North Dakota

State Water Commission
and Office of the State Engineer

Biennial Report
for the period July 1, 2011 to June 30, 2013

Governor Jack Dalrymple - Chairman
Todd Sando, P.E. - Chief Engineer-Secretary and State Engineer

North Dakota State Water Commission

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January 1, 2014

Governor Jack Dalrymple
600 East Boulevard Ave.
Bismarck, ND 58505-0001

Secretary of State Al Jaeger
600 East Boulevard Ave.
Bismarck, ND 58505-0001

RE: 2011-2013 Biennial Reports, N.D.C.C. § 54-06-03; N.D.C.C. § 54-06-04; and other applicable law

Dear Governor Dalrymple and Secretary of State Jaeger:

It is with great pride in the State Water Commission and the Office of the State Engineer that we present our biennial report for July 1, 2011, through June 30, 2013. This report highlights key events, accomplishments, and other pertinent activities of the State Water Commission and the Office of the State Engineer during that timeframe for your information and consideration.

Respectfully submitted,

Todd Sando, P.E.
Chief Engineer-Secretary and State Engineer

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North Dakota State Water Commission

MISSION

To improve the quality of life and strengthen the economy of North Dakota by managing the water resources of the state for the benefit of its people.

PHILOSOPHY & VALUES

In the delivery of services to the citizens of North Dakota, we the employees of the State Water Commission and the Office of the State Engineer value fairness, objectivity, accountability, responsiveness, and credibility. We pledge to use professional and scientific methods to maintain only the highest of standards in our delivery of services to our constituents.

AGENCY GOALS

- To regulate the use of water resources for the future welfare and prosperity of the people of North Dakota.
- To develop water resources for the future welfare and prosperity of the people of North Dakota.
- To manage water resources for the future welfare and prosperity of the people of North Dakota.
- To educate the public regarding the nature and occurrence of North Dakota's water resources.
- To collect, manage, and distribute information to facilitate improved management of North Dakota's water resources.
- To conduct research into the processes affecting the hydrologic cycle to improve the management of North Dakota's water resources.

Governor Jack Dalrymple
Chairman

Todd Sando P.E.
Chief Engineer, Secretary
& State Engineer

ORGANIZATION

The State Water Commission (SWC or Commission) consists of the Governor as chairman, the Commissioner of Agriculture as an ex-officio member, and seven members who are appointed by the Governor to serve terms of six years each. The terms of office for appointees are arranged such that two terms and not more than three terms shall expire on the first day of July of each odd numbered year. The Commission appoints a Secretary (the State Engineer) as its executive officer, who employs a staff as needed to carry out the work of the Commission.

The State Water Commission is located primarily in the State Office Building near the State Capitol in Bismarck, North Dakota. In addition, the Commission has field offices in Fargo and near Minnewaukan.

HISTORY AND MANDATES

The Office of the State Engineer was created in 1905 to regulate and administer matters concerning allocation of the state's water and related land resources in compliance with Article XI, § 3 of the North Dakota Constitution, which declares all waters to be property of the state for public use. In 1937, additional duties were added to this office when the State Engineer was designated Chief Engineer and Secretary to the Commission.

The State Water Commission was created by legislative action in 1937, as a result of the drought of the 1930s, for the specific purpose of fostering and promoting water resources development throughout the state.

AGENCY POLICIES

The State Water Commission and the Office of the State Engineer have developed procedures and policies based upon the comprehensive legislation contained in Title 61 of North Dakota's Century Code to:

- Administer the water laws of the state.
- Prepare and maintain a comprehensive plan for future growth and development, and to direct project development in accordance with that plan.
- Conduct studies to determine availability and occurrence of the ground and surface waters of the state for the purpose of allocation and management.
- Assist local entities of government in the development and construction of water resource projects.
- Assist local entities of government in management of water resources.
- Assist in the organization of various legal entities through which water resource projects can be sponsored and operated.
- Administer water information/education programs to enhance understanding of the state's water resources.
- Coordinate with federal, state, and local entities in water resources management and development.
- Represent the interests of the state in water resource matters in national, state, regional, and international forums.

PRINCIPAL AGENCY ACTIVITIES

- Develop Missouri River water in ways that will secure North Dakota's share of Missouri River flows for our current and future needs.
- Implement plans for the distribution of Missouri River water through regional water supply systems such as the Southwest Pipeline Project, Western Area Water Supply Project, and Red River Valley Water Supply Project.
- Manage and develop North Dakota's water resources to facilitate economic development and improve quality of life for current and future generations.
- Promote and provide water supplies needed for the expansion and diversification of North Dakota's agricultural industry.
- Complete detailed studies and research that more precisely defines the nature and occurrence of water to optimize its conservation and development throughout the state.
- Maintain a water management plan to promote efficiency in meeting North Dakota's future water development and funding needs.
- Continue to implement the state's three-pronged approach to solving the Devils Lake area's flooding problems.
- Develop policies and initiatives that will stimulate progress toward developing flood control measures wherever feasible.
- Pursue cooperative efforts with neighboring states and provinces to plan for beneficial water management of shared water resources.
- Cooperate with agencies that have regulatory authority over North Dakota's waters to protect and enhance the quality of North Dakota's water resources and related ecosystems.
- Enforce weather modification standards, conduct research, and supervise operational cloud seeding programs for hail suppression and rainfall enhancement.
- Provide water education for North Dakota's teachers, youth, and general public.
- Promote expanded development of North Dakota's water-based recreation resources.
- Collect water resource data for the purpose of identifying the location, condition, and temporal changes of the water resources of the state.
- Disseminate water resource information to the general public, businesses, and government agencies.
- Manage the water resource database so that it is accessible to interested parties.
- Manage state water resources and sovereign lands within the framework of North Dakota's Century and Administrative Codes.

The Missouri River near Williston.

2013 WATER RESOURCES LEGISLATION

STATE WATER COMMISSION AND STATE ENGINEER

House Bill No. 1015 amended Section 5 of House Bill No. 1020 relating to the Western Area Water Supply Authority (Authority) loan from the Bank of North Dakota: 1) deleting the requirement that the terms and conditions of the loan must be negotiated by the Authority and the Bank of North Dakota, 2) any previous loans may be added to and merged into this loan as agreed to by the Authority and the Bank, and 3) that the Authority may repay the loan from specific project features to provide that the loan must be added to and merged into previous loans as agreed to by the Industrial Commission and the Bank of North Dakota.

House Bill No. 1020 appropriated $827,695,805 to the Water Commission. The bill also appropriated any additional amounts in the Resources Trust Fund and Water Development Trust Fund that become available, subject to Budget Section approval, to the Water Commission. The bill required the Bank of North Dakota to provide a loan of $40 million to the Authority for construction. The bill provided that, except for construction of ring dikes and levees, construction relating to Fargo flood control project components located south of Fargo's extraterritorial zoning jurisdiction, may not begin until after July 1, 2014. The bill provided that funds designated by the 61st, 62nd, and 63rd Legislative Assemblies for Fargo flood control are available only for levee and dike protection until the Fargo Flood Control Project receives federal authorization, a project partnership agreement is executed, a federal appropriation is provided for project construction, and a budget for the Fargo Flood Control Project is approved by the Water Commission. The bill provided that it is the intent of the 63rd Legislative Assembly that the state provide one-half of the local cost-share of constructing a federally authorized Fargo Flood Control Project and that total Fargo Flood Control Project funding to be provided by the state is not to exceed $450 million. The bill provided $100 million for Fargo flood control projects. The bill provided that of the funds appropriated, $11 million is for the Red River Valley Water Supply Project and $60 million is from the Resources Trust Fund to pay off or defease outstanding bond issues. The bill increased the ceiling of the community water facility loan fund from $10 million to $25 million, and expands the source of funding for the fund from future undivided profits of the Bank of North Dakota to include other state funds. The bill expanded the duties of the Water Topics Overview Committee to include preparation of a schedule of priorities with respect to water projects and to study policies regarding the development and financing of municipal projects, including water treatment plants; pipelines, including pipeline expansion, public and industrial use of water, cost analysis of future project development, and ongoing maintenance cost of current and future projects; and technology, including the use of technology for permitting and electronic metering.

House Bill No. 1067 provided that the Water Commission is a state agency rather than a public corporation.

House Bill No. 1206 required the Water Commission to develop and maintain a comprehensive water development plan organized on a river basin perspective, including an inventory of future water projects for budgeting and planning purposes.

House Bill No. 1269 appropriated $10,350,000 from the Resources Trust Fund to the Water Commission to provide grants to advance the Stutsman County Rural Water Project, North Central Rural Water Consortium Project, and the McLean-Sheridan Rural Water Project. The bill also appropriated $21 million from the Resources Trust Fund to the Water Commission to advance construction of the Southwest Pipeline Project. The bill became effective February 19, 2013.

Senate Bill No. 2053 authorized the Water Commission to sell property acquired for the Northwest Area Water Supply Project that is no longer necessary for project purposes.

Senate Bill No. 2233 Requires the Water Topics Overview Committee to review water supply routes and alternatives for the Red River Valley Water Supply Project during the 2013-14 interim. The bill provided a declaration of water policy and goals and objectives for water project development; the Mouse River Enhanced Flood Control Project; the Lower Heart River, Morton County, Enhanced Flood Control Project; the Southwest Pipeline Project; the Garrison Diversion Unit; and the Fargo-Moorhead Flood Control Project. The bill established an infrastructure revolving loan fund within the Resources Trust Fund to provide loans for water supply,

flood protection, or other water development and water management projects. Ten percent of oil extraction moneys deposited in the Resources Trust Fund is to be made available on a continuing basis for making loans from the fund. The bill provided a schedule for how industrial water depot and lateral revenues received by the Authority are to be applied. The bill required the Authority to develop industrial water depot and lateral retail water rates and to present the rates to the Industrial Commission for approval. The bill requires the Authority to follow Water Commission requirements for funding through the Resources Trust Fund or Bank of North Dakota state-guaranteed loans. The bill changed the Authority default provisions to provide that the Industrial Water Commission may review the ability of water depot and lateral sales to meet expenses of the Authority and if the Industrial Commission is uncertain of that ability, it is required to provide written notification to the Water Commission and direct the Bank of North Dakota to consider revision of the terms of the loan repayments.

APPROPRIATION OF WATER

House Bill No. 1061 increased the penalty for misappropriation of water, except for irrigation appropriation permits, from $5,000 for each day of violation to $25,000 for each day of violation. The bill required the State Engineer to inform the Tax Commissioner of violations of industrial use permits. The bill became effective April 24, 2013.

House Bill No. 1063 repealed several redundant and unenforceable sections dealing with water conservation that relate to control of water and wildlife conservation projects and the penalty for draining a meandered lake.

DRAINAGE PROJECTS

House Bill No. 1062 deleted the provision that a person aggrieved by action of a water resource board involving a noncompliant dike, dam, or other device, or noncomplying drain may appeal the decision to the district court of the county in which the land is located and that a hearing is not a prerequisite to an appeal.

Senate Bill No. 2051 provided that if a water resource board fails to respond within 45 days after a permit to construct or modify a dam, dike, or other device has been forwarded to the board following initial review by the State Engineer, it shall be deemed the board has no changes, conditions, or modifications to the permit.

Senate Bill No. 2052 provided that if a water resource board fails to respond within 45 days after a permit to construct or modify a dam, dike, or other device has been forwarded to the board following initial review by the State Engineer, it shall be deemed the board has no changes, conditions, or modifications to the permit.

Senate Bill No. 2199 increased the allowable assessment for maintenance of federally constructed projects from $2 per acre annually on agricultural land, to $4 per acre. The bill increased the allowable assessment for maintenance of assessment drains from $2 per acre to $4 per acre on agricultural land that carried the highest assessment when the drain was originally established or received the most benefits under a reassessment of benefits and increases the assessment on other agricultural lands from $1 to $4 per acre. The bill also increased the allowable assessment on nonagricultural property from $1 for each $500 of taxable valuation to $92 for each $500 of taxable valuation. The bill provided that if a water resource board determines that a complaint involving removal of an obstruction to a drain is frivolous, the board may assess the cost of the frivolous complaint against the complainant and that following removal of an obstruction to a drain or noncomplying dike or dam, the board may assess its costs against the property of the responsible land owner. The bill increased the allowable levy for cleaning out and repairing a drain from $2 per acre for agricultural land to $4 per acre and increased the allowable assessment on non-agricultural property from $1 to $2 for each $500 of taxable valuation. The bill provided that if, in the discretion of the board, a complaint involving closing a noncompliant drain is frivolous, the board may assess the cost of the frivolous complaint against the complainant. The bill also allowed a water resource board to assess the costs of closing or filling an unauthorized drain against the property of the responsible land owner.

WATER DISTRICTS

House Bill No. 1440 required cities planning to expand water service through annexation to develop a city water service area plan. A city is required to file the plan with the Water Commission and upon filing may proceed with water service to the annexed area. The bill provided a mediation and appeals process if a

water service agreement between a water district and city is not executed within 60 days after the city notifies the district that a city water service area plan has been developed.

MISCELLANEOUS

House Bill No. 1060 revised the composition of the Devils Lake Outlets Management Advisory Committee.

House Bill No. 1177 required weather modification authorities to establish the rate of compensation for commissioners and that actual expenses incurred by commissioners may be reimbursed at the official reimbursement rates of the appointing authority.

Senate Bill No. 2049 changed the name of the Water-Related Topics Overview Committee to the Water Topics Overview Committee and made it a permanent statutory Legislative Management Committee. The bill clarified that a majority of the members of an irrigation board constitutes a quorum for the transaction of business and that a concurrence of at least a majority of the board is necessary on any question requiring a vote. The bill authorized irrigation districts to enter contracts with the Garrison Diversion Conservancy District and clarified that Garrison Diversion irrigation projects must be undertaken under the direction of a registered professional engineer. The bill also extended 2011 legislation authorizing the board of directors of the Garrison Diversion Conservancy District to establish special assessment districts for irrigation works through July 31, 2015.

Senate Bill No. 2308 required the Health Department to administer and enforce a permitting program for septic system servicers. The bill becomes effective July 1, 2014.

Senate Bill No. 2374 changed the filing deadlines for election of directors of the Garrison Diversion Conservancy District, county and city directors of the Southwest Water Authority.

A public meeting of the Devils Lake Outlet Management Advisory Committee in 2012.

LEGAL ACTIONS

Manitoba v. Norton. - Manitoba asserts that the U.S. Bureau of Reclamation (Bureau) violated the National Environmental Policy Act (NEPA) by failing to prepare an Environmental Impact Statement for the Northwest Area Water Supply (NAWS) project. Manitoba is concerned that the project will bring Missouri River basin biota to the Hudson Bay basin, causing harm to the environment. North Dakota intervened in the lawsuit to protect the state's interests. North Dakota, as well as the Bureau, filed motions to dismiss the case on the ground that because the dispute concerns the relations of the United States with another country, and relations governed by a treaty, the judiciary is without jurisdiction over the dispute. The District Court for the District of Columbia rejected the motions. All parties then filed summary judgment motions. The court denied the state's motion and the Bureau's motion, but granted in part Manitoba's motion arguing that NEPA requires the Bureau to complete additional environmental analysis. The Bureau and state appealed this decision to the Court of Appeals for the District of Columbia, but dismissed their appeals after the Bureau decided to go ahead with additional environmental review. That work culminated in an Environmental Impact Statement (EIS) issued in December 2008. After it was issued, the State of Missouri sued the Bureau, raising NEPA claims and a claim under the 1944 Flood Control Act. Missouri's suit was consolidated with Manitoba's (Missouri v. Salazar). The suit has halted project construction on the water supply from Lake Sakakawea, however, other pipeline work connecting northern communities was allowed by the Court to continue.

In March 2010, the Court issued its decision finding that the Bureau did not satisfy its NEPA requirements in two areas, that is, it did not take the required "hard look" at adverse project consequences in Canada and any that might arise with use of Missouri River water. The state filed a motion for reconsideration on the latter issue. The Bureau also filed a motion for reconsideration on the same issue and also seeking clarification on whether the U.S. Army Corps of Engineers (Corps) should still be considered a defendant in the case in light of Missouri's failure to brief its claim regarding the Corps need to permit the project. In March 2010, the Court issued another order, granting the state's motion to allow further work on the project, work that would not compromise ultimate decisions on water treatment. In June 2010, the court issued its order denying the state's motion and the federal government's motion. The Bureau, after some delay, has gotten its Supplemental EIS work underway. In October 2010, the state filed a motion asking the judge to modify the injunction to allow additional work on the Minot water treatment plant and to allow design work on the intake plant at the Missouri River. Manitoba did not oppose the motion, but Missouri opposed that part of it seeking authority to do design work on the intake plant. In October 2010, the Court denied that part of the motion related to the intake plant. The state formally asked the Missouri Attorney General's Office to re-consider its opposition to allowing design work on the intake plant, but it has refused to do so. In March 2013, the court issued an injunction for all further pipeline construction until completion and approval of a full EIS. The Minot treatment plant upgrades were allowed to continue. The Bureau's work on the EIS continues.

Montana v. Wyoming and North Dakota. - Montana alleges that Wyoming violated the terms of the Yellowstone River Compact. North Dakota is a party to the action because it is a party to the Compact. In May 2011, the United States Supreme Court issued its opinion on Montana's first exception to the special master's report. The Court ruled that Montana's increased-efficiency allegation failed to state a claim for breach of the Compact, thereby confirming the special master's earlier ruling.

Over the last biennium, Montana and Wyoming have completed extensive discovery. Several hearings have been held on partial summary judgment motions, and partial summary judgment has been granted for some years that will no longer be at issue in the trial. The case appears to be proceeding to trial in October 2013.

Alvin Peterson v. Office of the State Engineer. - In June 2010, the Office of the State Engineer alleged that Mr. Peterson had an unauthorized dam and ordered its removal. An administrative hearing was held, and the State Engineer adopted the Administrative Law Judge's recommended order requiring Peterson to maintain the dam at 1,543.5 feet mean sea level (feet) and to construct and maintain a channel through or around the dam to allow for overflow. Mr. Peterson appealed the State Engineer's decision to the Walsh County District Court where the State Engineer's order was affirmed in part and reversed in part. Mr. Peterson was required to maintain the dam at 1543.5 feet. Mr. Peterson appealed to the North Dakota Supreme Court and the State Engineer cross-appealed. All briefs have been submitted and oral argument was scheduled for September 2011. The Supreme Court affirmed the State Engineer's Administrative Order 10-4. The State Engineer's office removed the dam on April 24, 2012. Costs for doing the work were awarded by the district court. Execution of judgment was served and money obtained.

Third Party Claim in Pembina County Water Resource District, et al v. Government of Manitoba, et al. against State Water Commission, et al. – Some years ago, the Pembina County Water Resource District and several municipal entities sued the Government of Manitoba, Rural Municipality of Rhineland, Rural Municipality of Montcalm, Rural Municipality of Stanley, and the Town of Emerson, Manitoba over damage caused in North Dakota as a result of the Manitoba border dike. In August 2010, the Rural Municipalities of Rhineland and Stanley filed a third party claim against Pembina County, Cavalier County Water Resource District, the North Dakota State Water Commission, and 30 named individual landowners. The Third Party Claim seeks contribution and indemnity from the third parties for their alleged actions (along with those of the plaintiffs) in increasing the flow of water in the Pembina River, which caused or contributed to the damages claimed by the plaintiffs (Pembina County Water Resource District, city of Pembina, township of Pembina, township of Walhalla, city of Neche, township of Neche, and township of Felson). A claim is also made that the individual third parties constructed dikes along the Pembina River to limit or prevent breakout flows that would naturally occur, resulting in increased flow of water northward. It is further alleged that one or more of the third parties created or acquiesced to the creation of embankments in Pembina County that block the eastward movement of surface water and divert flows northward. Lastly, it is alleged that Pembina County constructed County Road 55 to prevent or limit water overflowing the Pembina River from moving southward. The Third Party Claim alleges that the actions of the third parties have increased water flows and caused or contributed to the flooding and resulting damage complained of by the plaintiffs. A Notice of Motion and associated filings were submitted to the Federal Court – Trial Division in October 2010 for: 1) an Order striking the third party claim filed by the Rural Municipalities of Rhineland and Stanley (the "Municipal Defendants") against the Third Parties (the "Third Party Claim"), without leave to amend, for want of jurisdiction, and for failing to disclose a reasonable cause of action; 2) in the alternative, an Order dismissing the Third Party Claim against Pembina County, Cavalier County Water Resource District, and the Water Commission on the basis of state immunity; 3) in the further alternative, an Order staying the Third Party Claim against the Third Parties on the basis of the doctrine of forum non conveniens. Municipal Defendants filed responses. A hearing on the Motion was held February 2011, and the Third Party Claim against the Water Commission was dismissed. Discovery is continuing in the main case and trial appears likely within the next biennium.

"Administer the water laws of the state."

Ballinger, et. al. v. State Water Commission. – Rocky and Brenda Ballinger, dba Ballinger Rock, Sand & Gravel, alleged approximately $200,000 owed to them for rocks used in the 2009 LaMoure Spillway emergency repairs. The case was settled at mediation.

State Engineer v. Stacy L. Tschider/ Michael D. and Renae L. – Odegaard. - Administrative Orders 12-11 and 12-12 were sent to defendants ordering them to remove fill and other materials placed on sovereign lands. Both parties appealed. An indefinite continuance was granted while additional discovery is conducted. Additionally, the landowners have submitted an application with the Corps for a dredging project that, if approved, would result in settlement of the case.

State Water Commission v. Skipper Cook and Dennis Lunski. – The Water Commission initiated quick-take eminent domain condemnation. Cook/Lunski appealed the value. Trial was held January 15-17, 2013. Mediation resulted in partial settlement of claims. The only remaining issue for trial was the fair market value of the 5.09 acres taken. Successful jury result awarding an additional $9,580 for the taking (Cook/Lunski asking for approximately $1 million).

STATE WATER COMMISSION MEMBERS AS OF JUNE 30, 2013

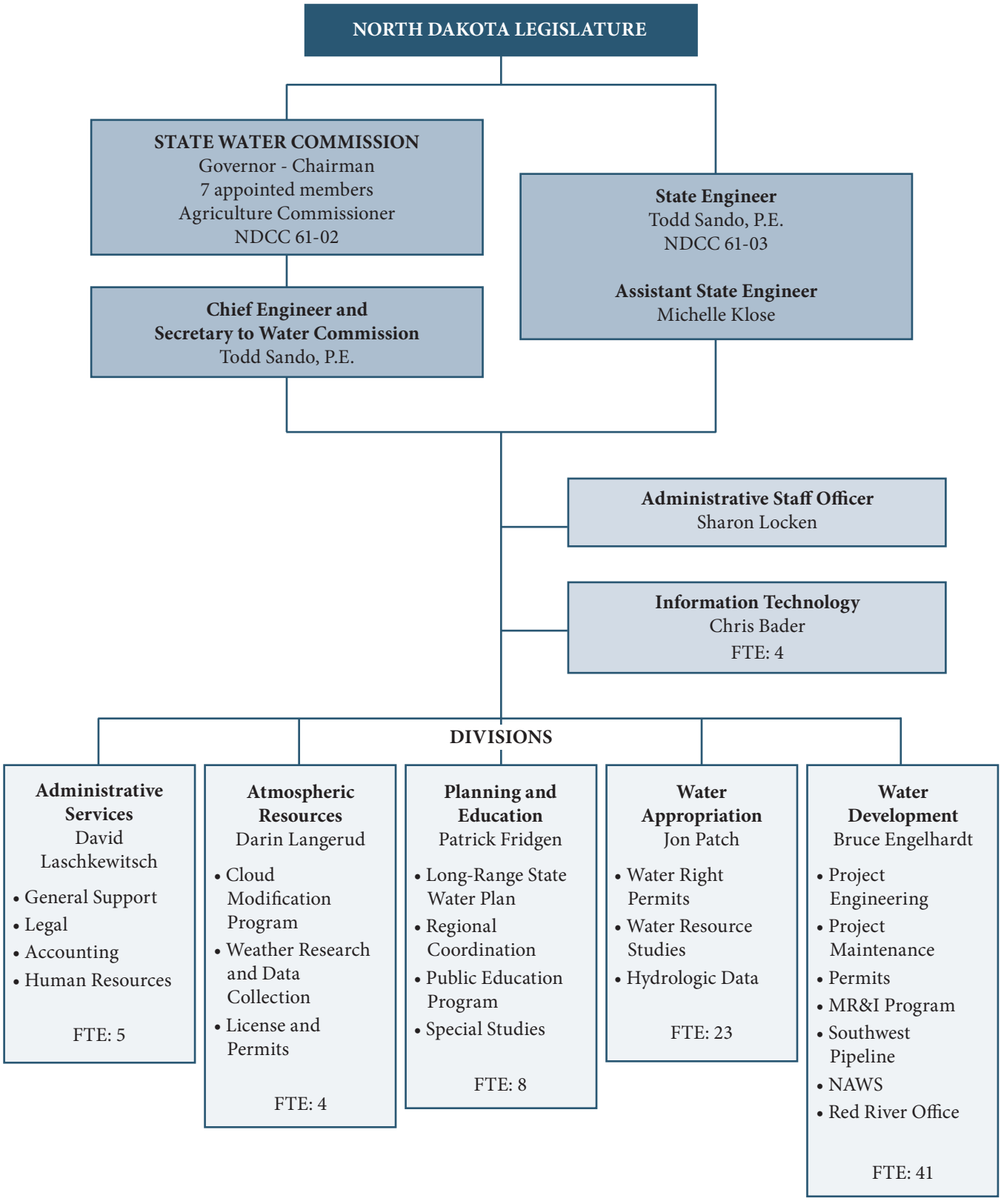
NAME	POSITION	APPOINTED	TERM ENDS
Jack Dalrymple	Governor-Chairman		
Doug Goehring	Department of Agriculture		
Robert Thompson	Member from Page	March 1, 1993	June 30, 2013
Douglas Vosper	Member from Neche	August 15, 2008	June 30, 2013
Jack Olin	Member from Dickinson	March 1, 1993	June 30, 2015
Harley Swenson	Member from Bismarck	March 1, 1993	June 30, 2015
Arne Berg	Member from Starkweather	December 7, 2006	June 30, 2017
Maurice Foley	Member from Minot	December 8, 2006	June 30, 2017
Larry Hanson	Member from Williston	July 1, 1999	June 30, 2017

STATE WATER COMMISSION MEETINGS JULY 1, 2011 THROUGH JUNE 30, 2013

DATE		LOCATION
August 17, 2011	(conference call)	Bismarck
September 7, 2011	(conference call)	Bismarck
September 21, 2011		Bismarck
October 31, 2011		Bismarck
December 7, 2011		Bismarck
December 20, 2011	(conference call)	Bismarck
February 2, 2012	(conference call)	Bismarck
March 7, 2012		Bismarck
March 29, 2012		Bismarck
June 13, 2012		Bismarck
June 20, 2012	(conference call)	Bismarck
July 30, 2012	(conference call)	Bismarck
September 17, 2012		Bismarck
November 27, 2012		Bismarck
December 7, 2012		Bismarck
December 20, 2012	(conference call)	Bismarck
February 15, 2013	(conference call)	Bismarck
February 27, 2013		Bismarck
May 15, 2013	(conference call)	Bismarck
June 19, 2013		Bismarck

NORTH DAKOTA STATE WATER COMMISSION ORGANIZATIONAL CHART

(Total Full Time Equivalents of 88 personnel)



STATE WATER COMMISSION EMPLOYEES AS OF JUNE 30, 2013

ADMINISTRATIVE SERVICES DIVISION

State Engineer: Todd Sando

Assistant State Engineer: Michelle Klose

Administrative Staff Officer: Sharon Locken

Director of Administrative Services: David Laschkewitsch

Account/Budget Specialist: Pam Jahner

Human Resource Officer: John Brintnell

Paralegal: Rosemary Pedersen

Administrative Assistant: Karen Heinert

IT Administrator: Christopher Bader

Data Processing Coordinator: Paul Moen

Data Processing Coordinator: Travis Stramer

GIS Specialist: Rodney Bassler

ATMOSPHERIC RESOURCE BOARD

Division Director: Darin Langerud

Executive Staff Officer: Kelli Schroeder

Environmental Sciences Administrator: Mark Schneider

Environmental Scientist: Daniel Brothers

WATER APPROPRIATION DIVISION

Division Director: Jon Patch

Administrative Assistant: Jackie Klusman

Hydrologist Managers: Royce Cline, Dan Farrell, William Schuh, Alan Wanek, Bob White

Hydrologists: Kimberly Fischer, Michael Ginsbach, Rex Honeyman, Jennifer Morin, Andrew Nygren, Scott Parkin

Water Resource Engineer: Vacant

Water Resource Senior Manager: Michael Hove

Water Resource Project Manager: James MacArthur

Engineering Technicians: Kelvin Kunz, Albert Lachenmeier, Neil Martwick, Dan McDonald

Rotary Drill Operator: Terry Olson

Equipment Operator: Gerry Manderfeld

PLANNING AND EDUCATION DIVISION

Division Director: Patrick Fridgen

Administrative Assistant: Dawn Petersen

Water Resource Education Program Manager: Tina Harding

Water Resource Planners: Steve Best, Linda Weispfenning

Natural Resource Economist: Michael Noone

Planner II: Vacant

Graphic Artist: Sheila Fryer

WATER DEVELOPMENT DIVISION

Division Director: Bruce Engelhardt

Administrative Assistant: Patty Hess

Water Resource Engineer Managers: Kelly Casteel, Erwin Curry, J. Tim Fay, Timothy Freije, Randy Gjestvang, Karen Goff, Jonathan Kelsch, Jeffrey Mattern, David Nyhus, John Paczkowski, Julie Prescott, Sindhuja S. Pillai-Grinolds,

Water Resource Engineers: Laura Ackerman, Aaron Carranza , Dwight Comfort, Waylon Erdmann, Damon Grabow, Matthew Lindsay, James Lindseth, Mitchell Weier

Engineering Technicians: Daniel Bahm, Thomas Banse, Jeffrey Berger, Clint Cogdill , Tom Engberg, Terrence McCann, Chance Nolan, James Ternes

Water Resource Project Managers: Melissa Behm, Gerald Heisler, Laura Horner, Jeffrey Klein

Realty Officer: Roger Kolling

Water Resource Senior Managers: Dale Binstock, Perry Weiner

Maintenance Supervisor: Jeff Trana

Silver Jacket Liaison: Michael Hall

ADMINISTRATIVE SERVICES DIVISION

The Administrative Services Division provides the overall direction of agency powers and duties as described in the state's water laws. The activities include the State Engineer and Water Commission's operations, as well as accounting, information technology, records, and support services for all agency programs.

Budget and fiscal control work is accomplished within the provisions of statutory law and principles or rules of that law. Agency accounting consists of keeping financial records, preparation of financial statements and reports, project or program cost accounting, preparation of budgets, and proper control of various funds appropriated by the state legislature.

A considerable portion of time is spent in coordination of water resource programs with federal agencies and other state and local entities. The division works with contracts and agreements necessary to carry out investigations, planning, and cooperation with various other agencies in water resources development.

A close liaison is maintained with irrigation districts, water resource districts, and the Garrison Diversion Conservancy District.

The State Engineer serves as North Dakota's representative on various boards and associations. Presently the State Engineer is the United States Co-chairman of the International Souris River Board and Chair of the Missouri River Association of States and Tribes. He is on the board of directors for the Red River Basin Commission, Red River Water Resource Council, the Red River Retention Authority, the Upper Missouri Water Users Association, and the North Dakota Water Education Foundation. He also serves as executive council member of the Western States Water Council, member of the National Water Resource Association, board of director's ex-officio member of the North Dakota Water Users Association, and member of the Association of Western States Engineers.

Telemetry installation at the Timber Creek Water Depot in April 2012.

INFORMATION TECHNOLOGY (IT) SECTION

The Water Commission utilizes IT in almost all aspects of water resource management. The primary responsibility of the IT Section, is to provide the technology infrastructure required to support the scientific and regulatory functions, as well as the routine office and back-office automation functions that the agency utilizes to meet its stated mission.

As the demands on the state's water resources continue to grow and evolve, the Water Commission is faced with additional challenges to provide more and better information related to the state's water resources. These challenges continue to place an increasing emphasis on both the spatial and temporal relationships that are inherent to managing water resource systems. In order to address these areas, the agency has developed and deployed additional spatial and graphical tools to address the complex relationships within the water resource data. In many cases, these tools have been integrated directly into the data management applications to address these complexities within the data development and data management processes.

With increasing demands for water related to oil activity in western North Dakota, the Water Commission has faced additional challenges associated with monitoring water withdrawals from both surface and groundwater sources. In an effort to provide more effective capabilities for monitoring water withdrawals in western North Dakota, the Water Commission has deployed SOAP (Simple Object Access Protocol) services for real-time reporting, using available industry telemetry solutions. The service designed by the Water Commission provides a minimal footprint, with limited intrusion into the commercial telemetry software and hardware that are currently

available. Not only does the web services solution provide a simple accessibility, it provides scalability for North Dakota to extend this type of monitoring beyond the limited scope of water withdrawals for oil activity in western North Dakota. The initial implementation was tested at a couple of sites in 2012. As testing was completed, production services were implemented at a few sites in mid-2013. It is likely that utilization of this service will be expanded to include most of the oil-related water depots in western North Dakota by early 2014. As demands for water continue to grow, it is possible that in the future these types of services may be extended to other resource monitoring areas.

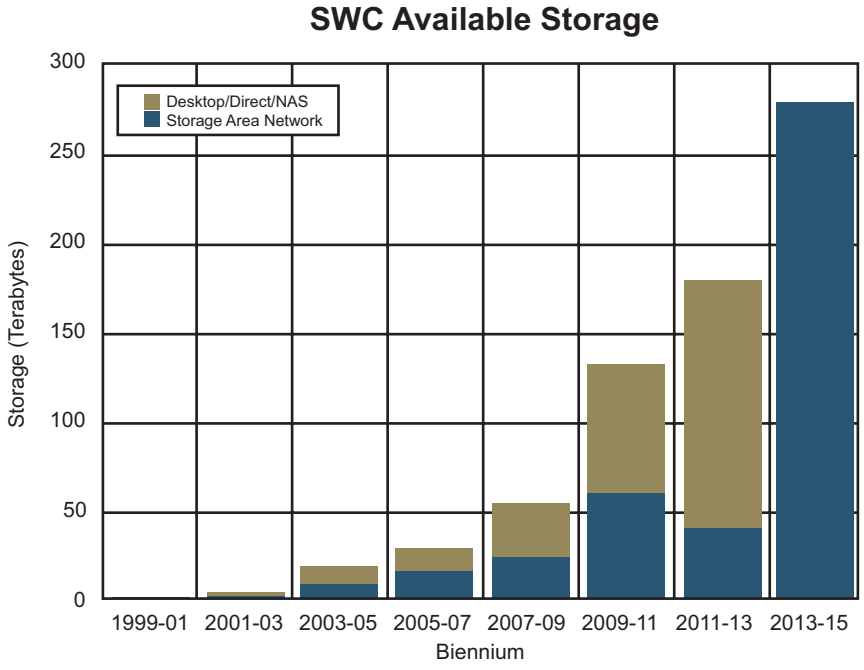
Beyond the basic requirements and demands for better tools and management capabilities, the agency has also been faced with significant demands for additional bandwidth and capacity. As more and more data are collected to support an array of management initiatives, an additional burden is placed on the IT infrastructure to provide the necessary storage, bandwidth, and computational capabilities to store, process, and analyze these data. Increasing demands for aerial imagery and LiDAR data have placed tremendous demands upon the agency infrastructure for data storage, and for the associated tools to maintain and disseminate these data. The SWC storage infrastructure has grown from just under 1 terabyte (TB) in 2002 to over 180 TB in 2013, and is expected to exceed 280 TB by 2015 (See Figure).

In addition to the tools and resources that are used internally, the Water Commission has also leveraged the IT infrastructure to provide complete access to all of the data resources that the agency maintains to the public, through an array of web services. All of the water resource data for North Dakota are made available through the agency web site (http://www.swc.nd.gov). This includes all of the site information that is used for monitoring groundwater resources in the state, which includes subsurface lithology, water levels, water chemistry and associated site information. The agency web site also includes data on precipitation, dams, drains, dikes, and other retention structures that are monitored by the Water Commission.

In addition to the wide range of data resources that are integrated into the agency's web services, the Water Commission maintains a site dedicated to the surveying community that includes more than 2,800 Government Land Office plat maps, along with all of the first and second order benchmarks (http://survey.swc.nd.gov). During the 2011-2013 biennium, the Water Commission developed a map service that was originally designed to address the storage and dissemination of the massive amounts of LiDAR data collected in North Dakota (http://lidar.swc.nd.gov). This site has grown, and now includes LiDAR data from nearly a dozen different projects, which includes approximately 15 TB of raw data.

Data available for public use:

- Government Land Office Plats
- Precipitation and Hail Data
- Survey Horizontal and Vertical Control
- Water Permit Data
- Various Ground-Water Studies
- Drainage Permit Data
- Well and Site Location Data
- Stream Flow Data
- Lithologic Data
- Construction Permit Data
- Water Chemistry Data
- Retention Structure Data
- Water Level Data
- Digital Map Data
- Lidar
- Well Drillers Reports



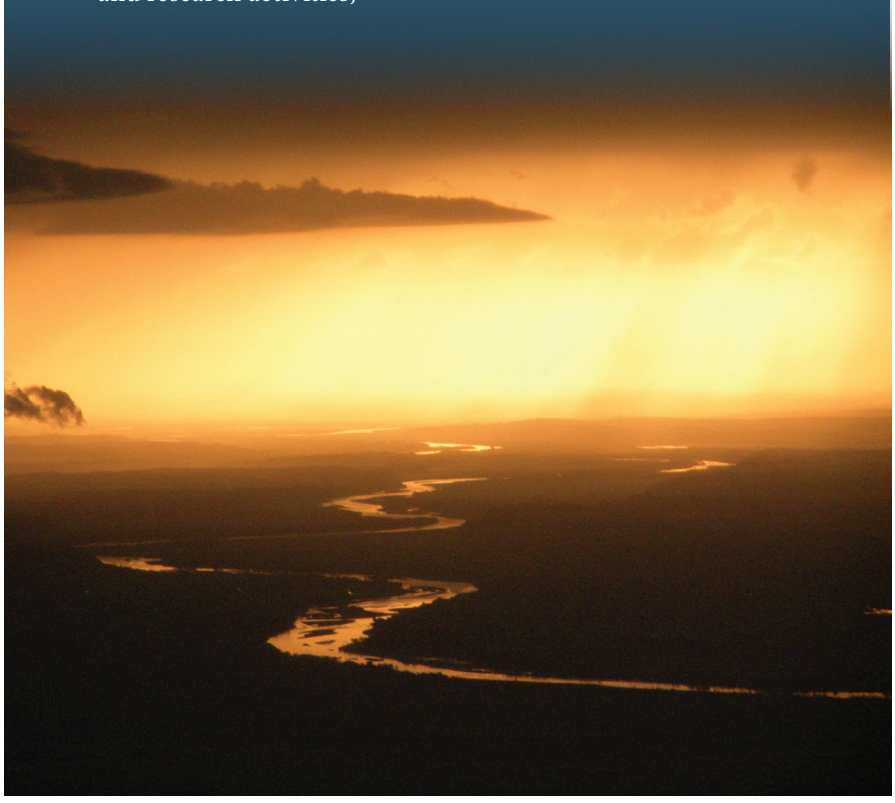
ATMOSPHERIC RESOURCE BOARD

The Atmospheric Resource Board (ARB) is a quasi-judicial, quasi-legislative advisory and rule-making board under the supervision of the Water Commission. ARB is co-located with the Water Commission and functions as one of its divisions.

The ARB is comprised of ten members: Seven are appointed by the Governor, with ex-officio members including the State Engineer, the Director of the State Aeronautics Commission, and a representative of the Environmental Section of the Department of Health.

The primary functions of the ARB are to:

- Carry out administrative procedures required for the licensing of weather modification contractors and the permitting of cloud seeding operations and research activities;
- Develop and maintain a system for the collection of data and records of all operational weather modification activities;
- Conduct research into atmospheric precipitation processes to assess and improve the effectiveness of cloud seeding technology;
- Promulgate rules and regulations governing cloud seeding activities to ensure environmental and public safety;
- Monitor and evaluate cloud seeding activities and report back to sponsoring entities; and
- Monitor, collect, and disseminate accurate precipitation and climate data.



NORTH DAKOTA CLOUD MODIFICATION PROGRAM

The North Dakota Cloud Modification Project (NDCMP) served six western counties during the 2011-2013 biennium. Those counties were Bowman, McKenzie, Mountrail, Ward, Williams, and part of Slope. At the conclusion of the biennium, the project target area covered 6.7 million acres of western North Dakota.

The NDCMP has two goals: 1) suppression of damaging hail; and 2) enhancement of rainfall. Suitable clouds over two multi-county operational districts were treated during June, July, and August of each summer of the biennium. Eight twin-engine aircraft operated by Weather Modification Inc. of Fargo, were deployed under contract to the ARB and participating counties. Operations were directed by project meteorologists from radar operations centers based in Bowman and Stanley.

The most recent evaluations of the program indicate a 45 percent reduction in crop-hail losses, a six percent increase in wheat yields, and up to a 10 percent increase in rainfall.

The direct economic impact of rainfall enhancement from cloud seeding was evaluated by Bangsund and Leistritz (2009) at two intervals, 5 and 10 percent. This range reflects the results of long-term evaluations of cloud seeding on rainfall in the target areas. Under the five percent scenario, the value of increased crop production is estimated to yield $8.4 million annually, while under the 10 percent scenario the value of increased production is estimated to yield $16 million annually.

The analysis of hail reduction or hail suppression shows the average crop value saved through cloud seeding is $3.7 million per year. Including hail suppression benefits, the total direct

impact in the 5 percent rainfall scenario is $12 million annually, while the total direct impact in the 10 percent scenario is $19.7 million. These results yield a benefit-to-cost ratio of 16 to 1 for the 5 percent scenario, and 26 to 1 under the 10 percent scenario.

Under the 5 percent rainfall scenario, total direct impacts from the NDCMP were estimated to average $12 million annually. This additional net revenue would generate secondary economic activity of $25 million annually, resulting in gross business volume of over $37 million, or $15.87 per planted acre.

Under the 10 percent rainfall scenario, total direct impacts from the NDCMP were estimated to average $19.7 million annually. This additional net revenue would generate secondary economic activity of $40.9 million annually, resulting in gross business volume of $60.5 million, or $25.89 per planted acre.

WEATHER RADAR OPERATIONS

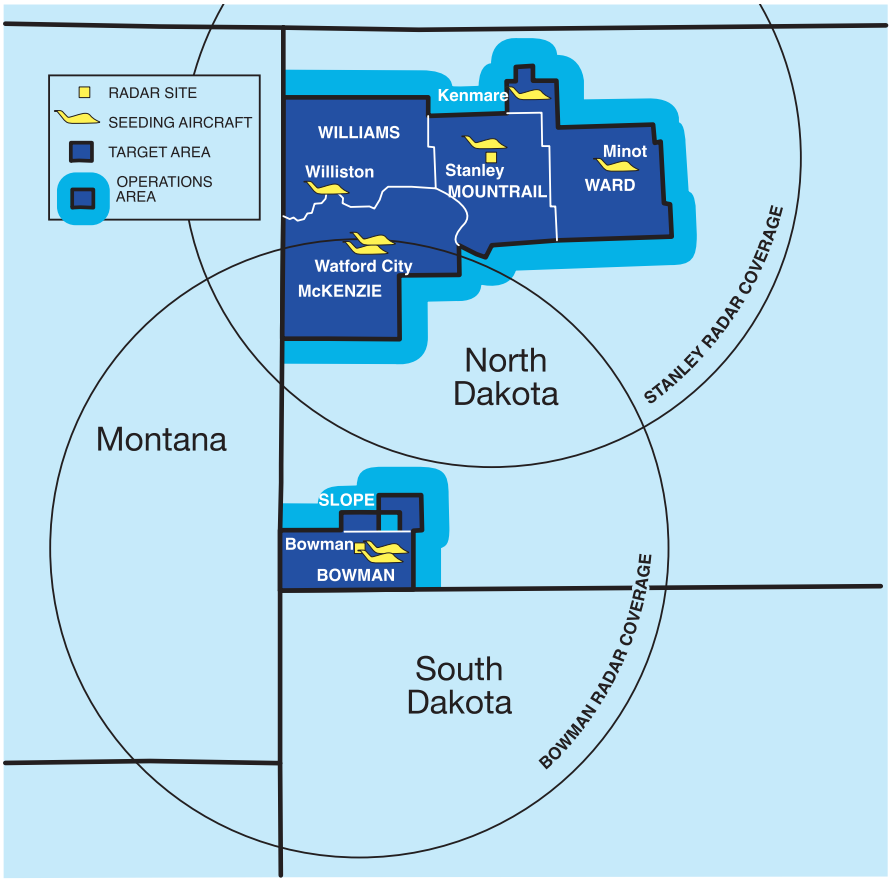
The ARB continued to operate two WSR-74C weather radars during the last biennium. Radars were located in facilities at the Bowman and Stanley airports and continued to operate at approximately one-quarter the cost of previously leased systems. Images from both radars are available and updated every six minutes on the SWC website during the operational season.

The Bowman radar is sited at the coverage limits of the National Weather Service (NWS) radars located at Bismarck, Billings, Glasgow and Rapid City, and thus provides lower atmosphere coverage of southwestern North Dakota, southeastern Montana, and northwestern South Dakota, not available from NWS radars. In order to alleviate this situation, in 2011, ARB partnered with eight counties in the area who pledged $24,000 to operate the Bowman radar year-round. They are: Billings, Bowman, Dunn, Golden Valley, Slope, Stark, (North Dakota), Fallon, (Montana), and Harding, (South Dakota). Bowman radar continued to operate year-round throughout the biennium in partnership with these regional counties at the same $24,000 annual cost. Real-time radar images and raw data were provided on the SWC website.

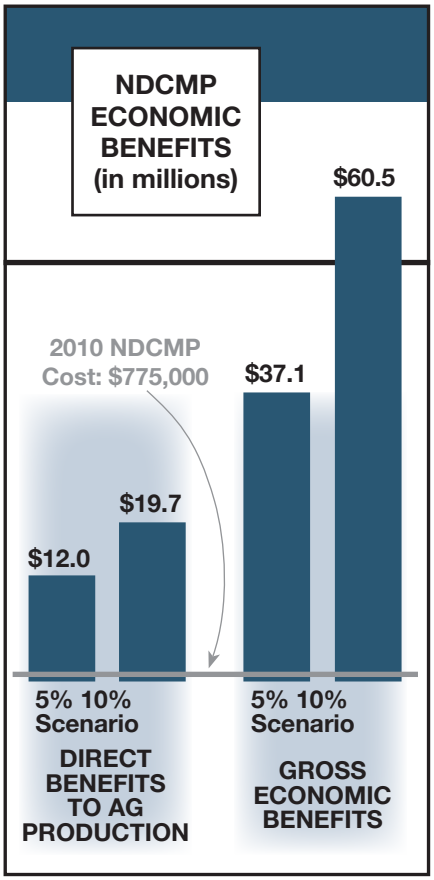
STATEWIDE PRECIPITATION OBSERVATIONS

The ARB Cooperative Observer Network (ARBCON) continued observing North Dakota precipitation during the biennium. ARBCON observers numbered about 570 volunteers statewide, building on a database dating back to 1977.

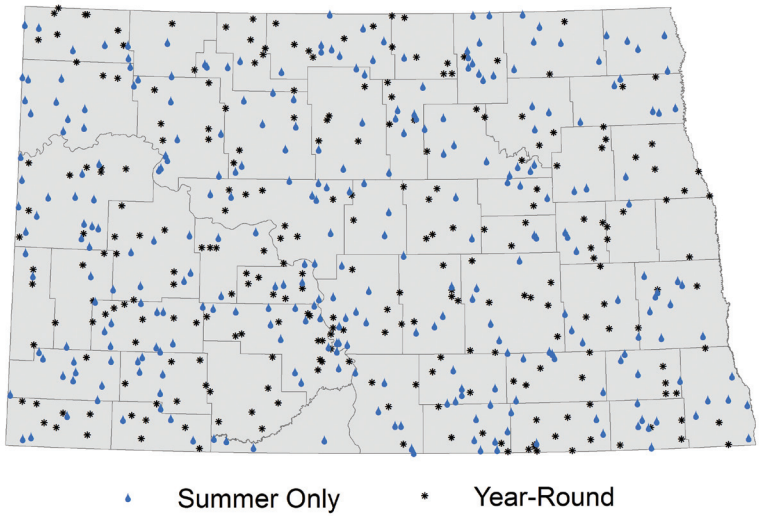
In response to the increased need for snow and snow water equivalent



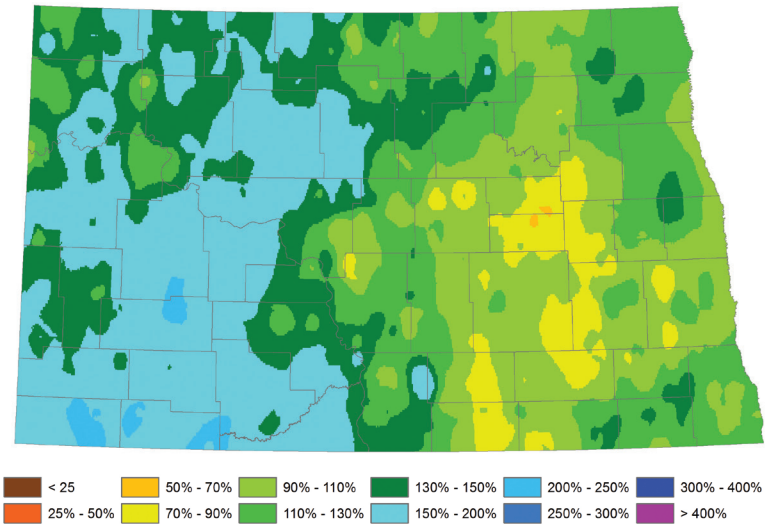
North Dakota Cloud Modification Project (NDCMP) target areas.



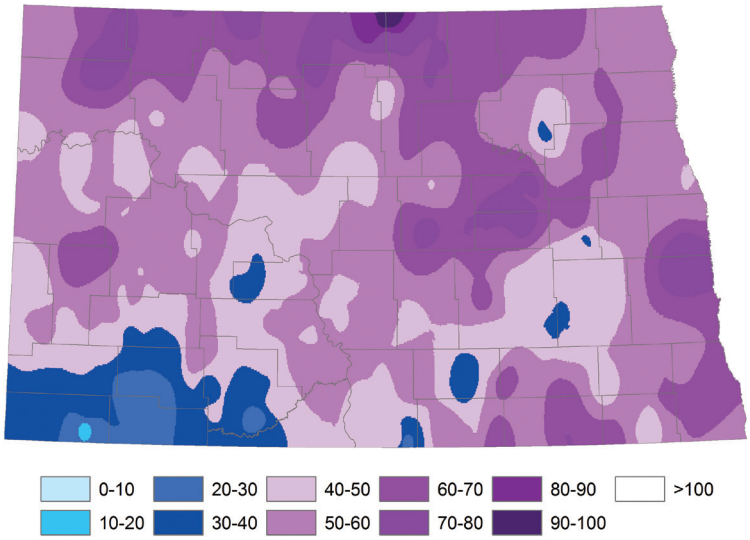
2011 ARBCON SITES



April - September 2011 Percent of Normal Rainfall



January 2011 Snowfall (in inches)



data in the state to assist in flood forecasting and water management, ARBCON began measuring and reporting snowfall in October, 2010. About 200 observers participated in the first year, more than doubling the number of local snow reporting stations previously in the state. Current year-round ARBCON observers now number 272.

Observers continued to transition to online reporting during the biennium. Internet reporters enter their daily reports directly through the Water Commission website after logging in with a unique username and password, making the data available sooner than those submitted on monthly reporting cards. About 27 percent of observers are utilizing online reporting, a number which will continue to grow in future years.

Rain, hail and snow data, as well as color maps depicting monthly and growing season precipitation, departure from normal, and 30-year averages can be publicly accessed and downloaded directly through the Water Commission website. The data have proven to be very helpful in the assessment of excess rain, snow and attendant flooding, as well as in the monitoring and delineation of drought in North Dakota.

RESEARCH AND DEVELOPMENT

Research during the 2011-2013 biennium focused on a cooperative program between ARB, the University of North Dakota's (UND) Atmospheric Science Department, the National Center for Atmospheric Research (NCAR), Fargo-based Weather Modification Incorporated (WMI), and Ice Crystal Engineering (ICE) in Kindred. The Polarimetric Cloud Analysis and Seeding Test 4, or POLCAST4, conducted its fourth field campaign from June 27 to August 3, 2012.

A WMI aircraft was contracted to seed clouds in North Dakota within 100 km of the UND radar with ICE hygroscopic flares, which generate large numbers of small salt particles. The randomized seeding experiment produced 17 cases (9 seeded, 8 not seeded) during the period, bringing the total number of randomized cases collected thus far to 44.

Numerical weather modeling and complementary surface instrumentation at UND rounded out the forecasting and data collection efforts.

Analysis of the data is ongoing with interim results expected by May 2014. Current plans call for a fifth season of field operations during the summer of 2014.

ARB also collaborated with the UND Department of Atmospheric Sciences to provide mesoscale numerical weather forecast modeling to the operational cloud seeding program. UND is developing the Weather Research and Forecasting (WRF) model to improve convective weather precipitation forecasts supporting cloud seeding operations. The model is run twice daily at the university and data are provided to NDCMP forecasters through a website interface.

STUDENT INTERN PROGRAMS

Seventeen intern copilots from the UND John D. Odegaard School of Aerospace Sciences participated in the NDCMP during the last biennium. All were trained at UND for a full academic year prior to their participation. Since the board's inception in 1975, 335 intern pilots have logged well over 20,000 hours of flight time in the conduct of cloud seeding operations in North Dakota's skies. In addition to recording the time, location, duration, and meteorological conditions during all seeding and reconnaissance missions - the pilots are fully qualified to fly the aircraft, providing an additional safety margin. Because of the experience they gain, many intern copilots have returned to the NDCMP as Pilots-in-Command (PICs) in subsequent years. Interns are paid an hourly wage and are considered temporary employees of the ARB during the summer months.

The weather modification pilot training program is the only one of its kind in the United States and provides a significant number of qualified cloud seeding pilots for projects elsewhere in the U.S. and around the world.

ARB also retained undergraduate students majoring in atmospheric science as intern meteorologists during the 2011-2013 biennium. A total of six student interns assisted NDCMP field meteorologists at radar-equipped operations centers in Bowman and Stanley, and at the ARB offices in Bismarck. Like the intern pilots, intern meteorologists continue to demonstrate their enthusiasm and dedication to the NDCMP and provide a pool of better-qualified persons to serve future projects as radar meteorologists.

PLANNING AND EDUCATION DIVISION

The primary responsibility of the Planning and Education Division is to maintain and update a Water Management Plan for the State of North Dakota. Division staff members also participate in numerous regional, state, local, and inter-office planning activities; manage the agency's water education programs; provide technical assistance; and coordinate environmental reviews.

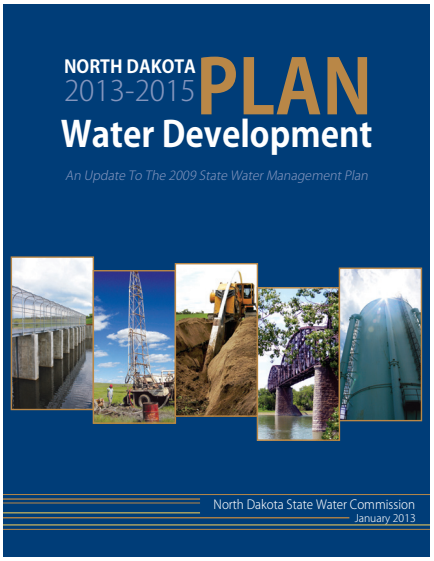
Specific staff responsibilities include:

- Maintaining a water project inventory and water management plan to promote efficiency in meeting North Dakota's future water development and funding needs;
- Leading or participating in special studies that result in water resource and related land management plans at various levels of government;
- Monitoring water resource issues and advising decision makers on possible impacts to North Dakota's water management objectives;
- Representing the State Engineer and State Water Commission on regional, national, and international natural resource planning bodies such as the Red River Water Resources Council, Pembina River Basin Advisory Board, International Water Institute, Red River Basin Commission, and Red River Detention Authority, to name a few;
- Assisting joint water resource management boards to develop watershed management plans;
- Providing opportunities for adults and students to increase their understanding about North Dakota's water resources and how these resources are managed; and
- Coordinating and managing interagency project reviews.

STATE WATER MANAGEMENT PLAN

By virtue of North Dakota Century Code, Section 61-02-14, Powers and Duties of the Commission; and Section 61-02-26, Duties of State Agencies Concerned with Intrastate Use or Disposition of Waters, the Commission is required to develop and maintain a comprehensive, short and long range water plan for the sound management of North Dakota's water resources. The plan reviews water management and cost-share policies, and recommends revisions as circumstances require.

The last major revision of North Dakota's Water Management Plan was completed in 2009, and the next Water Management Plan will be released before the beginning of the 2015 legislative session. For several subsequent biennia, as in the past, Water Development Reports (WDR) are completed to serve as updates to the plan.



In January of 2013, the Planning and Education Division completed the 2013-2015 WDR. The purpose of the 2013-2015 WDR is: to serve as a supplement to the 2009 State Water Management Plan; to provide up-to-date information regarding North Dakota's current and future water development project needs

and cost-share policies; to provide current information regarding North Dakota's ability to fund those water development needs; and to serve as a formal request for funding from the Resources Trust Fund during the 2013 Legislative Session.

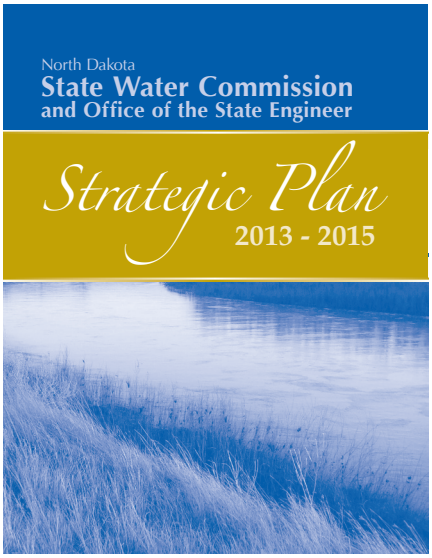
As in the past, the WDR includes a list of potential water projects for development. The potential projects list for the 2013-2015 biennium was developed by contacting water interest groups, including water resource districts, joint water boards, state and federal agencies, cities, and other water user groups, to request their input into the planning process. As a result, project sponsors from all corners of the state submitted water projects that they were interested in advancing.

With that information, and in cooperation with the North Dakota Water Coalition, the Water Commission developed a priority project budget. This inventory/budget lists all of the state's priority water development projects and project categories for the 2013-2015 biennium that the state works to advance and fund.

AGENCY STRATEGIC PLANNING

In advance of the 2013 Legislative Assembly, the Planning and Education Division coordinated the development of an agency strategic plan for the Water Commission and Office of the State Engineer. The purpose of a strategic plan is to provide the agency with an opportunity to set the bar for itself, and to more effectively measure performance in the future. This process is expected to continue on a biennial basis.

To develop the 2013-2015 Water Commission and Office of the State Engineer Strategic Plan, project and program managers were asked to provide input regarding their expectations for future progress through June 30, 2015. As part of that effort, they were asked to provide project and/or program objectives that they will strive to accomplish during the strategic planning timeframe, as well as specific tasks that will be completed to achieve their objectives.



DEVILS LAKE BASIN PLANNING EFFORTS

In previous biennia, Planning and Education Division staff played an integral role in assisting the Devils Lake Basin Joint Water Resource Board in their efforts to review, update, and implement the Devils Lake Basin Water Management Plan (DLBWMP) – initially completed in 1995. During the 2011-2013 biennium, emphasis was focused on tracking implementation of previously stated goals and incorporating major changes that have occurred in the basin, such as the construction of all the major outlet structures. This plan is a critical component of the state's three-pronged approach to solving flooding problems in the Devils Lake basin.

Work on the DLBWMP during the 2011-2013 biennium will be published in a 2013 update, which will have two main objectives.

The first is to involve local citizenry for their experience and expertise. Through that process, four subject committees (agriculture, economic development, recreation, and wildlife and fisheries) were created to represent the four broad areas of interest in the basin.

The second, is to develop a list of specific goals that reflect recent major developments in the basin and the more general objectives developed in the DLBWMP, and to track progress on those goals prior to the next update of the plan in 2015. The goals identify areas of the highest priority as defined by each of the subject committees.

As part of this process, the Planning and Education Division provided technical planning assistance, as well as staff resources for re-writing and publishing the document, and website development.

UPPER SHEYENNE RIVER BASIN PLANNING EFFORTS

Planning and Education Division staff provided frequent support and guidance in the continued development of a joint water board in the watershed above Lake Ashtabula - similar to the Devils Lake board. Accomplishments have included a two-year study on water quality trends in the Sheyenne River. In 2013, staff also assisted the Upper Sheyenne River Basin Joint Water Resources Board with an update of a conceptual water plan that identifies water resource development needs, and focuses resources towards achieving specific objectives. Currently, the Sheyenne Board is working with other entities to identify potential water storage sites to aid in the flood fighting effort in the Red River Valley, and water quality analysis and improvement.

EXTENDED STORAGE ACREAGE PROGRAM (ESAP)

During the 2011-2013 biennium, ESAP continued to be administered. In 2010, the original ESAP contract expired, and efforts to renew the contract, which required an interagency agreement amongst four federal agencies, were ultimately unable to receive approval from the Environmental Protection Agency. In order to assure the maximum duration of water storage for the program, the Water Commission developed a new contract that would operate under the protections of the still extant interagency agreement, which will expire along with the contract on Dec. 31, 2014. There are six landowners participating in ESAP - storing water on up to 197 acres and 416 acre-feet annually.

RED RIVER BASIN PLANNING EFFORTS

Throughout the 2011-2013 biennium, Planning and Education Division staff members continued to actively contribute to the Red River Basin Commission's (RRBC) planning and education advancements through involvement on several committees. In recent years, planning staff members have served on the RRBC's Long Term Flood Solutions advisory and various technical committees, as well as other RRBC sub-committees.

The RRBC is regarded as the primary facilitator in advocating and resolving water and related land management issues from a basin-wide inter-jurisdictional perspective. The Water Commission supports efforts that promote basin-wide goals and objectives that result in cooperation and coordination among varied water management organizations and interests.

MISSOURI RIVER MANAGEMENT

Planning and Education Division staff continued to provide technical assistance to the Missouri River Joint Water Board in their grass roots efforts to improve management of the Missouri River basin's natural resources. In the wake of the unprecedented flood events along the Missouri River main stem during the summer of 2011, it is expected that Water Commission staff will be involved in several local and regional post-flood planning and system management review efforts.

INTERAGENCY PROJECT REVIEWS

Planning and Education Division staff continue to conduct and coordinate interagency environmental reviews involving projects associated with Community Development Block Grants and Loans, Hazard Mitigation Grant Program, Rural Development Loan Program, highway improvements, airport improvements, dike/levee projects, water storage impoundments, municipal and rural water supply development and treatment projects, municipal waste treatment projects, oil and gas well projects, oil and gas pipeline projects, electrical transmission line development/modification/maintenance projects, and various federal and state water, land, and wildlife management plans, studies, Environmental Assessments and EIS. On average, 40 inter-agency environmental reviews were conducted monthly during the 2011-2013 biennium for a total of 940.

Environmental review comments address compliance requirements involving State Engineer and Water Commission regulatory responsibilities in issuing permits pertaining to water appropriation, floodplain management, sovereign lands, and the construction of dikes, levees, dams, drains, and water holding ponds. Staff members also provide information concerning the location of water wells.

NORTH DAKOTA WATER EDUCATION

In 1984, Water Commission took the initiative to provide water education through out the state with the primary goal of educating the public about the importance of water in North Dakota. When the program first started in state it was called W.E.T. (Water Education for Teachers). Today, W.E.T is known as Project WET, a supplemental and interdisciplinary water education program accepted around the world. North Dakota Project WET became the pattern for the program's growth and now involves 50 states and 50 foreign countries on five continents. Since 1997, North Dakota Project WET has enhanced its scope and vision with the innovative Explore Your Watershed extension of Project WET. Today, it is called North Dakota Water Education and promotes the importance of water in all aspects of our lives, which include conservation, water quality, non-point source pollution, stewardship, protection, and best management practices. North Dakota Water Education delivers this information through partnerships and collaborations with schools, other agencies and water entities across the state.

Water Education is delivered to formal and non-formal educators through multi-credit watershed institutes, credited and non-credited

workshops, in-service sessions, and pre-service teacher workshops, seminars, and special events. K-12 students receive water education programs directly through their own classroom and through a variety of educational events such as youth science events, water festivals, community water or environmental awareness events, technology and youth/adult water action projects. The general public receives water education through community water or natural resource education events, resource materials and general community events.

North Dakota Water Education program facilitates and promotes learning, awareness, knowledge, exploration, and stewardship of North Dakota water resources, with a focus on how water interacts with both the human and natural environments within our own watersheds. Programs are based on well developed and time tested Project WET Curriculum, through dissemination of indoor, outdoor, and classroom-ready experiences, teaching aids, printed materials and online resources that are hands-on, user friendly, non-biased, age appropriate, adaptable, and contemporary.

On average, 24 percent of North Dakota's K-12 formal and non-formal educators participated in one or more water education program and resources for educators. Reaching educators and natural resource personnel across the state. North Dakota Water Education programs serve 33 percent of grades 3-5 in North Dakota through participation in water festivals, youth science programs, environmental education programs, and community events.

NORTH DAKOTA WATER MAGAZINE

Since 1993, various water interests in North Dakota have pooled resources through the North Dakota Water Education Foundation to publish a magazine titled North Dakota Water. This magazine provides a broad spectrum of high quality information about the state's water resources to the widest possible audience. Over the course of the 2011-2013 biennium, average monthly distribution of the magazine was approximately 13,200. Readers include the general public, local, state, and federal agencies, and elected officials.

The Planning and Education Division develops the Water Commission's contribution - a three-page section called The Oxbow and an occasional feature page titled The Water Primer. The former is designed to inform readers about the State Water Commission's projects and programs as well as local, state, and national water management issues. The latter highlights interesting or little known facts about water and related land resources.

DROUGHT DISASTER LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM

The Drought Disaster Livestock Water Supply Project Assistance Program (Program) provides cost-share assistance to livestock producers with livestock water supply shortages caused by drought. The Program was originally created in 1991 in response to a severe statewide drought, but it was only administered for a short period of time.

The Program was last funded during the 2007-2009 biennium. The Program was not active during the 2011-2013 biennium.

OTHER GOVERNMENTAL AND NON-GOVERNMENTAL ORGANIZATION INVOLVEMENT

The Planning and Education Division also participated, to varying degrees, on several other governmental and non-governmental organizations, providing input from the State Engineer and Water Commission's perspectives. During the previous biennium, staff were involved to some degree with the Corps sponsored Fargo-Moorhead Metropolitan Area Flood Risk Management Study, the Missouri River Recovery Implementation Committee, Missouri River Authorized Purposes Study, and the Missouri River Ecosystem Restoration Plan; the International Water Institute; Red River Water Resources Council; Little Missouri Scenic River Commission; Voices for Oahe; Devils Lake Outlet Advisory Committee; Aquatic Nuisance Species Task Force; and Friends of Lake Sakakawea.

Devils Lake Water Institute participants and instructors.

WATER APPROPRIATION DIVISION

The Water Appropriation Division is responsible for the appropriation and management of the state's water resources in accordance with Article XI of the North Dakota Constitution and Chapter 61 of the North Dakota Century Code. The laws are based on the Doctrine of Prior Appropriation. The following principal activities fulfill these responsibilities:

- Identify the availability and chemical quality of the state's water resources;
- Assist municipalities and other public entities in developing solutions to particular water supply problems;
- Assess the impacts of existing water use on groundwater levels, stream flow, and chemical quality of water for the purposes of future allocation and management;
- Collect, store, and disseminate data on stream flow, spring flow, groundwater, lake levels, water quality, and water use;
- Carry out the administrative procedures required for water permit applications, water permits, and water rights;
- Conduct analyses and provide recommended decisions to the State Engineer on water permit applications;
- Develop and maintain a system for the storage and retrieval of water permit records;
- Monitor the utilization of each conditional and perfected water permit through annual water use reports, and maintain a permanent record; and
- Participate in committees and task forces pertaining to water quantity and/or quality issues as required.

RESEARCH, STUDIES, AND REPORTS

During the 2011-2013 biennium, the Water Appropriations Division was involved in numerous studies that were completed or are in progress. Descriptions of these studies follow.

- A groundwater modeling study of the Oakes Aquifer (North Dakota Water Resources Investigation No. 50), initiated to evaluate pending irrigation and industrial (ethanol production) water permit applications in the Oakes Aquifer, was completed in 2011. The groundwater model is currently being used to evaluate pending water permit applications in the Oakes Aquifer. The analysis of the deep channel of the Oakes aquifer was completed in the fall of 2012. Permits were granted to irrigate 1,450 acres with 2,175 acre-feet of water. Last fall, horizontal wells for irrigation were installed to serve six center pivots in the Oakes area. The operators consider the horizontal wells a success, and new installations are planned this fall. This new technology may allow the development of reliable irrigation in thinner parts of the aquifer. This requires a re-evaluation of water management strategies in the thin aquifer areas near the Oakes Test Area. The evaluation of the remaining pending permits in this study will be completed in early 2014.
- A comprehensive groundwater investigation of the north Kidder Aquifer complex (North Dakota Water Resources Investigation No. 52) was initiated in 2006 and completed in 2011. The Kidder Aquifer study continues to provide the basis for evaluating pending irrigation water permits in the Kidder Aquifer complex.

- An investigation of water availability in southwestern and west central North Dakota entitled "Availability and Quality of Surface and Groundwater Resources in West-Central and Southwest North Dakota" (North Dakota Water Resources Investigation No. 53) was completed in 2012. An assessment was made of the availability of a water supply for energy needs, specifically for hydraulic fracture stimulation of the Tyler Formation in the western two tiers of counties south of the Missouri River.

- A report entitled "Assessment of Potential Use of Telemetry for Monitoring Oil-Field Water Use" was published on January 11, 2013, by Appropriations Division staff as a miscellaneous study. The report describes a pilot study undertaken at the request of Governor Dalrymple to evaluate the feasibility of using telemetry to monitor water use from oilfield water sales depots. The operating structure recommended in the report is expected to be implemented over the course of the 2013-2015 biennium.

- A groundwater modeling study of the Fox Hills-lower Hell Creek Aquifer entitled "Groundwater Flow Model Inversion to Assess Water Availability in the Fox Hills-Hell Creek Aquifer" (North Dakota Water Resources Investigation No. 54) was initiated in 2010 and completed in 2013. The study will be used as a foundation for the development of a long-term management policy. The Fox Hills-lower Hell Creek Aquifer is an important water source in valleys along the Yellowstone, Little Missouri and Knife Rivers where the aquifer has a flowing pressure head. The groundwater model was and will continue to be used as the basis for evaluating water permit applications in the Fox Hills-lower Hell Creek aquifer.

- A water supply investigation entitled "Water Supply Investigation for the city of Enderlin, Enderlin Aquifer, Ransom and Cass Counties, North Dakota" (North Dakota Groundwater Study No. 118) was completed and published in 2012. The report summarized work completed under a cooperative agreement between the city of Enderlin and the Water Commission to investigate alternative well field locations for the city of Enderlin.

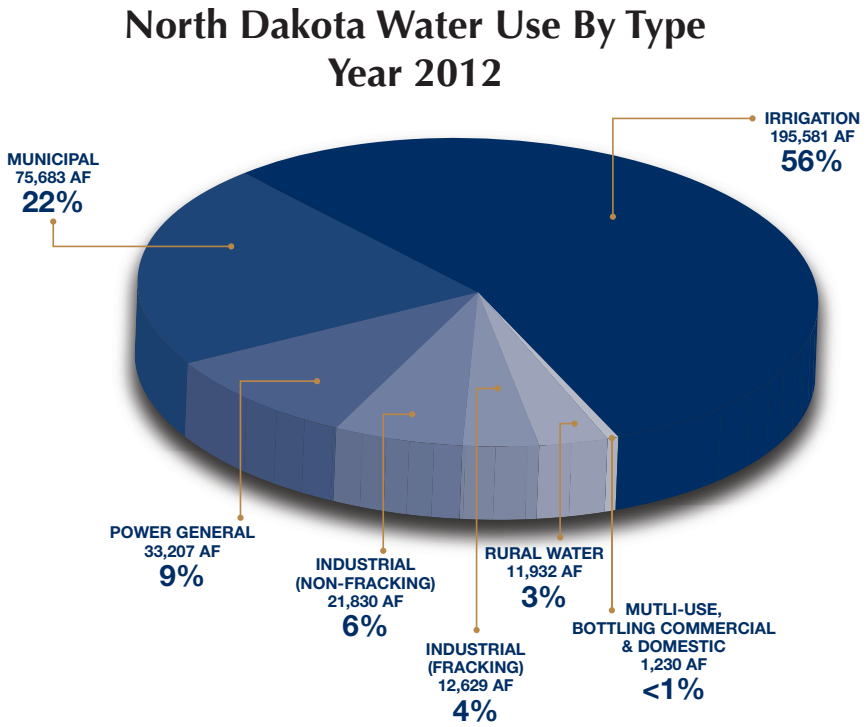
- A computer model of the Page Aquifer has been completed to evaluate pending rural water and irrigation water permit applications for groundwater. Results of the computer model will be compiled in a published report with a completion date of December 2013. Evaluation of pending applications will commence after the report is completed.

- The Water Appropriation Division entered into a cooperatively funded streamflow statistics study with the United States Geological Survey (USGS). The project will develop the North Dakota extension of a nationally developed application known as Stream Stats. The North Dakota application will be able to provide hydrologic information that can be accessed on-line to provide scientifically defensible stream data in a uniform and non-biased manner.

- The International Souris River Board (ISRB) assigned the Hydrology Committee (HC) to examine methods to determine the diversion of flow at Rafferty and Alameda Reservoirs, and to recommend a preferred method to the ISRB. The Water Appropriation Division is representing the State Engineer on the HC. This project is ongoing.

- The ISRB has appointed a hydrologist from the Water Appropriation Division to be the U.S. Co-Secretary to the ISRB and to prepare an annual report to the International Joint Commission.

A hydraulic fracture stimulation is performed near Tioga, ND. Photo courtesy of ND Oil and Gas Division.



- A focused sampling regime of the major public water supplies from groundwater in Grand Forks County was continued during the 2011-2013 biennium. The four major public water supplies (Grand Forks-Traill Rural Water, Tri-county Rural Water, Agassiz Rural Water, and the city of Larimore) obtain their water from the Inkster and Elk Valley Aquifers. Twenty-seven wells were sampled at least once annually with an in-depth monitoring program, which began several years ago. This was done to detect any seasonal or long-term trends with respect to water quality changes, specifically nitrate.

- Monitoring the Forest River Colony Artificial Recharge Project was continued during the 2011-2013 biennium. The project involves pumping water from the Forest River during high flow times in the spring into a basin overlying the Inkster Aquifer. Water is withdrawn from the aquifer later in the season for irrigation purposes. Without artificial recharge, the aquifer would not be able to support the number of acres being irrigated. Mandatory sampling and water level monitoring protocols are given to the permit holder each year before artificial recharge begins. In addition, the colony has filed a new water permit application to irrigate more acres and expand the artificial recharge facilities.

- A well network and sampling plan was designed and constructed to monitor and estimate seepage from the West Devils Lake Outlet Channel. Work included development and evaluation of a saturated/unsaturated computer model to assist in quantifying seepage using rates of groundwater mound formation. Actual monitoring was initiated at first operation of the outlet channel, after the beginning of the 2011-2013 biennium.

- A publication was written, reviewed and accepted for completion of a cooperative project with the University of Leeds, UK (Dr. Simon Bottrell) for evaluation of sources of sulfate in the Elk Valley aquifer in Grand Forks County, ND.

- A publication was written, reviewed, and published for a cooperative project with the University of North Dakota (Dr. Scott Korom) measuring

Water trucks fill at a depot in western ND.

Temporary Water Permits Issued July 1, 2011 - June 30, 2013

Type of Use	Number of Permits	Authorized Volume (Acre-Feet)
Aquifer Testing	3	55.2
Calibration Of Water Meter System	1	0.0
Compaction And Dust Control	3	2.0
Construction	1	1.1
County Road Project	2	0.9
Domestic Rural Water	1	500.0
Drainage, Oakes Test Area	2	1,320.0
Dust Control	59	568.6
Emergency Fire Protection	4	3.9
Geotechnical Drilling	9	7.0
Geotechnical Exploration	2	0.0
Hydrostatic Testing	21	252.0
Hydrovac And Construction	1	0.2
Industrial	12	873.7
Industrial - Brine Dilution	14	70.0
Industrial-Oilwell Develop. & Water Depot	413	82,434.3
Irrigation	36	11,031.2
Landfill Construction	3	32.0
Livestock	4	122.0
Oakes Test Area, Canal Filling	1	110.0
Oakes Test Area, Drainage	10	3,660.0
Oakes Test Area, Irrigation	2	137.0
Pipeline Construction	29	19.5
Power Line Construction	16	12.3
Road Construction	249	1,474.5
Test Production Wells	1	10.0
Washing Aggregates	40	4,216.4
Water Purification Testing	1	0.1
Water Supply For Minot AFB	1	22.1
Water Well Drilling	1	0.5
Grand Total	942	106,936.5

the rates and electron donor sources for nitrogen removal from the Karlsruhe aquifer by denitrification – in relation to the ND Health Department and the Water Commission evaluation of nitrate contamination in that aquifer.

- Ongoing laboratory and travel stipend support was provided for Dr. Xinhua Jia, Agricultural Engineering Dept., NDSU, for monitoring of crop yield, salinization and sodicity monitoring, and water quality monitoring on an experimental project related to irrigating crops using groundwater through tile drains.

DATA ACQUISITION

The Water Appropriation Division drilling program drilled 205 test holes during the 2011-2013 biennium, installing monitoring wells in 173 of the holes, including a 1,054 foot deep hole in which a Fox Hills well was installed. Water levels are measured periodically in 4,190 monitoring wells, including about 73 wells in which hourly or daily water level readings are electronically recorded. Surface water levels are measured using about 30 staff gages.

DATA MANAGEMENT

With the large volume of water resource data collected by the agency, management of that data is essential for its efficient use. These management efforts involve processes related to the collection, storage, analysis, and dissemination of a wide range of data including: well inventory information, water levels, water chemistry analyses, water permits, water depots, water use, dams, drains, and precipitation. Because of the unique nature of much of the data, the Water Commission has developed the necessary data management tools internally.

Permitted Water Use Summary
July 1, 2011 - June 30, 2013

WATER USE	ACRE-FEET
Irrigation	
Applications Filed:	107
Acre Feet Requested:	21,952
Acre Feet Granted*:	6,122
Storage Granted*	0
Water Granted (33 permits)*	9,980
Groundwater Granted*	9,386
(Groundwater Acres)	5,565
Surface Water*	594
(Surface Water Acres)	557
Recreation	
Applications Filed: (as "Commercial" use type)	1
Storage Granted	0
Industrial	
Applications Filed:	135
Water Granted (68 permits)*	42,130
Livestock	
Applications Filed:	1
Water Granted*	0

WATER USE	ACRE-FEET
Municipal	
Applications Filed:	14
Water Granted* (1 permit)	250
Fish & Wildlife	
Applications Filed:	4
Storage Granted (4 permits)*	141
Annual Use Granted (4 permits)*	82
Rural Water	
Applications Filed:	2
Water Granted (2 permits)*	404
Total Applications Filed	264
Total Water Granted (108 permits)***	52,846

*Includes permits applied for in previous bienniums.
**Stored water is not included in "Total Water Granted" because it is non-consumptive water use.
***Does not include storage granted for fish and wildlife.

AGENCY REPRESENTATION

The Water Appropriation Division represents the State Engineer and the Water Commission on state, regional, and national natural resource organizations. Members of the division have provided soils, ground, or surface water assistance in meetings or reviews pertaining to: Section 319 Task Force; Working Committee of the State Pesticide in Groundwater Protection Plan; Technical Committee of the State Pesticide in Groundwater Protection Plan; Northern Great Plains Management Consortium; North Dakota Board of Water Well Contractors; Midwest Groundwater Conference; North Dakota Water Resources Research Institute; North Dakota Public Service Commission Mining Plans; North Dakota State University Extension Irrigation Workshops; Red River Valley Water Supply Project; the International Red River Board; and the International Souris River Board.

The Water Commission well drilling crew.

An oil drilling rig operates in western North Dakota.
Photo courtesy of ND Oil and Gas Division

LANDFILL AND MINE PERMIT REVIEWS

The Water Appropriation Division cooperates with the North Dakota Department of Health in reviewing groundwater aspects of landfill applications and with the State Public Service Commission in reviewing groundwater aspects of coal mining permits and revisions. Written responses are provided to the North Dakota Department of Health regarding the suitability of locations for the proposed landfill uses and to the Public Service Commission regarding the accuracy and completeness of supporting information and groundwater monitoring plans.

ECONOMIC DEVELOPMENT

Economic development is a major state initiative. In most instances, water is needed to serve new enterprises. Information is provided to the Department of Commerce and local economic development organizations regarding the availability and chemical quality of water to serve a proposed enterprise. The agency also provided information to Department of Commerce clients on immediate and long-term regulatory issues, which helps in defining capital requirements.

OTHER TECHNICAL ASSISTANCE

The Water Appropriation Division is also tasked with assisting and advising the public on the availability of water for all purposes of use. Considerable time and resources were expended to provide technical assistance for the development of water supplies for oilfield development (brine dilution and hydro-fracturing). Study areas included the Little Muddy, Hofflund, Killdeer, Shell Creek, Tobacco Garden, Charbonneau Fox Hills, and Tongue River/Sentinel Butte Aquifers.

WATER USE MANAGEMENT

Water use by the oil industry in western North Dakota has increased to about 17,000 acre-feet annually by 2013. To better monitor the accurate reporting of water use, beginning in January 2012 water depot operators have been required to provide the Appropriations Division with monthly meter readings, independently verified by at least annual site visits by Division personnel. The program is expected to be transitional, to be replaced by an automated telemetry system over the course of the 2013-2015 biennium.

WATER DEVELOPMENT DIVISION

The Water Development Division provides technical review and guidance in water management project design, and in regulating project construction. The division staff has several responsibilities:

- Preparing engineering and feasibility reports and designs for the construction, maintenance, and major repair of water resource projects;
- Reviewing and making recommendations on permit applications for drains, dikes, dams, and sovereign lands;
- Providing technical assistance to water resource district boards;
- Inspecting and reporting on the safety of dams;
- Assisting communities in practicing floodplain management through the National Flood Insurance Program;
- Administering FEMA's Map Modernization project;
- Management of water supply project grant programs;
- Management and development of the Devils Lake outlet projects;
- Managing the design, construction, and operation of the Southwest Pipeline Project;
- Managing the design and construction of the Northwest Area Water Supply Project; and
- Sovereign land management.

REGULATORY

During the 2011-2013 biennium, the Regulatory Section processed 74 applications for permits to construct or modify dams, dikes, diversion ditches, or other water control facilities. The section also processed 10 wetland creations, 43 wetland restorations, 126 sovereign land permit applications, and 373 applications for permits to drain, of which 268 were for tile drain systems. In addition, the staff provided assistance with the environmental reviews coordinated by the Planning Division, addressed several appeals of water resource district decisions, and dealt with numerous water-related complaints from around the state.

Staff members also represented the agency at a variety of technical meetings held by such groups as the: Corps, Natural Resource Conservation Service (NRCS) State Technical Committee, NRCS Interagency Watershed Committee, Association of Soil Conservation Districts, North Dakota Soil Conservation Committee, and the Natural Resources Trust.

Three staff members work with Federal Emergency Management Agency (FEMA) funded programs within the Regulatory Section. These programs include Map Modernization Management Support (MMMS), Risk MAP, and the Community Assistance Program (CAP).

The MMMS Coordinator manages Risk MAP, a program which was initiated in federal fiscal year (FFY) 2009 for the purpose of identifying, assessing, communicating, and mitigating flood hazard risks, with the goals of delivering quality data that will increase public awareness and lead to actions that will reduce the risk to life and property. Both the MMMS and Risk MAP programs are 100 percent FEMA funded.

The MMMS Coordinator oversees the selection of engineering consultants chosen annually to do the work

tasks of FIRM digitization and subsequent contract management. Funding of $289,545 in FY 2012 and $342,960 in FY 2013 were used for projects in Traill County and the Upper James River watershed.

Two staff members work with the CAP, funded 75 percent by FEMA, concentrating on community floodplain management as practiced by the National Flood Insurance Program (NFIP). Through CAP, floodplain management staff assists 328 NFIP enrolled state communities with administration of their floodplain management responsibilities. Each community designates a representative as their floodplain administrator to oversee floodplain development within flood prone or identified floodplains. State staff work closely with these community administrators to provide technical assistance through a variety of means. NDCC Chapter 61-16.2 outlines state floodplain standards above the NFIP minimum standards that communities are expected to follow.

INVESTIGATIONS

The Investigations Section also worked in cooperation with several other state and federal agencies at the State Emergency Operations Center (SEOC) and in the field in response to the extensive spring flooding of 2011. In 2013, the SEOC was in readiness, however conditions did not require full activation.

In addition to providing staff to the SEOC, Investigations staff were also actively engaged in monitoring of and response to flood crises. Recovery and flood prevention efforts became a major effort during the 2011-2013 biennium. The Mouse River Enhanced Flood Protection Plan required an extensive coordination effort, as did the programs for acquisition of flood-damaged properties, following the special legislative session.

Under more normal circumstances, the Investigations Section, in addition to regular investigations, participates with other agencies in larger-scale studies and projects. An effort to revise the operating plans for Rafferty, Alameda, Boundary, and Lake Darling dams is one example. Also Missouri River management issues have become a major focus.

The Section's survey crew conducted extensive surveys for projects, establishing elevations for observation wells, and conducting underwater topographic surveys during flood events.

DAM SAFETY PROGRAM

A primary function of North Dakota's dam safety program is to conduct dam inspections in order to identify deficient dams in need of maintenance or repair. Dam safety staff conduct full inspections of 108 dams classified as high or medium hazard on a rotational basis. These dams include all non-federally owned high hazard dams and all non-federally owned medium hazard dams greater than 10 feet high. Every dam on the list is fully inspected at least once every ten years. High hazard dams are inspected at least once every four years.

During the 2011-2013 biennium, full periodic dam safety inspections were completed on 19 high hazard dams and 26 medium hazard dams. In addition, each spring, 142 dams are given a partial inspection to check on the status of the dams after the spring runoff season. These dams include non-federally owned high and medium hazard dams, and selected low hazard dams.

Staff also made 49 other dam site visits during this biennium (20 high hazard dams, 14 medium hazard dams, and 15 low hazard dams). These site visits included inspections made at the request of the public, participation in inspections conducted by federal agencies, inspections made during flood events, and other site visits as needed.

Another focus of the dam safety program during the 2011-2013 biennium was the development of Emergency Action Plans (EAPs) for high and medium hazard dams. Dam safety staff worked to review and approve EAPs for four high hazard dams and 17 medium hazard dams over the course of the biennium.

The dam safety program also hosted a dam owner workshop during the biennium. The goal of this workshop was to increase awareness of dam safety issues among dam owners and improve their knowledge of how to properly maintain their dams.

DEVILS LAKE OUTLETS

The Investigations and Construction Sections devote a large share of time and resources to Devils Lake flood-related issues.

Lake levels throughout the Devils Lake basin fluctuated through the 2011–2013 biennium. Starting on July 1, 2013 Devils Lake was near the all time record elevation of 1454. 4 feet above mean sea level (amsl). During 2012 the weather was quite dry and there was considerable pumping, which resulted in an elevation on November 9, 2012 of 1451.3 amsl. The winter and early spring of 2012 and 2013 was wet, resulting in a rise of 2.7 feet to 1434.0 amsl at the end of the 2011–2013 biennium. The 2.7 foot rise resulted in an increase in volume of nearly 508,000 acre-feet and an increase in area of approximately 29,000 acres during the biennium.

Throughout the 2011-2013 biennium, the Water Commission continued to operate the West Devils Lake Outlet within the constraints of required permits. During 2011 from July to November the outlet ran for 137 days, removing 32,691 acre-feet of water. In 2012, the west end outlet ran for 223 days, and removed 85,196 acre-feet of water. The east end outlet began operation on June 20, 2012. From June to November 2012 the east end ran for 130 days and removed 72,346 acre-feet of water. In the spring of 2013 high levels of flow in the Sheyenne River restricted pumping. The East Devils Lake Outlet began testing in early June 2013 and throughout June there were 19 days of operation, and removal of 2,328 acre-feet of water. The West Devils Lake Outlet was not operated in June 2013. The total days and volume pumped during the 2011-2013 biennium was 509 days of operation and 192,553 acre-feet of removal. With a lake level of 1453.0 amsl, the volume of removal corresponds to 12 inches off the lake.

The West Devils Lake Outlet drop structure.

The maximum capacity of the west end outlet is 250 cubic feet per second (cfs). The maximum capacity of the east end outlet is 350 cfs, giving the outlets a combined removal rate of 600 cfs. The pumps were operated at maximum capacity for much of the 2012 operating season.

The sulfate levels on the Sheyenne River have been determined to meet beneficial use at a concentration of 750 mg/L. These levels were exceeded in the lower river flow conditions of 2012, however an emergency ruling to exceed the standards was put into place by an executive order from the Governor in 2012. This executive order ended on December 31, 2012

In 2012, seepage was confirmed along some of the open canal on the west end outlet. This seepage damaged a home and was reported to have affected crops in the area. The Water Commission paid for mitigation for the leakage. The Water Commission drilled observation wells and is currently studying groundwater flow in the area.

Mitigation measures were completed for crop damages of landowners along the Sheyenne River for out of bank flows in the summer of 2011, in which West Devils Lake Outlet's pumping added to natural runoff. The payments for the damages were made after analysis and negotiations, extending into the 2011-2013 biennium.

Road crossings were also paid for by the Water Commission on several road crossings on the Sheyenne River and Tolna Coulee. These road crossings were affected by sustained flows from outlet operations.

The Water Commission funded a major upgrade of the Valley City Water Treatment Plant. The treatment plant now uses ultrafiltration and nanofiltration to accommodate the sulfate in the Sheyenne River due to the Devils Lake outlets.

The Tolna Coulee Control Structure, constructed by the Corps, was completed in the spring of 2012. This structure is designed to control a catastrophic outflow from Devils Lake. The stop logs of this structure are kept at one foot below Devils Lake's elevation.

DESIGN AND CONSTRUCTION SECTION 2011-2013 BIENNIAL SUMMARY

During the biennium, the Water Commission's Design and Construction Section conducted repairs and modifications to water resource structures throughout the state, as well as assisting in the operations of the state run outlets on Devils Lake.

CAVALIER CITY DAM, CAVALIER, ND

Originally constructed in 1906 by the railroads for water supply, Cavalier City Dam was a concrete low-head run of the river dam. The dam, located on the Tongue River, is within the city of Cavalier. When the railroads no longer needed the dam, they turned it over to the city of Cavalier, who continued to use it for municipal water supply until their water supply source was changed to the North Valley Water District. Since then the dam has been without a purpose and deteriorated to the point that it needed to be repaired or removed. The city of Cavalier opted to remove the dam, and requested that the State Water Commission provide cost share, construction and technical assistance. The Water Commission construction crew removed the dam to eliminate the dam safety hazard. They also constructed a rock weir fish passage in its place to retain the sediment pool that accumulated over the 105 years since the dam was constructed, and to improve wildlife habitat along the river. The US Fish and Wildlife Service, the city of Cavalier, the ND Game and Fish Department participated in the cost share with the Water Commission.

HERZOG DAM

Herzog Dam is located in rural Pembina County west of Cavalier. It is an earth embankment flood control dam in the Tongue River watershed. During the spring of 2011, slides developed on the downstream face of dam and a training wall of the auxiliary spillway. The Pembina County Water Resource District requested Water Commission cost share, construction and technical assistance to repair the slides. The Water Commission construction crew removed and replaced the sloughed material.

COTTONWOOD CREEK DAM, LAMOURE *COUNTY*

Cottonwood Creek Dam is a recreational use earthen dam located on Cottonwood Creek in LaMoure County south of the city of LaMoure. At normal pool, the reservoir holds 8,076 acre-feet of water. It is a significant hazard dam. The city of LaMoure owns the dam, and participated as a cost share partner in this project, along with the ND Game and Fish Department.

Slumping along the emergency spillway of Herzog Dam.

Erosion to the spillway of Bourbouis Dam.

The stilling basin at the outfall of the principal outlet works of the dam was damaged by the above normal runoff events of the previous few years, most notably 2009 and 2011. The city of LaMoure requested cost share, construction, and technical assistance to replace rip-rap that had been lost during these events. The rip-rap used for this project was acquired from the stockpile left at the dam from the successful 2009 efforts to protect the dam from a head cut in the auxiliary spillway. The Water Commission construction crew placed new rip-rap in the stilling basin as needed to protect the surrounding embankment.

NYGREN DAM, MORTON COUNTY

Nygren Dam is an earth embankment recreational use dam in rural Morton County on an unnamed tributary to the Heart River. A request was made by both the Morton County Water Resource District and the ND Game and Fish Department for cost share, construction and technical assistance for the construction of a Hypolimnetic Discharge System aka; a low-level drawdown system. The system includes 12" diameter high density polyethylene pipe and a prefabricated stop log structure to allow for control of the lake elevation. The Water Commission construction crew constructed the system in the summer of 2012.

GLEASON CROSSING, EDDY COUNTY

Gleason Crossing, aka the Old Red Bridge, is a low-water crossing on the Sheyenne River in rural Eddy County. The crossing is adversely affected by water from the West Devils Lake Outlet in that prior to the outlet start up in 2007; the crossing was normally dry throughout the year with the exception of spring runoff. At the request of

Freeborn Township, the Water Commission undertook a project to add capacity to the crossing to mitigate the impacts of the West Devils Lake Outlet. The Water Commission construction crew added four, 48-inch diameter culverts to the crossing to pass the 250 cfs flow from the outlet.

MISSOURI RIVER SANDBAR MODIFICATION

In the fall of 2012, the Water Commission construction crew removed material from a sandbar at the confluence of the Heart and Missouri Rivers to improve flow in the channel in an effort to minimize the potential for ice jams in the spring. The material removed extended out into the Heart River channel, creating an obstruction that could have snagged ice sheets as they came out of the Heart River. A separate contractor constructed a pilot channel through the sandbar to circulate Missouri River water through the confluence and keep any ice formations thin.

US GEOLOGIC SURVEY

Again this biennium, the Water Commission continued to cooperate with the US Geological Survey (USGS) on the maintenance and improvement of the USGS's stream gaging sites throughout the state. These projects included; reconstructing a sheet pile control section on the Cannonball River near Regent, installing rip-rap along the banks of the Missouri River at the Bismarck gage to protect it from further erosion, replacement of the orifice lines and raising the gage house above flood stage at the gaging station on the James River near Grace City, repair of an a-frame support structure for the gaging equipment at the gaging station near Westhope on the Mouse River, and installation of a catwalk on the gage house at the station near Sherwood also on the Mouse River.

SOURIS/MOUSE RIVER ISSUES

The 1989 International Agreement for Water Supply and Flood Control in the Souris River Basin designates the Government of Saskatchewan and the U.S. Department of the Army as the responsible entities for the management of Rafferty, Alameda and Boundary Reservoirs in Canada and Lake Darling in North Dakota during flood operations. In Saskatchewan this authority rests with the Saskatchewan Watershed Authority. In the United States this authority rests with the Corps.

As liaison for the North Dakota State Engineer, the Water Appropriations Division consulted daily with representatives of Saskatchewan, the Corps, and the US Fish and Wildlife Service.

The planning of flood operations was a coordinated effort. The Corps had a person in the field for the entire operation and agency representatives met by conference call on a near daily basis from the start of spring runoff into July to review reservoir operations based on updated forecasts and the latest flow information. Flow and water level information was also exchanged between agencies

A sandbar formed at the confluence of the Heart and Missouri River.

on a daily basis. Members of various other agencies were also kept informed of forecasts and planned reservoir operations. Between conference calls, operators and liaison personnel maintained contact as conditions required. Whenever precipitation events occurred and/or a change in flow conditions was warranted, reservoir operation plans were updated and a conference call was held to discuss reservoir operations, target flows and possible impacts to downstream interests. In all cases, efforts were made to minimize impacts of high flows, while operating the system within the intent of the 1989 Agreement.

MISSOURI RIVER ISSUES

In 2011, record flows on the Missouri River resulted in significant geomorphic changes to the river channel. The USGS, in coordination with the Water Commission, Corps, ND Department of Health, ND Department of Transportation, ND Game and Fish Department, Burleigh and Morton counties, the Lower Heart River Water Resource District, and the cities of Bismarck and Mandan, initiated a geomorphic assessment of the Missouri River in North Dakota. The assessment will provide insight on how dam management has affected the river, determine impacts to the river channel from the 2011 flood, and will result in a numerical model that can be utilized to predict channel evolution and sediment transport under certain management strategies.

The flood of 2011 resulted in the formation of a sandbar at the confluence of the Heart and Missouri rivers. Because of the sandbar, there was concern that it could contribute to the formation of an ice dam and increase

the chances for a flood in that area. In response to this concern, the Water Commission coordinated the excavation of 11,000 cubic yards of sand from that area in the Missouri River to create a channel through the sandbar and removed approximately 2,000 cubic yards of material from the Heart River channel.

The Water Commission has been involved in the Missouri River Recovery Implementation Committee (MRRIC) since the end of 2011. MRRIC is a group comprised of nearly 70 members who represent a wide array of local, state, tribal, and federal interests through the Missouri River basin. The purpose of MRRIC is to provide guidance and recommendations to the Corps and the U.S. Fish and Wildlife Service on actions taken to recover the threatened Least Tern and endangered Piping Plover and Pallid Sturgeon. Currently, MRRIC is involved in the Corps' effort to evaluate the actions taken to recover the threatened and endangered species through the development of an environmental impact statement and the creation of an adaptive management plan.

The Corps has undertaken a process that requires water users along Lake Sakakawea and Lake Oahe to obtain storage contracts and provide payment to use surplus water from the reservoirs for industrial and municipal purposes. The State of North Dakota has gone on record in opposition to these efforts. The natural flow that existed prior to the construction of the dams is sufficient to meet the needs of North Dakota. These actions by the Corps represent an effort to usurp the state's ability to appropriate the water that rightfully belongs to the people of North Dakota.

MUNICIPAL, RURAL & INDUSTRIAL WATER SUPPLY

In federal fiscal years 2012, and 2013, the Garrison Diversion Municipal, Rural, and Industrial (MR&I) water supply program received $9 million in federal grant funds for the development of water supply facilities in the state. This brought the total received from the federal government to $334 million since the program was authorized in 1986.

The Water Commission and the Garrison Diversion Conservancy District also provided funding toward project development. Since the program began, over $600 million in water system projects have been completed.

Projects that were allocated funds during federal fiscal years 2012 and 2013 included South Central Regional Water District, Emmons and Southwest Pipeline Project, Oliver, Mercer, and North Dunn.

The State Water Commission also allocated $128.4 million from the state contract fund for the following projects: Grand Forks-Traill Water District, Part 1 Improvements; North Central Rural Water Consortium, Carpio-Berthold Service Area; North Central Rural Water Consortium, Plaza Water Supply; McLean-Sheridan Rural Water District, Blue and Brush Lakes Expansion; Northwest Area Water Supply; Southwest Pipeline Project, Oliver, Mercer, North Dunn; Stutsman Rural Water District, Phase II, Phase IIB and Phase III; Fargo Water Treatment Plant, and Western Area Water Supply, Phase I and Phase II.

NORTHWEST AREA WATER SUPPLY

At the start of the biennium, the Northwest Area Water Supply (NAWS) project was in its tenth year of construction, with a focus on the northern tier of the project serving Berthold, Burlington, Kenmare, Sherwood, Mohall, North Prairie Rural Water, All Seasons Water Users District, and Upper Souris Rural Water.

The project has been under a federal court injunction since April 15, 2005, but the court had allowed work to continue on the High Service Pump Station in Minot and the pipeline projects north of Minot. The federal court issued an order on March 5, 2010, requiring the US Bureau of Reclamation to take a thorough look at: 1) the cumulative impacts of water withdrawal on the water levels of Lake Sakakawea and the Missouri River, and 2) the consequences of biota transfer into the Hudson Bay Basin, including Canada. A Supplemental Environmental Impact Statement is underway to address the federal court's order for this additional environmental review. The most recent order, dated March 1, 2013, allowed then current construction contracts to be completed, however it does not allow any more pipeline construction until the environmental review is completed and approved by the court.

By the end of the biennium, $21.9 million in additional work had been completed, bringing the total to $111.7 million invested in the NAWS project. Construction was completed on the 62 miles of pipeline for the Mohall, Sherwood, and All Seasons area, and the 29 miles of pipeline to the Minot Air Force Base and Upper Souris system along US Highway 83 bringing service to Glenburn and the rural area served by the Upper Souris System II water treatment plant. Also, the filtration systems and all associated controls and piping were upgraded and improved at the Minot Water Treatment Plant, including construction of a new equalization basin. The filtration improvements contract also included the supervisory control and data acquisition system (SCADA) or (telemetry) system for the project.

At the beginning of the biennium, NAWS was providing service to Minot, North Prairie Rural Water, and the City of Berthold, Kenmare, Donnybrook, Des Lacs, West River Rural Water, and Upper Souris Water District. By the end of the biennium, the project had also added service to All Season Water Users District, Mohall, Sherwood, the Minot Air Force Base, Glenburn, and two more connections to Upper Souris Water District and additional connections to North Prairie Rural Water.

SOUTHWEST PIPELINE PROJECT

Progress on the Southwest Pipeline Project was focused on two different aspects in the 2011-2013 biennium. The two different aspects were: continued construction in the Oliver Mercer North Dunn Regional (OMND) service area to provide water to the residents at Oliver, Mercer, and Dunn County, and to increase capacity to meet the unprecedented growth in southwest North Dakota because of the oil activity.

During the 2011-2013 biennium, construction of the Main Transmission Line (MTL) in Oliver County was completed and a supplemental water supply from the SWPP was provided to the Missouri West Water System. A rural distribution system in Mercer County was nearly completed with nearly 600 users receiving water from the project. Water storage tank contracts and equipment procurement contracts to expand the OMND Water Treatment Plant were also bid. Contracts to increase the capacity north of Dickinson were awarded and are currently under construction. Design of the MTL in Dunn County, rural distribution system in Oliver County, and a supplemental intake were completed and are ready for bidding in the beginning of the 2013-2015 biennium. Preliminary design for expanding the water treatment plant capacity at Dickinson was also completed.

Capital repayment collected from July 2011 through June 2013 was $7,984,021. Of that amount, $2,786,683 was paid to the pipeline's trustee, Wells Fargo Bank, NA, to pay bondholders. The remaining $5,197,338 was deposited in the Resources Trust Fund.

SATELLITE WATER COMMISSION OFFICES/STAFF

RED RIVER OFFICE

Located in West Fargo, the Red River office consists of one full-time position. During the 2011-2013 biennium, Red River office personnel took part in various State Water Commission activities in eastern North Dakota, including:

Technical assistance to the Red River Joint Water Resource District (RRJWRD) in pursuing flood control projects in the Red River watershed, including;

- Coordinated local review of HEC-HMS model development for the lower half of the Red River watershed in North Dakota;
- Coordinated development of detention studies (using the HEC-HMS models) for the lower half of the Red River watershed in North Dakota;
- Technical assistance to the Red River Retention Authority, that was organized to provide uniform effort to obtain temporary flood water storage in the Red River watershed;
- Co-chair of the technical committee overseeing work for the Corps', Red River Watershed Feasibility Study;
- Assistance with reconnaissance level studies of potential dams;
- Service as U.S. representative to the International Red River Board;
- Co-chair of the Lower Pembina River Flood Task Team, organized by the International Red River Board to oversee modeling analysis of the border dike;
- Assistance to individual water resource boards on eight water-related issues;
- Inspections on 19 projects that the Water Commission had approved for cost-share;
- Attended various meetings concerning the proposed Fargo-Moorhead Diversion project;
- Provided information/assistance to various government entities and private individuals before, during, and after the 2013 flood; and
- Technical assistance on various committees that were formed as a result of the Red River basin's flooding problems.

The West Devils Lake Outlet intake at Round Lake.

DEVILS LAKE OUTLET OFFICE

The Water Commission employs a Devils Lake Operations Manager in the Devils Lake region. During the 2011-2013 biennium a new Devils Lake Operations Manager was hired. Legislation also approved a position of an operator of the East Devils Lake Outlet that has not been filled at this time. The Operations Manager has been responsible primarily for: operating, maintaining, and monitoring all of the outlet works; weed control; planning, organizing, and directing collection of water quality samples; and maintaining records of water quality parameters.

NAWS WATER DISTRIBUTION

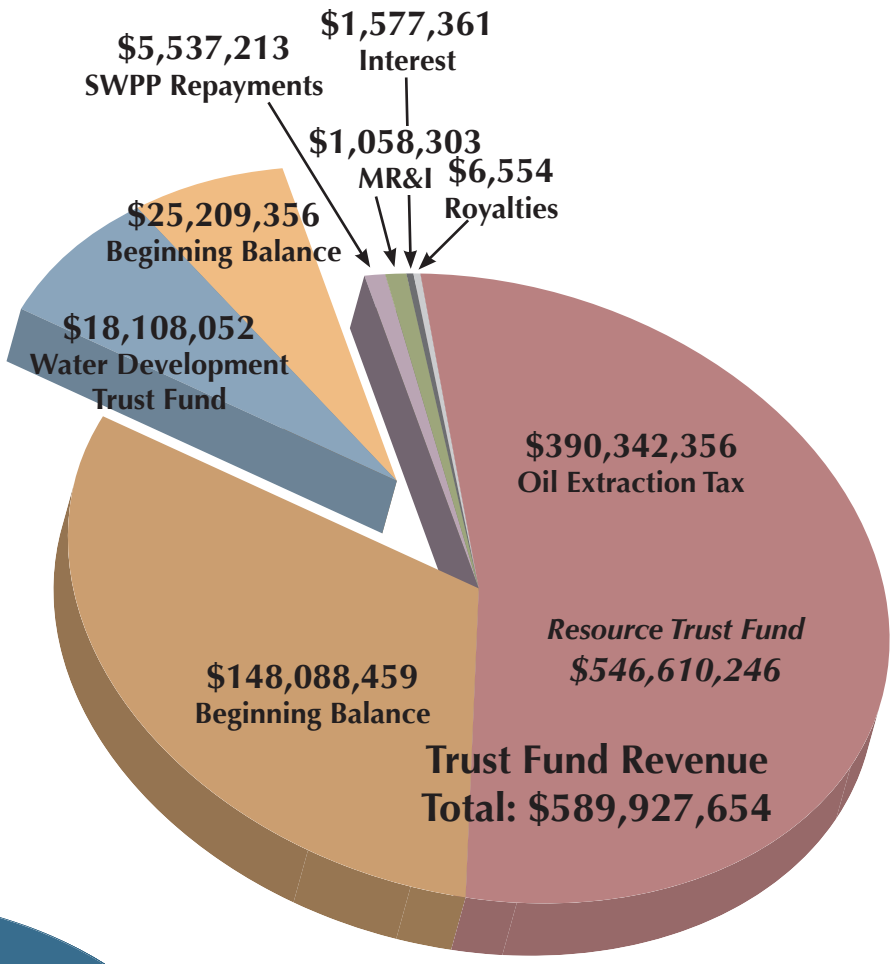
In Minot, as part of the NAWS project, the Water Commission employs a Water Distribution Operator. The primary duty of the Water Distribution Operator, as a certified Level II distribution system operator, is testing and compliance for Safe Drinking Water Act regulations pertaining to a municipal water supply system. This includes water quality sampling and testing procedures, addressing water quality concerns within the NAWS system, as well as assisting in troubleshooting water quality concerns of subsequent water users, flushing, or adjustments in operation of pump stations and reservoir levels. The position is also responsible for the routine maintenance on the project works. They must also perform locates of system facilities for One-Call requests, and observe contractors working near the NAWS facilities to limit/prevent damage during such activities, reading meters monthly, and maintaining the properties.

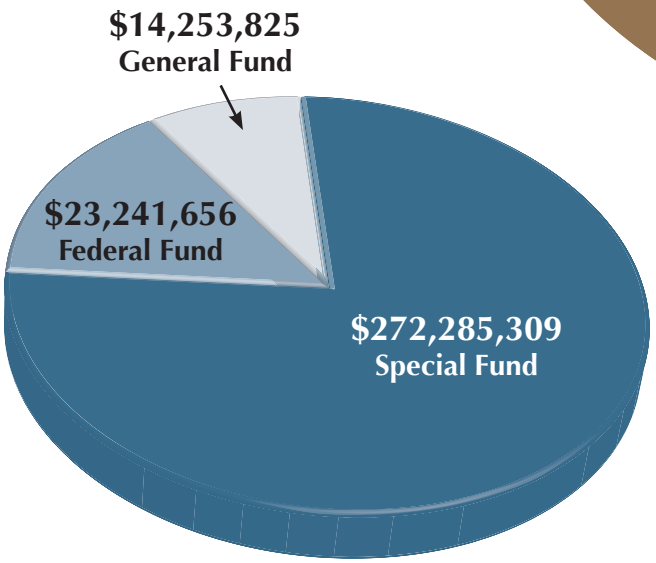
FINANCIAL INFORMATION

The following pages contain financial information summarized in various formats. There are pie charts classifying the agency's expenditures by fund and by line item. There is a chart identifying expenditures by division and line item, and there is a detailed listing by object code.

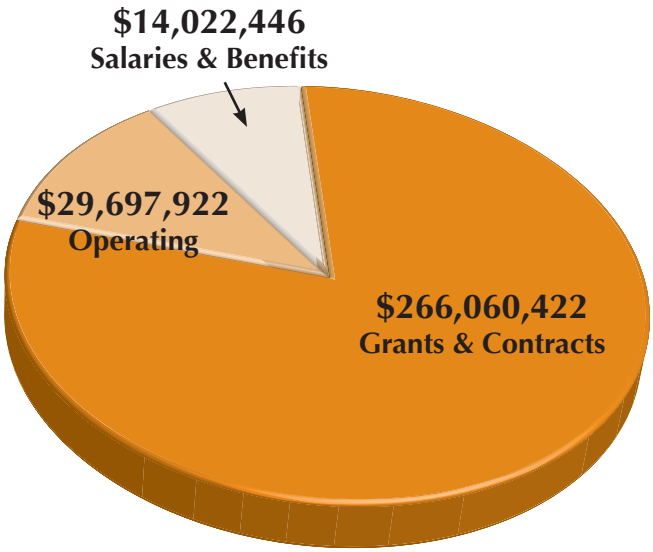
The trust fund revenue pie chart on this page includes both the Resources Trust Fund and Water Development Trust Fund revenue. The remainder of the report addresses project and program obligations, completed projects, object expenditures, long-term debt, and resources available from the agency.

STATE WATER COMMISSION APPROPRIATIONS 2011-2013 BIENNIUM





Expenditures by Fund
Total: $309,780,790



Expenditures by Line Item
Total: $309,780,790

STATE WATER COMMISSION
PROGRAM BUDGET EXPENDITURES
FOR BIENNIAL PERIOD ENDING JUNE 30, 2013

AGENCY PROGRAM	SALARIES/ BENEFITS	OPERATING EXPENSES	GRANTS & CONTRACTS	PROGRAM TOTALS
ADMINISTRATION				
Allocated	1,926,299	1,303,575		3,229,874
Expended	1,966,230	1,109,547		3,075,777
Percent	102%	85%		95%
PLANNING & EDUCATION				
Allocated	1,285,138	212,198	99,000	1,596,336
Expended	1,045,242	147,105	89,269	1,281,616
Percent	81%	69%	90%	80%
WATER APPROPRIATION				
Allocated	3,949,169	446,511	1,130,000	5,525,680
Expended	3,793,263	581,042	1,031,301	5,405,606
Percent	96%	130%	91%	98%
WATER DEVELOPMENT				
Allocated	5,634,922	9,772,937	265,000	15,672,859
Expended	5,175,325	7,204,683	648,468	13,028,475
Percent	92%	74%	245%	83%
ATMOSPHERIC RESOURCE				
Allocated	901,205	712,307	4,694,692	6,308,204
Expended	876,457	395,387	1,604,776	2,876,620
Percent	97%	56%	34%	46%
SOUTHWEST PIPELINE				
Allocated	437,264	6,201,500	38,744,857	45,383,621
Expended	517,607	4,440,503	30,684,897	35,643,007
Percent	118%	72%	79%	79%
NORTHWEST AREA WATER SUPPLY				
Allocated	604,626	5,235,500	49,976,971	55,817,097
Expended	486,999	4,484,475	18,014,457	22,985,931
Percent	81%	86%	36%	41%
STATEWIDE WATER PROJECTS				
Allocated			407,231,750	407,231,750
Expended			225,483,757	225,483,757
Percent			55%	55%
AGENCY TOTALS				
Allocated	**14,738,623**	**23,884,528**	**502,142,270**	**540,765,421**
Expended	**13,861,123**	**18,362,741**	**277,556,926**	**309,780,790**
Percent	**94%**	**77%**	**55%**	**57%**

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROGRAM OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
CITY FLOOD CONTROL					
1927	Fargo/Ridgewood Flood Control Project	6/22/05	50,941	0	50,941
1928	Fargo Flood Control Project	6/23/09	66,473,088	29,732,748	36,740,340
1771	Grafton Flood Control Project	3/11/10	7,175,000	0	7,175,000
1974-01	Mouse River Enhanced Flood Control Project Phase I	9/21/11	2,500,000	2,499,988	12
1974-01	Mouse River Enhanced Flood Control Project Phase II	6/13/12	1,828,000	1,828,012	-12
1974-06	Mouse River Enhanced Flood - Paid To SRJWRB	12/9/11	50,000	33,743	16,257
1974-07	Mouse River - EFP - PER Assistance SA-3	6/13/12	98,750	97,807	943
1974-08	Mouse River Reconnaissance Study To Meet Fed Guidelines	2/15/13	45,000	34,397	10,603
518	Wahpeton Flood Control	7/1/11	1,013,000	1,013,000	0
FLOODWAY PROPERTY ACQUISITIONS					
1993-05	Minot Phase 1 - Floodway Acquisitions	1/27/12	17,750,000	8,473,929	9,276,071
1987-05	Burlington Phase 1 - Floodway Acquisitions	1/27/12	1,071,345	1,071,345	0
1523-05	Ward County Phase 1, 2 & 3 - Floodway Acquisitions	1/27/12	18,285,205	8,759,541	9,525,664
1523-02	Chaparelle Highwater Berm Project	2/27/13	172,505	0	172,505
1504-05	Valley City Phase 1 - Floodway Acquisitions	12/9/11	3,000,000	2,343,232	656,768
1992-05	Burleigh Co. Phase 1 - Floodway Acquisitions	3/7/12	1,425,000	982,696	442,304
2000-05	Sawyer Phase 1 - Floodway Acquisitions	6/13/12	184,260	0	184,260
1991-05	Lisbon - Floodway Acquisition	3/7/12	888,750	0	888,750
FLOOD CONTROL					
1992-01	Burleigh County's Tavis Road Storm Water Pump Station Project	6/13/12	1,282,400	0	1,282,400
1344	Sheyenne River Valley Flood Control Project - Valley City	6/19/13	350,625	0	350,625
1344	Sheyenne River Valley Flood Control Project - Lisbon	6/19/13	700,650	0	700,650
1344	Sheyenne River Valley Flood Control Project - Fort Ransom	6/19/13	225,000	0	225,000
1997	Renwick Dam Rehabilitation	6/13/12	2,842,200	0	2,842,200
849	Renwick Dam Rehabilitation	5/17/10	1,246,571	165,332	1,081,239

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROGRAM OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
WATER SUPPLY ADVANCES					
2373-09	South Central RWD (Phase II)	6/23/08	160,069	160,069	0
2373-31	North Central Rural Water Consortium (Anamoose/Benedict)	6/23/08	3,295,000	3,295,000	0
2373-24	Traill Regional Rural Water (Phase III)	8/18/09	2,355,670	1,355,670	1,000,000
WATER SUPPLY GRANTS					
2373-17	City Of Parshall	6/23/08	0	0	(0)
2373-18	Ray & Tioga Water Supply Association	12/17/08	1,868,153	1,868,153	0
2373-25	McKenzie Phase II	6/23/09	868,327	868,327	0
2373-28	McKenzie Phase IV	3/11/10	2,352,244	2,352,244	0
2373-29	City of Wildrose - Crosby Water Supply	7/28/10	97,218	0	97,218
2373-32	NCRW (Berthold-Carpio)	6/21/11	3,150,000	342,098	2,807,902
2373-33	Stutsman Rural Water System	6/21/11	6,800,000	4,404,308	2,395,692
2373-35	Grand Forks - Traill County WRD	6/13/12	3,700,000	974,585	2,725,415
2373-36	Stutsman Rural Water System Phase II, III	2/27/13	10,000,000	0	10,000,000
2373-37	NCRW (Plaza)	2/27/13	250,000	0	250,000
1782	Blue & Brush Lakes Expansion Project	2/27/13	100,000	0	100,000
HB NO. 1305 PERMANENT OIL TRUST FUND					
2373-21	Burke, Divide, Williams Water District	6/23/09	189,415	189,415	0
2373-22	Ray & Tioga Water Supply Association	6/23/09	191,362	191,362	0
WATER SUPPLY					
2373-26	Valley City Water Treatment Plant	8/18/09	15,386,800	15,346,060	40,740
1984-01	Fargo Water Treatment Plant Reverse Osmosis Pilot Study	6/13/12	600,000	600,000	0
1984-02	Fargo Water Treatment Plant	6/13/12	14,400,000	1,535,931	12,864,069
1912	Red River Valley Water Supply Project	3/17/08	62,224	0	62,224
1973	Western Area Water Supply	7/1/11	25,000,000	25,000,000	0
1736-05	Southwest Pipeline Project	7/1/11	45,019,199	17,047,178	27,972,021
2374	Northwest Area Water Supply	7/1/11	19,432,008	12,190,575	7,241,433
IRRIGATION DEVELOPMENT					
1389	BND AgPace Program	10/23/01	98,907	72,941	25,966
AOC/ IRA	ND Irrigation Association	8/16/11	100,000	100,000	0
1968	2009-11 McClusky Canal Mile Marker 7.5 Irrigation Project	6/1/10	898,515	880,933	17,582

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROGRAM OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
GENERAL WATER MANAGEMENT : HYDROLOGIC INVESTIGATIONS					
1400/12	Houston Engineering Water Permit Application Review	10/10/10	8,500	8,500	0
1400/13	Houston Engineering Water Permit Application Review	11/7/11	17,000	15,025	1,975
1400/14	Houston Engineering Water Permit Application Review	11/29/12	17,000	6,090	10,910
1400	Consultant Services	3/23/13	9,600	9,600	0
859	Lori Bjorgen - Alternate Well Monitor	8/28/12	84	0	84
862/859	Arletta Herman- Well Monitor	8/28/12	4,228	4,228	0
967	Holly Messmer - McDaniel	4/19/12	0	0	0
1690	Holly Messmer - McDaniel	4/19/12	4,992	4,992	0
1703	Thor Brown- Well Monitor	3/27/12	6,096	6,096	0
1707	Thor Brown- Well Monitor	4/26/11	3,409	3,408	0
1761	Gloria Roth - Well Monitor	4/19/13	1,384	1,384	0
1761	Fran Dobits - Well Monitor	6/1/11	1,451	1,451	0
1395A	USGS, US Dept. Of Interior Investigations Of Water Resources In North Dakota	10/18/11	432,303	432,303	0
1395A	USGS, US Dept. Of Interior Investigations Of Water Resources In North Dakota	9/4/12	445,555	445,555	0
1395D	Eaton Irrigation Project On The Souris River	7/13/12	15,300	0	15,300
1395	USGS, US Dept. Of Interior Upgrade Of The Stream Gaging On The Heart River Near South Heart	4/14/11	2,670	2,670	0
DEVILS LAKE BASIN DEVELOPMENT					
416-01	Devils Lake Basin Joint Water Resource Manager	6/15/11	60,000	60,000	0
416-02	City Of Devils Lake Levee System Extension & Raise	7/1/11	15,534,603	15,534,603	0
416-05	Devils Lake Outlet Awareness Manager	6/16/11	32,340	29,753	2,587
416-07	Devils Lake Outlet	7/1/11	2,420,212	1,547,809	872,403
416-10	Devils Lake Outlet Operations	7/1/11	11,424,811	6,284,005	5,140,805
416-13	DL Tolna Coulee Divide	7/1/11	4,366,720	4,263,745	102,975
416-15	DL East End Outlet	7/1/11	63,059,773	58,985,762	4,074,011
416-17	DL Emergency Gravity Outflow Channel	9/21/11	13,720,185	33,346	13,686,839
416-18	DL Johnson Farms Water Storage Site	6/10/11	125,000	0	125,000

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROGRAM OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
WEATHER MODIFICATION					
	Weather Modification	7/1/11	894,314	894,145	169
TOTAL PROJECTS/GRANTS/CONTRACT FUND - PROGRAM OBLIGATIONS			**426,542,724**	**245,678,594**	**180,864,130**

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROJECT OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
GENERAL PROJECT OBLIGATIONS					
227	District's Mouse River Riverbank Stabilization Project	6/13/12	120,615	0	120,615
228	Additional USGS Gage Missouri River - Annual	9/17/12	8,500	0	8,500
240	Warwick Dam Repair Project	12/7/12	110,150	0	110,150
281	Three Affiliated Tribes/Fort Berthold Irrigation Study	10/26/10	37,500	0	37,500
322	ND Water: A Century of Challenge	2/22/10	36,800	0	36,800
346	Epping Dam Evaluation Project	2/27/13	66,200	0	66,200
347	City Of Velva's Flood Control Levee System Certification	3/28/11	102,000	0	102,000
391	Sargent Co. WRD, Silver Lake Dam Emergency Repairs	10/12/11	2,800	0	2,800
620	Mandan Flood Control Protective Works (Levee)	9/29/08	125,396	0	125,396
646	Christine Dam Recreation Retrofit Project	10/26/10	184,950	0	184,950
646	Hickson Dam Recreation Retrofit Project	10/26/10	44,280	0	44,280
829	Rush River Watershed Retention Plan	6/13/12	67,500	67,500	0
829	Rush River WRD Berlin's Township Improvement District #70	10/19/11	500,000	336,305	163,695
871	Pembina Snagging & Clearing Project	6/14/13	7,500	0	7,500
980	Maple River Watershed Flood Water Retention Study/ Maple River WRD	9/21/11	82,500	82,500	0
1063	Amenia Township Improvement District Drain #74 Project	6/13/12	459,350	0	459,350
1069	Cass Co. Drain #13 Improvement Reconstruction	8/18/09	122,224	0	122,224
1069	Drain #13 Channel Improvements	9/27/12	217,000	0	217,000
1088	Cass County Drain #37 Improvement Recon	8/18/09	92,668	0	92,668
1101	Yorktown-Maple Drainage Improvement District #3	9/21/11	354,500	0	354,500
1101	Riverdale Township Improvement District #2 - Dickey -Sargent Co. WRD	9/21/11	500,000	0	500,000
1131	Flood Related Water Projects	6/1/11	250,000	194,545	55,455
1135	Drain #4 Reconstruction Project	6/19/13	221,628	0	221,628
1138	Drain #8 Reconstruction Project	3/7/12	123,725	111,510	12,215

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROJECT OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
GENERAL PROJECT OBLIGATIONS					
1161	Drain #55 Improvement Reconstruction	3/28/11	88,868	75,022	13,846
1207	Drain #65 Extension Project	6/19/13	123,200	0	123,200
1219	District Drain #4 Reconstruction Project	9/21/11	125,500	0	125,500
1219	City Of Forman Floodwater Outlet	9/21/11	348,070	316,598	31,472
1224	Preston Floodway Reconstruction Project	10/19/11	208,570	0	208,570
1227	Mergenthal Drain #5 Reconstruction	3/7/12	84,670	0	84,670
1244	Traill Co. Drain #27 (Moen) Reconstruction & Extension	3/11/10	678,485	341,994	336,491
1245	Traill Co. Drain #28 Extenstion & Improvement Project	3/28/11	336,007	0	336,007
1252	Walsh Co. Reconstruction Drain #97	9/21/11	50,551	25,618	24,933
1289	Control Of Noxious Weeds On Sovereign Lands	6/11/13	24,810	0	24,810
1301	City Of Lidgerwood Engineering & Feasibility Study For Flood Control	2/4/11	15,850	0	15,850
1301	City Of Wahpeton Water Reuse Feasibility Study/Richland Co.	9/8/11	2,500	0	2,500
1303	Shortfoot Creek Preliminary Soils Analysis & Hydraulic Study	6/29/12	47,500	22,639	24,861
1303	Frenier Dam Improvement Project	12/7/12	158,373	0	158,373
1312	Skyrud Dam 2011 EAP	12/15/11	10,000	0	10,000
1312	Union Dam 2011 EAP	12/15/11	10,000	0	10,000
1312	Forest River Flood Contral Feasibility Study	6/19/13	79,956	0	79,956
1344	Horace Diversion Channel Site A (Section 7 - Phase V) Improvement	6/13/12	1,812,822	0	1,812,822
1344	Sheyenne Diversion Exterior Pump Station	6/13/12	84,090	80,339	3,751
1344	Southeast Cass Sheyenne River Diversion Low-Flow Channel Areas 3 & 4	6/14/11	2,802,000	2,085,391	716,609
1344	Sheyenne Diversion Phase VI - Weir Improvements	6/13/12	225,050	0	225,050
1396	(USGS) Missouri River Geomorphic Assessment	3/7/12	140,000	50,000	90,000
1401	International Boundary Roadway Dike Pembina	9/27/12	427,431	95,632	331,799

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROJECT OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
GENERAL PROJECT OBLIGATIONS					
1438	Mulberry Creek Phase IV Reconstruction Project	6/19/13	324,010	0	324,010
1444	US Army Corps Of Engineers Section 408 Review City Flood Control	3/7/12	181,500	108,000	73,500
1461	O'Hara Bridge Bank Stabilization	4/26/13	24,633	0	24,633
1523	Countryside Villas/Whispering Meadows Drainage Improvement Project	6/13/12	157,211	0	157,211
1523	Souris River Minot To Burlington Snagging & Clearing	12/7/12	109,000	0	109,000
1577	Fox Island 2012 Flood Hazard Mitigation Evaluation Study	5/22/12	23,900	0	23,900
1577	Hazen Flood Control Levee (1517) & FEMA Accreditation	3/11/10	449,500	264,516	184,984
1607	Flood Inundation Mapping of Areas Along Souris & Des Lacs River	6/15/11	13,011	0	13,011
1638	Red River Basin Non-NRCS Rural/ Farmstead Ring Dike Program	6/23/09	624,262	397,898	226,364
1681	Repair & Stabilization Of The Missouri River Bank Adjacent To USGS's Bismarck Gage Station	9/6/12	28,000	0	28,000
1705	Red River Joint WRD Watershed Feasibility Study - Phase 2	9/21/11	60,000	0	60,000
1705	Red River Basin Distributed Plan Study	12/7/12	560,000	0	560,000
1792	SE Cass Wild Rice River Dam Study Phase II	12/11/09	130,000	0	130,000
1806-02	Re-Certification Of The City Of Argusville Flood Control Levee	6/13/12	216,200	132,036	84,164
1918	Normanna Township Improvement District #71	12/9/11	287,900	0	287,900
1921	Square Butte Dam #6/(Harmon Lake) Recreation Facility	3/23/09	852,251	31,193	821,058
1932	Michigan Spillway Rural Flood Assessment Drain	8/30/05	500,000	0	500,000
1932	Michigan Spillway Rural Flood Assessment	8/30/05	1,012,219	0	1,012,219
1960	Puppy Dog Coulee Flood Control Diversion Ditch Construction	8/18/09	796,976	0	796,976
1963	Beaver Bay Embankment Feasibility Study	8/10/09	256,535	202,891	53,644

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROJECT OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
GENERAL PROJECT OBLIGATIONS					
1966	City Of Oxbow Emergency Flood Fighting Barrier System	6/1/10	188,400	0	188,400
1967	Grand Forks County Legal Drain #55 2010 Contruction	11/30/10	9,652	0	9,652
1969	Walsh Co. Construction Of Legal Assessment Drain #71	3/28/11	342,345	304,191	38,154
1970	Walsh Co. Construction Of Legal Assessment Drain #72	3/28/11	144,807	105,692	39,115
1975	Walsh Co. Drain #31 Reconstruction Project	9/21/11	148,858	111,116	37,742
1977	Jackson Township Improvement Dist. #1	9/21/11	500,000	0	500,000
1978	Richland & Sargent WRD RS Legal Drain #1 Extension & Channel Improvement	10/19/11	245,250	0	245,250
1983	City Of Harwood Engineering Feasibility Study	12/9/11	62,500	0	62,500
1989	Hobart Lake Outlet Project	3/7/12	266,100	0	266,100
1991	Sheyenne River Snagging & Clearing Project	2/12/13	5,000	0	5,000
1990	Lake Shore Estates High Flow Diversion Project	3/7/12	43,821	0	43,821
1992	Bismarck Flood Control Channel Project	9/17/12	187,500	0	187,500
1992	Burnt Creek Flood Restoration Project	6/19/13	87,805	0	87,805
1992	Burleigh Co. Flood Control Alternatives Assessment	1/30/13	25,175	0	25,175
1993	Minot 100-Yr Floodplain Map & Profiles	10/9/12	10,000	0	10,000
1996	Drain #62 - Wold Drain Project	9/17/12	112,400	0	112,400
1998	Upper Turtle River Dam #1 2012 EAP	6/28/12	10,000	0	10,000
2001	Elm River Diversion Project	10/31/12	17,300	6,877	10,423
2002	Turtle River Dam #4 2012 EAP	6/29/12	10,000	0	10,000
2003	Re-Certification Of The Horace To West Fargo Diversion Levee System	6/29/12	42,835	0	42,835
2003	Re-Certification Of The West Fargo Diversion Levee System Geotechnical Analysis	7/26/12	45,879	0	45,879
2003-02	Re-Certification Of The West Fargo Diversion Levee System	9/17/12	91,400	0	91,400
2005	Turtle River Dam #8 - 2012 EAP	6/29/12	10,000	0	10,000

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - PROJECT OBLIGATIONS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
GENERAL PROJECT OBLIGATIONS					
2007	Pontiac Township Improvement District #73 Project	6/13/12	500,000	0	500,000
2008	Mapleton Flood Control Levee Project	6/29/12	24,410	0	24,410
2009-02	Re-Certification Of The Horace To West Fargo Diversion Levee System	9/17/12	72,600	0	72,600
2010	Meadow Lake Outlet	6/13/12	500,000	0	500,000
2012	Lower Sheyenne River Watershed Retention Plan	9/17/12	80,000	0	80,000
2013	Wild Rice River Watershed Retention Plan	9/17/12	90,000	0	90,000
2014	Elm River Watershed Retention Plan	9/17/12	75,000	0	75,000
2019	Sheyenee River Snagging & Clearing Project	12/7/12	75,000	0	75,000
2020	Souris Valley Golf Course Bank Stabilization	12/7/12	335,937	0	335,937
2022	Drain #73 Project	6/19/13	350,400	0	350,400
1878-02	Upper Maple River Dam Environmental Assessment - Phase II	6/13/12	112,500	0	112,500
XXXX	Soap Protocol Programming On IDT, Inc Servers	6/11/13	10,000	9,950	50
AOC/ RRBC	Stream Gaging & Precipitation Network Study In The Red River	9/14/12	20,000	0	20,000
CON/ WILL-CARL-SON	Will/Carlson Consultant	10/17/11	70,000	43,826	26,174
PS/ WRD/ JAM	James River Engineering Feasibility Study Phase 1	3/7/12	160,482	130,912	29,570
TOTAL PROJECTS/GRANTS/CONTRACT FUND - PROJECT OBLIGATIONS			**23,412,553**	**5,734,692**	**17,677,861**

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
COMPLETED GENERAL PROJECTS					
228	South Bismarck Flood Risk Reduction - Heart River	9/17/12	225,000	225,000	0
228	Bismarck City's Storm Water Outfall Construction Project	6/13/12	187,500	101,325	86,175
266	Tolna Dam 2011 EAP, Nelson County WRD	8/23/11	9,600	8,540	1,060
269	Fordville Dam Emergency Action Plan/ Grand Forks Co.	3/3/10	9,600	9,192	408
275	City Of Fort Ransom Engineering Feasibility Study	10/19/11	40,000	24,995	15,005
322	Long-Term Red River Flood Control Solutions Study (AOC/RRC)	6/23/09	7,720	7,720	0
327	White Earth Dam EAP	8/18/09	25,000	25,000	0
501	Pheasant Lake Dam Emergency Action Plan	4/20/11	9,600	8,615	985
568	Barnes Co./Sheyenne River Snagging & Clearing Project	4/11/08	5,000	0	5,000
568	Sheyenne River Snagging & Clearing Reaches 1-3	9/21/11	262,770	262,770	0
568	Sheyenne River Snagging & Clearing Project	12/10/10	362,250	184,467	177,783
568	Sheyenne River Snagging & Clearing Project	12/7/12	288,750	93,788	194,962
571	Oak Creek Snagging & Clearing Project	1/28/11	5,000	5,000	0
642	Sweetbriar Dam Emergency Action Plan	5/17/10	15,200	0	15,200
829	Rush River Dam Prelminary Soils & Hydraulic Study/Rush River WRD	9/21/11	57,500	27,143	30,357
839	Elm River Detention Dam #3 EAP	12/6/10	12,160	7,162	4,998
839	Elm River Detention Dam #1 EAP	1/10/11	12,160	8,440	3,720
846	Morton Co. Square Butte Dam #5 EAP	12/10/10	24,000	20,930	3,070
847	Absaraka Dam Safety Analysis	8/31/09	5,719	5,179	540
847	Cottonwood Creek Dam Settlement Ballinger Rock	5/7/13	50,000	50,000	0
847	Absaraka Dam Improvement	11/1/12	114,783	84,316	30,467
929	Walsch Co. - Chyle Dam EAP	5/6/11	10,000	7,546	2,454
929	Walsch Co. - Soukop Dam EAP	3/2/11	10,000	7,760	2,240
985	Kolding Dam Emergency Action Plan	5/29/09	9,600	5,960	3,640
985	Turtle River Snagging & Clearing Project	10/9/12	13,000	10,500	2,500
1068	Cass County Drain #12 Improvement Reconstruction	8/18/09	741,600	0	741,600
1070	Cass County Drain #14 Improvement Recon	9/21/11	415,610	-8,009	423,619
1093	Cass Co. Drain #45 Extension Project	3/17/08	124,757	28,511	96,246

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
COMPLETED GENERAL PROJECTS					
1131	Elm River Detention Dam #2 Emergency Action Plan	12/6/10	12,160	8,310	3,850
1164	Pembina County Drain #64 Outlet Area Improvement	12/10/10	41,480	36,592	4,888
1180	Richland Co. Drain #7 Improvement Reconstruction	3/11/10	71,933	11,389	60,544
1232	Traill Co. Drain #13 Channel Extension Project	8/18/09	23,575	0	23,575
1247	Brokke Drain #30, Ervin Township	9/21/11	31,455	31,455	0
1267	Bottineau County LiDAR Collect/Mike Hall	10/19/11	97,000	97,000	0
1289	McKenzie Co. Weed Control On Sovereign Lands	3/4/11	11,705	11,705	0
1290	City Of Underwood Flood Mitigation Study	12/20/12	27,250	27,093	157
1291	Mercer County WRD Knife River Snagging & Clearing	11/1/10	20,000	0	20,000
1296	Pembina Co. WRD/Herzog Dam 2012 EAP	2/6/12	10,000	8,209	1,791
1296	Cook Bridge Riverbank Stabilization	10/21/11	36,649	22,090	14,559
1296	Pembina Co. WRD/Willow Creek Dam 2012 EAP	1/27/12	10,000	8,778	1,222
1296	Pembina Co. WRD/Bourbanis Dam 2012 EAP	2/6/12	10,000	8,616	1,384
1296	Pembina Co. WRD/Goschke Dam 2012 EAP	2/6/12	10,000	8,791	1,209
1296	Pembina Co. WRD/Weiler Dam 2012 EAP	2/6/12	10,000	9,315	685
1299	City of Fort Ransom Riverbank Stabilization	9/1/10	60,803	47,205	13,598
1300	Renville Co. LiDAR Collect For The Mouse River	9/17/12	100,000	100,000	0
1303	Shortfoot Creek Watershed Feasibility Study	9/15/11	8,390	8,390	0
1312	Walsh Co. WRD/Bylin Dam 2011 EAP	12/15/11	14,800	14,718	82
1312	Walsh Co. WRD/Melstad Dam 2011 EAP	12/15/11	9,088	9,088	0
1312	Walsh Co. WRD/Matejcek Dam 2011 EAP	12/14/11	5,360	5,360	0
1313	Ward Co. 2011 LiDAR Review & Data Creation Products	10/11/11	16,311	16,311	0
1313	City of Minot/Ward Co. Aerial Photo & LiDAR	3/11/10	186,780	143,407	43,373
1331	Richland Co. Drain #14 Improvement Reconstruction	3/11/10	116,988	16,549	100,439
1378	Clausen Springs Dam Emergency Spillway Repair	10/26/10	790,975	770,746	20,229

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
COMPLETED GENERAL PROJECTS					
1378	Clausen Springs Dam Emergency Action Plan/Barnes Co. WRD	8/23/11	20,000	0	20,000
1392	USGS Hydrographic Survey Of The Missouri River Bismarck - Washburn	6/15/11	53,000	53,000	0
1396	Dale Frink Consultant Services Agreement	10/26/10	18,600	0	18,600
1403	ND Water Resources Research Institute - Fellowship Program 2012-13	2/1/12	13,850	13,850	0
1403	ND-WRRI Fellowship Program	12/14/12	13,850	13,850	0
1413	Traill Co./Buffalo Coulee Snagging & Clearing	9/1/10	26,000	19,659	6,341
1413	Traill Co./Buffalo Coulee Snagging & Clearing	9/21/11	25,000	14,960	10,040
1431	NDDOT Aerial Photography - MUTIPLE	11/19/10	39,279	39,279	0
1433	Whitman Dam Emergency Action Plan	4/14/11	10,000	8,348	1,652
1438	Mulberry Creek Drain Partial Improvement Phase III	3/28/11	226,118	209,875	16,243
1444	City Of Pembina's Flood Control FEMA Levee Certification	3/20/12	21,344	21,344	0
1504	Valley City Flood Risk Management Feasibility Study - Phase 1	3/7/12	115,244	72,450	42,794
1577	Burleigh Co - Fox Island 2010 Flood Hazard Mitigation Evaluation	8/9/10	11,175	0	11,175
1603	Rush River Drain #69, Armenia Township, Cass Co.	9/21/11	313,500	0	313,500
1625	Sovereign Lands Rules - ND Game & Fish	2/23/10	6,788	0	6,788
1667	Traill Co./Goose River Snagging & Clearing	9/21/11	48,000	48,000	0
1667	Goose River Snagging & Clearing	9/1/10	12,890	0	12,890
1667	Goose River Snagging & Clearing	11/2/12	46,750	46,196	554
1671	Dead Colt Creek Dam 2011 Emergency Action Plan	6/14/11	22,800	22,800	0
1689	Brander Drain #7 Improvement Project	4/19/12	48,720	47,984	736
1705	Red River Basin Flood Control Coordinator Position	6/10/11	36,000	5,667	30,333
1732	Beulah Dam Emergency Action Plan	7/26/12	20,440	0	20,440
1785	Maple River Dam EAP	8/18/09	25,000	8,356	16,644
1814	Sheyenne River Snagging & Clearing Project/ Logjam Behind Lyndon Lee Farm	4/19/12	15,000	13,860	1,140
1814	Wild Rice River Snagging & Clearing	2/13/13	47,500	46,855	645
1814	Sheyenne River Snagging & Clearing Project	5/4/12	47,500	46,700	800

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
COMPLETED GENERAL PROJECTS					
1842	SCWRD Wild Rice River Snagging & Clearing	5/28/09	4,331	0	4,331
1842	Richland Co. Wild Rice River Snagging & Clearing Project - Reach 2	3/28/11	47,500	47,466	34
1842	Richland Co. - Phase 2- Wild Rice River Snagging & Clearing	2/1/11	15,000	11,603	3,397
1842	SCWRD Wild Rice River Snagging & Clearing	9/21/11	99,000	96,312	2,688
1842	Wild Rice River Snagging & Clearing	12/10/10	100,625	71,680	28,945
1842	Wild Rice River Snagging & Clearing	12/7/12	110,000	83,731	26,269
1859	ND Dept. Of Health Non-Point Source EPA Pollution Program Priority Project	9/21/11	200,000	200,000	0
1932	Peterson Slough Into Dry Run (Emergency)	5/28/10	32,150	32,150	0
1934	Elm River Snagging & Clearing Project	11/2/12	44,000	30,083	13,917
1941	Walsh County Drain #4a (Cost Overrun)	12/9/11	9,759	9,759	0
1942	Walsh County Assessment Drain #10, #10-1, #10-2	9/21/09	37,267	13,544	23,723
1953	Walsh County Drain #73 Construction Project	8/18/09	109,919	109,919	0
1964	Hydraulic Effects Of Rock Wedges Study - UND	11/12/09	11,651	11,457	194
1965	ND Silver Jackets Team Charter & Action Plan	7/1/11	9,182	9,182	0
1971	DES Purchase Of Mobile Stream Gages	3/28/11	16,457	16,457	0
1971	DES Purchase Of Mobile Stream Gages (2 Temporary Stream Gages)	7/19/11	8,000	8,000	0
1979	Wild Rice River Riverbank Stabilization Project	6/13/12	191,200	168,935	22,265
1986	USDA-APHIS North Dakota Wildlife Services - Animal Control/Beaver Management	6/1/11	250,000	250,000	0
1988	Sheyenne Riverbank Encroachment Study Project	3/16/12	22,875	18,405	4,470
2021	Performance Audit - Appropriations Division	9/17/12	149,700	149,542	158
1175-1933	DFIRM Project - Mouse River Hydrology	8/10/12	42,034	42,034	0
1175-1933	Houston Engineering - 100 Year Floodplain Mapping (Minot)	11/21/12	9,972	9,927	45
1312/1933	Walsch Co. WRD/Digital Flood Insurance Rate Map Project	2/16/12	8,356	8,356	0
1312/929	Fischer Land Surveying & Engineering/ Harriston Township Dike Complaint	12/12/11	6,000	6,000	0
1806-01	City of Argusville Flood Control Levee Project	9/21/11	25,432	25,375	57
1878-02	Maple-Steele Upper Maple River Dam PE & PD	7/19/11	187,710	185,748	1,962

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
COMPLETED GENERAL PROJECTS					
1882-01	(ESAP) Extended Storeage Acreage Program	8/18/09	63,554	0	63,554
1882-07	NDSU Development Of SEBAL	9/1/10	15,244	0	15,244
642-05	Sweetbriair Creek Dam Project	3/6/09	148,956	60,691	88,265
867-01	NDSU Soil & Water Sampling For Assessment Of Effects Of Subirrigation Through Tile Drains On Tile Discharge & Soil Salinity & Sodicity	5/12/12	7,225	7,225	0
867-01	Dr. Xinhua Jia Of The Dept Of Agriculture (Biosystems Engineering)	5/2/13	2,600	2,600	0
928/ 988/ 1508	Southeast Cass WRD (Bois, Wild Rice, & Antelope)	6/23/08	60,000	0	60,000
AOC/ ARB/ DSU	NDSU Dept Of Soil Science - NDAWN Center	3/8/10	3,000	3,000	0
AOC/ ARB/ DSU	NDSU Dept Of Soil Science - NDAWN Center	2/27/12	3,200	3,200	0
AOC/ BSC	Bismarck State College - ND Water Quality Monitoring Conference	2/7/12	2,000	2,000	0
AOC/ RRBC	Red River Basin Commission Contractor	7/1/09	100,000	100,000	0
AOC/ RRBC	Red River Basin Commission Contractor	8/2/11	200,000	200,000	0
AOC/ RRC	Red River Basin "A River Runs North"	6/30/10	5,000	5,000	0
AOC/ WEF	North Dakota Water Magazine	6/10/11	36,000	36,000	0
AOC/ WEF/ OURS	2012 Summer Water Tours Sponsorship	10/21/12	2,500	2,500	0
AOC/ WEF/ OURS	2013 Summer Water Tours Sponsorship	3/14/13	2,500	2,500	0
ARB/ DSU	(NDAWN) ND Agricultural Weather Network	1/24/13	3,200	3,200	0
PBS	PBS Documentary On Soil Salinity/ Lake Agassiz RC&D	1/29/10	1,000	0	1,000

STATE WATER COMMISSION
PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS
JULY 1, 2011 - JUNE 30, 2013

SWC PROJ. NO.	NAME	INITIAL APPROVAL	AMOUNT APPROVED	PAYMENTS	BALANCE
COMPLETED GENERAL PROJECTS					
PS/ IRR/ NES	NDSU Williston Research Extension Center - (Purchase Of Irrigation Equipment)	3/28/11	60,050	60,050	0
PS/ RD/ MRJ	Missouri River Joint Water Board (MRRIC) T. Fleck	6/30/09	6,470	6,470	0
PS/ RD/ MRJ	Missouri River Joint Water Board, (MRJWB) Start-Up	12/5/08	14,829	10,857	3,972
PS/ RD/ MRJ	Missouri River Joint Water Board, (MRJWB) Start-Up	8/2/11	20,000	9,163	10,837
PS/ RD/ MRJ	Missouri River Joint Water Board (MRRIC) T. Fleck	8/2/11	40,000	37,262	2,738
PS/ RD/ USR-JWRB	Upper Sheyenne River WRB Administration (USRJWRB)	6/15/11	12,000	5,429	6,571
TOTAL PROJECTS/GRANTS/CONTRACT FUND - COMPLETED PROJECTS			**8,628,375**	**5,558,812**	**3,069,563**

STATE WATER COMMISSION
OBJECT EXPENDITURES
FOR BIENNIAL PERIOD ENDING JUNE 30, 2013

Permanent Salaries	$9,891,969.56
Temporary Salaries	363,512.85
Overtime Salaries	192,852.35
Fringe Benefits	3,574,111.13
Travel	1,020,729.54
Supplies - IT Software	95,525.04
Supplies/Materials - Professional	287,348.09
Food & Clothing	2,134.36
Building, Grounds, Vehicle Supply	162,227.12
Misc. Supplies	510,366.55
Office Supplies	25,098.27
Postage	39,020.35
Printing	17,221.60
IT Equipment Under $5,000	225,372.35
Other Equipment Under $5,000	56,940.63
Office Equipment & Furniture Under $5,000	38,379.18
Utilities	5,329,907.91
Insurance	38,097.39
Rentals/Leases - Equipment & Other	6,,513.17
Rentals/Leases - Building & Land	96,280.11
Repairs	1,629,805.40
IT - Data Processing	195,521.14
IT - Communications	137,252.48
IT - Contractual Services & Repairs	158.40
Professional Development	167,792.50
Operating Fees & Services	226,242.95
Professional Fees & Services	19,326,987.71
Land & Buildings	2,096,223.93
Other Capital Payments	121,119,980.24
Extra Repairs/Defferred Maintenance	21,405.00
Equipment Over $5,000	61,876.40
IT Equipment/Software Over $5,000	5,767.50
Grants, Benefits, & Claims	141,620,773.43
Transfers Out	1,134,395.78
TOTAL	**$309,780,780.41**

STATE WATER COMMISSION

OUTSTANDING BONDS

The State Water Commission has issued revenue bonds for the Southwest Pipeline Project. The Commission has also issued bonds for statewide water development projects. The following table shows the State Water Commission's long-term debt as of June 30, 2013:

WATER DEVELOPMENT BONDS

PROJECT	SERIES	AMOUNT
Southwest Pipeline Project	2000 Series A	$675,000
Southwest Pipeline Project	2005 Series A	1,876,500
Southwest Pipeline Project	2005 Series B	537,000
Southwest Pipeline Project	2007 Series A	1,375,548
Southwest Pipeline Project	2007 Series B	11,900,000
Southwest Pipeline Project	2009 Series A	2,939,285
Statewide Water Development Projects	2005 Series A	17,310,000
Statewide Water Development Projects	2005 Series B	46,355,000

RESOURCES AVAILABLE FROM THE AGENCY

Meeting minutes may be obtained by writing to:

ND State Water Commission
State Office Building Dept 770
900 East Boulevard Avenue
Bismarck, ND 58505-0850

Or, via the Internet:
http://www.swc.nd.gov

Data available for public use:

- Government Land Office Plats
- Survey Horizontal and Vertical Control
- Various Ground-Water Studies
- Well and Site Location Data
- Lithologic Data
- Water Chemistry Data
- Water Level Data
- Lidar
- Precipitation and Hail Data
- Water Permit Data
- Drainage Permit Data
- Stream Flow Data
- Construction Permit Data
- Retention Structure Data
- Digital Map Data
- Well Drillers Reports

Additional information about the State Water Commission is available on our web site at http://www.swc.nd.gov