

WATER TOPICS OVERVIEW COMMITTEE - BACKGROUND MEMORANDUM

North Dakota Century Code Section 54-35-02.7 directs the Legislative Management during each interim to appoint a Water Topics Overview Committee in the same manner as the Legislative Management appoints other interim committees, and to designate a Chairman. The committee must meet quarterly and is to operate according to the statutes and procedure governing the operation of other Legislative Management interim committees. This section was first enacted in 2009, and the committee was named the Water-Related Topics Overview Committee. The name was changed in 2013.

Section 54-35-02.7 provides the committee is responsible for:

1. Legislative overview of water topics and related matters;
2. The Garrison Diversion Project; and
3. Any necessary discussions with adjacent states on water topics.

In addition, the committee must work collaboratively and may meet with the State Water Commission and an amendment to Section 54-35-02.7 by 2015 Senate Bill No. 2020 requires the committee to report on:

1. The project prioritization process;
2. Allocated program expenditures; and
3. Fund balances of projects, grants, and contracts.

The committee was assigned three studies in addition to its statutory responsibilities. Section 22 of Senate Bill No. 2020 requires the study of the options available for providing a sustainable water supply to central and eastern North Dakota. The legislative history reveals the recent growing impetus for the need of water in the central part of this state came from the water needs of the CHS, Inc., fertilizer plant in Jamestown, although the committee has considered the concept as a synergy with delivering water to the eastern part of the state. The need for water in the eastern part of the state has been historically addressed by this committee's review of the Red River Valley Water Supply Project.

The committee's study will be supplemented by a study being done by the State Water Commission on the Central Dakota Water Supply Project and the Garrison Diversion Conservancy District on the Red River Valley Water Supply Project. Section 19 of Senate Bill No. 2020 designated \$70 million of appropriations for a water reuse facility and the Central Dakota Water Supply Project, contingent on the State Water Commission entering into an agreement that a fertilizer or chemical processing facility will be constructed in Stutsman County. Of that amount, \$10 million is a grant and \$40 million is a loan for a water reuse facility. The remaining \$20 million is for the Central Dakota Water Supply Project. The State Water Commission must conduct a study of the feasibility and desirability of a Central Dakota Water Supply project this biennium. The study must include a financial analysis as well as a detailed business plan for the project, including projected operational costs and projected water supply needs for the area to be served.

Section 14 of Senate Bill No. 2020 requires the Garrison Diversion Conservancy District to report on a regular basis on its progress in planning and designing the Red River Valley Water Supply Project. The same section provided designated funding of \$12,359,000 for the Garrison Diversion Conservancy District to plan and design the Red River Valley Water Supply Project.

Section 4 of House Bill No. 1095 requires the study of the use of quick take in eminent domain by water resource districts. The study must include input from stakeholders, including the State Water Commission, water resource districts, and landowners. Quick take allows the person using eminent domain to immediately take the property after depositing an amount of an offer with the district court. During the legislative process, this bill was amended to insert a condition precedent for a water resource district to use quick take. Limiting language was passed in Section 33 of Senate Bill No. 2015, the Office of Management and Budget appropriations bill. The language would have required that state funds must be appropriated by the Legislative Assembly for a specific project as a condition precedent for a water resource board to use quick take. The Governor vetoed this section of the bill. He vetoed the section because it created confusion by not defining "specific project," a term he argued that was open to a wide range of interpretations. He pointed out the study of this issue assigned to this committee and said "[t]his study should provide the clear direction as to what policy changes, if any, are needed."

House Concurrent Resolution No. 3020 directs the study of the impact on owners of land that has been inundated by the rising waters in Devils Lake and Stump Lake. The study resolution focuses on the payment by landowners of property taxes on inundated lands and the fact that as inundated lands become sovereign lands, the landowner does not receive any compensation.

The committee was assigned the duty to receive five reports. Section 14 of Senate Bill No. 2020 requires the Garrison Diversion Conservancy District to report to this committee to review its progress in planning and designing the Red River Valley Water Supply Project.

Section 18 of Senate Bill No. 2020 requires a report from the State Water Commission to this committee and Budget Section approval before transferring funds among designated purposes. The amounts for these purposes are in Section 17 and total \$414 million and are designated as follows:

1. \$130 million for rural water projects;
2. \$113 million for flood control projects;
3. \$85 million for municipal water projects;
4. \$61 million for general water projects with \$50 million for grants and \$11 million from the infrastructure revolving loan fund; and
5. \$25 million from the infrastructure revolving loan fund for rural and municipal water projects.

Section 25 of Senate Bill No. 2020 requires the State Water Commission to report every six months during the biennium to this committee any changes made to the State Water Commission priority projects list from the one presented last session.

Section 26 of Senate Bill No. 2020 requires the F-M Area Diversion Authority Board to report twice each year on congressional authorization of the diversion project and the status of the self-insured crop insurance pool; mitigation efforts, alternatives, and costs; easements; and the project budget. The MNDak Upstream Coalition is required to report on the impacts of the Fargo flood control project and mitigation efforts, alternatives, and costs.

Section 27 of Senate Bill No. 2020 requires the Independent Water Providers and the Western Area Water Supply Authority (WAWS) to report regularly to this committee and collaborate with this committee and the State Water Commission to monitor water usage, rates, engineering contract procedures, and market share. This committee must report on WAWS' ability to maintain its payment schedule on the state's loan.

WATER IN NORTH DAKOTA

North Dakota is located in a region of central North America that bridges the divide between "too wet" and "too dry." The 100th meridian line of longitude roughly splits the state in half. East of this line, there is generally more precipitation in the form of snow and rain than west of the 100th meridian. North Dakota's extreme climate is largely driven by air masses from three areas--the Rocky Mountains, where the mountains block much of the Pacific moisture; the polar region, which brings much of the state's cold weather; and the Gulf of Mexico, which brings much of the state's precipitation. Several studies of lake sediment in North Dakota have demonstrated the state is subject to long-term climatic variation, alternating between extended wet and dry cycles.

Surface Water Resources

North Dakota is separated into two major drainage basins by a continental divide running from the northwest to the southeast corners of the state. The northeastern portion of the state falls generally within the Hudson Bay drainage, while the southwestern part is drained by the Missouri River to the Gulf of Mexico. For planning purposes, the State Water Commission has divided the state into five major watersheds--the Missouri River Basin, James River Basin, Souris River Basin, Red River Basin, and Devils Lake Basin.

The Missouri River drainage system includes the major subbasins of the Missouri and James Rivers. The tributaries on the south and west sides of the Missouri River typically occupy small but sharply defined valleys. This area is well-drained with few natural lakes. The topography is characterized by rolling, hilly plains with numerous flat-topped, steep-sided buttes. The most prominent are located in the Badlands along the Little Missouri River. Areas east of the Missouri River include glaciated areas that are characterized by many small lakes and wetlands.

The James River, which is a major tributary of the Missouri River, begins in the drift prairie of central North Dakota but does not join the Missouri River until it reaches Yankton, South Dakota. The James River system is poorly to moderately drained with a large number of wetlands.

The Hudson Bay drainage includes the Souris River and Red River systems and the Devils Lake Basin. The Souris River (officially designated the Mouse River by Section 61-01-24) originates in Saskatchewan and then loops through North Dakota before it reenters Canada west of the Turtle Mountains. The topography is varied within the basin with hilly terrain in the southwest, a flat glacial Souris Lake plain in the east, and forested hills of the Turtle Mountains in the northeast.

The Red River winds northward almost 400 miles, forming the border between North Dakota and Minnesota. From the international boundary with Canada, the Red River flows another 155 river miles to Lake Winnipeg in Manitoba. The valley through which the river flows is the former bed of glacial Lake Agassiz. The ancient lakebed is extremely flat and is home to some of the most productive farmland in the world.

The Devils Lake Basin is currently a noncontributing subbasin of the Red River Basin. The drainage system is formed by chains of waterways and connecting lakes, many of which ultimately terminate in Devils Lake itself.

The flow in all North Dakota streams and rivers is seasonably variable. Runoff is greatest in early spring as a result of snowmelt water and spring rainfall. Many smaller streams experience little or no flow for extended periods during summer months, although dramatic flow variations in river discharges can be caused by changes in weather patterns, isolated storm events, evaporation rates, and snowpack conditions.

According to information in North Dakota's assessment database provided by the State Department of Health to the federal Environmental Protection Agency (EPA), there are 138 manmade reservoirs and 109 natural lakes in North Dakota.

There are an estimated 59,607 miles of rivers and streams in the state. These estimates are based on rivers and streams entered in the assessment database.

Although this memorandum focuses on state involvement in water management and projects, one area in which there is bottom-up control is the draining of surface water. The Legislative Assembly enacted authority to establish legal drain boards in 1895. In 1935 the Legislative Assembly established water control and conservation districts separate from legal drain boards. In 1973 the Legislative Assembly determined each county should have a water conservation and resource district and also changed the name of these districts to water management districts. In 1977 the Legislative Assembly authorized joint boards under which authority two or more water management districts could do what one board could do alone. The first joint board was the Red River Joint Board, which was created in 1979.

During the 1979-80 interim, the Legislative Council studied water organizations. At that time, there were drain boards, water management districts, and joint boards, all of which were designed to manage water. The Legislative Council reviewed the Nebraska system under which one district does all of the functions done by separate water organizations and which are organized on watershed boundaries as opposed to political boundaries. The result of this study was to change the name of water management districts to water resource districts and to change the name of legal drains to assessment drains. Also, legal drain boards were abolished, and authority over drainage was placed with water resource districts.

Ground Water Resources

Ground water underlies the land surface throughout the state. Ground water generally occurs in two major types of rock--unconsolidated deposits and bedrock. Unconsolidated deposits are loose beds of gravel, sand, silt, or clay of glacial origin. Bedrock consists primarily of shale and sandstone.

Aquifers of glacial origin are generally more productive to wells than aquifers found in the underlying bedrock. Bedrock aquifers underlie the entire state and tend to be more continuous and widespread than aquifers in the unconsolidated deposits. It is estimated 60 million acre-feet of water is stored in the major unconsolidated aquifers in the state. The amount of water available in the major bedrock aquifers is estimated to be approximately 435 million acre-feet.

Water Permitting

The State Engineer's office was created in 1905 to regulate and administer matters concerning the allocation of North Dakota's water resources. The State Water Commission was created in 1937 in response to the 1930s

drought and for the specific purpose of fostering and promoting water resource development throughout the state. The State Engineer's office is a regulatory agency that regulates drainage, water rights, and the appropriation of water while water development is promoted by the commission. An organizational chart is attached as [Appendix A](#).

North Dakota follows the prior appropriation doctrine for water appropriation. Prior appropriation also is known as the "first in time, first in right" appropriation system with the first entity to put water to a beneficial use acquiring the right to use the water over later or junior water appropriators.

Water permits are required for all uses of water, except in cases when both the amount of water to be impounded, diverted, or withdrawn is less than 12.5 acre-feet, and the contemplated use is domestic; livestock; or fish, wildlife, and other recreational uses. Although a permit is not required for these uses, the State Engineer's office must be notified of the location and the acre-feet capacity, stored or utilized, once the facilities are constructed. A permit may be applied for in order to establish a priority date for these uses.

When there are multiple water permit applications for water from the same source and that source is insufficient to supply all the applications received by the State Engineer within a 90-day time period, the following order is used to determine priority, from first to last: domestic; municipal; livestock; irrigation; industrial; and fish, wildlife, and recreation.

Due to increasing oil production in western North Dakota, industrial water use has grown in recent years. A permit from the State Engineer's office must be granted before any water can be used or sold for industrial purposes. These permits specify the source of water and how much can be pumped each year. All industrial water use is tracked by the State Engineer's office, and water use is reported to the state on a monthly basis.

Water Project Management and Funding

The State Water Commission was created in response to the drought of the 1930s and was charged with developing irrigation in the state. From 1937 to 1981, the Legislative Assembly funded the commission on a biennium-to-biennium basis with approximately \$500,000 to \$2,000,000 being appropriated per biennium. This changed with creation of the resources trust fund in 1981. When the resources trust fund was first created, the proceeds of the fund were dedicated to financing the Southwest Pipeline Project--the first state water project. During this period, the scope of projects increased dramatically as the Southwest Pipeline Project was a \$100 million project. At present, there are three projects owned by the state of North Dakota--the Northwest Area Water Supply Project, the Southwest Pipeline Project, and the Devils Lake Outlet Project.

The State Water Commission is required by Sections 61-01-26 and 61-02-14 to develop and maintain a comprehensive water plan for the sound management of North Dakota's water resources. Over the years, the commission has developed numerous state water management plans to identify statewide water resource management and development project needs and funding required for implementation. The most recent comprehensive plan was completed in 1999.

Since 1999, the state water management plan has been updated with supplements every biennium with water development reports published prior to legislative sessions. Reports serve to assist the Legislative Assembly in the decisionmaking process in appropriating funds for water management and development.

The *2015 State Water Management Plan* identifies six goals to more clearly define where North Dakota's long-term water management and development efforts will be directed in the future. These goals are to:

- Regulate the use of water resources for the future welfare and prosperity of the people of North Dakota;
- Develop water resources for the future welfare and prosperity of the people of North Dakota;
- Manage water resources for the future welfare and prosperity of the people of North Dakota;
- Educate the public regarding the nature and occurrence of North Dakota's water resources;
- Collect, manage, and distribute information to facilitate improved management of North Dakota's water resources; and
- Conduct research into the processes affecting the hydrologic cycle to improve the management of North Dakota's water resources.

North Dakota funds the majority of its water projects through the State Water Commission. Funding funneled through the commission for water development has come from several sources, including the general fund; the Dakota Water Resources Act; the federal municipal, rural, and industrial water supply program; the resources trust fund; and the water development trust fund. In addition to these sources, the commission is authorized to issue revenue bonds for water projects, and the commission has shared control of the drinking water state revolving loan fund. The commission's budget information for the 2015-17 biennium is attached as [Appendix B](#).

Although this memorandum focuses on state involvement in water management and projects, the provision of drinking water throughout the state has been constructed in a large part by rural water systems with local, state, and federal funding support. Rural water systems are patterned after the rural electrification movement in the 1930s and began to be established in the 1970s. These systems were developed to supply water to underserved rural areas. Today there are 33 rural water systems in North Dakota.

Municipal, Rural, and Industrial Water Supply Program

A major source of grant funding for water supply development in North Dakota is the municipal, rural, and industrial water supply program. This program's funding was authorized by Congress through the Garrison Diversion Unit Reformulation Act of 1986. Federal funding is channeled through the federal Bureau of Reclamation to the state's federal fiscal agent--the Garrison Diversion Conservancy District. This program is administered jointly by the conservancy district and the State Water Commission. The Rural Development Agency provides funding through the United States Department of Agriculture for a majority of loans to cover the local share for municipal, rural, and industrial water supply projects.

The Garrison Diversion Unit Reformulation Act of 1986 authorized a federal municipal, rural, and industrial water supply grant program of \$200 million. This funding has been exhausted. Additional federal funding was authorized for the municipal, rural, and industrial water supply program with passage of the Dakota Water Resources Act of 2000. That Act provided resources for general municipal, rural, and industrial water supply projects, the Northwest Area Water Supply Project, the Southwest Pipeline Project, and a project to address water supply issues in the Red River Valley. An additional \$600 million, indexed for inflation, was authorized which includes a \$200 million grant for state municipal, rural, and industrial water supply programs; \$200 million for North Dakota tribal, municipal, rural, and industrial water supply programs; and a \$200 million loan for the Red River Valley Water Supply Project.

Annual municipal, rural, and industrial water supply funding is dependent upon congressional appropriations. As of October 2014, \$355 million in federal funds had been approved for North Dakota's municipal, rural, and industrial water supply program with \$6.8 million and \$1.5 million for federal fiscal years 2013 and 2014. This is a reduction from \$19.3 million for federal fiscal years 2011 and 2012 and a further decrease from federal funds in fiscal years 2007 and 2008 of \$30 million.

Resources Trust Fund

The resources trust fund was created pursuant to passage of Measure No. 6 in the November 1980 general election. Measure No. 6 created a 6.5 percent oil extraction tax, 10 percent of which was to be allocated to the resources trust fund. In June 1990, the Constitution of North Dakota was amended to establish the resources trust fund as a constitutional trust fund and provide the principal and income of the fund could be spent only upon legislative appropriations for constructing water-related projects, including rural water systems, and energy conservation programs. In November 1994, the voters of North Dakota approved a constitutional amendment, which is now Article X, Section 24, of the Constitution of North Dakota, to provide 20 percent of oil extraction taxes be allocated--50 percent to the common schools trust fund and 50 percent to the foundation aid stabilization fund. Section 57-51.1-07 provides oil extraction tax revenues be distributed as follows: 20 percent to the resources trust fund; 20 percent allocated as provided in Article X, Section 24, of the Constitution of North Dakota; 30 percent to the legacy fund; and 30 percent to the general fund. An analysis of the resources trust fund is attached as [Appendix C](#).

Infrastructure Revolving Loan Fund

In 2013 the Legislative Assembly created the infrastructure revolving loan fund to begin in 2015 to provide loans for water supply, flood protection, and other water projects. Money in the fund comes from 10 percent of the oil extraction revenue deposited in the resources trust fund. The State Water Commission approves projects and loans from the fund and the Bank of North Dakota manages and administers the loans.

Water Development Trust Fund

Section 54-27-25 establishes a water development trust fund to be used for the long-term water development and management needs of the state. This section creates a tobacco settlement trust fund for the deposit of all

tobacco settlement money obtained by the state. Money in the fund must be transferred within 30 days of its deposit in the fund with 10 percent going to the community health trust fund, 45 percent to the common schools trust fund, and 45 percent to the water development trust fund. In the November 2008 general election, voters approved Initiated Measure No. 3 that amended Section 54-27-25 to establish a tobacco prevention and control trust fund. The measure provides for a portion of tobacco settlement funds received by the state to be deposited in this new fund rather than the entire amount in the tobacco settlement trust fund. Tobacco settlement money received under subsection IX(c)(1) of the Master Settlement Agreement, which continues in perpetuity, will continue to be deposited into the tobacco settlement trust fund and allocated 10 percent to the community health trust fund, 45 percent to the common schools trust fund, and 45 percent to the water development trust fund. Beginning in 2009, tobacco settlement money received under subsection IX(c)(2) of the Master Settlement Agreement relating to strategic contribution payments will be deposited in the newly created tobacco prevention and control trust fund. The measure also provides if in any biennium the tobacco prevention and control trust fund does not have adequate funding for the comprehensive plan, money may be transferred from the water development trust fund to the tobacco prevention and control trust fund in an amount determined necessary by the Tobacco Prevention and Control Executive Committee to adequately provide for the comprehensive plan. In 2009 the Legislative Assembly provided any money deposited in the water development trust fund under Section 54-27-25 may be spent only pursuant to legislative appropriation.

Section 61-02.1-04 provides the principal and interest on bonds issued for flood control projects, the Southwest Pipeline Project, and an outlet to Devils Lake must be repaid with money appropriated from the water development trust fund. An analysis of the water development trust fund is attached as [Appendix D](#).

At present, the water development trust fund is no longer used as a source to pay off bonds. All bonds have been defeased as of August 1, 2015.

Bonding

Section 61-02-46 authorizes the State Water Commission to issue revenue bonds of up to \$2 million per project. The Legislative Assembly must authorize revenue bond authority beyond \$2 million per project. In 1991 the Legislative Assembly authorized full revenue bond authority for the Northwest Area Water Supply Project. In 1997 the Legislative Assembly authorized \$15 million of revenue bonds for the Southwest Pipeline Project. In 2001 the Legislative Assembly raised the Southwest Pipeline Project bonding authority to \$25 million.

In 1999 the State Water Commission was authorized to issue up to \$84.8 million in appropriation bonds under the provisions of Senate Bill No. 2188. The Legislative Assembly's intent was to partially fund flood control projects at Grand Forks, Devils Lake, Wahpeton, and Grafton and to continue funding for the Southwest Pipeline Project. In March 2000, the commission issued bonds generating \$27.5 million, thus reducing available bonding authority to \$57.3 million. Recognizing the need for water development projects in addition to those identified in Senate Bill No. 2188, the 2003 Legislative Assembly allowed authority for the unissued \$57.3 million to expire but then authorized \$60 million of bonding authority for statewide water development projects. In June 2005, the commission issued bonds generating \$60 million. As of June 30, 2012, the commission had outstanding bonds totaling \$68.9 million for other statewide water projects.

House Bill No. 1020 (2013) provided funding for the purpose of paying off or defeasing all of the State Water Commission's bond issues during the 2013-15 biennium. Senate Bill No. 2020 (2015) directed the State Water Commission to refinance the bonds through a loan with the Bank of North Dakota. The State Water Commission borrowed \$45,840,222 to pay off the last outstanding bonds. The loan payments will be funded for the 15-year term with revenues from the resources trust fund. The State Water Commission does not have any outstanding bonds.

Drinking Water State Revolving Loan Fund

An additional source of funding for water supply development projects is the drinking water state revolving loan fund. Under this program, funding is distributed in the form of a loan program through the EPA and administered by the State Department of Health. The fund provides below market rate interest loans of 2.5 percent to public water systems for capital improvements aimed at increasing public health protection and compliance under the federal Safe Drinking Water Act. The repayment of previous loans and bonding is deposited in the fund. The average loan is from \$20,000 to \$66,000.

The State Water Commission's involvement with the fund is twofold. The State Department of Health must administer and disburse funds with the approval of the State Water Commission. The department must establish assistance priorities and expend grant funds pursuant to the priority list for the drinking water treatment revolving loan fund after consulting with and obtaining the commission's approval. The process of prioritizing newer

modified projects is completed on an annual basis. Each year the department provides an intended use plan, which contains a comprehensive project priority list and a fundable project list. The entities on the list update the cost of the project every year and stay on the list in the same order after an update. The list is an estimate of costs and is not a list of projects that are ready to be built. The 2014 comprehensive project priority list includes 200 projects with a cumulative total project funding need of \$672 million. The funded list of 184 projects includes \$414 million in loans for fiscal years 1997 through 2014. Available funding for the program was approximately \$22.7 million.

Garrison Diversion Conservancy District

The Pick-Sloan Missouri Basin Program

On December 22, 1944, the United States Congress authorized the Flood Control Act of 1944, later renamed the Pick-Sloan Missouri Basin Program. The primary purpose of the program was for flood control, navigation, irrigation, and hydropower which would be facilitated by the construction of dams on the main stem of the Missouri River. These dams include Fort Peck, Garrison, Oahe, Big Bend, Fort Randall, and Gavins Point.

Under the plan, North Dakota was originally to receive its irrigation from water diverted from the Fort Peck Dam in eastern Montana. Originally known as the "Missouri-Souris Project," the project included 1.275 million acres of irrigation.

Between 1944 and 1965, soil surveys and studies were conducted to assess the feasibility of irrigating the 1.275 million acres originally planned for North Dakota. The studies indicated the soil in northwestern North Dakota was not suitable for irrigation according to federal irrigation standards. Drainage problems caused by the unusual high density of glacial subsoil were a primary factor. As a result, the Bureau of Reclamation revised the diversion plan proposing instead to take water from the Garrison Dam and Reservoir and irrigate other lands to the east. With the new name "Garrison Diversion," the Bureau of Reclamation 1957 feasibility study on the redesigned project recommended irrigation of 1.007 million acres and other water development in central and eastern North Dakota.

Garrison Diversion Unit

Because of changes to the original plan and the language in the 1964 appropriations Act requiring specific reauthorization for all units of the Pick-Sloan Missouri Basin Program, the Bureau of Reclamation returned to Congress for reauthorization. During the process of reauthorization, supporters of the project pointed to the many benefits for North Dakota and the need to compensate the state for land inundated by the construction of the Garrison Dam and Reservoir. Others in Congress criticized the large cost of even the scaled-down project, the conflict with federal farm policies, and the relatively small amount of money to be repaid by water users.

On August 5, 1965, Congress addressed these concerns by enacting legislation for the Garrison Diversion Unit. The primary focus of the plan was to include in the initial stage municipal and industrial water, fish and wildlife development, recreation, and flood control along with irrigation of 250,000 acres. Between 1968 and 1984, construction and preparatory activities progressed on many features.

Garrison Diversion Unit Commission

Even as construction advanced on Garrison Diversion throughout the 1970s and 1980s, it became increasingly apparent major issues, such as the environment, acquisition of land, economics of irrigation, and Canadian concerns about water flowing from the Missouri River Basin into the Hudson Bay Basin, would require reformulation of the project if it was to be completed. In 1984 construction was halted and a high-level commission was appointed by the Secretary of the Interior to study and recommend a change in direction.

The Garrison Diversion Unit Commission, in its final report issued December 20, 1984, recommended development of a Garrison Diversion Unit significantly different from the project described in the 1957 feasibility report and the project authorized in 1965.

The major recommendations were:

- Irrigation of 130,940 acres of land, none of which drains to the Hudson Bay. Of these, 17,580 acres would be located on the Fort Berthold and Standing Rock Indian Reservations.
- A grant program of \$200 million to facilitate municipal, rural, and industrial water service for as many as 130 towns and cities, rural areas, and three Indian reservations.
- A water treatment facility to treat Missouri River water that would be transferred into the Hudson Bay drainage via the Sheyenne River and then the Red River. This would provide municipal, rural, and

industrial water for Fargo, Grand Forks, and other cities and rural systems. The cost of building and operating the treatment plant was declared nonreimbursable.

- Mitigation of wildlife impacts on a new basin with specific wildlife features authorized beyond the mitigation requirements.
- Recreation development on a 50-50 cost-share basis.
- The cost of the commission plan was estimated at a total of \$1.12 billion in capital costs, including expenditures to date, and \$15.8 million in annual operation, maintenance, and replacement costs.

Of major concern to North Dakota and the Garrison Diversion Conservancy District was the proposed elimination of the Lonetree Dam and Reservoir and replacement with the Sykeston Canal. The Lonetree Reservoir was to be the project's principal regulating reservoir; without it, future expansion was limited. The Lonetree Dam and Reservoir remained an authorized feature of the commission plan, but construction funds may only be requested after a finding of need by the Secretary of the Interior and satisfactory consultation with the government of Canada.

Garrison Diversion Unit Reformulation Act

As a provision of the fiscal year 1986 appropriation, Congress stipulated that new construction contracts not be awarded or additional land acquired unless the project was reauthorized by March 31, 1986. The state and the Garrison Diversion Conservancy District subsequently elected to support reauthorization of the project. The Garrison Diversion Unit Reformulation Act of 1986 was signed into law May 12, 1986, to authorize the recommendations of the Garrison Diversion Unit Commission's final report. In conjunction with the new Act, a "statement of principles" was signed by all the primary stakeholders in the previous project conflicts.

Following the 1986 Act, activities began on municipal, rural, and industrial water supply projects and mitigation of wildlife habitat. Construction continued on some of the water delivery features. The continuing evaluation of a smaller Lonetree Reservoir as a project feature and further analysis of the recommended Sykeston Canal deferred progress with construction of the principal water delivery facilities. In 1990 the President failed to include any funding for the Garrison Diversion Project in his submitted fiscal year 1991 budget.

In connection with the administration's decision to terminate Garrison Diversion funding in fiscal year 1991, the Secretary of the Interior established a task group to develop a policy on support for future funding of the authorized project. The task group's decision was to continue funding only those features of the reformulated project which are consistent with the contemporary water needs, national priorities, and the history of Garrison Diversion but not to fund features which would be used for mitigation. The recommendations also included continuation of the municipal, rural, and industrial water supply grant program; Indian municipal, rural, and industrial water supply programs; irrigation development on 17,580 acres to include two Indian reservations; continued operation of the Oakes Test Area research activities; recreation, fish, wildlife mitigation, and enhancement initiatives; and a minimum level of operation and maintenance on the already constructed main supply system facilities. Funding for these features would be considered by the administration within the context of national priorities.

Collaborative Process

In November 1993, the North Dakota Congressional Delegation and the Governor requested the Bureau of Reclamation initiate a collaborative process to find a consensus plan that would meet the contemporary water development and stewardship needs of the state. The collaborative process included representatives of the Standing Rock Sioux Tribe, Devils Lake Sioux Tribe, Three Affiliated Tribes, the Congressional Delegation offices, and the Governor's office. The bureau provided technical and administrative support. Under the guidance of the collaborative group, the bureau began a series of studies for the water supply needs of the state. In 1995 the North Dakota Legislative Assembly repealed a portion of the state laws dealing with the preservation of wetlands. The National Wildlife Federation interpreted this action as withdrawal of state support for the statement of principles and withdrew from the collaborative process.

Red River Valley Water Supply Project

The Garrison Diversion has turned part of its focus toward supplying the Red River Valley with a reliable supply of quality drinking water. Research suggests a strong possibility for a drought, such as the one that occurred in the 1930s, could hit the Red River Valley at some point in the next five decades. This drought could be of the same magnitude as the 1930s drought or maybe worse. With the rising population of cities such as Fargo and Moorhead, the water demand during a drought would be even greater than in previous decades.

The Dakota Water Resources Act calls for \$200 million of federal appropriations for the Red River Valley Water Supply Project. A study began in 2000 with a memorandum of understanding signed between the state, represented by the Garrison Diversion Conservancy District, and the federal government, represented by the Bureau of Reclamation.

Also included in the Dakota Water Resources Act were appropriations for a \$200 million increase in a municipal, industrial, and rural water supply fund; \$200 million to meet Indian water needs; and \$32.5 million for environmental and recreational needs.

The Dakota Water Resources Act of 2000 authorized the Red River Valley Water Supply Project to provide a reliable supply of quality drinking water for the Red River Valley. The Act also mandated the preparation of an environmental impact statement with joint leadership between the federal government and the state. The Governor designated the Garrison Diversion Conservancy District to represent the state in the Red River Valley Water Supply Project. The purpose of the environmental impact statement was to evaluate alternatives to meet the long-term water needs of the Red River Valley in North Dakota and three cities in Minnesota--East Grand Forks, Moorhead, and Breckenridge.

A draft environmental impact statement was released by the Bureau of Reclamation and the state in December 2005. The draft environmental impact statement evaluated eight alternatives to meet the water supply needs of the Red River Valley. Of these alternatives, three utilized existing surface water and ground water sources in North Dakota and Minnesota, four imported water from the Missouri River, and one included the future of the Red River Valley if no project were built. The four import alternatives included water treatment plants to reduce the risk of transferring invasive species. A supplemental draft environmental impact statement was released on January 31, 2007, which contained revisions to the draft environmental impact statement and was written to incorporate responses to substantive comments related to environmental issues received on the draft environmental impact statement. New information became available, and additional analyses relevant to environmental concerns and issues were conducted in response to the comments. After the additional analyses, the supplemental draft environmental impact statement eliminated two of the alternatives contained in the draft environmental impact statement from further consideration and identified the Garrison Diversion Unit import to the Sheyenne River as the state and federal preferred alternative.

The Bureau of Reclamation and the state released the final environmental impact statement on December 21, 2007. This document includes responses to public comments received on the draft and supplemental draft environmental impact statements. The document also contains a final biological assessment prepared in compliance with the federal Endangered Species Act, an analysis of forecasted depletions and sedimentation on the Missouri River main stem reservoir system, and a review of climate change literature.

After due consideration and evaluation of technical, hydrologic, and design aspects and water permitting and environmental impacts, the state and the Bureau of Reclamation each identified the Garrison Diversion Unit import to the Sheyenne River alternative as the preferred alternative.

Proponents of this alternative note the Garrison Diversion Unit import to the Sheyenne River alternative provides positive benefits to the environment and harbors no significant negative environmental impacts. It meets the water needs of the Red River Valley now and in the future. This option also provides the core infrastructure for all water systems in the Red River Valley, thus offering the flexibility of future expansion. It has no technical constructability issues and is the least costly of the three Missouri River import alternatives. The Garrison Diversion Unit import to the Sheyenne River alternative would transport water through the McClusky Canal, and then utilize a buried pipeline from a biota treatment facility to the Sheyenne River north of Lake Ashtabula. Lake Ashtabula would act as a regulating reservoir. From there, water would be released in the Sheyenne River and flow into the Red River supplying water systems in the Red River Valley with a reliable supply of drinking water.

The Red River Valley Water Supply Project has not received a record of decision from the federal government.

PREVIOUS WATER TOPICS OVERVIEW COMMITTEE STUDIES

In the 2009-10 interim, the committee studied the:

- Garrison Diversion Project with a focus on the Red River Valley Water Supply Project.
- Municipal, rural, and industrial water supply program.
- Operation of the State Water Commission.

- *2009 State Water Management Plan.*
- *North Dakota Sovereign Land Management Plan.*
- Southwest Pipeline Project.
- Devils Lake.
- Organization and operation of water resource districts and water districts.
- Red River Basin Mapping Initiative.

In the 2011-12 interim, the committee studied the:

- 2011 Mouse River flood.
- 2011 Missouri River flood and Corps of Engineers Missouri River operations.
- 2011 Devils Lake flood.
- Fargo-Moorhead Metropolitan Area Flood Risk Management Fargo-Moorhead Diversion Project.
- 2011 flood damage assessments.
- Structure of North Dakota water organizations.
- Prioritization and funding of state water projects.
- Red River Valley Water Supply Project.
- Red River Basin Commission.
- North Dakota Water Coalition.
- Irrigation.
- Western Area Water Supply Authority.
- Southwest Water Authority.

In the 2013-14 interim, the committee studied the:

- Red River Valley Water Supply Project.
- Western Area Water Supply Authority.
- Cost-share policy and prioritization of projects, including:
 - Economic development and rapid growth issues;
 - Rural water systems issues;
 - Tribal issues;
 - Land purchase issues; and
 - Litigation issues.
- Municipal water projects.
- Southwest Water Supply Project.
- Northwest Area Water Supply Project.
- Lake Sakakawea, including the land adjacent to the lake and Lake Oahe.
- Fargo diversion and other flooding issues.
- Mouse River enhanced protection plan.

The committee has studied a number of subjects continually throughout the interims. The studied subjects include the Red River Valley Water Supply Project, WAWS, the prioritization and funding of state water projects, and Fargo flood control. The following briefly reviews this committee's work relating to these subjects.

Red River Valley Water Supply Project

In the 2009-10 interim, the committee reviewed the status of the Red River Valley Water Supply Project. The committee learned the Garrison Diversion Conservancy District submitted a comprehensive report to Congress in December 2008. The report identified selected alternatives, summarized the environmental impact statement, outlined effects on Minnesota-Missouri states, and indicated compliance with the Boundary Waters Treaty of 1909. The selected alternative to deliver water to the Red River Valley is the Garrison Diversion import to the Sheyenne River alternative. In the 2009-10 interim, the Garrison Diversion Conservancy District was obtaining right of way for the selected alternative, performing permitting and environmental services, developing an operational plan, and working on the preliminary design. The next steps were to obtain a record of decision and Congressional authorization for use of Missouri River water.

During the 2011-12 interim, the committee was informed the impetus for the project began in 1992 with concern for long-term water supply for the city of Fargo. However, despite intense local efforts, approval for the project has not been forthcoming, and the Lake Agassiz Water Authority is exploring moving forward with a local and state plan without federal participation.

During the 2013-14 interim, the committee reviewed the present plans for federal involvement in the Red River Valley Water Supply Project. However, as the interim passed, the committee reviewed the concept as a state project without federal involvement. The reason for the shift was the lack of a record decision by the federal government. In addition to not receiving a federal record decision, other impediments to the project include concerns of Canada and other states, including Missouri and Minnesota.

The consulting engineers for the project considered multiple potential alternatives for a local and state plan--two of which emerged. The two final alternatives under consideration were a route from Washburn to Baldhill Creek and a route from Bismarck to Lake Ashtabula along the Interstate 94 corridor. The estimated total project cost for the Washburn to Baldhill Creek alternative is \$781.4 million, and the Bismarck to Lake Ashtabula estimate is \$804.4 million. However, the committee learned there is no significant advantage between the two routes based on cost alone. The Bismarck alternative has slightly lower operating costs due to reduced treatment and less pumping expected and a "higher profile" corridor. The Washburn alternative has equal or slightly lower capital costs, a less-congested corridor, a completed federal environmental impact study for a majority of the route, right-of-way options secured on 76 percent of the required route, completion of 83 percent of the preliminary design, identification of the required permits, and access to the McClusky Canal. In conclusion, the Washburn alternative utilizing the previous preferred alternative route is more advantageous and slightly more economical than the Bismarck alternative.

The committee was informed that the Red River Valley Water Supply Project with federal participation is for drought mitigation and not for day-to-day usage. If the project is a purely state project this purpose could change and the project could be used for providing water to more places in the state. Committee discussion included that the project should be reviewed to see if there can be an interconnection of water systems across the state. There is an enormous need for water in the middle of the state. To be a water supply project in addition to a drought supply project, the pipe capacity would have to be increased to address these needs, and that greatly increases the costs and affects affordability.

The committee was informed that the project as a state project needs to be studied more to avoid legal issues. There are important legal issues anytime water crosses the Continental Divide. The corridors need to be reevaluated if there is not federal involvement to look for federal issues. The federal issues include the federal works at the lake, getting the water out of the Missouri River, and getting pipelines across this state without going over federal lands. To be a state project, water would have to be taken indirectly from the Missouri River. One option is collector wells. Collector wells would provide the additional benefit of riverbank filtration, which is a form of treatment. Once the issue of finding a source of water is completed, the next issue will be which corridor.

Western Area Water Supply Authority

History of Funding

Not including any funding in the 2015-17 biennium, the state has provided \$229 million, with \$110 million in loans provided by the 2011 Legislative Assembly, to WAWS. The 2011 funding was used to build transmission lines, reservoirs, pump stations, and depots. In the 2013 Legislative Assembly, \$119 million was provided, \$40 million in loans, and \$79 million from the State Water Commission--\$39 million through grants and \$40 million through a loan. This was used for water treatment plant upgrades and to provide water to rural residents. The Western Area Water Supply Authority did not use all of the \$79 million provided. The plant in Williston was at 10 million gallons per day and was brought up to 21 million gallons per day.

Historically, WAWS received funding through specific appropriations in the State Water Commission's budget. The Western Area Water Supply Authority plan was to request a \$30 million loan from the resources trust fund and a \$90 million grant from the 2015 Legislative Assembly. The total amount that would have been requested through 2017 would have been \$349 million. The \$30 million loan requested was expected to be serviced through industrial sales because of the prepayment of debt. It is anticipated that any future additional loans would be difficult to service. Before 2015, WAWS had an 80 percent loan-to-grant ratio. The 75 percent grant request would get WAWS total funding closer to 50 percent loan and 50 percent grant.

One area of contention is that WAWS has received preferential treatment as compared to other rural water systems because of a different grant and loan policy. To the contrary, it is argued that the expenditures for WAWS are consistent with the water policy for rapid growth areas. In addition, WAWS is a unique system like the Northwest Area Water Supply Project and the Southwest Water Authority and all three have separate operating models and are working. The Western Area Water Supply Authority is a hybrid local and state system. It is locally led and the state provides money, with some of it being repaid.

In the 2015-17 biennium, WAWS will receive funding through the typical allocation process of the State Water Commission. As such, it is unknown exactly how much WAWS will receive until the end of the biennium, but the projects priority list from February 2015 shows WAWS projected to receive a \$77 million grant and \$32 million loan.

Sales and Payments

The Industrial Commission has oversight of the money earned from industrial water sales and receives monthly reports. The commission approves additional debt that may form the basis of a claim for territorial or franchise protection for industrial water sales. The commission may revise loan payments, if cashflow is insufficient to meet debt requirements. The commission will provide for the reimbursement of WAWS for industrial water depot capital improvements and the costs of delivery of potable water sold at industrial water depots and lateral lines at a cost no greater than the participating member or submember entity rate at the location of the depot or lateral line. The commission approves water rates for industrial sales, generally on an annual basis. The commission has reviewed and adopted a rate schedule that was developed and proposed by WAWS. The determination of rates is determined by looking at cost and is not a comparison to other rates in other parts of the state.

During the 2013-14 interim, the committee received testimony from a representative of the Bank of North Dakota on WAWS debt service with a break-even analysis. The level of priority of debt service starts with the highest priority of Public Finance Authority state revolving fund loans, then goes to participating members' other debt, then goes to baseline 2010 industrial water sales revenue requirements, and then to state-guaranteed loans. The state-guaranteed loans are repaid in the order of Bank of North Dakota loans first, followed by the general fund loan, and followed by the resources trust fund loans. The state-guaranteed loans total \$150 million. The total debt is \$190,220,825. Annual break-even sales are based on a 79.9 percent profit margin. The first big year of debt service is in 2015 with annual payments of \$23,370,796 needed, with sales of \$29,250,058 needed to meet the payments. The annual payments remain near \$21 million until 2020, and the break-even sales remain near \$26 million until 2020.

During the 2013-14 interim, there had been a prepayment of approximately \$8.6 million on the guaranteed loans and all interest is current as well. The Western Area Water Supply Authority was ahead of schedule and had made prepayments and the revenue forecast is ahead of projections. In short, things were going as planned or better than planned.

Through August 31, 2014, WAWS has had industrial sales totaling \$32,851,816 and has dispersed \$26,706,557 from these industrial sales revenues to make payments as outlined by law. The Industrial Commission has approved capital projects that will be paid from industrial sales over the next several months and these projects total \$2,373,917. The Industrial Commission approved capital project improvements to two fill stations and approved the movement of the Crosby depot. Other expenditures included signage and the design for water storage in McKenzie County.

At that time the committee was told there has been no slowdown in the oil development activity in western North Dakota, but there may have been some stability. However, with more wells, there will be an increase in the need for water. The Western Area Water Supply Authority expects \$30 million to \$34 million in sales in 2015.

Water Use - Industrial and Domestic

During the 2013-14 interim, there were nine operational WAWS depots, two planned, and one available for a total of 12. All industrial water sales were metered. Not as many depots have been built as were planned because WAWS was waiting for additional need to develop. In addition, WAWS had been working with the Independent Water Providers and WAWS did not build a depot at the 29 Mile Corner because the area was being served by Independent Water Providers.

There is a tremendous variability on the amount of water used each day at a depot, from zero to 900,000 gallons. The water depot use can be driven by external factors like the number of rigs and the condition of roads. Water usage levels off between March and June and increases dramatically after June. The leveling off from March to June is due to load restrictions for roads and most load restrictions are removed by the end of June. Previously there was a slowdown in June because of the high turbidity in the river. Some depots needed to be shut down. The levels of turbidity were the highest levels seen in recorded history at the water treatment plant. The Missouri River at Williston is dirty in the spring because of the water entering from the Yellowstone River. Some of the \$119 million available to WAWS in 2013 was used to provide pretreatment for the water treatment plant to reduce turbidity. In addition, there was a slowdown in July because of domestic needs for more water.

The Western Area Water Supply Authority is trying to maximize potential, and companies are looking at pipeline sales instead of depots. The Western Area Water Supply Authority has long-term contracts to provide water through pipelines to certain oil companies. The water is provided to these entities with no capital cost to the authority because the facilities are built by the partner. The partners have priority for industrial water over other users.

Population is increasing and the need for water is increasing. In 2011 the projections were for 48,000 in peak population in the service area and the plan in 2014 was for a peak population of 160,000. Based on housing studies, the 21 million gallons per day in the future may have to be used for domestic use and industrial sales will have to slow.

Water depot use rapidly increased from 2010 to 2012 and was leveling off in 2013. Water use in the Bakken is not increasing as much as in the past and appears to be leveling off at 18,000 acre-feet to 20,000 acre-feet per year. An acre-foot is 325,851 gallons. The average of water used per frac is leveling off at seven acre-feet.

Industrial water sales include use for oil production, exploration, and fracturing. Maintenance water will be needed for the next 30 years. This amount of water is small at present but is consistent. Frac water usage and maintenance water usage are inversely proportional over time. There is some recycling of water and the technology is improving, but the cost and logistics do not make it as feasible for use as freshwater. There is not any expectation of any large developments as a result of recycling water.

Rates

The Western Area Water Supply Authority sets domestic rates to member entities. The rates for industrial sales need to be approved by the Industrial Commission. Twenty percent of the rate is used to get the water out to the depot. If industrial rates are \$20 per thousand gallons, then \$4 of that is used for the operation and maintenance. Depot rates are dynamic and vary from \$12 to \$20 per thousand gallons and the price varies from location to location based on proximity and access. In addition, there is seasonable variability and the rate may vary based upon whether the water is heated or not heated.

The Western Area Water Supply Authority Project was based on industrial sales paying for the project. Because there is buildout, there may be an opportunity to collect some revenues from residential users. However, WAWS is a wholesaler for residential use and WAWS provides water to the doorstep of communities and the community still needs to distribute the water within that community. Originally, WAWS was going to run all of the rural water systems within the area. The Western Area Water Supply Authority has stayed a wholesaler and the rural water systems have operated and maintained the lines. The Western Area Water Supply Authority is building projects and turning over the projects to the rural water system when the projects are complete. The residential rates in WAWS communities are some of the highest rates in the state.

Independent Water Providers

During the 2011-12 interim, the Independent Water Providers discussed concerns with WAWS. To minimize impacts to private water providers, the Independent Water Providers proposed any depot constructed by the authority should be limited to operating only two ports, even though each might be constructed with more than a two-port capacity to take advantage of cost efficiencies, and before operating more than two ports at any site, an objective assessment be made by the State Water Commission, or an independent third-party approved by the

commission, to verify the need for additional capacity and to verify the current need is not being met by the private sector and WAWS capacity under a two-port limit. The Independent Water Providers said this policy largely would resolve the main differences between the two organizations and set the stage for a cooperative relationship going into the 2013 legislative session. Additional policy suggestions included a change in governance structure and reconsideration of the project's funding mechanism.

In the 2013 legislative session, Senate Bill No. 2233 provided \$119 million for WAWS to build a trunk line, but it was argued that the trunk line turned into a spider web. The Independent Water Providers objected to this expansion. The Independent Water Providers thought Section 19 of Senate Bill No. 2233 would limit industrial growth. Senate Bill No. 2233 did this by requiring the Industrial Commission to manage the cashflow and requiring any expansion to go through the State Water Commission. It was argued that the language which provides "[t]he state water commission shall approve the planning, location, and water supply contracts of any authority depots, laterals, taps, turnouts, and risers for industrial sales for oil and gas exploration and production" was making the State Water Commission the gatekeeper. The commission has delegated this duty to the State Engineer, and the committee was informed that the State Engineer reads the section to require approval, instead of evaluating for approval or disapproval, of the expansion of industrial water sales to the oil and gas industry.

During the 2013-14 interim, the Independent Water Providers argued the Western Area Water Supply Project was intended to be a \$150 million project, and today is headed toward being a \$349 million project. The Independent Water Providers opposed the Western Area Water Supply Project for three reasons. First, the market already fully served the water needs through the private sector and some political subdivisions. The Western Area Water Supply Authority is in competition with the private sector. The Western Area Water Supply Authority has grown from 12 percent of the market in 2011 to 21 percent today. The Western Area Water Supply Authority is concentrated in Williams and McKenzie Counties and has 41 percent of the market in those locations. Second, there is more competition as time goes forward. In 2011 there were 9,400 acre-feet of permits for oil and gas development and now there are at least 46,000 acre-feet approved and commencing, and this is four times what is being used. Third, the oil and gas industry will find a new way of managing water.

Cost-share and Prioritization of State Water Projects

During the 2011-12 interim, the committee reviewed the water project prioritization process used by the State Water Commission. The commission first sends out an information letter to each stakeholder in the state requesting information on water needs for the following biennium. This information must be submitted by the end of April. During this period, the Office of Management and Budget issues budget guidelines to the various departments. The commission develops its budget request over the summer based upon the budget guidelines and information received from stakeholders. In the past, all stakeholders from the North Dakota Water Coalition, local project sponsors, State Water Commission, and the Legislative Assembly worked together to prioritize projects.

During the 2013-14 interim, the committee had a joint meeting with the State Water Commission on the cost-share policy and prioritization process. The committee approved the project prioritization guidance concept ([Appendix E](#)). The State Water Commission will fund in all prioritization categories, but there will be different cost-share. The committee approved the cost-share policy attached as [Appendix F](#), which contains a table that compares the previous cost-share policy with the new cost-share policy and a copy of the cost-share policy. The prioritization process and the cost-share policy are closely linked. The issues with each overlap with issues of the other.

Fargo Flood Control

In 2009 and 2011 the Legislative Assembly provided \$45 million and \$30 million respectively for Fargo flood control. In 2013 the Legislative Assembly provided \$100 million for the Fargo flood control project to provide a total of \$175 million. In addition, the 2013 Legislative Assembly included legislative intent that the state provide up to \$450 million for the project, with the remaining \$275 million to be provided over the next four bienniums. The 2013 Legislative Assembly also limited the use of the funding designated for Fargo flood control 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 the budget for the Fargo flood control project is approved by the State Water Commission.

The 2015 Legislative Assembly provided an additional \$69 million for the Fargo flood control project and \$60 million for Fargo interior flood control projects, of which \$30 million is from the state disaster relief fund, to provide a total of \$304 million for flood protection in Fargo. The Legislative Assembly also included legislative intent to provide up to \$570 million for Fargo flood control projects, an increase of \$120 million. The \$120 million is to be used for Fargo interior flood control projects and requires 50 percent matching funds from the Fargo flood

authority. These funds may be expended only for Fargo interior flood control projects, including levees and dikes, until a federal appropriation is provided for construction of the Fargo flood control project, at which time it may be used for a federally authorized Fargo flood control project. The Legislative Assembly also included legislative intent that funding for the Fargo flood control project will end June 30, 2021, if a federal appropriation has not been provided by that time. Of the \$570 million designated by Legislative Assemblies 2009, 2011, 2013, and 2015 for Fargo flood control, \$266 million has yet to be appropriated. The 2015 Legislative Assembly provided legislative intent that the remaining funding be made available in equal installments over the next four bienniums.

During the 2013-14 interim, the committee received testimony on the F-M Area Diversion Project. Oxbow was catastrophically flooded in 2009. The ring dike around Oxbow was included in the project and is a mitigation factor. Oxbow has flood protection, but it is not certified to the 100-year level by the federal Emergency Management Agency. Early on in the process the plan was to buy out homes in Oxbow and Hickson. There was resistance, so a levee alternative was developed with the Army Corps of Engineers. The levee project around Oxbow has started because of an advance agreement with the Army Corps of Engineers for advance construction costs being credited to the federal portion of funding. The levee has provided stability as to home prices and for the tax base for the Kindred School District.

Money from the Cass County sales tax has been used for levy work in small communities and for retention. There are 96 water retention projects that encompass 100,000 acres. The F-M Diversion Authority supports retention and distributed storage, but it is not a replacement for the diversion and the storage is not part of the diversion project. Retention is supported because it lessens the frequency of which the operation of the project will be required. With the retention projects, it becomes less likely there will be backup of water on other property. Retention projects also lessen the chance of the need to use insurance by agricultural producers.

The total amount of acres that will need to be purchased is around 8,000 acres. The authority will pay taxes on the land and has hired a land management company to take care of the land. The authority is not in the land ownership business and most likely will sell the land that is not needed in the footprint.

Agricultural mitigation will provide financial compensation to landowners. It is a complex issue for agricultural producers to be provided a remedy if they will not be qualified for crop protection because of the project. Producers are waiting for funding for the project. A consultant has been hired, and the goal is to come up with amounts that are available for farmers.

WATER-RELATED LEGISLATION ENACTED IN 2013

The following are selected bills enacted in 2013. The bills were selected because the bills provide a historical background for bills adopted in 2015 and for areas of study for this committee.

Senate Bill No. 2233 ([Appendix G](#)) 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 money deposited in the resources trust fund is to be made available on a continuing basis for making loans from the fund.

The bill restructured WAWS system oversight and funding. The bill provided a schedule for how industrial water depot and lateral revenues received by WAWS are to be applied. The bill required WAWS to develop industrial water depot and lateral retail water rates and to present the rates to the Industrial Commission for approval. The bill required WAWS to follow State Water Commission requirements for funding through the resources trust fund or Bank of North Dakota state-guaranteed loans. The bill changed WAWS' default provisions to provide the Industrial 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, the commission is required to provide written notification to the State Water Commission and direct the Bank to consider revision of the terms of the loan repayments.

House Bill No. 1206 required the State 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.

Senate Bill No. 2048 required the State Water Commission to adopt rules for governing the review and recommendation of proposed water projects for which financial assistance by legislative appropriation from the resources trust fund is being sought under this section. The bill required the rules to consider project revenues, local cost-sharing, and ability to pay. The bill allowed the rules to provide for repayment of a portion of funds allocated from the resources trust fund.

WATER-RELATED LEGISLATION ADOPTED IN 2015

Basis for Studies

Senate Bill No. 2020 ([Appendix H](#)) provided for numerous studies and reports. Some are assigned to this committee and addressed in the beginning of this memorandum. In addition, Senate Bill No. 2020:

- Provides funding for law enforcement and recreational activities on sovereign lands.
- Requires the State Water Commission to obtain a loan from the Bank of North Dakota to defease outstanding bond issues.
- Provides for Fargo flood control project funding.
- Provides a grant for 50 percent of the Grand Forks water treatment plant project.
- Provides \$1.2 million for a levee for the Missouri River Correctional Center and \$2.8 million for a levee for Lincoln Township's Fox Island area.
- Provides \$11 million for reimbursing rural and municipal water systems affected by local cost-share changes during the 2013-15 biennium. The cost-share was reduced from 75 to 50 percent and the reimbursement is at the 65 percent level.
- Provides legislative intent that the Legislative Assembly will provide \$150 million per biennium for the next four bienniums to implement the selected alternative for the Red River Valley Water Supply Project.
- Prevents WAWS from using income from industrial water sales for oil and gas development to repay any debt or as collateral to secure debt in the future.
- Requires the Southwest Water Authority and the State Water Commission to report to the next Legislative Assembly on the actions necessary for the transfer of ownership and responsibility of the project from the State Water Commission to the Southwest Water Authority.
- Requires the State Water Commission to contract with North Dakota State University to expand the scope of the current agricultural impacts study of the F-M Area Diversion Project based on hydraulic modeling with a focus on the area outside the area recognized by the Army Corps of Engineers for which mitigation is required and is affected by over six inches of water, and impacts on agricultural production income.
- Requires the Bank of North Dakota to extend a line of credit of \$200 million at the rate of no more than 1.75 percent to the State Water Commission to provide funding for certain projects authorized by the Legislative Assembly.
- Provides for requirements and prohibitions on the State Water Commission in making a cost-share policy.
- Prohibits the State Water Commission from deducting North Dakota outdoor heritage fund money from the cost of a project before determining the local cost-share.

Section 33 of Senate Bill No. 2015 would have limited "quick take" eminent domain for water resource districts when there was a legislative appropriation, to instances in which the funds were appropriated for a specific project. The Governor vetoed this section of the bill and pointed out that this topic would be studied this interim.

State Engineer

House Bill No. 1095 allows a person filing a complaint for a noncomplying dam, dike, other device, or a drain to appeal to the State Engineer within 150 days of the submittal date of the original complaint if no decision has been made.

House Bill No. 1096 changes the definition of domestic use, prohibits the State Engineer from issuing a water permit for more water than can be used except for incorporated municipalities or rural water districts, and provides clarification of the language relating to conditional use permits and water permits. The bill requires notice of seven days for a public hearing on reservation of water. The bill clarifies the language relating the reservation of water for future use by allowing the State Engineer to withdraw various waters of the state from additional

appropriations until sufficient data or information is available and places pending permit applications on deferred status. The bill retains the provision that a weather modification permit may be issued if the applicant has registered with the North Dakota Aeronautics Commission any aircraft intended to be used but eliminates the requirement for registration of the pilots.

House Bill No. 1097 requires a request for hearing to appeal a decision of the State Engineer to be made within 30 days of the action or decision. The bill provides that an unresolved administrative order or complaint must be resolved before the permit is issued unless the State Engineer resolves the issue in issuing the permit. The bill requires an owner of a high-hazard or medium-hazard dam to periodically test and update an emergency action plan.

Taxes

House Bill No. 1476 provides for a restructuring of oil extraction tax rates and exemptions. Beginning on January 1, 2016, the rate of extraction tax on all oil will be reduced from 6.5 to 5 percent. The bill also eliminated several exemptions that would have triggered into effect at certain lower oil market price levels. The new extraction tax rate is subject to increase at a higher average price of a barrel of crude oil. If the average price of a barrel of crude oil exceeds the trigger price of \$90 for three consecutive months, the rate will increase to 6 percent on all oil extracted. The rate will remain at 6 percent until the average price of a barrel of crude oil falls below the trigger price of \$90 for three consecutive months, at which time the rate will revert back to 5 percent on all oil extracted. Because the extraction tax funds the resources trust fund production, market prices and tax rates may affect the amount deposited.

Senate Bill No. 2144 consolidates property tax levy authority and allows the weather modification authority to annually request the board of county commissioners to provide funding from revenues derived from its general fund levy for support of the authority. The bill makes the same change for county levy authority for being part of the Garrison Diversion Conservancy District.

Senate Bill No. 2217 requires a weather modification authority and a water resource board to file a financial report with the county auditor if the authority is seeking approval of a property tax levy.

Senate Bill No. 2056 provides that a weather modification authority may request, rather than certify, a levy.

Garrison Diversion

House Bill No. 1239 changes the filing deadline for a petition to be on the ballot for elections as a Director of the Garrison Diversion Conservancy District or the Southwest Water Authority to allowing filing at least 64 days before the day of the election.

Senate Bill No. 2053 adds McKenzie and Williams Counties as member counties of the Garrison Diversion Conservancy District.

Resolutions

Besides House Concurrent Resolution No. 3020 on impact on landowners of Devils Lake and Stump Lake flooding, there were two other resolutions relating to water that were adopted--House Concurrent Resolution No. 3009 and House Resolution No. 5001--and both relate to water of the United States rules. The former urged Congress to address concerns of the agriculture industry, water development industry, and water management industry and the latter urged Congress to invalidate the rules.

SUGGESTED STUDY APPROACH

The assigned studies reports are heavily dependent upon the State Engineer for information. Each meeting will require his presence and input. The committee and the State Water Commission may affect policy and for continuity the committee may desire to meet with the State Water Commission. The reports from other entities described in this memorandum will be scheduled and received as required and in the location that ties to the report. The Chairman of the committee plans to meet in Bismarck, Minot or Velva, Devils Lake, and Watford City to facilitate public input. The Bismarck meetings will focus on the information provided by the State Water Commission and the State Engineer and:

1. Study of the project prioritization process;
2. Review of the Red River Valley Water Supply Project;
3. Study of providing water to central and eastern North Dakota;

4. Review of funding programs; and
5. Reports on the F-M Area Diversion Project.

The Minot or Velva meeting may address the United States Fish and Wildlife Service management of refuges, management of Canadian dams, Rice Lake flooding, Northwest Area Water Supply Project, and Minot flood control.

The Devils Lake meeting may address the study of the impact on landowners of rising waters of Devils Lake and Stump Lake and the study of quick take and eminent domain for water resource districts.

The Watford City meeting may focus on the Western Area Water Supply Authority Project and the Southwest Water Supply Project.

All meetings may address infrastructure replacement needs for municipal and rural systems.

ATTACH:8