the process, and identify

improved methods that save time and money. Several improvements were implemented in 1994.

- **Public notice procedures for 401 water quality certification:** 401 public notices are now included with those for Surface Water Discharge Permits. The change saved the Division about \$12,000 this year alone, and also saves time and money for permittees.
- **General Permits:** General permits contain standard siting and operating criteria for activities that are relatively generic, routine, and low risk. In 1994, the Division covered both the air emissions and stormwater discharges from small concrete batch plant operations under one permit. If this general permit is issued, it will be the first time in the nation that air and water discharges have been combined into one permit.
- **One-stop Industrial Permitting:** The Division staff worked to issue all permits for a particular industry at the same time. This is more convenient for both industry officials and for those members of the interested public because they can have all issues addressed at one public hearing.
- **One Permit for Livestock Production:** In those cases where a proposed livestock production facility is not located over a shallow aquifer, the Department has been able to issue just one permit for the facility. The controls needed for animal waste have been incorporated into the water right. Facilities permitted in this manner last year include the proposed Minnesota Corn Processor's 40,000 head feedlot near Elkton and four hog confinement units.
- **Small Town Environmental Programs:** Division staff helped the Department initiate two pilot programs that focus on solving environmental problems without ruining a town's economic viability. The Small Town Environment Program and the ACTIVE Cities Program (Holistic Environmental Management) use different approaches to help small towns identify their resources, prioritize their environmental needs, and solve their environmental compliance problems.
- **Pennington County Air Quality:** The Division has worked to try to get two violations of the air quality standard for dust in Rapid City thrown out. The Division believes these samples are not representative of the air quality in Rapid City. If EPA uses the readings, Rapid City would become a "nonattainment area," which could then result in economic sanctions and increased controls on industry. EPA has not yet announced its decision.
- **Innovative Cleanup Technologies:** The Black Hills Army Depot has been named a Munitions Waste Demonstration Site to test innovative technologies and processes to promote faster, safer, cheaper, and more effective cleanups.

Also, an inventory and ranking system for abandoned mines in the Black Hills was named as an Abandoned Mine Waste Demonstration Site. From this work, it is hoped that innovative cleanup technologies will be developed for use in western states, and that these technologies can be used to also promote economic development.

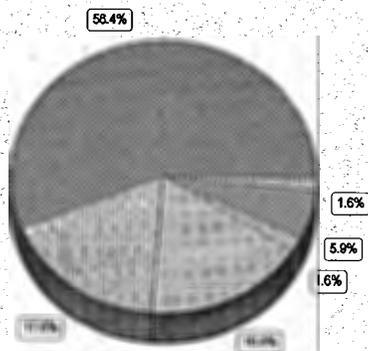
Below are some of the most recent production figures available:

- **Gold Mining:** The permitted gold mines in the state produced 604,787 ounces of gold in 1993, as shown in Figure 4. This made South Dakota the fourth largest gold producer in the United States. At an average selling price of \$357.54 per ounce, the gold produced was worth \$216 million dollars. The precious metal severance tax was \$5,032,000 in 1993, and \$6,014,000 in 1994. Figure 5 shows that only 23 additional acres were permitted in 1994.
- **Sand and Gravel:** About 15 million tons of raw construction materials were mined from 2,010 active licensed sites in the state during 1993.
- **Oil and Gas:** Over 63 million gallons of oil were produced from 147 permitted wells, and 7,100 million cubic feet of gas were produced from 49 permitted wells in 1993.

Figure 4

SOUTH DAKOTA GOLD PRODUCTION

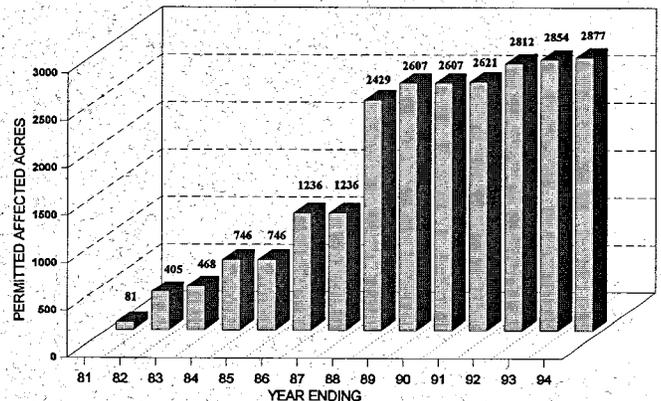
1993



COMPANY	OUNCES OF GOLD
HOMESTAKE UNDERGROUND	341,328 oz
HOMESTAKE SURFACE	106,265 oz
WHARF	102,381 oz
RICHMOND HILL	9,841 oz
GOLDEN REWARD	35,551 oz
BROHM	9,421 oz
TOTAL	604,787 oz

Figure 5

LARGE SCALE SURFACE MINING FOR GOLD IN THE BLACK HILLS





Cleo Christensen
Division Director

Division of Geological Survey

The primary function of the Geological Survey is to locate, map, and evaluate the natural resources of the state and to provide the resulting information and interpretations to all interested consumers.

Standardization of Natural Resources Databases

The Department began an effort in 1994 to standardize the way it stores and disseminates electronic data. As one of the state's primary agencies for collecting, maintaining, and evaluating natural resources data, the quality and accessibility of databases in use by the Department is extremely important.

- A task force lead by Geological Survey is working on a plan to improve user accessibility to data from the Department and other agencies .

Geologic and Hydrologic Investigations

Statewide Groundwater Quality Monitoring Network: This program will assess (1) the present water quality, (2) the impact of agricultural chemicals on water, and (3) long-term trends in water quality in 26 sensitive aquifers across South Dakota.

- Division staff installed 20 new monitoring sites in the Big Sioux, Skunk Creek, and Ogallala/Sand Hills aquifers, and took water samples from 28 sites.
- Information from this program will be used to assess regulations and land-use practices, and to protect groundwater quality in these aquifers, all of which are used for drinking water.

Mellette-Todd Counties Water Resource Assessment: This six-year study with the U.S. Geological Survey (USGS) will evaluate the geology and water resources in Mellette and Todd Counties. The project began in 1992.

- Nineteen monitoring wells were installed this year, primarily in southern Todd County. Several previously undocumented water bearing zones in the Arikaree aquifer were discovered.

- The Department will spend \$350,000 to \$400,000 over the life of this project.

Lake Traverse Reservation and Roberts County Water Resource Assessment: The Division began work on the project this year with USGS. This six-year project is designed to evaluate water resources in this area.

- Field work this year included the drilling of 17 test holes and the installation of three monitoring wells.
- Costs for this project will be shared by the County (\$110,000), the Lake Traverse Reservation (\$310,000), the U.S. Geological Survey (\$230,000) and the Division of Geological Survey (\$233,000).

Spink County Water Resource Assessment: Field work on the project is complete. Staff worked to analyze data, draft maps and cross sections, and write the final report. Publication of the report is expected in fiscal year 1996.

Minnehaha County Water Resource Assessment: The project was completed, and the report is published.

Split Rock Creek Aquifer: This project is designed to determine the viability of using this aquifer as a supplemental water source for the city of Sioux Falls and other nearby communities.

- Water levels are being monitored from about 50 wells completed in the aquifer. Aquifer test sites have been identified, but aquifer testing has currently been put on hold.

Lake Cochrane: This project is designed to determine the hydrogeology of the Lake Cochrane area. The main emphasis is the determination of what impact pumping from the buried aquifer that underlies Lake Cochrane would have on the water resources of the area.

- This summer, 35 test holes were drilled, 16 of which had monitoring wells installed in them. All of the new wells were developed, sampled, and surveyed. Additional water sampling of surface water bodies and existing wells also took place.
- Presently, the data collected this summer is being analyzed to produce updated geologic maps, cross sections, and water-budget calculations.

Research of Low-Permeability Sediments at the Sioux Falls Landfill: Field work is nearing completion on a cooperative research project at the Sioux Falls landfill that is examining groundwater gradients and chemistry as well as physical aspects of the clay-rich sediments at the landfill.

- Research results will provide valuable information regarding the use of clay-rich sediments for waste disposal sites and will provide regulators, and landfill owners and operators, with a better understanding of how to deal with landfills in low-permeability settings.

Interagency Support and Other Activities

Black Hills Hydrology Study and Black Hills Water Management Study:

Technical expertise and liaison support continues to be provided by the Division for the Black Hills Hydrology Study and the Black Hills Water Management Study, which are included in the State Water Plan.

- During 1994, this effort was enhanced by inclusion of the State of Wyoming. This important accomplishment finally provides the mechanism to implement an area-wide conceptual approach and cooperative effort for development and management of water resources.
- The Division also provided technical expertise and liaison support with other Department divisions and local Black Hills groups for development of proposals for a Rapid Creek Assessment Project and a French Creek Water Project District Watershed Plan.

Lake Lakota: At the request of the Department of Game, Fish, and Parks, this study is being conducted to determine why Lake Lakota was often dry or contained very little water. Project emphasis is on determining the lake's water budget, and on locating and developing a supplemental water source to maintain the level of the lake.

- Monitoring of water levels in the lake and streamflow into the lake have been the main activities of this project in the past year.

Solid Waste Permit Review: The Geological Survey continues to be an integral part of the Department's effort to assist permit applicants through the process while also serving the general public by ensuring the protection of the state's aquifers.

- Division staff reviewed several solid waste permit applications, most notable of which were the applications for the Southern Missouri Waste Management Association and the Tri-County Landfill Association.
- Staff also provided expert witness services to the Division of Environmental Regulation in the contested case hearings for these permits.

State Geologic Map: The publication of a new state geologic map is expected in fiscal year 1996. This map will be the culmination of several years of work and will replace the old map that was published in 1953.

Basic Data Management System: Information generated by the Geological Survey and other divisions provides the basis for sound management decisions regarding the state's geologic and hydrologic resources and will be an integral part of the Department's geographic information system. The basic data management system contains about 32,000 lithologic logs, 3,600 inorganic water quality analyses, and 210,000 water levels.

- Recently, the Division of Geological Survey designed an organic water quality database. This database will contain results from pesticide, volatile organic compound and immunoassay analyses.
- Historical data from several research projects in the Department are currently being input to this database. This database will act as a repository for future information from projects such as the statewide groundwater quality monitoring network.

Groundwater Research and Public Education Grants Program: The Division administers this program which was created in 1989. Four grants were awarded for a total of \$160,320 under this program in fiscal year 1994. There are currently 16 active projects. In total, 43 grants were made from the program providing more than \$1.7 million in support for groundwater research and education projects. This program was discontinued on March 15, 1994.

Public Education:

- The Vermillion Water Festival was a tremendous success again this year. Twenty-one schools from five counties were represented by 750 fourth-grade students at the event. One hundred enthusiastic presenters exposed the students to a wide variety of water-related topics and activities.
- Division staff developed written materials, provided graphic arts services, and helped conduct a workshop for project SAVE, the Department's hands-on education outreach program about air quality, solid waste, and water.
- Staff prepared nine fact sheets for *The Natural Source*, an environmental education resource book about South Dakota for kindergarten through 12th grade classroom teachers, and made numerous presentations at schools and other educational functions.

Division of Technical & Support Services



Pat Rice
Division Director

The Division of Technical and Support Services provides assistance in all personnel matters, furnishes budgetary and fiscal information, manages information resources, supplies field support for environmental monitoring and compliance activities, and conducts environmental education activities.

Quality Government

The Department has been active in the statewide Quality Government Improvement Process since it began in 1993. The process is designed to help Department employees fine-tune their skills, improve their work processes and provide a higher level of satisfaction to their customers -- the citizens of South Dakota.

- About 70 Department employees have graduated from the Quality Education System, a 10-week class detailing ways to improve customer service and work quality. Division staff taught the classes in Pierre and Vermillion.
- Several Division staff members serve on Step Teams that recommend the methods and time lines by which the Quality Improvement Process is implemented.

Governor's Environmental Excellence Awards

This awards program was started by Governor Mickelson in the spring of 1990 as a way to honor individuals, organizations and communities that have made a positive impact on the environment.

- The program was brought back in 1994 after a two year break. Division staff worked to publicize the program, put together an in-house committee to review nominations, select a blue ribbon panel to pick the winners, and organize a ceremony to honor the recipients.
- Governor Walter D. Miller presented plaques to the winners in a ceremony at the Capitol Rotunda during "Environmental Action Week." Chief of Staff Frank Brost also spoke to the group at a luncheon in Pierre. The winners included:

Tom Merrill of Yankton, Huron Cleaners, Rapid City Street Department staff, Children's Care Hospital and School Vocational Education classes and Clarence Mortenson of Pierre.

State/EPA Liaison

The Division serves as the liaison between the state and the Environmental Protection Agency. As the central point of contact, the Division works to maintain open and effective communication between EPA and the state.

- As part of the effort to improve the way we do business, Division staff coordinated the Department effort to develop the first multi-year agreement with EPA. Previously rewritten every year, the State/EPA Agreement (SEA) contains work plans developed jointly with EPA. By combining all the EPA grants and requirements into one multi-media, multi-year document, a tremendous amount of paperwork and duplication were eliminated.
- Division staff helped organize the EPA mid-year review in April. This is an opportunity for state environmental officials to meet face-to-face with the regional EPA officials and discuss progress on the SEA workplans.

Interagency Planning

The Division continued administration of a grant from the Department of Commerce Economic Development Administration. The grant funds are being used on a project jointly sponsored by three Sioux Nations in South Dakota and the Wind River Nation in Wyoming to assemble economic planning data for use in geographic information systems (GIS).

- In 1994 the tribal nations worked to develop pilot projects utilizing the planning data. The South Dakota cooperators include the Sisseton-Wahpeton, Yankton and Cheyenne River Sioux Nations.
- In related geographic information system planning efforts, the Division worked with federal, state, regional and local planning entities to assemble a data dictionary for GIS data in the state.

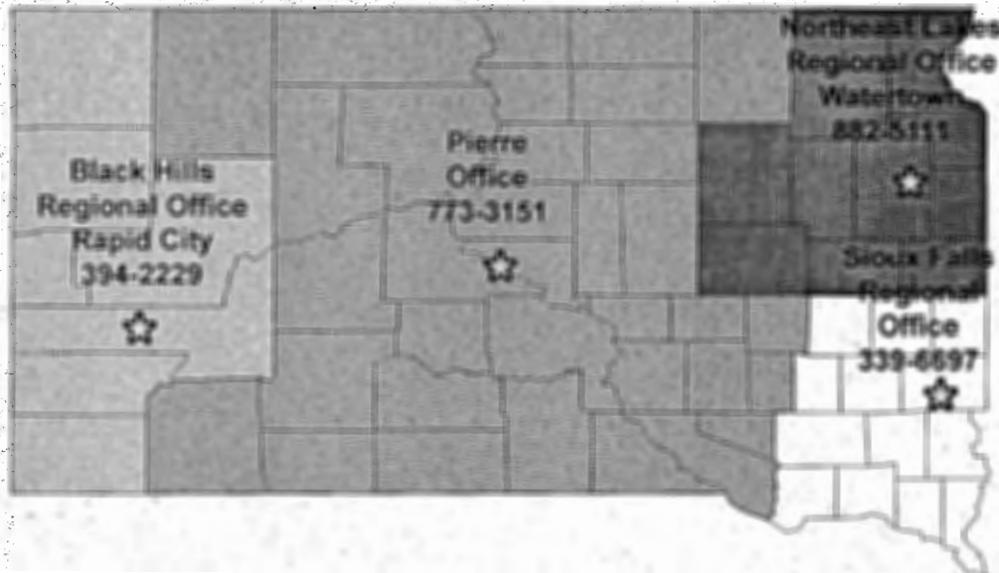
Facilities Management

In 1989 the Department began participation in a facilities upgrade process with the South Dakota Bureau of Administration. The project was designed to remove asbestos from the Joe Foss Building and renovate the interior of the structure. The Division of Technical and Support Services oversees and coordinates these activities.

- Work on the third floor of the Foss Building was completed in early January 1994. Several staff members were moved to new locations within the building, and the Waste Management program moved from a location in downtown Pierre. All Department staff in Pierre are now located in the Foss Building.

- The Rapid City Regional Office was also moved to a new location. In February, the Regional Office staff moved from 36 East Chicago Street to a new building at 2050 West Main.
- In recent years, staff have been transferred from Pierre to the Regional Offices in order to provide better customer service and move staff expertise closer to the towns and businesses that need our help. Figure 6 shows the areas covered by each office.

DENR Regional Office Service Areas



- As part of the overall facilities upgrade, computer local area networks (LANs) were installed at each of the regional offices. The regional offices now have access to software identical to that in the Pierre office, including electronic mail, word processing and data base applications, and the Internet.

Project SAVE

Project SAVE (Studies, Awareness, and Values of the Environment) is now in its third year, and has continued to spread to schools throughout the state. About 400 teachers from 45 schools have been trained to use the dozens of activities related to

air quality, water quality, solid waste, hazardous waste and pollution prevention. Along with the activities, the program provides teachers with background and supporting materials needed to implement environmental education in their classes.

- A new game called SAVE WENDY WATER was published this summer. The game was designed by educators from Sully Buttes Schools as part of a Project SAVE workshop. An air game is now on the drawing boards for printing next summer.
- Several Project SAVE workshops and college credit classes were held over the past year. The total number of teachers attending was 200.
- The Division is working with South Dakota State University to design and deliver a Project SAVE program specifically for secondary teachers. The class will be held at the SDSU Northern Plains Biological Research Center northeast of Brookings.
- Five schools are participating in a South Dakota National Science Foundation grant with Capital University Center and the Division on math and science staff development using the Project SAVE program. The participating schools will be linking their scientific findings at each site through use of electronic bulletin boards.

Training and Public Education

The Division runs the drinking water and wastewater operator assistance and training program. In order to become a certified water or wastewater operator, an individual must be employed by a water or wastewater system, have the necessary education and experience, and pass the appropriate exam.

- More than 525 people attended the 21 operator training classes conducted across the state this year.
- An internal survey showed that operators who took a training class from the Department gave themselves a 20 percent advantage over those who took the exam cold.

Division staff helped promote awareness of Department programs in several ways throughout the year, including:

- Displays at the State Fair, Community-State Day, and other events;
- Various brochures and pamphlets;
- A quarterly newsletter; and
- Graphics and materials for numerous presentations.

Division of Water Rights



John Hatch
Division Director

The Division of Water Rights is primarily responsible for managing the allocation and regulation of the state's water resources, and promotion of conservation, economic development and project safety in the use of water.

The division consists of administrative, engineering, groundwater, and surface water sections with a total of 21 FTEs.

Protecting South Dakota's Water Resources

Major Accomplishments and Issues

Interstate Activities:

- **Missouri River Mainstem Reservoirs:** Providing technical input for the Missouri River Main Stem Reservoirs Master Water Control Manual Review and Update. The manual identifies criteria used to establish the Annual Operating Plan for the reservoirs. The draft environmental impact statement for the manual has been released and identifies a preferred alternative for operating the reservoirs. Staff attended meetings to make the case for South Dakota's interests. The manual update is scheduled for completion in 1995.

Participated with the U.S. Army Corps of Engineers, Omaha Division, and the Missouri River Basin Association in developing the 1995 Annual Operating Plan for the Missouri River Main Stem Reservoirs.

- **Belle Fourche River Interstate Compact:** Negotiating with the Wyoming State Engineer, Belle Fourche Irrigation District, U.S. Bureau of Reclamation, and Wyoming irrigators to establish a recreation pool for Keyhole Reservoir.
- **North Dakota Garrison Project:** Working with the Bureau of Reclamation, Corps of Engineers, U.S. Fish and Wildlife Service, and the North Dakota Water Commission to resolve James River issues. These issues include water availability for: 1) the Oakes test area (an advance feature of North Dakota's Garrison project), 2) operation of Jamestown and Pipestem reservoirs, 3) a national waterfowl refuge, and 4) other water right holders in both states.

- **Lake Cochrane:** Monitoring development of the groundwater supply for the Lincoln-Pipestone Rural Water System located in Minnesota. The state of Minnesota has approved a permit for the rural water system. The wells are located in Yellow Medicine county about one mile from Lake Cochrane in South Dakota. A draft Amended Environmental Assessment document has been prepared and distributed for comment. Area residents are concerned that diversion of water in Minnesota will lower water levels in the lake. A total of 20 observation wells have been drilled to monitor groundwater fluctuations and a continuous recorder has been installed on Lake Cochrane to monitor lake levels. A deeper aquifer is also being investigated as a potential water source.

In-state Activities:

- **Water Management:** Protecting domestic water use and more than 6,000 water rights from interference.
- **Pactola and Angostura Contract Negotiations:** Participating in contract renegotiations between the U.S. Bureau of Reclamation, water right holders, and other interested parties for water stored in Pactola and Angostura Reservoir.
- **Safety of Dams:** Approved plans and specifications for repair of flood damaged dams: Elm Lake Dam, Brown County; East Vermillion Dam, McCook County; Jones Lake Dam, Hand County; and Lake Alvin Dam, Lincoln County.
- **Well Plugging:** Prepared educational materials in cooperation with SDSU Ag Extension concerning the importance of plugging abandoned wells. Field demonstrations were used to instruct participants on proper well plugging techniques. Abandoned wells pose safety hazards (last year a child fell into a well), and can allow contaminants to enter groundwater supplies.
- **ProGold Corn Processing:** Assisting ProGold with water permitting issues and availability of water resources as part of the site selection for a proposed corn processing facility. The Grant County site is one of three sites being considered by ProGold for construction of a \$250 million corn processing plant. The other two sites are in North Dakota.
- **Dunbar Project:** Assisted the Dunbar Project, a \$100 million project to be located at Deadwood, in applying for a water right from Whitewood Creek to irrigate a golf course for the resort. Approval of the water right followed development of a consensus agreement between existing water rights holders, fishery interests and the Dunbar Project owners.
- **Lewis and Clark Water System:** Proceeding with an application filed by Lewis and Clark Water System for 30,000 acre feet of water from well sites

**Water Rights and
Beneficial Use of
South Dakota
Water Resources**

along the Missouri River near Vermillion. The system will serve counties in southeastern South Dakota, southwestern Minnesota, and northwestern Iowa. The Water Management Board, following a public hearing, recommended approval of the application to the 1995 Legislature. The Legislature must approve any water permit application for more than 10,000 acre feet.

- **Minnesota Corn Processors:** Assisted Minnesota Corn Processors in applying for a water right to use groundwater to supply a 40,000 head cattle feedlot. The water right contained several qualifications designed to ensure compliance with environmental regulations and to protect the environment.
- **Black Hills Hydrology Study:** Participating in the Black Hills Hydrology Study with the Geological Survey and most recently with the state of Wyoming. Data collected via monitoring wells and 38 stream gaging stations is being used to assess the water resources in the Black Hills area. The information will also be used in the Black Hills Water Management Study being conducted by the Bureau of Reclamation.

Installed three new monitoring wells for the Black Hills Hydrology Study. One well is in the Madison formation, one in the Minnekahta formation, and one in the Minnelusa Formation. The wells will provide valuable information on water level, quantity, and quality.

- **LaCreek Wildlife Refuge:** Participating in a Coordinated Resource Management (CRM) proceeding to address water management activities on the LaCreek Wildlife Refuge. Area landowners are concerned about impacts to private property by refuge water control structures. The goal of the CRM process is to involve all interested parties in negotiations to reach a mutually acceptable agreement resolving all issues. A contested water permit application filed by the refuge is on hold pending completion of the CRM process.
- **Crow Creek Ditch:** Providing technical expertise to assist in solving drainage problems associated with the Crow Creek ditch located in Brown and Marshall Counties. The ditch drains approximately 600 square miles into the James River at a point about 15 miles northeast of Aberdeen. Lower reaches of the drain continue to be flooded due to excess rainfall in 1993-1994. A report addressing the inter-county drainage issue and possible remedies has been developed and distributed to Brown and Marshall county officials.
- **Flooding:** Completed investigations on numerous flooding complaints in eastern South Dakota. For example: Crow Creek Watershed, Brown-Marshall Counties; Dry Lake and Grass Lake, Codington County; Lake Albert, Grant County; Waubay Lake, Rush Lake and Bitter Lake, Day County; and Lake Thompson in Kingsbury and Miner Counties.

Water Management Issues

- **Homestake Vested Water Right Claims:** Validating Homestake's vested water right claims continues to require considerable staff time and effort to address technical, procedural, and legal issues in preparation for a hearing before the Water Management Board. Homestake Mining Company has filed vested water right claims for water from several drainage basins in the Black Hills for mining and municipal uses.
- **Lake Cochrane/Lake Oliver:** Assessing Lake Oliver/Lake Cochrane options to address concerns about poor quality water in Lake Oliver entering Lake Cochrane. Lake Oliver is experiencing high water levels and is upstream from lake Cochrane. Lake Cochrane home owners do not want the lower quality water and are seeking to establish an outlet that will drain water around Lake Cochrane. Culverts connecting the lakes have been plugged.

Customer Service

In conjunction with the Department's commitment to quality customer service, the Division continues to make a special effort to enhance and streamline services provided to our customers.

In 1993, the Division received approval of legislation to significantly reduce the length of time to process an uncontested application to appropriate water. The number of days to process an uncontested application has been cut by as many as 90 days.

In 1994, the Division supported legislation to allow changes in location of pumping points on additional pumping points without the need of submitting an application. Minor or routine changes to existing water rights are now handled administratively without the expense and time of processing an application.

Who are our customers?

General Public
Irrigators
Municipalities
Industries
Businesses
Rural Water Systems
Mobile Home Parks
Suburban Housing
Mining Companies
State and Federal Agencies

What services do we provide?

Protect Domestic Uses of Water
Protect Existing Water Rights
Process Applications for New Water Rights
Water Project Safety
Certify Safety of Dams
Set Ordinary High and Low Water Marks and Outlet Levels on Lakes
Flood Control

Division of Water Resources Management



Jim Raysor
Division Director

The mission of the Division of Water Resources Management is to provide technical and financial assistance for the protection, restoration, and development of South Dakota's water resources.

The Division of Water Resources Management accomplishes this mission by managing a number of state and federal programs. They are the State Water Pollution Control Revolving Fund Program, the Consolidated Water Facilities Construction Program, the Construction Grants Program, the Solid Waste Management Grant Program, the State Water Resources Management System, the Clean Lakes Program, and the Nonpoint Source Water Pollution Control Program.

Funding

Programs managed by the Division supplied \$23.0 million for project development in 1994.

- The Division reviewed and made recommendations on 66 applications for funding from the Consolidated Water Facilities Construction Program. The Board of Water and Natural Resources awarded \$6.3 million to 54 projects. This funding leveraged more than \$30.3 million in project development.
- The Division reviewed 71 applications for Solid Waste Management Program funding. Of these, 37 grants were awarded for a total of \$894,916. This funding leveraged more than \$5.5 million in project development.
- Due to the phaseout of the \$180 million EPA Construction Grants Program, no new grants were awarded in 1994. The Division continues to administer 15 active grants.
- The Division reviewed and recommended funding on 18 State Revolving Fund loans totaling \$11.7 million. This funding leveraged more than \$27.2 million in project development. Since 1989, this program has provided \$52.2 million in low interest loans to 40 communities, sanitary districts and solid waste management districts.
- On behalf of project sponsors, the Division applied for and received five implementation grants of more than \$1.3 million for Nonpoint Source Pollution Projects. These funds resulted in more than \$4.1 million in implementation of Best Management Practices.

- Annually the Division administers \$100,000 for projects using EPA Nonpoint Source Development Funds.
- The Division prepared \$2.35 million in funding agreements for State Water Resources Management System project development and construction. These funds leveraged more than \$19.0 million in federal funds.
- On behalf of project sponsors, the Division applied for and received three EPA Section 314 Clean Lakes assessment grants totaling \$252,000 for new projects this year.

Customer Service

Water Resources Management staff must maintain a close working relationship with a variety of customers -- local officials, federal agencies, and other state agencies. Throughout the year, efforts were made to improve customer service and provide direct assistance to communities.

- On the advice of Division staff, the Board of Water and Natural Resources advance refunded its 1989 and 1992 State Revolving Fund Program bond issues. This resulted in an additional \$500,000 for project development.
- To help communities comply with more stringent environmental regulations, Division staff requested and received EPA approval to use the State Revolving Fund for nonpoint source/groundwater protection projects. This made landfills and transfer stations eligible for the low interest loans, providing an innovative source of funding for an unfunded mandate. Because of this expanded use, the SRF program won **first runner-up** in the 1994 Council of State Governments Innovations Awards program.
- Staff chaired the Rural Development Task Force as part of Governor Miller's Quality Government Initiative.
- A user-friendly guide was developed to assist applicants with the Solid Waste Management Program grant process. Special efforts were made in the planning process to incorporate suggestions from affected groups.
- Administrative rules and the State Water Planning Process guidelines for the Consolidated, SRF, and Solid Waste Programs were revised to make the programs and application processes more concise.
- State Water Resources Management System project sponsors were involved in the formulation of the Omnibus Bill by providing input through a public meeting on their funding needs.
- Extensive staff time was devoted to the South Dakota Flood Hazard Mitigation Team. The team revised the state's hazard mitigation plan and made funding recommendations for FEMA Flood Hazard Mitigation grant funds.

- The Division sponsors the Adopt-A-Stream program and the storm drain stenciling project. Sixteen groups are involved in these activities.
- The staff conducted Water Festivals for 5,911 fourth grade students in Pierre, Spearfish, Vermillion, Sioux Falls, Brookings and Huron. Sponsors of all six festivals received national EPA awards.
- Informational videos and a public advertising campaign were produced for nonpoint source control education. The program received two Addy awards from the South Dakota Advertising Association.
- The Division presented public displays on pollution prevention at eight state and national locations. One of the displays is an interactive video kiosk which teaches people about water quality management through video games.
- The Division assisted in the production of two videos that provided wide exposure and national acclaim for the grazing and riparian management on the Foster Creek Demonstration project.
- The Division produced 12 segments on the Dakota Farm Talk radio program to highlight nonpoint source control activities and opportunities.
- Staff coordinated and sponsored three conferences -- the annual six state EPA Region VIII All States Meeting, the Nonpoint Source Coordinators meeting, and the first annual Region VIII Lakes Conference.
- The Division secured EPA funds to established the Citizen's Volunteer Lake Monitoring Program involving 26 lake groups. A video was produced and is available to schools or private citizen groups upon request.
- A Citizen's Guide to Lake and Watershed Projects was published by the Division to assist citizens with the steps involved with a restoration project.
- The Division has been active in establishing the Small Town Environmental Program (STEP) in South Dakota. This program helps small towns with water and wastewater projects by using local resources to reduce costs. Belvidere was selected as the pilot community.
- The Division received a \$50,000 grant to implement the new Municipal Water Pollution Prevention program. This provides communities with the tools to voluntarily assess the operational and financial capability of wastewater utilities and address critical issues.
- The Division worked with the congressional delegation and the Bureau of Reclamation to expand the Belle Fourche Irrigation Rehabilitation project. The project ceiling was raised by Congress based on these discussions.

**Project
Development/
Implementation**

- Coordination with the Mni Wiconi Rural Water System participants continues. Staff assisted in discussions on the cost share requirements for the project. Negotiations between the Division staff, project sponsors and the Bureau of Reclamation resulted in Congress reducing the nonfederal cost share.
- Staff have been actively involved in the formulation of the Mid-Dakota Rural Water System. Staff members participate in the Interagency Mitigation Assessment team and the team negotiating the project repayment agreement.
- The Division testified in the Congressional Appropriations committee hearings in favor of funding for the South Dakota authorized projects. More than \$20 million was appropriated for water development efforts in the state. Staff also provided testimony on the authorization of the Lewis and Clark project.
- The Division managed grants for and provided technical assistance to 30 active watershed/lake and groundwater implementation projects and to 21 projects under development. The Division also provided planning and technical assistance to an additional 24 potential watershed/lake projects.
- A comprehensive report on the assessment of 110 lakes was published this year. The statewide lakes assessment project is an ongoing annual activity and has been in existence since 1989.
- Staff compiled and published the Section 305(b) Report to Congress for the Department. This is a report on the quality of South Dakota Water resources and a summary of the activities of state water pollution control programs.
- Ten representative lakes were sampled for toxins in fish flesh. This was a cooperative project with Game, Fish and Parks and the U.S. Fish and Wildlife Service.

Board of Minerals and Environment

The Board of Minerals and Environment is a nine-member citizen's board appointed by the Governor. Members of the Board are appointed for four year terms and are responsible for protecting the environment and natural resources of South Dakota in the areas of mining, air quality, hazardous and solid waste, asbestos, and oil and gas.

The past year has seen a change in the membership of the Board with the resignation of Mary Wiese and the appointment of Patrick Healy. Mr. Healy, Sioux Falls, is President of Diesel Machinery, Inc. The nine Board members combined have more than 80 years of experience in dealing with the environmental issues of South Dakota.

During this past year, the Board held seven meetings that were attended by about 200 people. Following is a summary of major actions taken by the Board.

Contested Case Hearings

- The Board of Minerals and Environment held several contested case hearings on applications for solid waste facilities, and:
 - Approved Tri-County Landfill Association's application for the construction and operation of a regional landfill facility at Pukwana;
 - Approved Rapid City's application for a resource recovery facility and municipal solid waste landfill; and
 - Approved the application for renewal of a solid waste permit for Walworth County.
- The Board also approved the release of \$25,500 of a \$31,100 reclamation surety for South Dakota Disposal Systems, Inc. The remaining \$5,600 was retained for possible reclamation of seven acres at the proposed Lonetree Balefill site that had not been reclaimed by SDDS.
- A contested case hearing was held in February to consider an application by LAC Minerals (USA), Inc. (Richmond Hill) for an amendment to its mine permit. The amendment application to implement a long-term acid mane drainage plan was approved with conditions and amendments as proposed by the Department, which included a \$10.7 million reclamation bond.
- The Board approved an application for Wyoming Resources Corporation of Rapid City requesting temporary spacing units in a new oil and gas field in Harding County.

Oil and Gas Hearings

- Two additional oil and gas hearings were held at which:
 - An extension of a field was granted for compulsory pooling for Bowers Oil and Gas, Inc. of Grand Junction, Colorado, and
 - An application for a directional drilling permit was approved for Apache Corporation, Denver, Colorado.

Other Activities

- In other activities, the Board:
 - Approved financial assurance instruments for National Tire Services, Inc., Brooklyn Park, Minnesota, for the operation of a waste tire storage facility located in Milbank (\$80,000);
 - Approved financial assurance instruments for New Deal Tire, Groton, (\$15,000) for the operation of a waste tire storage and handling facility;
 - Approved changes to the hazardous waste rules; and
 - Was not required to hold a hearing for updating the preliminary list of Special, Exceptional, Critical or Unique Lands as no petitions were received.



Members of the Board of Minerals and Environment pictured left to right (front row) Craig Grotenhouse, Bob Hayes, Richard Sweetmen (Chairman), Lee McCahen, (back row) Pat Healy, Linda Hilde, Grace Petersen, and Wilbert Blumhardt

Water Management Board

The Water Management Board is a citizen's board appointed by the Governor. Members of the Board are appointed for four year terms and represent various interests of the public. Two Board members represent the public at large, and the remaining five represent municipal government, irrigation, domestic, industrial, and fish and wildlife interests.

The Board is responsible for managing the development, conservation, and allocation of the waters of the state and controlling water pollution. The major issues that the Board handled in 1994 include the following:

Major Issues

- A pending issue before the Board is validation of Homestake Mining Company's vested water right claims. Seven validation applications have been filed for Homestake's water collection system. These vested right claims predate statehood. Lead resident Richard Fort has filed a request for a declaratory ruling that proposes water management changes for the Spearfish Creek watershed. Thirty-four petitioners are parties to Homestake's applications and Mr. Fort's declaratory ruling request.
- The Board approved a contested water permit application filed by Paul Miller Sr. Trust and Paul Miller. The water permit allows year around use of two existing Minnelusa wells, currently used for irrigation, for use in a fish farming operation in Lawrence County.
- The Board approved water permit applications for the Great Plains Swine, Pearl Creek Colony, Heartland Pork, and Mid River Pork hog confinement facilities. All of the applications requested relatively small appropriations of water.
- The Board approved a contested water permit application filed by Minnesota Corn Processors. This application requested use of 400 gallons per minute of groundwater for a 35,000 head cattle confinement operation near Elkton.
- The Board approved a water permit application for the proposed Dunbar resort at Deadwood. The application requested use of 675 gallons of water per minute from Whitewood Creek for irrigating a golf course and landscaping around the facility. The Board approved the application with qualifications to protect domestic water uses, existing water rights, and the trout fishery.
- The Board approved petitions to delete the Little Missouri River and a segment of the Belle Fourche River from the list of navigable streams where gates are required in fences crossing the streams. After a hearing, the Board found that the public did not make sufficient use of the stream segments to be classified as navigable.

- The Board approved a number of other water permit applications, several of which were contested.
- The Board updated the state drinking water rules to include new federal requirements.
- The Board updated the surface water quality standard rules to streamline the process for issuing public notice for water quality certifications.



Members of the Board of Water Management pictured left to right (front row) Bernita Loucks, Dwayne Rollag (Chairman), Joel Rickenbach; (back row) Leo Holzbauer, Marian Gunderson, and Francis Brink. Not pictured is Rodney Freeman.

Board of Water and Natural Resources

An annual report of the Board of Water and Natural Resources is required by South Dakota Codified Law (SDCL) 46A-1-14. The report contains all of the Board's 1994 activities, including a detailed account of expenditures from the Water and Environment Fund.

In November 1993, the Board placed 74 projects onto the 1994 State Water Facilities Plan. During the year, the Board amended an additional 60 projects onto the plan. This made the projects eligible for financial assistance from a variety of federal and state sources.

The Board awarded more than \$23.0 million in grant and loan funds for construction of municipal drinking water systems, wastewater facilities, lake/watershed projects, rural water systems, irrigation projects, landfill closures and recycling projects. These awards resulted in more than \$85.6 million in total construction activity. These loan and grant funds provided South Dakotans with safe and dependable environmental infrastructure.

In 1994, the Board approved \$2.35 million in state funding assistance for projects on the State Water Resources Management System component of the State Water Plan (Table 1). These awards leveraged more than \$19.0 million in federal funds.

State Water Resources Management System

West River/Lyman-Jones Rural Water will use \$1.0 million of loan funds for the construction of distribution system facilities as advanced features of the Mni Wiconi project. The advanced features use interim groundwater sources for their water supply. In 1994, installation of the Creighton area (north of Wall) and the Elbon area (north of Philip) distribution systems were completed. This included construction of more than 400 miles of distribution pipeline serving 230 hookups and the Badlands National Park, an elevated storage tank, a ground storage tank, and a well producing 300 gallons per minute. Final planning and engineering work for the Kadoka and Grindstone area distribution systems is being completed.

Mid-Dakota RWS was awarded \$1.0 million in state grant funds to be used for administrative, engineering, and construction efforts during 1995. Mid-Dakota awarded its initial construction contracts in the fall of 1994 for the Oahe reservoir intake facility and the Oahe water treatment plant. Construction of the \$3.9 million intake facility is scheduled to be completed in June 1996. The \$9.9 million water treatment plant is projected to be in service by April 1997.

Table 1

STATE WATER RESOURCES MANAGEMENT SYSTEM
1994 FUNDING AWARD SUMMARY

<u>Project</u>	<u>Award Amount</u>
Black Hills Hydrology Study	\$ 100,000
Lake Andes-Wagner Irrigation System	75,000
Lewis & Clark Rural Water System	125,000
Mid-Dakota Rural Water System	1,000,000
Mni Wiconi Rural Water System	1,000,000
Perkins County Rural Water System	<u>50,000</u>
TOTAL	<u>\$2,350,000</u>

State Revolving Fund Loan Program

The State Revolving Fund Loan Program, which began in 1988, is designed to provide low-interest loans to governmental entities including municipalities, sanitary districts and waste management districts. The loans are used for construction of wastewater facilities, storm sewers and nonpoint source pollution control projects.

During 1994, the Board approved 18 loans and one amendment totaling \$11.7 million, leveraging \$27.2 million (Table 2). To date, 67 loans have been made from the program totaling \$52.2 million. The 1994 interest rates were three percent for 10 years, four percent for 15 years, and five percent for 20 years. These rates are undergoing review for 1995.

The Board, acting in its capacity as the South Dakota Conservancy District, completed an advance refunding of the 1989 and 1992 Series Water Pollution Control State Revolving Fund Revenue Bonds in February. The advance refunding not only provided cost savings of \$500,000 by securing a lower interest rate, but also decreased the various management requirements by combining the administration of the program under one bond issue.

In a continuing effort to protect the state's groundwater resources, the Department worked with EPA to make municipal solid waste facilities eligible for State Revolving Fund Program loans as a nonpoint source/groundwater protection activity. Revolving Fund loans for municipal solid waste projects will assist communities in complying with federal regulations and help protect the state's groundwater resources through environmentally sound waste management. The need for assistance will continue through the next three to five years as South Dakota establishes a network of transfer stations and regional landfills. Total costs for these facilities have been estimated at more than \$20 million. Of loans awarded in 1994, \$1.9 million were made for solid waste activities.

Table 2

1994 STATE REVOLVING FUND LOANS

<u>Sponsor</u>	<u>Description</u>	<u>Loan Amount</u>	<u>Interest Rate</u>
Custer/Fall River	New landfill	\$ 250,000	5%
Custer Amendment	Secondary treatment	45,000	3%
Deadwood	Major rehabilitation	582,000	5%
Dell Rapids	Storm sewer/major rehab	300,000	3%
Ft. Pierre	Storm sewer/interceptor	330,294	3%
Garretson	Treatment	510,000	4%
Groton	New interceptors	192,000	3%
Groton	New interceptors	106,000	3%
Hot Springs	Transfer station/closure	930,000	5%
Northdale San. Dist.	New interceptors	315,000	5%
Rapid Valley	Major rehabilitation	460,000	4%
Rapid City	Storm sewer/interceptor	1,214,861	4%
Sioux Falls	Major rehab/treatment	1,000,000	3%
Sioux Falls	Storm sewer	1,250,000	3%
Sioux Falls	Treatment	1,500,000	3%
Southern Missouri	New landfill	700,000	5%
Sturgis	Treatment	936,250	5%
Tea	Storm sewer	600,000	4%
Vermillion	Storm sewer	500,000	4%
	TOTAL	\$11,721,405	

Lake Restoration/ Nonpoint Source Pollution

The South Dakota Clean Lakes and Nonpoint Source Pollution Control Programs are designed to assess the status of pollution sources and their subsequent effect on water bodies throughout the state; provide technical assistance to local project sponsors in the design and implementation of individual projects; provide financial support to individual projects through the management of state and federal grants; and provide assistance in monitoring the effectiveness of implementation projects.

The Board has oversight authority of EPA grants for Clean Lakes and Nonpoint Source projects. Applications for EPA implementation grants (Table 3) must be approved by the Board prior to submission to EPA.

Table 3

1994 EPA IMPLEMENTATION AWARDS

<u>Project</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Project Cost</u>
Animal Waste Team	Pollution control	\$ 243,000	\$ 1,248,000
Lake Kampeska	Pollution control	250,000	804,000
NPS Information & Education	NPS Education	192,040	455,237
Ravine Lake Restoration Project	Lake restoration	246,800	565,050
Swan Lake Restoration Project	Lake restoration	425,250	1,070,120
	TOTAL	\$ 1,357,090	\$ 4,142,407

The Department also has oversight of project development grants. These activities are critical for the development of effective implementation projects. Following are the projects funded through the EPA Development grants (Table 4) as well as the EPA 314 Clean Lakes Program.

Table 4

1994 EPA DEVELOPMENT GRANTS

<u>Project</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Project Cost</u>
Big Sioux River Bank Stabilization	Riprap for erosion control	\$ 14,802	\$ 23,508
Elm Lake	Watershed assessment	100,000	142,857
Forestry BMP Pamphlets	Public education	13,125	17,500
Lake Andes Watershed Treatment	Watershed assessment	5,250	7,630
Lake Water Quality Assessment	Statewide lake assessment	52,500	71,428
Madison/Brandt Lake	Watershed assessment	100,000	142,857
	TOTAL	\$ 285,677	\$ 405,780

Solid Waste Management Program

The 1994 State Legislature authorized \$1.15 million for Solid Waste Management Program grants. These funds are generated from two dedicated sources — a \$1.00 per-ton landfill surcharge on municipal solid waste and a \$0.25 per-tire vehicle registration fee.

This year 71 applications were reviewed. The Board awarded 37 grants totaling \$894,916 which leveraged more than \$5.5 million of construction. Of the 37 grants awarded, 17 were for landfill closures, one was for new landfill construction, and the remaining awards assisted recycling projects. Table 5 shows the grants the Board awarded in December 1993 and June 1994.

Table 5

1994 SOLID WASTE MANAGEMENT GRANT AWARDS

Municipal Solid Waste Grants			
<u>Sponsor</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Total Project</u>
Aurora County	Closure	\$ 2,500	\$ 5,480
Brookings	Closure	40,000	375,000
Chelsea	Closure	1,000	2,235
Dawson	Closure	7,000	21,500
Dupree	Closure	6,200	10,500
Herreid	Closure	4,900	9,000
Irene	Closure	8,500	17,300
Kadoka	Closure	5,000	8,000
Lake Andes	Closure	4,000	9,500
Lebanon	Closure	6,000	13,450
Martin	Closure	4,000	10,000
Moody County	Closure	21,000	35,000
Nothville	Closure	3,500	7,000
Orient	Closure	3,500	5,300
Reliance	Closure	3,500	6,800
Roberts County	Landfill liner	33,316	129,828
Spring Valley	Closure	15,000	20,000
Vilas	Closure	4,000	7,000
	TOTAL	\$ 172,916	\$ 692,893

1994 Solid Waste Management Grant Awards (continued)

Recycling Grants

<u>Sponsor</u>	<u>Description</u>	<u>Grant Amount</u>	<u>Total Project</u>
Ace Steel	Regional process facility	\$ 105,000	\$ 241,200
Addy Disposal	Baler	16,000	59,400
Dependable Sanitation	Newsprint to animal bedding	25,000	89,558
Gate City Recycling	Animal bedding equipment	4,000	9,850
GFI America	Rendering plant expansion	50,000	1,075,000
Haarstad/Heartland Recycling	Material recovery facility	50,000	843,268
Hamlin Recycling	Recycling center	30,000	149,583
Hot Springs	Municipal solid waste composting	70,000	722,000
Kadoka	Recycling center	12,000	57,100
Pierre	Paper baler	10,000	46,500
Platte	Recycling facility	15,000	30,000
Rapid Import Salvage	White goods recycling	20,000	70,000
Rapid City	Compost trommel	50,000	110,000
Sioux Falls	Hazardous waste	57,000	198,000
Sioux Vocational Services	Paper recycling	30,000	67,950
Wall	Baler	10,000	15,000
Walworth County	Tub grinder	68,000	90,600
Waste Reduction System	Compost grinder	40,000	240,500
Yankton	Recycling center	60,000	692,600
	TOTAL	\$ 722,000	\$4,808,109

Consolidated Water Facilities Construction Program

The 1994 State Legislature appropriated \$6.3 million for the Consolidated Water Facilities Construction Program to provide grants and loans for water development projects included on the State Water Facilities Plan.

The Board awarded 48 new grants totaling \$5.3 million, amended two previous grants totaling \$415,000, and awarded five loans totaling \$617,500 (Table 6). These awards helped leverage more than \$30.3 million in construction activities.

Table 6

1994 CONSOLIDATED AWARDS

<u>Sponsor</u>	<u>Description</u>	<u>Award Amount</u>	<u>Project Total</u>	<u>Type</u>
B-Y Water District	Ground storage reservoir	\$ 40,000	\$ 116,400	Grant
Belle Fourche	Water/sanitary & storm sewer	75,000	317,965	Grant
Big Stone City	Wastewater facility	60,000	1,101,000	Grant
Bristol	Water distribution	65,000	195,985	Grant
Brookings Cons. District	Lake Campbell protection	40,000	125,200	Grant
Campbell County (amendment)	WEB expansion	165,000	2,855,235	Grant
Canton	Water/sanitary & storm sewer	15,000	185,100	Grant
Claremont	Wastewater system repair	62,500	125,000	Grant
Claremont	Wastewater system repair	62,500		Loan
Clay Rural Water System	Supply/treatment improvements	300,000	946,000	Grant
Day Conservation District	Pickereel Lake protection	40,000	101,000	Grant
Deadwood	Utility expansion/sewer upgrade	978,000	1,560,000	Grant
Dell Rapids	Utilities improvements	50,000	1,059,500	Grant
DeSmet	Water/sanitary & storm sewer	40,000	200,000	Grant
Eagle Butte	Water/system sewer improvements	40,000	117,200	Grant
Elm Lake Dam	Spillway repairs	76,000	228,000	Grant
Emery	Water tower repair	7,000	19,480	Grant
Eureka	Lake Eureka restoration	75,000	125,000	Grant
Garretson	Wastewater facility	50,000	750,000	Grant

1994 Consolidated Awards (continued)

Sponsor	Description	Award Amount	Project Total	Type
Herreid	Water distribution	\$ 34,000	\$ 613,700	Grant
Hill City	Water/sewer upgrade	35,000	212,000	Grant
Hughes County	Wastewater facility	10,233	467,257	Grant
Huron	Water/sanitary & storm sewer	50,000	536,219	Grant
Isabel	Water treatment plant	75,000		Loan
Isabel	Water treatment plant	110,000	185,000	Grant
Kingbrook RWS	Arlington connection	75,000	700,000	Grant
Lake Wannalain	Spillway repairs	126,204	157,755	Grant
Lead	Utility upgrade/dept start-up	150,000	400,000	Grant
Lead	Utility upgrade/dept start-up	200,000		Loan
Lead-Deadwood San Dist (amendment)	Water treatment plant	250,000	5,250,000	Grant
Lead-Deadwood San Dist (amendment)	Water treatment plant	250,000		Loan
Madison	Water supply/treatment	30,000	816,000	Grant
Marion	Wastewater collection	45,000	168,032	Grant
McCook Lake Izaak Walton League	Lake restoration	120,000	240,000	Grant
Montrose	Water pump station	24,000 *	40,800	Grant
North Central RC&D	Foster Creek demonstration	15,500	45,500	Grant
Northdale Sanitary District	Connect system to Rapid City	200,000	715,000	Grant
Northern Hills Community Development	Water/wastewater	772,000	4,272,000	Grant
Parkston	Elevated storage tank	50,000	285,150	Grant
Punished Woman's Lake Association	Lake restoration	67,000	96,000	Grant
Rapid Valley Sanitary District	Water treatment plant automation	15,000	90,000	Grant
Rapid City	Canyon Lake restoration	162,500 **	1,460,105	Grant
Revilla	Connect to Brookings/Deuel RWS	55,000	295,205	Grant
Roberts County	Big Stone Lake watershed	15,000	188,571	Grant
Roberts County	HDPE landfill liner	16,684	129,828	Grant
Sioux Falls	Wastewater treatment upgrade	500,000	625,000	Grant
South Lincoln RWS	System upgrade	125,000	527,500	Grant
Springbrook Water Assoc.	System upgrade/Rapid City hookup	150,000	475,000	Grant
Sturgis	Water/sewer expansion	55,000	290,000	Grant
Swan Lake Assoc.	Lake restoration	100,000	332,200	Grant
Vale Sanitary Water & Sewer District	Wastewater facility	71,500	111,500	Grant
Vale Sanitary Water & Sewer District	Wastewater facility	30,000		Loan
Wall	Solid waste transfer station	28,300	346,247	Grant
Walworth Conservation District	Lake Hiddenwood restoration	70,000	125,000	Grant
West River WDD	White River channel repair	7,000	33,450	Grant
	TOTAL	\$6,330,921	\$30,358,084	

* prior year appropriation

** \$112,000 prior year appropriation

1994 Water Development Legislation

Federal Legislation

Authorizations

Congress amended the Belle Fourche Irrigation Rehabilitation project authorization (P.L. 98-157) and the Mni Wiconi Rural Water Supply project construction authorization (P.L. 100-516). The Belle Fourche amendment increased the project ceiling by \$14.5 million to provide for the rehabilitation of additional project safety and water conservation features. The amendment language provided for a federal cost share of \$10.5 million and a state cost share of \$4.0 million.

The Mni Wiconi amendments authorized two additional distribution system components to provide service to the Rosebud Indian Reservation and the Lower Brule Indian Reservation. The project ceiling was increased to \$263.0 million from \$100.0 million for the additional service areas and to meet the total identified

water supply needs of the Pine Ridge Indian Reservation and the West River/Lyman-Jones service area. The cost share for construction of the West River/Lyman-Jones system was adjusted to 80% federal and 20% nonfederal from 65% federal and 35% nonfederal. An operation & maintenance cost for core system expenses was added for the West River/Lyman-Jones system.

Appropriations

The federal fiscal year 1995 Energy and Water Development Appropriations Bill was signed by the President on August 26, 1994 (Public Law 103-316). The funding levels for South Dakota water projects are listed in Table 7.

Table 7

1995 FEDERAL FISCAL YEAR APPROPRIATIONS Bureau of Reclamation

General Investigations	
Black Hills Water Management Study	\$ 100,000
Lake Andes-Wagner/Marty II Demonstration Program	250,000
Tri-County Rural Water Association	150,000
Construction	
Belle Fourche Unit Rehabilitation	3,064,000
Mni Wiconi Rural Water System	14,500,000
Mid-Dakota Rural Water System	4,000,000
Oahe Unit (Maintenance)	100,000
Rapid Valley (Maintenance)	335,000
Operation and Maintenance	
Mni Wiconi Rural Water System	492,000
Corps of Engineers	
General Investigations	
Aberdeen and Vicinity Flood Control	\$ 20,000
James River Environmental	73,000
Sioux Falls Flood Control	400,000
Watertown & Vicinity Flood Control	170,000
Oahe Dam to Lake Sharpe	73,000
Operation and Maintenance	
Big Bend Dam/Lake Sharpe	5,887,000
Cold Brook Lake	474,000
Cottonwood Springs Lake	201,000
Ft Randall Dam/Francis Case	7,520,000
Gavins Point/Lewis & Clark	5,071,000
Lake Traverse, SD & MN	614,000
Oahe Dam/Lake Oahe	9,610,000
Construction, General	
Missouri National Recreational River	100,000

State Legislation

Expenditure Authorizations

The 1994 Legislature adopted Senate Bill 265, the Omnibus Water Funding Bill, authorizing the following expenditures from the Water and Environment Fund and Groundwater Protection Fund:

- Mid-Dakota Rural Water System - \$1.0 million grant to provide nonfederal cost share for Mid-Dakota pre-construction and construction;
- Mni Wiconi Rural Water Supply System - \$1.0 million loan to provide nonfederal cost share for Mni Wiconi project construction;
- Consolidated Water Facilities Construction Program - \$6.3 million to provide grants and loans for community drinking water, wastewater, solid waste and lake improvement projects;
- James River Restoration project - \$120,000 grant for restoration activities;
- Black Hills Hydrology and Water Management Study - \$100,000 grant to local project sponsors to provide nonfederal cost share for ongoing hydrological studies of the Black Hills;
- Black Hills Hydrology and Water Management Study - \$100,000 grant to the Department for direct services related to the Black Hills surface and groundwater monitoring efforts;
- Lewis & Clark Rural Water Supply System - \$125,000 grant to complete feasibility studies and seek congressional authorization;
- Lake Andes-Wagner/Marty II Irrigation System - \$75,000 loan to implement the research demonstration program;
- Perkins County Rural Water System - \$50,000 grant for project planning and feasibility studies;
- Solid Waste Management Program - \$1.15 million to provide grants for municipal solid waste and recycling projects; and
- Groundwater Research - \$250,000 to provide a grant to the Department for groundwater research.

State Water Plan

Senate Bill 265 added the Bad River Watershed project to the State Water Resources Management System as a priority water development project and removed the WEB Pipeline project. The WEB project was deleted because construction of the federally authorized WEB project has been completed. The balance of the projects were retained on the list.

Environment & Natural Resources Fee Fund

Senate Bill 40 amended SDCL 1-40-30 to establish the Environment and Natural Resources Fee Fund (Fee Fund). The Fee Fund is maintained as a separate fund and is used to pay the expenses associated with administration of Department programs. Fee Fund expenditures are budgeted through the normal state budget process.

Senate Bill 40 also directed that \$400,000 or the interest deposited in the Water and Environment Fund, whichever is less, be transferred annually to the Fee Fund from the Water and Environment Fund.

Drinking Water SRF

The South Dakota Legislature passed House Bill 1097 authorizing the establishment of a Drinking Water State Revolving Fund (SRF) Program to provide loans for drinking water projects. The program will complement the Wastewater/Nonpoint Source SRF program that is administered by the Division of Water Resources Management.

There have been several bills introduced in Congress to reauthorize the federal Safe Drinking Water Act to include a Drinking Water SRF. The Drinking Water SRF Program would provide loans for the construction and upgrading of drinking water systems. The state legislation will permit South Dakota to implement a Drinking Water SRF. Due to delay at the federal level, the state legislation may need modification regarding the effective date of the program.

1994 LEGISLATIVE OVERSIGHT COMMITTEE

Senator Frank J. Kloucek
Senator M. Michael Rounds
Rep. William F. Cerny, Jr.
Rep. Edward E. Van Gerpen

Scotland
Pierre
Burke
Avon

BOARD OF WATER AND NATURAL RESOURCES

James G. Bell, Chairman
Steven Lowrie, Vice-Chairman
Dale Kennedy, Secretary
John Loucks
Wayne Gustafson
George Scully
Mary Ellen Garrett (March - August)
Don Bollweg (September - December)

Rapid City
Watertown
Beresford
Rapid City
Rapid City
Madison
Pierre
Harrold



Members of the Board of Water and Natural Resources pictured left to right (front row) George Scully, James Bell (chairman), John Loucks, (back row) Wayne Gustafson, Steve Lowrie, Dale Kennedy, and Don Bollweg.

**To
Governor William J. Janklow
and the
Seventieth Session, Legislative Assembly**

1995 STATE WATER PLAN

**Board of Water and Natural Resources
January 1995**

1995 State Water Plan

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. In order to be considered for the State Water Plan, projects must meet certain 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 Plan.

Recommendations to the State Legislature and Governor

During November, the Board conducted a public meeting on the funding needs of the State Water Resources Management System projects and other Water and Environment Fund programs. The Board adopted a number of resolutions providing recommendations to the State Legislature and Governor. A summary of the Board's recommendations are provided below. The full resolutions are provided in Appendix A.

Resolution #94-142 -- requests the Legislature to authorize the Bad River Watershed project and to establish a state cost share commitment of \$875,000.

Resolution #94 -143 -- requests the Legislature to authorize the construction of the Belle Fourche Irrigation Rehabilitation project and to establish a state cost share commitment of \$4 million.

Resolution #94 - 144 -- requests the Legislature to amend the state construction authorization of the Fall River County Rural Water System to revise the project cost estimate and to increase the state cost share commitment to \$800,000 from \$500,000.

Resolution #94 - 145 -- requests the Legislature to amend the state construction authorization of the Mni Wiconi Rural Water System to reflect service area and cost share adjustments made in the project by the United States Congress through passage of the Mni Wiconi Act Amendments of 1994.

Resolution #94 - 146 -- provides to the Legislature and Governor the Board's recommendations for Water and Environment Fund fiscal year 1996 expenditure authorization levels:

State Water Resources Management System Projects	
Bad River Water Quality Project	\$ 87,500
Belle Fourche Irrigation Project	1,000,000
Black Hills Hydrology and Water Management Study	260,000
James River Improvement Program	75,000
Lake Andes-Wagner/Marty II Irrigation Unit	75,000
Lewis and Clark Rural Water System	75,000
Mid-Dakota Rural Water System	1,000,000
Mni Wiconi Rural Water System	1,800,000
Sioux Falls Flood Control Project	<u>300,000</u>
Total	\$ 4,672,500
 Consolidated Water Facilities Construction Program	 \$ 3,500,000
 Solid Waste Management Grant Program	 \$ 1,150,000

Resolution #94-152 -- provides to the Legislature and Governor the Board's recommendation that all projects remain on the State Water Resources Management System component of the State Water Plan. The Board also recommends that the **School and Public Lands Dam Safety** project, the **Statewide Abandoned Well Plugging** project, the **Statewide Groundwater Quality Monitoring** project, and the **Statewide Water Quantity Monitoring Network** project not be placed on the list; instead, these four projects should be supported with state General Funds.

Resolution #94-153 -- provides to the Legislature and Governor the Board's recommendation for state General Fund support of the Department of Environment and Natural Resources and the recommendation that there be no reduction of the funds currently dedicated to the Water and Environment Fund for support of water and natural resources projects and programs.

Resolution #94-156 -- requesting the Legislature to appropriate all remaining money from the Groundwater Research and Public Education Program to the Department of Environment and Natural Resources for the Statewide Groundwater Quality Monitoring Network Project (adopted in December).

State Water Facilities Plan

The State Water Facilities Plan identifies future projects such as rural, municipal, and industrial water supplies; dam safety; storm water; water conservation; lake restoration/nonpoint source pollution control; solid waste planning; solid waste management; groundwater contamination; pollution prevention or remediation; and wastewater facilities. The Board is responsible for placing projects on the Facilities Plan. The Board can also provide direct financial assistance and significantly influence federal categorical grant decisions or funding decisions from other state agencies.

In November, the Board reviewed and approved 120 applications for the 1995 State Water Facilities Plan (Table 8). These projects are now eligible to seek state/federal financial assistance. Additional projects may be amended on the Facilities Plan during the year.

Table 8

1995-1996 STATE WATER FACILITIES PLAN

SPONSOR	PROJECT DESCRIPTION	PROPOSED FUNDING SOURCES*			TOTAL
		CWFCP	CDBG	SRF	
Alexandria	Water storage reservoir	\$ 106,000		\$	\$ 176,700
Alpena	Sewer system upgrade	147,700			246,200
Arlington	Water distribution	100,000	300,000		540,000
Ashland Sanitary District	Water supply, storage & distrib	118,000	200,000		530,000
Avon	Storm sewer	200,000	250,000		978,700
B-Y Water District	System expansion/upgrade	250,000	250,000		14,600,000
BDM Rural Water	System expansion	600,000	600,000		15,400,000
Belle Fourche	Force main replacement			300,000	300,000
Belle Fourche	Utility upgrade project	61,594			228,409
Big Stone City	Water supply	60,000	300,000		1,125,000
Box Elder	Well & transmission line	100,000	200,000		885,000
Box Elder	Water distribution	70,000	150,000		420,000
Brookings Cons Dist	Lake Campbell watershed	40,000			491,075
Brookings Cons Dist	Lake Hendricks restoration	29,000			57,050
Chamberlain	Water/wastewater mains	200,000	300,000	811,740	1,811,740
Chamberlain	Water/wastewater expansion	130,000	130,000		1,464,000
Chamberlain	Wastewater treatment	100,000	200,000		500,000
Charles Mix Lake Assn	Lake Andes dredge	250,000			660,000
Chester Sanitary Dist	Sanitary sewer	500,000	500,000		2,143,750
Claremont	Water distribution	337,200			337,200
Columbia	Sewer lagoon restoration	34,030			34,030
Corsica	Wastewater system upgrade	83,250	83,250		222,000
Custer	Water distribution	107,000			214,000
Davis	Water tower repair	14,000			28,000
Davison RWS	System expansion	100,000	200,000		766,900
Davison County	Drainage				67,500
Edgemont	Water/wastewater mains		150,000	150,000	350,000
Emery	Water tower upgrade		5,670		9,450
Enemy Swim San Dist	Sewer expansion	76,000	100,000		405,000
Ethan	Water distribution	50,000	100,000		250,000
Eureka	Lake Eureka restoration	30,000			50,000
Garretson	Water supply/treatment	35,000			441,630
Garretson	Dam repair	32,900			139,660
Gayville	Rural water connection	305,000	180,000		511,000
Geddes	Water/sewer replacement	14,630			36,530
Gettysburg	Water/sewer	153,750	153,750		512,500
Gregory	Water/sewer upgrade		220,000		352,465
Gregory	Water storage reservoir	100,000	200,000		718,700
Gregory County	Transfer station		100,000		250,000
Hanson RWS	System expansion	100,000	200,000		704,600
Harrisburg	Water and sanitary/storm sewer	86,000		775,000	861,000
Hartford	Sanitary/storm sewer	88,000		418,000	506,000
Herreid	Water distribution	143,000			613,700
Highmore	Water and sanitary/storm sewer	370,000	440,000	500,000	2,367,750
Hill City	Water storage	85,000			185,000
Hosmer	Water storage tank	162,300			162,300
Hurley	Water improvements	100,000			836,000
Huron	Wastewater treatment	400,000	600,000	1,500,000	3,789,000
Interior	Water storage/RWS hookup	150,000	75,000		241,183
Ipswich Devel. Corp.	Water/sewer expansion		87,200		87,200
Jefferson	Wastewater treatment	395,000	200,000		610,000
Kingbrook RWS	Arlington connection	100,000	250,000		1,125,000
Kingbrook RWS	Lake Preston connection	75,000	200,000		492,000
Lake Andes	Water distribution	200,000	70,000	200,000	994,500
Lake Poinsett San Dist	Wastewater treatment	1,780,000			3,560,000
Lake Preston	Water distribution	50,000	80,000		133,000
Lane	Water distribution		56,250		75,000
Lead	Water/sewer slide project	1,763,400			1,763,400
Lennox	Water supply well	285,000			285,000
Lennox	Wastewater treatment	375,000	375,000	750,000	1,500,000
Leola	Water storage		119,000		238,500

1995-1996 State Water Facilities Plan (continued)

SPONSOR	PROJECT DESCRIPTION	PROPOSED FUNDING SOURCES*			TOTAL
		CWFCP	CDBG	SRF	
Madison	Water supply/treatment	\$ 316,000	\$ 300,000	\$	\$ 816,000
Martin	Water distribution	150,000	300,000		550,000
McCook Lake	Lake restoration	120,000			240,000
McCook Lake San Dist	Water/sewer extension		177,000	45,000	195,000
McIntosh	Water well refinance	53,250			53,250
Minnehaha Comm Water	System upgrade	1,582,800			1,942,300
Minnehaha Cons Dist	Sediment pond reclamation	35,000			35,000
Montrose	Water distribution	225,000			450,000
Montrose	Lagoon protection	55,000			110,000
Murdo	Water main replacement	39,410			70,682
Murdo	Sanitary sewer outfall	12,305			21,509
Nisland	Wastewater treatment		120,000	120,000	240,000
North Sioux City	Storm sewer			850,000	3,400,000
North Sioux City	Storm sewer			610,000	3,260,000
Northshore Estates	Water/sewer service	292,105		266,567	558,672
Parker	Sanitary sewer	75,000		225,000	300,000
Philip	Water & sanitary/storm sewer	50,000	150,000	246,000	523,000
Pickrel Lake San Dist	Sanitary sewer system	300,000	400,000	500,000	2,068,425
Plankinton	Water distribution		200,000		337,500
Rapid City	Canyon Lake restoration	652,290			1,460,105
Ravinia	Water tower rehab	21,000			35,000
Reville	Sanitary sewer		223,568		498,400
Richmond Lake San Dist	Sanitary sewer system	300,000	400,000	238,600	1,545,600
Roberts County	Big Stone Lake watershed	15,000			283,062
Salem	Storm drainage	100,000			860,400
Salem	Water distribution	200,000	200,000		636,500
School & Public Lands	Lake Hanson spillway repair	144,000			180,000
School & Public Lands	Richmond Lake spillway repair	300,000			375,000
Selby	Water reservoir	245,500			245,500
Sioux Falls	Wastewater			2,500,000	2,500,000
Sioux RWS	Source/transmission line	100,000	200,000		930,000
Sisseton	Water/storm sewer	106,000	200,000	223,130	1,060,680
So Missouri Wste Mngmt	Landfill	50,000		700,000	1,254,000
South Shore	Rural water connection	78,000	153,000		255,000
Spearfish	Wastewater treatment	167,000			334,000
Springfield	Storm water drainage	133,000	200,000		333,000
Swan Lake Assn	Lake restoration	50,000			72,000
Tea	Water tower	510,000			550,000
Toronto	Sanitary sewer	54,000	126,000		210,000
Tri-County Landfill Assn	Landfill	270,000		530,000	1,300,000
Tripp	Water distribution	100,000	200,000		556,290
Tyndall	Water distribution upgrade	223,000			446,800
Tyndall	Transfer station	101,000			202,800
Tyndall	Storm water	250,000	50,000		675,900
Viborg	Water distribution	50,000			97,200
Wall	Wastewater facility upgrade			450,000	490,000
Walworth Cons Dist	Lake Hiddenwood restoration	75,000			100,000
Warner	Storm sewer	100,000		162,000	262,000
Watertown	Sanitary sewer	1,000,000	1,500,000	1,000,000	3,900,000
Watertown	Storm sewer	250,000		2,000,000	2,950,000
Watertown	Wastewater treatment			9,000,000	10,000,000
Watertown	Lake Kampeska watershed	60,000			854,850
Webster	Water/sanitary sewer		267,500		535,000
Willow Water, Inc.	Flood control	30,000			67,000
Winner	Main street & drainage rehab	50,000	200,000		950,000
Worthing	Wastewater lagoon	190,000		190,000	760,000
Yale	Water distribution	39,362			65,602
Yankton	Water/sewer	45,000			90,000
Yankton	Sewer interceptor			750,000	854,160
	TOTAL	\$20,607,776	\$13,192,188	\$26,011,037	\$123,331,509

* CWFCP - Consolidated Water Facilities Construction Program
 CDBG - Community Development Block Grant Program
 SRF - State Revolving Fund Loan Program

State Water Resources Management System

The State Water Resources Management System 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 State Water Resources Management System (Table 9) serves as the preferred priority list to accomplish optimum water resources management in the state. Once a project is placed on the list, it remains until it is removed by legislative action.

The Board has recommended (Resolution #94-152) to the State Legislature and Governor that all current projects remain on the list and that no new projects be added.

Table 9

1994 STATE WATER RESOURCES MANAGEMENT SYSTEM

<u>Project</u>	<u>Project Description</u>
Bad River Watershed Project	Rehabilitation of the Bad River watershed
Belle Fourche Irrigation Project	Rehab of Belle Fourche Project
Big Sioux Flood Control Study	Watertown Flood Control Dam
Black Hills Hydrology & Water Management Study	Study of the Black Hills water resources
Brennan Reservoir	Management of water flows in Rapid Creek
CENDAK Irrigation Project	Irrigation project in central SD
Fall River County Rural Water System	Proposed rural water system in Fall River County
Gregory County Rural Water System	Multi purpose water utilization
James River Improvement Program	Watershed and channel improvement projects
Lake Andes-Wagner/Marty II Irrigation Unit	Irrigation in Charles Mix County
Lewis & Clark Rural Water System	Supplemental water supply system in southeastern SD
Mid-Dakota Rural Water System	Proposed rural water system in central SD
Mni Wiconi Rural Water System	Proposed rural water system in western SD
Perkins County Rural Water System	Proposed rural water system in northwestern 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 study on Vermillion River

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 Ft. Pierre. The Bad River annually delivers about 3.25 million tons of sediment to Lake Sharpe, primarily from eroding gullies and stream banks in grazing lands.

- The sediment negatively impacts fishing and other recreation in the Pierre-Ft. Pierre area. Sediment deposits also cause flooding in the Pierre-Ft. Pierre area during winter peak power releases from the Oahe Dam when ice cover restricts downstream flow. To reduce flooding, power generation from the Oahe dam must be reduced during the coldest days of the year. Estimated economic losses from decreased power and recreation are about \$13 million annually.
- The U.S. Army Corps of Engineers has proposed building levees in the Pierre-Ft. Pierre area to allow greater releases from the Oahe Dam to generate more power. Local interests believe that a combination of watershed treatment and localized dredging in Lake Sharpe is a more acceptable and effective solution than levees.

Belle Fourche Irrigation Project - 1981

- The original Belle Fourche Irrigation project was authorized by Congress in 1904 and completed in 1914 to deliver irrigation water to 57,000 acres in Butte County.
- Congress authorized a \$42 million rehabilitation project in 1983 to reduce operation and maintenance costs, conserve water, provide safety features, lessen the risk of system failure, reclaim agricultural lands affected by seepage losses, and protect the economic welfare of the area.
- Congress amended the federal authorization in 1994 to raise the construction ceiling by \$14.5 million. The amendment language provided for a federal cost share of \$10.5 million and a state cost share of \$4.0 million.
- The project has received \$51.9 million in federal appropriations through FFY 1995.

Big Sioux Flood Control Study - 1989

- The proposed \$16 million project will provide flood protection for Watertown, Lake Kampeska, and Pelican Lake through the construction of a dry dam on the Big Sioux River at the Mahoney Creek site.
- A feasibility study was initiated in 1988 by the Corps of Engineers in cooperation with the City of Watertown, East Dakota Water Development District, Codington County, Lake Kampeska Water Project District, and the 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 in Watertown to present the

findings of the feasibility report and to gather comments from the public and governmental agencies.

Black Hills Hydrology and Water Management Study - 1982

- The Hydrology Study will compile the water resource data necessary to make informed management decisions concerning the development of water resources in the Black Hills area related to the expansion of mining, municipal, recreational, and urban water development needs. The U.S. Geological Survey has provided a total of \$1,524,000 to establish the hydrologic monitoring system and collect data.
- The Water Management Study will provide local project sponsors with tools to assist them in making water development and management decisions. Data gathered during the Hydrology Study will be utilized in the Water Management Study. Congress appropriated funds in FFY 1991 to initiate a federal Black Hills Water Management Study by the Bureau of Reclamation. Federal appropriations total \$625,000 through FFY 1995.
- A Black Hills Hydrology Steering Committee was established in 1991 to provide local input into the development of the hydrology and water management studies. Membership is comprised of individuals from the Black Hills and from adjacent areas in Wyoming.
- State legislative appropriations to the project sponsors total \$550,000 from 1988 through 1994. The Department of Environment and Natural Resources received \$355,000 in state legislative appropriations to drill monitoring wells and establish and operate a stream gauging system to assist the hydrologic evaluations.

Brennan Reservoir - 1991

- The proposed Brennan Reservoir would be located on Dry Creek nine miles southeast of Rapid City to store unused Rapid Creek flows and winter releases from Pactola Reservoir for beneficial use. Additionally, limited flood protection may be achieved through the diversion of storm flows into the reservoir.
- Water stored in Brennan could also be used to irrigate about 5,000 acres located in the Rapid Valley Water Conservancy District. This would meet more than half of the current demands for the Rapid Valley District.
- The 1990 State Legislature provided \$25,000 to assist local sponsors in an engineering study of the Brennan Reservoir site. The Brennan Reservoir Preliminary Project Plan report was completed in July 1992. The Legislature provided \$25,000 in 1993 to conduct additional Brennan Reservoir studies.

CENDAK Irrigation Project - 1982

- This irrigation project is to supply Missouri River water to 474,000 acres in Hughes, Hyde, Hand, Spink, Beadle, and Faulk Counties in central South Dakota. No activity occurred on the project in 1994. South Dakota will pursue development of the project when federal policies are more supportive of large-scale irrigation projects.

Fall River County Rural Water System - 1991

- The proposed \$4.4 million Fall River Rural Water System will provide quality Madison aquifer water to a service area covering the eastern half of the county. A history of poor water quality and droughts have left local residents without a satisfactory water supply for home use and livestock watering.
- State legislative appropriations to the project include a \$50,000 grant in 1992 for planning and a \$500,000 grant in 1993 for construction. The 1993 State Legislature authorized construction of the project.

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 issued to the Board the preliminary permit for development of the project. The state's preliminary permit expired in August 1991.
- Water Supply Component - The project has potential to provide water for irrigation and municipal, rural, and industrial purposes utilizing the hydroelectric project's upper forebay as a water supply source. Reclamation completed a Special Report on the Gregory Unit of the Pick-Sloan Missouri Basin Program, South Dakota in 1992.

James River Improvement Program - 1984

- This program has been designed to provide flood control as well as municipal, industrial, agricultural, recreational, and wildlife benefits.
- In 1986 federal legislation (P.L. 99-662) authorized \$20.0 million for flood control and stream flow improvements. A draft Environmental Impact Statement was completed in 1987.
- The James River Water Development District (the District) has completed a significant number of improvement projects. Improvement projects have included 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 projects.

- A Corps of Engineers' 1989 reconnaissance report established federal interest in conducting feasibility studies for flood protection in the lower Elm River/Moccasin Creek basins and the Dry Run Creek basin. Project funding has been provided to assist the City of Aberdeen and Brown County in meeting cost share requirements for a Corps of Engineers' flood control feasibility study.
- State legislative appropriations have totaled \$1.1 million through 1994. These funds have been utilized by the district for restoration and study activities.

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 located in Charles-Mix County (PL 102-575). Estimated construction costs are \$175.0 million and \$24.0 million, respectively.
- In 1992, the State Legislature authorized the construction of the Lake Andes-Wagner/Marty II project and provided a state cost share commitment of \$7.0 million. Both the state and federal project authorizations are contingent upon the successful completion of the research demonstration program. The research program is a 10 year, \$30.0 million effort.
- The 5,000 acre research demonstration program is designed to determine best management practices for irrigating glacial till soils containing selenium which will protect the environment from potential contamination. The federal government has appropriated \$250,000 for FFY 1995 for the research program.

Lewis and Clark Rural Water System - 1989

- The proposed Lewis and Clark RWS 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. The 1993 feasibility report details the project design, construction budget, water conservation plan, project alternatives evaluation, proposed funding package, and a wetland and wildlife enhancement plan.
- South Dakota membership includes eight communities and three rural water systems. About 133,000 South Dakotans would receive water from Lewis and Clark. State legislative appropriations have totaled \$500,000 to support development of Lewis and Clark.

- The 1993 State Legislature authorized construction of \$200.0 million of Lewis and Clark's South Dakota project features and authorized the Governor and local project sponsors to negotiate a nonfederal matching agreement with Congress. The state's cost share may not exceed 50 percent of the nonfederal match requirement.
- 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.
- Congress provided \$350,000 for the Bureau of Reclamation's technical assistance to the feasibility study and project development.
- On May 3, 1994, Lewis and Clark submitted legislation to Congress to become a federally authorized rural water system. The U.S. Senate conducted a hearing on the proposed Lewis and Clark project on June 28, 1994.

Mid-Dakota Rural Water System - 1988

- Mid-Dakota is a federally authorized (P L 102-575) rural domestic water system which will provide high quality Missouri River water to 30,000 people in Beadle, Buffalo, Hand, Hughes, Hyde, Jerauld, Potter, Sanborn, Sully, and small portions of Spink, Kingsbury, and Aurora Counties. The cost sharing provisions provide for \$85.0 million in federal grants, \$15.0 million in federal treasury rate loans, and \$8.4 million in state funding.
- The 1992 State Legislature authorized the construction of a \$108.4 million Mid-Dakota project and provided a state cost share commitment of \$8.4 million. Mid-Dakota has received state appropriations totaling \$5.4 million from 1988 through 1994.
- The Mid-Dakota project completed a successful sign-up process in 1993 with 2,400 rural sign-ups generating \$1.2 million in hook-up fees. Negotiation of municipal and special users agreements is on schedule.
- Mid-Dakota awarded the initial construction contracts in the fall of 1994 for the Oahe reservoir intake facility and the Oahe water treatment plant. Construction of the \$3.9 million intake facility was initiated in the fall of 1994, and it is scheduled to be completed in June 1996. The \$9.9 million water treatment plant is projected to be in service by April 1997.

Mni Wiconi Rural Water System - 1989

- P.L. 100-516, as amended in 1994, authorizes a \$260.0 million federal project to provide high quality Missouri River water to 50,000 western South Dakota

citizens in a ten county area extending south and west of Ft. 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. Approximately \$200.0 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. is the non-Indian distribution component. The cost share for construction costs allocated to the West River/Lyman-Jones system is 80% federal and 20% nonfederal. West River/Lyman-Jones is responsible for its operation and maintenance costs.
- The 1992 State Legislature authorized the construction of the Mni Wiconi project and approved a state cost share commitment of \$12.25 million in loans to provide the entire nonfederal match requirement. To date, more than \$3.5 million in state loans have been authorized by the State Legislature.
- Federal appropriations for planning and construction activities totaled \$19.2 million through FFY 1994. Congress approved FFY 1995 appropriation levels of \$14.5 million for construction and \$492,000 for operation and maintenance.
- In June 1993, the Oglala Sioux Water Supply System initiated construction of advanced features in the White Clay and Wakpamni districts of the Pine Ridge reservation. Construction of core system facilities is scheduled to be initiated in the fall of 1995.
- West River/Lyman-Jones initiated construction of the Creighton area system in October 1993 and Elbon area system in June 1994. Constructed facilities include over 400 miles of distribution pipeline serving 230 hookups and the Badlands National Park, an elevated storage tank, a ground storage tank, and a well producing 300 gallons per minute.

Perkins County Rural Water System - 1993

- The proposed Perkins County Rural Water System would provide quality drinking water to the communities of Lemmon, Bison, and Lodgepole. Additionally, the system would provide 185 rural users with domestic and livestock water needs.
- A feasibility study identified the preferred alternative as hooking up with the Southwest Pipeline Project in North Dakota.

- State legislative appropriations to the project included \$50,000 in 1993 and \$50,000 in 1994 for planning and feasibility study purposes.

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 action occurred on this project in 1994 and future activities are uncertain.

Sioux Falls Flood Control Project - 1989

- The proposed \$30 million project will provide the City of Sioux Falls with 100-year protection from flooding on the Big Sioux River and Skunk Creek through modification of current flood control features.
- The existing flood control features were constructed by the Corps of Engineers in 1965 and provide 30-year flood protection on the Big Sioux River and 20-year protection on Skunk Creek.
- Federal appropriations for Corps of Engineers project planning total \$1.2 million. The state provided \$170,000 for cost share on the feasibility report.
- The draft feasibility report was completed in June 1993 and a public hearing was held in August 1993.
- State authorization of the project was approved in 1992 including a state cost share commitment of \$4.55 million in grants.
- Construction is projected to begin in FY 1997. The federal government will provide a maximum contribution of 75 percent of the total project costs assigned to flood control.

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 purpose of the project is to store Big Sioux River waters for municipal use by the City of Sioux Falls and for recreation and fish and wildlife activities. No significant action took place on the project in 1994.

Vermillion Basin Flood Control Project - 1987

- The project objective is to address the severe flooding problems in the Vermillion River Basin. The basin is about 120 miles long, 20 miles wide and covers about 2,185 square miles.
- The 1988 State Legislature provided \$50,000 to study the feasibility of flood control structures. Federal appropriations totaling \$362,000 were secured.
- The Corps of Engineers Vermillion basin flood control reconnaissance report was completed in July 1993 and did not identify a feasible federal project. The project sponsors are re-evaluating 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 June 1994, more than 70 technical experts met to develop a multi-objective plan to reduce the impacts of flooding in the Vermillion River Basin. The National Park Service compiled the group's issues and suggestions and formulated a multi-objective hazard mitigation management plan.

**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
WATER AND ENVIRONMENT FUND
CONDITION STATEMENT
For the Fiscal Year Ended June 30, 1994**

Investment Interest	\$431,654
Loan Repayments - Interest	\$110,470
Groundwater Protection Fees	\$448,505
Solid Waste Fees	\$1,349,263
Dredge Sale	\$170,554
Contractor's Excise Tax	<u>\$61,815</u>
TOTAL REVENUE	\$2,572,261
EXPENDITURES:	
Legislative Line Items:	
James River Restoration R-95	\$37,045
Big Sioux Flood Cntr. Wtr. R-95	\$20,676
Mid Dakota R-96	\$348,139
Lewis & Clark RWS R-96	\$95,991
Black Hills Hydro R-96	\$25,000
Fall River RWS R-96	\$15,963
Black Hills Hydro R-97	\$75,000
Perkins Co. RWS R-97	\$45,290
GW Monitoring R-98	\$11,562
Consolidated Program	\$1,498,110
Groundwater Protection Grants	\$592,418
Solid Waste Mngt. Grants	\$671,779
Solid Waste 10% Sec.	<u>\$104,626</u>
TOTAL EXPENDITURES	\$3,541,599
OTHER FINANCING SOURCES (USES):	
Capital Construction Fund	\$6,499,960
Reimbursement from Westport for Grant Overpayment	<u>\$1,000</u>
TOTAL OTHER FINANCING SOURCES (USES):	\$6,500,960
EXCESS OF REVENUE AND OTHER FINANCING SOURCES OVER (UNDER) EXPENDITURES AND OTHER FINANCING USES.	\$5,531,622

INCREASE (DECREASE) IN FUND BALANCE RESERVES:

Reserve for Appropriations	
Consolidated Projects - 94 Appropriation	(\$6,300,000)
Mid Dakota RWS - 94 Appropriation	(\$1,000,000)
Mni Wiconi RWS - 94 Appropriation	(\$1,000,000)
Lewis & Clark - 94 Appropriation	(\$125,000)
James River Restoration - 94 Appropriation	(\$120,000)
GW Monitoring Network - 94 Appropriation	(\$100,000)
Hydrologic and Wtr. Mngt. BH - 94 Appropriation	(\$100,000)
Lake Andes - Wagner/Marty II - 94 Appropriation	(\$75,000)
Perkins Co. SW Pipeline RWS - 94 Appropriation	(\$50,000)
GW Monitoring Network - 94 Appropriation	(\$250,000)
Solid Wst. Management Program	(\$1,150,000)
Consolidated Program Reversions	\$44,598
Legislative Line Item Reversions	\$2,626
Solid Waste Mngt. Reversions	\$512
Legislative Line Item - this Fiscal Year Expenditures	\$674,666
Consolidated Projects - this Fiscal Year Expenditures	\$1,498,110
Construction/Study Loans	\$0
Solid Waste Management Program Expenditures	\$776,405
Reserve for Loans Receivable	(\$719,023)
Groundwater Protection Fund	\$385,272
Beginning Fund Balance	(\$6,301,944)
Ending Fund Balance	(\$8,377,156)

Funding for 94 Appropriation will be received in 1995, which explains the large negative fund balance.

**WATER AND ENVIRONMENT FUND
BALANCE SHEET
For the Fiscal Year Ended June 30, 1994**

ASSETS:

Cash	\$11,503,600
Loans Receivable - Current Portion	\$2,269,067
Loans Receivable - Long Term	\$3,350,651
Loans Receivable Westport	\$1,000
Accounts Receivable	<u>\$1,010,541</u>
TOTAL ASSETS	<u>\$18,134,859</u>
LIABILITIES:	
Accounts Payable	\$1,145,895
FUND BALANCE:	
Reserved for Appropriations	\$22,015,000
Reserved for Long Term Loans Receivable	\$3,351,120
Unreserved	<u>(\$8,377,156)</u>
TOTAL LIABILITIES AND FUND BALANCE	<u>\$18,134,859</u>

Appendix A

Board of Water and Natural Resources Resolutions

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 142

REQUESTING THE LEGISLATURE TO AUTHORIZE THE BAD RIVER WATERSHED PROJECT AND TO AUTHORIZE THE STATE COST SHARE OF \$875,000 FOR THE BAD RIVER WATERSHED PROJECT.

WHEREAS, the Bad River Watershed Project is a proposed watershed improvement project to decrease the amount of sediment flowing into Lake Sharpe; and,

WHEREAS, in 1994 the Bad River Watershed Project was made a part of the State Water Resources Management System; and,

WHEREAS, the estimated total cost of the project is \$24.2 million, \$875,000 of which is the state of South Dakota's portion of the nonfederal cost share requirement; and,

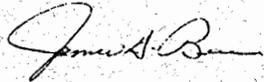
WHEREAS, the Board of Water and Natural Resources finds the Bad River Watershed Project to be a necessary project, meeting an important public need in reducing the sediment flow into Lake Sharpe.

NOW THEREFORE BE IT RESOLVED BY THE BOARD, that pursuant to the provisions of SDCL 46A-1-11, the Legislature is hereby requested to authorize the Bad River Watershed Project; and,

IT IS FURTHER RESOLVED, that pursuant to the provisions of SDCL 46A-1-13, the Legislature is hereby requested to authorize from the South Dakota Water and Environment Fund a grant of \$875,000, or so much thereof as may be necessary, to provide the state of South Dakota's portion of nonfederal cost share requirement.

Dated this 10th day of November, 1994

(SEAL)



Chairman, Board of Water
and Natural Resources

ATTEST:

Dale Kennedy
Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 143

REQUESTING THE LEGISLATURE TO AUTHORIZE THE CONSTRUCTION OF THE BELLE FOURCHE IRRIGATION REHABILITATION PROJECT AND TO AUTHORIZE THE STATE COST SHARE OF \$4 MILLION FOR THE REHABILITATION OF THE CRITICAL PROJECT FEATURES OF THE BELLE FOURCHE IRRIGATION PROJECT.

WHEREAS, in 1981 the Belle Fourche Irrigation Project was made a part of the State Water Resources Management System; and,

WHEREAS, the Belle Fourche Irrigation Project was reauthorized as a Unit of the Pick-Sloan Missouri Basin Program under Public Law 98-157 for the rehabilitation and betterment of the irrigation facilities and for recreation, fish and wildlife measures; and,

WHEREAS, Public Law 98-157 was amended in 1994 to expand the scope of the Belle Fourche Irrigation Rehabilitation project; and,

WHEREAS, the estimated total cost of the rehabilitation efforts is \$14.5 million, of which the federal share of the activities cost is \$10.5 million and the state of South Dakota's share is \$4 million; and,

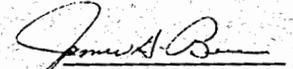
WHEREAS, the Board finds the Belle Fourche Irrigation Project to be a necessary project, meeting an important public need by completing the critical project rehabilitation work, providing safety and water conservation, as well as fish, wildlife, and environmental benefits.

NOW THEREFORE BE IT RESOLVED BY THE BOARD, that pursuant to the provisions of SDCL 46A-1-11, the Legislature is hereby requested to authorize construction of the Belle Fourche Irrigation Rehabilitation Project; and,

IT IS FURTHER RESOLVED, that pursuant to the provisions of SDCL 46A-1-13, the Legislature is hereby requested to authorize from the South Dakota Water and Environment Fund \$4 million in funding assistance, or so much thereof as may be necessary, to provide the State of South Dakota's portion of nonfederal cost share requirements.

Dated this 10th day of November, 1994.

(SEAL)


Chairman, Board of Water
and Natural Resources

ATTEST:

Dale Kennedy
Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 144

REQUESTING THE LEGISLATURE AMEND THE STATE CONSTRUCTION AUTHORIZATION OF THE FALL RIVER COUNTY RURAL WATER SYSTEM PROJECT REVISING THE PROJECT COST ESTIMATE AND INCREASING THE STATE COST SHARE COMMITMENT TO \$800,000 FROM \$500,000.

WHEREAS, in 1991 the Fall River County Rural Water System was made a part of the State Water Resources Management System; and,

WHEREAS, the 1993 State Legislature authorized the construction of a six million five hundred thousand dollar (\$6,500,000) Fall River County Rural Water System project for the purposes of providing safe and adequate municipal, rural and industrial water supplies in Fall River county; and,

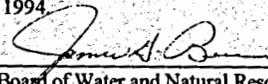
WHEREAS, the revised cost estimates for the Fall River County Rural Water System based on signed water user service agreements provide for a four million four hundred thousand dollar (\$4,400,000) project; and,

WHEREAS, the Farmers Home Administration has indicated eligibility for submittal of an application for grant and loan funding; and,

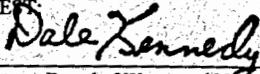
WHEREAS, the local project sponsors have requested an additional \$300,000 from the State of South Dakota to provide the necessary cost share commitment for the Farmers Home Administration application.

NOW THEREFORE BE IT RESOLVED BY THE BOARD, that the Legislature is hereby requested to amend Session Law 1993, chapter 48, section 42 to provide a total State grant commitment in the amount of eight hundred thousand (\$800,000) from the Water and Environment Fund.

Dated this 10th day of November, 1994.


Chairman, Board of Water and Natural Resources

(SEAL)

ATTEST:

Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 145

REQUESTING THE LEGISLATURE AMEND THE STATE CONSTRUCTION AUTHORIZATION OF THE MNI WICONI RURAL WATER SYSTEM PROJECT TO REFLECT THE ADJUSTMENTS MADE IN THE PROJECT BY THE UNITED STATES CONGRESS THROUGH PASSAGE OF THE MNI WICONI ACT AMENDMENTS OF 1994.

WHEREAS, in 1989 the Mni Wiconi Rural Water System was made a part of the State Water Resources Management System; and,

WHEREAS, the 1992 State Legislature authorized the construction of a one hundred million dollar (\$100,000,000) Mni Wiconi Rural Water System project for the purpose of providing high quality Missouri River water to 20,000 people on the Pine Ridge Indian Reservation and in the counties of Stanley, Haakon, Lyman, Jones, Jackson, Mellette, and Pennington; and,

WHEREAS, the Mni Wiconi Rural Water Supply Project Final Engineering Report dated May 21, 1993 detailed a preferred alternative two hundred sixty-three million two hundred forty-one thousand dollar (\$263,241,000) project meeting the full water supply requirements of the authorized service areas and expanding the project to meet the water supply requirements of the Rosebud Indian Reservation and the Lower Brule Indian Reservation; and,

WHEREAS, the 103rd Congress 2nd Session approved legislation amending the Mni Wiconi Authorization (Public Law 100-516) to incorporate the provisions of the Final Engineering Report's preferred alternative; and,

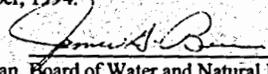
WHEREAS, the amended project will provide water supplies for 50,000 people on the Pine Ridge Indian Reservation, the Rosebud Indian Reservation, the Lower Brule Indian Reservation, and in the counties of Stanley, Haakon, Lyman, Jones, Jackson, Mellette, and Pennington; and,

WHEREAS, the Mni Wiconi Act amendments of 1994 adjust the cost sharing provision for the West River/Lyman-Jones Rural Water Systems components to 80% federal and 20% nonfederal; and,

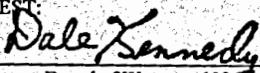
WHEREAS, the amended cost sharing provision decreases the nonfederal cost share commitment to twelve million nine hundred one thousand eight hundred dollars (\$12,901,800) from fourteen million five hundred ninety-three thousand (\$14,593,000) in October 1992 dollars.

NOW THEREFORE BE IT RESOLVED BY THE BOARD, that the Legislature is hereby requested to amend Session Law 1992, chapter 254, section 13 to reflect the expanded project scope and the revised cost share commitment from the Water and Environment Fund.

Dated this 10th day of November, 1994.


Chairman, Board of Water and Natural Resources

(SEAL)

ATTEST:

Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 146

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR THE BOARD'S RECOMMENDATIONS FOR WATER AND ENVIRONMENT FUND FISCAL YEAR 1996 EXPENDITURE AUTHORIZATION 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 State Legislature and Governor 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 which are 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 Legislature; and,

WHEREAS, the Board has reviewed the State Water Plan applications of the projects currently on the State Water Facilities Plan; and,

WHEREAS, the Board has reviewed the Projected Funding Need forms submitted by projects on the State Water Resources Management System; and,

WHEREAS, the Board has conducted a public meeting on November 9, 1994 to take the statements of all interested parties regarding water development funding needs.

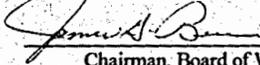
NOW THEREFORE BE IT RESOLVED, that the Board recommends to the State Legislature and Governor the following Water and Environment Fund fiscal year 1996 line-item expenditure authorization levels for projects on the State Water Resources Management System:

Bad River Water Quality Project	\$ 87,500
Belle Fourche Irrigation Project	1,000,000
Black Hills Hydrology and Water Management Study	260,000
James River Improvement Program	75,000
Lake Andes-Wagner/Marty II Irrigation Unit	75,000
Lewis & Clark Rural Water System	75,000
Mid-Dakota Rural Water System	1,000,000
Mni Wiconi Rural Water System	1,800,000
Sioux Falls Flood Control Project	300,000
SWRMS TOTAL	\$ 4,672,500

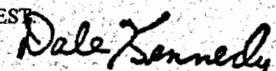
IT IS FURTHER RESOLVED, that the Board recommends to the State Legislature and Governor the Water and Environment Fund fiscal year 1996 expenditure authorization level of \$3,500,000 for the Consolidated Water Facilities Construction Program; and,

IT IS FURTHER RESOLVED, that the Board recommends to the State Legislature and Governor the Water and Environment Fund fiscal year 1996 expenditure authorization level of \$1,150,000 for the Solid Waste Management Grant Program.

Dated this 10th day of November, 1994,


Chairman, Board of Water and
Natural Resources

(SEAL)

ATTEST

Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 152

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR THE BOARD'S RECOMMENDATIONS FOR THE STATE WATER RESOURCES MANAGEMENT SYSTEM COMPONENT OF THE STATE WATER PLAN AND RECOMMENDATIONS REGARDING STATE GENERAL FUND SUPPORT FOR STATE AGENCY WATER RESOURCE PROJECTS.

WHEREAS, the Board of Water and Natural Resources (the Board) pursuant 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, the Board pursuant SDCL 46A-1-2 is responsible for placing projects on the State Water Facilities Plan component of the State Water Plan; and,

WHEREAS, the Board has reviewed State Water Plan applications for various water resource projects sponsored by agencies of the State of South Dakota; and,

WHEREAS, the School and Public Lands Dam Safety project provides State cost sharing for the repair of dams owned by the State throughout South Dakota; and,

WHEREAS, the Statewide Abandoned Well Plugging project provides for the plugging of abandoned and forfeited wells pursuant to SDCL 46-6-18 and 46-6-21; and,

WHEREAS, the Statewide Groundwater Quality Monitoring Network project provides for the assessment of the present water quality, the impact of chemicals, and the long-term trends in water quality in twenty-six (26) sensitive aquifers throughout South Dakota; and,

WHEREAS, the Statewide Water Quantity Monitoring Network project provides for the operation of stream gages to monitor the conditions of South Dakota streams and rivers and operation and expansion of the groundwater observation well network for regulatory purposes.

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

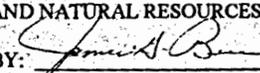
IT IS FURTHER RESOLVED, that the Board recommends to the State Legislature and Governor that the School and Public Lands Dam Safety project, the Statewide Abandoned Well Plugging project, the Statewide Groundwater Quality Monitoring project, and the Statewide Water Quantity Monitoring Network project not be placed on the State Water Resources Management System because they do not meet the definition of a State Water Resources Management System project; and,

IT IS FURTHER RESOLVED, that the Board recommends to the State Legislature and Governor that the School and Public Lands Dam Safety project, the Statewide Abandoned Well Plugging project, the Statewide Groundwater Quality Monitoring project, and the Statewide Water Quantity Monitoring Network project should be supported with State General Funds as responsibilities of the State of South Dakota providing public health, public safety, and regulatory benefits throughout the State; and,

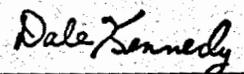
IT IS FURTHER RESOLVED, that the Board shall place the School and Public Lands Dam Safety project and the Statewide Abandoned Well Plugging project on the State Water Facilities Plan and will consider state fiscal year 1996 funding requests from these projects under the Consolidated Water Facilities Construction Program but will not consider future year funding requests for these projects.

Dated this 10th day of November, 1994.

BOARD OF WATER AND NATURAL RESOURCES

BY: 
Chairman, Board of Water
and Natural Resources

(SEAL)

ATTEST 
Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 153

PROVIDING TO THE SOUTH DAKOTA LEGISLATURE AND GOVERNOR THE BOARD'S RECOMMENDATIONS REGARDING STATE GENERAL FUND SUPPORT FOR THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES.

WHEREAS, the South Dakota Department of Environment and Natural Resources (the Department) has prepared a state fiscal year 1996 operating budget recommendation that requires an increase in the administrative fees to be charged on all deposits in the Water and Environment Fund reducing funds to support the Consolidated Water Facilities Construction Program and the State Water Resources Management System projects; and,

WHEREAS, the Department's state fiscal year 1996 operating budget recommendation requires the redirection of the dedicated Solid Waste Tonnage Fee further reducing the Water and Environment Fund deposits to support the Solid Waste Management Program; and,

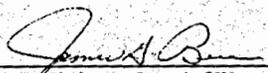
WHEREAS, the Board believes that the funds dedicated to support the projects and programs of the Water and Environment Fund should be used to fund the planning and construction of community water resource projects providing for the enhancement of public health, public safety, economic development, water conservation, watershed management, water supply, wastewater treatment, solid waste management, and groundwater protection; and,

WHEREAS, the Board believes that the technical assistance and regulatory programs of the Department provide public health and public safety benefits to the citizens of South Dakota.

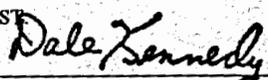
NOW THEREFORE BE IT RESOLVED, that the Board recommends to the State Legislature and Governor that the necessary State General Funds be provided to support staffing of the South Dakota Department of Environment and Natural Resources to provide the required regulatory, public health, and technical assistance to the citizens of South Dakota; and,

IT IS FURTHER RESOLVED, that the Board recommends to the State Legislature and Governor that there be no reduction of the funds currently dedicated to Water and Environment Fund to support water and natural resources projects and programs.

Dated this 10th day of November, 1994.


Chairman, Board of Water and
Natural Resources

(SEAL)

ATTEST

Secretary, Board of Water and Natural Resources

STATE OF SOUTH DAKOTA
BOARD OF WATER AND NATURAL RESOURCES
RESOLUTION # 94 - 156

REQUESTING THE LEGISLATURE TO APPROPRIATE ALL REMAINING MONEY FROM THE Groundwater RESEARCH AND PUBLIC EDUCATION PROGRAM TO THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES FOR THE STATEWIDE Groundwater QUALITY MONITORING NETWORK PROJECT

WHEREAS, the Statewide Groundwater Quality Monitoring Network is an ongoing project which will (1) assess the present water quality, (2) the impact of agricultural chemicals on water, and (3) long-term trends in water quality in sensitive aquifers covering the full expanse of South Dakota; and,

WHEREAS, this long-term monitoring effort will examine groundwater for major ions, nitrate, trace elements, radionuclides, volatile organic compounds, and pesticides, all of which are items important in drinking-water considerations; and,

WHEREAS, the total cost of this project will exceed \$3 million over the next 12 years, approximately \$288,000 of which is currently anticipated to be funded by Federal 319 dollars; and,

WHEREAS, this monitoring effort will benefit municipalities, rural-water systems, private citizens, industry including agriculture, and regulatory programs in the Department of Environment and Natural Resources and the South Dakota Department of Agriculture; and,

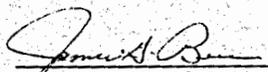
WHEREAS, pursuant to the authority provided in SDCL 46A-1-12 and 46A-1-13, the Board may recommend State funding levels to the Governor and Legislature, and,

WHEREAS, the Department of Environment and Natural Resources believes that this project is one of the top priorities regarding the development and management of South Dakota's water resources.

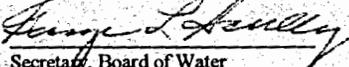
NOW THEREFORE BE IT RESOLVED BY THE BOARD that the Legislature is hereby requested to appropriate all remaining money from the Groundwater Research and Public Education Program to the Department of Environment and Natural Resources for the Statewide Groundwater Quality Monitoring Network Project.

Dated this 14 day of December, 1994

(SEAL)


Chairman, Board of Water
and Natural Resources

ATTEST:


Secretary, Board of Water
and Natural Resources