

MINUTES

North Dakota State Water Commission Bismarck, North Dakota

October 26, 2010

The North Dakota State Water Commission held a meeting at the State Office Building, Bismarck, North Dakota, on October 26, 2010. Governor John Hoeven, Chairman, called the meeting to order at 1:30 P.M., and requested Todd Sando, State Engineer, and Chief Engineer-Secretary to the State Water Commission, to call the roll. Governor Hoeven announced a quorum was present.

STATE WATER COMMISSION MEMBERS PRESENT:

Governor John Hoeven, Chairman
Doug Goehring, Commissioner, North Dakota Department of Agriculture, Bismarck
Arne Berg, Member from Devils Lake
Maurice Foley, Member from Minot
Jack Olin, Member from Dickinson
Harley Swenson, Member from Bismarck
Robert Thompson, Member from Page
Douglas Vosper, Member from Neche

STATE WATER COMMISSION MEMBER ABSENT:

Larry Hanson, Member from Williston

OTHERS PRESENT:

Todd Sando, State Engineer, and Chief Engineer-Secretary,
North Dakota State Water Commission, Bismarck
State Water Commission Staff
Approximately 50 people interested in agenda items

The attendance register is on file with the official minutes.

The meeting was recorded to assist in compilation of the minutes.

CONSIDERATION OF AGENDA

There being no additional items for the agenda, Governor Hoeven announced the agenda approved as presented.

**CONSIDERATION OF DRAFT MINUTES
OF SEPTEMBER 1, 2010 STATE WATER
COMMISSION MEETING - APPROVED**

The draft minutes of the September 1, 2010 State Water Commission meeting were approved, as amended, with the inclusion of the following language on

page 25, paragraph 5 relating to the Devils Lake debris removal: The Commission staff will begin the process of contacting landowners at or below elevation 1452 feet msl in November, 2010 to make them aware of the existing law and provide alternatives for structural removal.

It was moved by Commissioner Swenson, seconded by Commissioner Berg, and unanimously carried, that the draft minutes of the September 1, 2010 State Water Commission meeting be approved as amended.

**STATE WATER COMMISSION
BUDGET EXPENDITURES,
2009-2011 BIENNIUM**

In the 2009-2011 biennium, the State Water Commission has two line items - administrative and support services, and water and atmospheric resources

expenditures. The allocated program expenditures for the period ending August 31, 2010, reflecting 58 percent of the 2009-2011 biennium, were presented and discussed by David Laschkewitsch, State Water Commission accounting manager. The expenditures, in total, are within the authorized budget amounts. **SEE APPENDIX "A"**

The Contract Fund spreadsheet, attached hereto as **APPENDIX "B"**, provides information on the committed and uncommitted funds from the Resources Trust Fund, the Water Development Trust Fund, and the general fund project dollars. The total amount allocated for projects is \$195,430,886 leaving a balance of \$2,396,513 available to commit to projects.

**RESOURCES TRUST FUND
AND WATER DEVELOPMENT
TRUST FUND REVENUES,
2009-2011 BIENNIUM**

Oil extraction tax deposits into the Resources Trust Fund total \$73,288,296 and are currently \$13,788,058, or 23.2 percent above budgeted revenues.

Deposits into the Water Development Trust Fund total \$9,367,589 in the 2009-2011 biennium and are currently \$505,679, or 5.1 percent below the budgeted revenues. The next scheduled payment into the Water Development Trust Fund is in April, 2011.

STATE WATER COMMISSION COST SHARE POLICY, PROCEDURE, AND GENERAL REQUIREMENTS - APPROVALS RELATING TO FLOODWATER RETENTION PROJECTS, AND STUDIES, REPORTS, ANALYSIS, SURVEYS, MODELS, ASSESSMENTS, MAPPING (SWC Project No. 1753)

The State Water Commission's cost share policy committee and others met on October 26, 2010. Items of discussion and recommendations included: 1) the applicability of a cost share policy in regards to downstream structures affected by the Devils Lake outlet; recommendation: review concerns/cost share requests as received and not develop a policy; 2) City of

Linton flood recovery economic development efforts (consideration of cost share request for home buyouts, acquisition of property, and the relocation of homes); recommendation: submit, when applicable, construction of flood control projects that are funded under the cost share program (the State Water Commission does not fund property acquisitions, economic development, and relocation); 3) title change for the Red River Basin Individual Rural/Farmstead Ring Dike program; recommendation: rename to Individual Rural/Farmstead Ring Dike program; and 4) word revisions to Cost Share Policy, Procedure, and General Requirements; "The eligibility of certain items for cost share may be addressed on an individual basis and presented to the State Water Commission for consideration. ~~if deemed warranted by the Commission personnel.~~

It was the recommendation of Secretary Sando that the State Water Commission approve the following cost share policy committee's proposed modifications to the cost share policy, procedure, and general requirements, Projects Eligible for Cost Share, Section III, Flood Control Projects, and Section VII, Studies, Reports, Analyses, Surveys, Models, Assessments, Mapping Projects, effective October 26, 2010:

Projects Eligible for Cost Share:

III. Flood Control. The State Water Commission will provide cost share for up to 60 percent of the eligible items of any cost-sharing application approved for flood control projects. The nature of these projects is to protect communities from flooding and may include the repair of dams that provide a flood control benefit. These projects are commonly associated with dams, dikes, levees, diversion channels, water retention structures/methods, dam repairs, drop structures, and miscellaneous flood control programs.

The State Water Commission will provide cost share for up to up to 65 percent for the construction of floodwater retention projects of all costs (for both federal and non-federal projects) except for sponsor-administrative expenses.

The State Water Commission will provide cost share on approved floodwater retention studies, reports, analyses, surveys, models, assessments, and mapping projects up to 50 percent of the eligible costs. All State Water Commission funding provided for a study shall be applied to the construction project, and the construction project shall be adjusted accordingly. Incurred costs that are determined legitimate costs will be allowable for cost share.

VII.B. Mapping Projects. The State Water Commission will provide cost share up to 50 percent for projects with a purpose to gather data and/or accomplish a specific task such as, but not limited to, flood insurance studies and mapping projects, LiDAR acquisition, and flood imagery attainment that is valuable to managing water resources.

VII.C. Emergency Action Plan (EAP). The State Water Commission will provide cost share up to 80 percent, limited to \$25,000, for an emergency action plan (EAP) of each dam classified as a high or medium/significant hazard dam. Reimbursement per actual costs incurred. *The cost of a dam break model is only eligible for reimbursement as a high hazard.*

VII.D. FEMA Flood Control/Reduction Levee System Certification Analyses and Reports. The State Water Commission will provide cost share up to 60 percent for eligible services for FEMA 44 CFR 665.10 flood control/reduction levee system certification analysis. Federally mandated, the analysis is required for FEMA to accredit the levee system for flood insurance mapping purposes. The analysis will result in a comprehensive report to be submitted to FEMA and the State Water Commission. The cost share policy is dependent upon federal funding availability and services, and is subject to change.

It was moved by Commissioner Berg and seconded by Commissioner Foley that the cost share policy, procedure, and general requirements (Projects Eligible for Cost Share: Section III. Flood Control Projects; and Section VIIB, C, and D, Studies, Reports, Analyses, Surveys, Models, Assessments, Mapping Projects) be modified as recommended, effective October 26, 2010.

Commissioners Berg, Foley, Goehring, Olin, Swenson, Thompson, Vosper, and Governor Hoeven voted aye. There were no nay votes. Governor Hoeven announced the motion unanimously carried.

**CITY OF LINTON 2009 FLOOD
RECOVERY EFFORTS -
COST SHARE POLICY
COMMITTEE REPORT**

The State Water Commission's cost share policy committee and others discussed the City of Linton's flood recovery efforts at its October 26, 2010 meeting. The 2009 flood damaged

approximately 20 percent of the city, with the majority of damage occurring in the southwest corner of the city commonly referred to as "Old Town". The city was identified as one of the cities with the highest damage per capita in North Dakota. Ten (10) vacant homes are in FEMA acquisition, and 9 additional homes currently occupied are also in FEMA acquisition. One of the concerns is that if potential funding was approved by FEMA for home acquisitions, it would not appropriately cover the owner's expense for either relocation or rebuilding.

The Phase I request consists of: 1) acquire and clear 2 residential properties located along U.S. Highway 83 at an estimated cost of \$75,000; 2) acquire and clear 2 vacant residential properties that are located out of the floodplain at an estimated cost of \$40,000, which will be utilized for home relocations and/or construction of apartment complexes; and 3) fund the 15 percent local cost share now being paid by each property owner participating in the FEMA Acquisition Program, at an estimated cost of \$270,000. Phase II involves: 1) acquire and clear approximately 40 acres of land in the floodway within the city limits at an estimated cost of \$135,000. Phase III would implement recommendations from the U.S. Army Corps of Engineers Section 22 study.

The State Water Commission's cost share policy, guidelines, and general requirements does not provide funding for property acquisitions, economic development, and relocation. The general consensus of the cost share policy committee was that the City of Linton may submit a request for state cost participation for the construction of a flood control project, when applicable, which is funded under the Commission's cost share program.

On October 26, 2010, the State Water Commission members concurred with the cost share policy committee recommendation. Governor Hoeven also suggested other sources of possible funding which could assist in the city's long-term flood recovery efforts.

**CHRISTINE DAM 2010 RECREATION
IMPROVEMENT PROJECT -
CONDITIONAL APPROVAL OF STATE
COST PARTICIPATION (\$184,950)
(SWC Project No. 646)**

A request from the City of Fargo was presented for the State Water Commission's consideration for state cost participation for their project to modify Christine Dam. The city owns the dam and is working with the Minnesota

Department of Natural Resources on the design to provide improved safety for boaters and fish migration characteristics. The proposed improvements are similar to those previously completed at Midtown, 32nd Avenue, and 12th Avenue North Dams.

Christine Dam is located on the Red River of the North approximately 38 river miles south of the City of Fargo. The dam was constructed in the early 1930s for water supply purposes. The proposed retrofit will occur in the NE1/4 of Section 18, Township 136 North, Range 48 West in Cass County. The sovereign lands and construction permits are pending.

The proposed modifications to the dam involve constructing rock arch rapids on the downstream side of the dam. This will eliminate the hazardous conditions boaters are experiencing due to recirculation of the current at the downstream face of the dam. The rock arch rapids will also allow for passage of fish over the dam, which is not possible except during flood events.

The project engineer's cost estimate is \$1,012,375, of which \$462,375 is determined eligible for state cost participation as a recreation project at 40 percent of the eligible costs (\$184,950), leaving the City of Fargo responsible for the remaining amount of \$277,425. Miscellaneous funding contributions in the amount of \$550,000 will be funded by the U.S. Fish and Wildlife Service, National Fish and Wildlife Foundation, Minnesota Department of Natural Resources, North Dakota Game and Fish Department, Buffalo-Red River Watershed District, and the Southeast Cass Water Resource District. The request before the State Water Commission is for a 40 percent state cost participation in the amount of \$184,950.

It was the recommendation of Secretary Sando that the State Water Commission approve conditional state cost participation as a recreation project at 40 percent of the eligible costs, not to exceed an allocation of \$184,950 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), for the Christine Dam 2010 safety improvements project.

It was moved by Commissioner Olin and seconded by Commissioner Thompson that the State Water Commission approve conditional state cost participation as a recreation project at 40 percent of the eligible costs, not to exceed an allocation of \$184,950 from the funds appropriated to the State Water Commission in the 2009-2011 bien-

nium (H.B. 1020), to the City of Fargo to support the Christine Dam 2010 safety improvements project. This action is contingent upon the availability of funds, and satisfaction of the permit requirements.

Commissioners Berg, Foley, Goehring, Olin, Swenson, Thompson, Vosper, and Governor Hoeven voted aye. There were no nay votes. Governor Hoeven announced the motion unanimously carried.

**HICKSON DAM 2010 RECREATION
IMPROVEMENT PROJECT -
CONDITIONAL APPROVAL OF STATE
COST PARTICIPATION (\$44,280)
(SWC Project No. 646)**

A request from the City of Fargo was presented for the State Water Commission's consideration for state cost participation for their project to modify Hickson Dam. The city owns the dam and is working with the Minnesota

Department of Natural Resources on the design to provide improved safety for boaters and fish migration characteristics. The proposed improvements are similar to those previously completed at Midtown, 32nd Avenue, and 12th Avenue North Dams.

Hickson Dam is located on the Red River of the North approximately 23 river miles south of the City of Fargo. The dam was constructed in the early 1930s for water supply purposes. The proposed retrofit will occur in the NW1/4 of Section 19, Township 137 North, Range 48 West in Cass County. The sovereign lands and construction permits are pending.

The proposed modifications to the dam involve constructing rock arch rapids on the downstream side of the dam. This will eliminate the hazardous conditions boaters are experiencing due to recirculation of the current at the downstream face of the dam. The rock arch rapids will also allow for passage of fish over the dam, which is not possible except during flood events.

The project engineer's cost estimate is \$660,700, of which \$110,700 is determined as eligible for state cost participation as a recreation project at 40 percent of the eligible costs (\$44,280), leaving the City of Fargo responsible for the remaining amount of \$110,700. Miscellaneous funding contributions in the amount of \$550,000 will be funded by the U.S. Fish and Wildlife Service, National Fish and Wildlife Foundation, Minnesota Department of Natural Resources, North Dakota Game and Fish Department, Buffalo-Red River Watershed District, and the Southeast Cass Water Resource District. The request before the State Water Commission is for a 40 percent state cost participation in the amount of \$44,280.

It was the recommendation of Secretary Sando that the State Water Commission approve conditional state cost participation as a recreation project at 40 percent of the eligible costs, not to exceed an allocation of \$44,280 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), for the Hickson Dam 2010 safety improvements project.

It was moved by Commissioner Goehring and seconded by Commissioner Thompson that the State Water Commission approve conditional state cost participation as a recreation project at 40 percent of the eligible costs, not to exceed an allocation of \$44,280 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), to the City of Fargo to support the Hickson Dam 2010 safety improvements project. This action is contingent upon the availability of funds, and satisfaction of the permit requirements.

Commissioners Berg, Foley, Goehring, Olin, Swenson, Thompson, Vosper, and Governor Hoeven voted aye. There were no nay votes. Governor Hoeven announced the motion unanimously carried.

**FORT BERTHOLD INDIAN
RESERVATION IRRIGATION PILOT
STUDY - APPROVAL OF STATE
COST PARTICIPATION (\$37,500)
(SWC PROJECT NO. 281)**

A request from the Three Affiliated Tribes was presented for the State Water Commission's consideration for state cost participation for a pilot irrigation study for the Fort Berthold Indian reservation. On March 23, 2009, the

State Water Commission approved an allocation of \$80,000 to explore the feasibility of developing an irrigation project on the reservation. The study was completed in August, 2010, and has shown a high potential for irrigation in approximately 90,000 to 95,000 acres of the reservation. The study also provides preliminary infrastructure costs and project returns to be economically feasible.

Phase I of this process would focus on a smaller and controlled area for a more in-depth review, costs, and infrastructure planning, which would entail about 30,000 acres. By initiating and completing a pilot-level study for a portion of the Phase I area, which would involve an area of approximately 7,000-9,000 acres, would allow the necessary contacts with area landowners to gauge their interest in the project and do additional refinements of the costs and repayment capabilities of the area.

As with the feasibility study, funding for the pilot study will assist the Three Affiliated Tribes identify part of their irrigable lands, which would be useful in seeking federal development funds to put water to a beneficial use from the upper reaches of the Missouri River.

The total estimated cost of the pilot study is \$75,000, of which 25 percent would be funded by the Three Affiliated Tribes. The request before the State Water Commission is for a 75 percent state cost participation in the amount of \$56,250. Under the State Water Commission's cost share

policy, guidelines, and general requirements, the Commission will provide cost share up to 50 percent of the eligible items approved for irrigation projects.

Although the Commission members were in support of the pilot study, concerns were voiced relative to the March 23, 2009 approval of 100 percent of the eligible costs (\$80,000) for an irrigation project which was contrary to the Commission's cost share policy of providing 50 percent.

It was the recommendation of Secretary Sando that the State Water Commission approve state cost participation as an irrigation project at 50 percent of the eligible costs, not to exceed an allocation of \$37,500 from the funds appropriated to the State Water Commission in the 2009-2011 biennium, to the Three Affiliated Tribes to support Phase I of the pilot irrigation study.

It was moved by Commissioner Goehring and seconded by Commissioner Vosper that the State Water Commission approve state cost participation as an irrigation project at 50 percent of the eligible costs, not to exceed an allocation of \$37,500 from the funds appropriated to the State Water Commission in the 2009-2011 biennium, to the Three Affiliated Tribes to support Phase I of the pilot irrigation study. This action is contingent upon the availability of funds.

Commissioners Berg, Foley, Goehring, Olin, Swenson, Vosper, and Governor Hoeven voted aye. Commissioner Thompson voted nay. Recorded votes were 7 ayes; 1 nay. Governor Hoeven announced the motion carried.

**FARGO MOORHEAD METROPOLITAN
AREA FLOOD RISK MANAGEMENT
PROJECT REPORT
(SWC Project No. 1928)**

At its October 26, 2010 meeting, the State Water Commission members requested an update on the Fargo Moorhead Metropolitan Area Flood Risk Management project at the Commission's regular meetings. In response, technical information was presented and discussed by the project representatives, which is outlined in **APPENDIX "C"** and attached hereto.

**CANADIAN DISCUSSIONS ON
MANITOBA DIKE NEAR PEMBINA,
DEVILS LAKE FLOODING, AND
NORTHWEST AREA WATER SUPPLY
PROJECT
(SWC Project Nos. 1401, 416, and 237)**

On October 7 and 8, 2010, discussions were held in Washington, DC between the United States and Canada on issues between the countries including the Manitoba dike near Pembina, Devils Lake flooding, and the Northwest Area Water Supply project. The news release from U.S. Senator Byron Dorgan and Manitoba Premier Greg Selinger, dated October 8, 2010 is attached hereto as **APPENDIX "D"**.

**DEVILS LAKE
HYDROLOGIC UPDATE
(SWC Project No. 416-10)**

As of October 2, 2010, the water surface elevation for Devils Lake was 1451.39 feet msl and Stump Lake was 1451.80 feet msl. The update report on

October 26, showed the water surface elevation for Devils Lake was 1451.25 feet msl. The total volume and area for the lakes on October 6, 2010 was 3,610,000 acre-feet and 176,000 acres. The 2010 peak occurred on June 27, 2010 with a reading for Devils Lake of 1452.05 feet msl and 1452.08 feet msl on Stump Lake. The decrease in volume and area from the peak to October 6, 2010 was 119,000 acre-feet and 6,600 acres. The increase in elevation from October 6, 2009 for Devils Lake was 1.34 feet and for Stump Lake 1.22 feet. The volume and area increase since October 6, 2010 was 225,000 acre-feet and 3,000 acres.

The effect of evaporation and outlet pumping for the years of 2008 to 2010 was indicated by the decrease in volume of both lakes from the time period of July 1 to October 2. For 2008, the decrease in volume was 46,000 acre-feet (540 acre-feet from pumping); for 2009, the decrease was 104,000 acre-feet (18,100 acre-feet from pumping); and for 2010, the decrease was also 104,000 acre-feet with 42,200 acre-feet from pumping.

The National Weather Service provided the following long-range probabilistic forecast for Devils Lake and Stump Lake. The estimated values are valid for the time period of September 28, 2010 through January 3, 2011:

**Chances of Devils Lake and Stump Lake
Rising Above the Given Lake Levels**

	<u>90%</u>	<u>50%</u>	<u>10%</u>
Devils Lake (ft- msl)	1451.4	1451.4	1452.0

**Chances of Devils Lake and Stump Lake
Falling Below the Given Lake Levels**

	<u>90%</u>	<u>50%</u>	<u>10%</u>
Devils Lake (ft- msl)	1451.4	1451.1	1450.9

**NORTH DAKOTA DEVILS LAKE
OUTLET PROJECT REPORT
(SWC Project No. 416-10)**

The State of North Dakota pursued an emergency phased outlet project from West Bay to the Sheyenne River. Construction commenced in the fall of 2002,

and operation of the outlet began on August 15, 2005 within the guidelines of the North Dakota Pollutant Discharge Elimination System (NDPDES) water quality discharge permit and the authorized modifications issued by the North Dakota Department of Health. The NDPDES water quality discharge permit had an expiration date of June 30, 2008, which was extended through June 30, 2013.

On June 24, 2009, the North Dakota Department of Health rescinded the water quality discharge permit and changed the water quality constraint to 450 mg/L at Bremen instead of 15 percent above the baseline. This allowed for 100 cubic feet per second of discharge until July 6, 2009 and then the discharge varied from 35 to 50 cubic feet per second. On July 15, 2009, the Department implemented an emergency rule for a segment of the Sheyenne River changing the sulfate standard from 450 mg/L to 750 mg/L. The outlet discharge was increased to 100 cubic feet per second since that time with some minor interruptions for maintenance.

On August 18, 2009, the State Water Commission approved an allocation not to exceed \$16,500,000 for the expansion of the Devils Lake outlet to 250 cubic feet per second (cfs) using the Round Lake alternative.

The upgrading of the state outlet to 250 cubic feet per second was completed in June, 2010. The existing pumps were operated for 5 days in May as well as for most of June while the expansion project was being completed. The pumping at full capacity was started on June 26, 2010 and has continued since that time. The outlet was operated since May 21, 2010 with only minor interruptions for power outages and maintenance. There were a total of 126 days of releases through September 30, 2010, at a daily average of 181 cfs and a total volume of 45,217 acre-feet of water. Using the average surface area of Devils Lake and Stump Lake through September of 177,000 acres (elevation of 2561.5 feet msl), the total volume of water released corresponds to 3.1 inches off the lake.

The Sheyenne River below Baldhill Dam has had sulfate concentrations below the 450 mg/L constraint placed by the North Dakota Department of Health. From sampling on September 30, 2010, the sulfate concentrations were tested to be 353 mg/L. USGS modeling of sulfate concentrations in Lake Ashtabula indicate that the outlet will be able to be operated until freeze-up without exceeding the 450 mg/L standards this winter.

The final North Dakota Department of Health's ruling on the Sheyenne River sulfate standards was approved by EPA on September 16, 2010. The standards to be followed are the same as the "emergency standards" followed since 2009.

**NORTH DAKOTA DEVILS LAKE OUTLET -
CROSSINGS ON SHEYENNE RIVER
DOWNSTREAM OF OUTLET
(SWC Project No. 416-07)**

On October 26, 2010, the State Water Commission was informed of the inability of two river crossings located on the Sheyenne River downstream of the Devils Lake outlet to handle higher flows. The crossings are located in Eddy County in Section 19, Township 150, Range 64 (Crossing 1), and in Section 35, Township 150, Range 62 (Crossing 2). Both crossings were overtopped during the summer 2009 flows. Crossing 1 could handle 300 cubic feet per second (cfs) and was overtopped at 350 cfs. The Warwick gage indicated 140 cfs at Crossing 2 and was also overtopped during the 2009 summer. The estimated cost for upgrading both crossings is \$875,000.

Since the required increased capacity at the crossings is to allow the Devils Lake outlet to operate, the state has a significant responsibility. Because the State Water Commission's cost share policy does not currently recognize this issue, the Commission members deferred the funding request and directed the cost share policy committee to address the issue, and that the Commission staff develop an inventory of other possible crossings impacted.

On October 26, 2010, the cost share policy committee considered the applicability of a cost share policy in regards to downstream structures affected by the Devils Lake outlet. The recommendation from the cost share policy committee was to review concerns/cost share requests as received and to not develop a policy.

Due to inclement weather and the inability of representatives from the Eddy County Water Resource Board to attend this meeting to discuss options for upgrading the two Sheyenne River crossings, the Commission members concurred to defer the funding request.

**DEVILS LAKE DEBRIS REMOVAL
(SWC Project No. 1882-04)**

Devils Lake has been rising since 1993 and, over the last decade, has continually achieved record elevations. Because of this rise, many structures have been inundated or are very near to the water's edge.

North Dakota Century Code §61-03-21.3 states that *"If the state engineer finds that buildings, structures, boat docks, debris, or other manmade objects, except a fence or corral, situated in, on the bed of, or adjacent to waters that have been determined to be navigable by a court are, or are imminently likely to be, a menace to life or property or public health or safety, the state engineer shall issue an order to the person responsible for the object. The order must specify the nature and extent of the conditions, the action necessary to alleviate, avert,*

or minimize the danger, and a date by which that action must be taken. If the state engineer determines that an object covered by flood insurance is imminently likely to be a menace to life or property or public health or safety, the date specified in the order for action to be taken may not precede the date on which the person is eligible to receive flood insurance proceeds. If a building, structure, boat dock, debris, or other manmade object, except a fence or corral, is partially or completely submerged due to the expansion of navigable waters, the person responsible is the person who owns or had control of the property on which the object is located or the person who owned or had control of the property immediately before it became submerged by water."

In the late 1990s, this law was used to ensure that landowners removed structures that would have presented a potential hazard. FEMA granted exceptions to the National Flood Insurance Program which allowed landowners to receive payment before the water reached the structures and allowed for their removal. The North Dakota Department of Health, working with FEMA, delayed payment until landowners dealt with the structures in an appropriate manner.

Through a combination of 2010 aerial photography and LiDAR elevation data, approximately 275 structures are estimated to be at or below elevation 1452 feet msl, 286 structures could be inundated at 1453 feet msl, and 155 structures at 1454 feet msl. Total estimated cost for structural removal and demolition is \$2,200,000.

As directed during the September 1, 2010 meeting, the Commission staff is working to obtain local input on the debris issue. On October 5, 2010, an informational meeting for county commissioners from the four affected counties was held in Devils Lake to make program information available to local decision makers. One fact that was brought to light at the meeting was some of the inundated land in the Devils Lake basin has returned to the counties due to property tax delinquency. While county commissioners indicated they had concerns that the program would present an undue burden to landowners already impacted by years of flooding and lost income, they recognized that the State Water Commission's course of action is by statute. Some present indicated their intent to see the existing law repealed or changed during the next legislative session.

The Commission staff intends to contact the landowners at or below elevation 1452 feet msl during October and November, 2010 to make them aware of the existing law and provide them with alternatives for structural removal. Because of the logistical difficulty of reaching many of the structures during open-water conditions, landowners will be advised that they may wait until sufficient ice thickness has been achieved to allow safe access. All structures at or below elevation 1452 feet msl must be removed prior to break up next spring. In addition, owners of structures at elevations 1453 and 1454 feet msl will be also be notified of the law with the intent they will have sufficient time to remove the structures before they become inundated and less accessible.

**APPROVAL OF STATE FUNDS
FOR DEVILS LAKE OUTLET
EXPANSION (\$1,500,000);
EAST END OUTLET (\$2,200,000);
AND TOLNA COULEE GEOTECH-
NICAL INVESTIGATION (\$500,000)
(SWC Project No. 416-10)**

In order to increase the removal of water from Devils Lake, the following projects were presented for the State Water Commission's consideration:

Devils Lake Outlet Expansion:

An increase of 100 cubic feet per second (cfs) to the existing 250 cfs capacity of the west end outlet should be considered. Additional pumps, pipe, power and new or modification of structures may be required. It is proposed to have an additional Specific Authorization (SA) with Bartlett and West Engineers, Inc. for engineering services for the expansion. Such services would include final design, including sub-consultant fees, testing, surveying and other work required prior to the construction phase. It is estimated that the engineering cost will be \$1,500,000.

East End Outlet:

An east end outlet channel with gravity flow should also be considered. This outlet would take East Devils Lake water to the Sheyenne River. The U.S. Geological Survey's modeling indicates that a 250 cfs outlet from East Devils Lake, combined with the west end outlet, would meet a 750 mg/l standard on the entire Sheyenne River. It is planned for the constructed channel to have a design capacity of 250 cfs. Inlet, outlet, and gravel filter structures would be needed, as well as other structures may also be required.

Engineering services will be required for this project. Due to the nature of the proposed work, Request for Proposals (RFP) will be advertised. The engineering services included in the RFP may include, but are not necessarily limited to, the final design, survey, testing, and sub-consultant fees. It does not include any construction engineering, resident observer costs, staking, or contract administration. The estimated cost of the "design phase" of the project is \$2,200,000. Either of the above outlets would require modification of water quality standards below Baldhill Dam to be effective.

Tolna Coulee Control Structures:

The U.S. Army Corps of Engineers is currently in the process of developing a project information report (PIR) for control structures on Tolna Coulee. The State Water Commission staff has been working with the Corps of Engineers through the PIR process to move forward with design of a control structure. Any control structure on Tolna Coulee will require a geotechnical investigation, which will

need to be done during the winter since the drilling will be in wet areas. If the State Water Commission conducts the geotechnical work, it will be available for the design of a control structure if the State Water Commission or the Corps of Engineers performs that work. The estimated cost of the geotechnical investigation for the project is \$500,000.

It was the recommendation of Secretary Sando that the State Water Commission approve 100 percent of the estimated engineering design cost of \$1,500,000 for the west end Devils Lake outlet upgrade, the engineering design cost of \$2,200,000 for the Devils Lake east end outlet, and \$500,000 for the geotechnical investigation of Tolna Coulee from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020).

It was moved by Commissioner Foley and seconded by Commissioner Goehring that the State Water Commission approve 100 percent of the estimated engineering design cost of \$1,500,000 for the west end Devils Lake outlet upgrade, the engineering design cost of \$2,200,000 for the Devils Lake east end outlet, and \$500,000 for the geotechnical investigation of Tolna Coulee from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020). This action is contingent upon the availability of funds.

Commissioners Berg, Foley, Goehring, Olin, Swenson, Thompson, Vosper, and Governor Hoeven voted aye. There were no nay votes. Governor Hoeven announced the motion unanimously carried.

**NORTHWEST AREA WATER
SUPPLY (NAWS) PROJECT -
STATUS REPORT
(SWC Project No. 237-04)**

The following Northwest Area Water Supply (NAWS) project status report was provided:

Supplemental Environmental Impact Statement (EIS): On August 12, 2010, the Bureau of Reclamation published in the Federal Register a notice of intent to prepare a supplemental EIS. The supplemental EIS addresses Judge Rosemary Collyer's order of March, 2010. Public scoping meetings were held September 13-16, 2010 in Bottineau, Minot, New Town, and Bismarck.

Manitoba and Missouri Lawsuit:

On March 5, 2010, U.S. District Judge Rosemary Collyer issued a decision to continue the injunction on the NAWS project. Judge Collyer had previously allowed construction of the pipeline, but not the treatment facilities. Judge Collyer asked the Bureau of Reclamation to further address two issues, the cumulative impacts of water withdrawal on the water levels of Lake Sakakawea and the Missouri River, and the consequences of biota transfer into the Hudson Bay basin including Canada.

October 26, 2010 - 15

On October 25, 2010, Judge Rosemary Collyer issued a decision to allow construction on the Minot treatment plant, however, she held the design work on the intake structure at Lake Sakakawea under the injunction.

Design and Construction Contracts:

Contract 4-2A: Contract 4-2A involves the construction of a new 2 million gallon reservoir and an 18 million gallon high service pump station adjacent to the Minot water treatment plant. On April 23, 2008, the State Water Commission authorized the award of contract 4-2A, in the amount of \$12,435,793.58, to John T. Jones Construction, Fargo, N.D. Payments have been made according to the settlement agreement. The automatic transfer switch for the generator has been completed. The punch list items are all that remains on this project.

Contract 2-2C: The contract work covers 52 miles of pipeline for the Kenmare-Upper Souris segment. The State Water Commission authorized the award of contract 2-2C to Northern Improvement Company, Fargo, ND, on September 30, 2008. Water service to Kenmare was started on December 7, 2009, and water service to the Upper Souris Water District at the Donnybrook turnout started on December 22, 2009. The seeding for portions of the contract were completed. Contract close out is anticipated following final seeding.

Contract 2-2D: The contract work covers 62 miles of pipeline for the Mohall/Sherwood/All Seasons segment. Bids were opened for contract 2-2D on July 14, 2009. The State Water Commission authorized the secretary to the Commission to award contract 2-2D to American Infrastructure from Colorado on August 18, 2009. The substantial completion date is October 15, 2010, with final completion on November 15, 2010.

Contract 5-2C: The contract work includes a 1 million gallon storage reservoir near Kenmare. The concrete pedestal was completed, and the tank was lifted into place on November 18, 2009. The substantial completion was July 1, 2010, with final completion in August 1, 2010.

Contract 2008-1: The NAWS portion of the All Seasons contract includes 13 miles of pipeline between the All Seasons water treatment plant and Gardena, N.D. The contract was awarded to Swanberg Construction, Grand Forks, N.D.; the engineering related work for this project is estimated at \$112,500. The NAWS portion of this line has been in service since September of 2009. Seeding was completed in June, 2010, and contract closeout is expected.

Contract 2-2E: This contract covers connections of the community of Burlington and the West River Water and Sewer District to the NAWS pipeline. The contract was awarded to Steen Construction & Associates, Inc., Stanley, N.D., on November 13, 2009, in the amount of \$471,782. Water service to the West River

Water District started on June 22, 2010, and to Burlington on August 11, 2010.

Contract 2-3A Design: This project has 16 miles of 24-inch pipe connecting the Air Force Base to Minot. The 90 percent design review was completed in August, 2010. The bid opening could be scheduled in the fall of 2010.

Contract 2-3B Design: This project has 13 miles of pipe north of the Air Force Base connecting to the Upper Souris Water District which serves the city of Glenburn. The 90 percent design review was completed in August, 2010. This project is planned for a fall, 2010 bid opening.

Design on Contract 7-1A: On March 18, 2010, the federal court approved additional design work on the Minot water treatment plant with the piping and filters. The 30 percent design review will be completed in September, 2010. The plans and specifications should be ready for advertisement in November, 2010. Construction on this project cannot proceed without the federal court approval.

Operation and Maintenance Update:

In September, 2010, the NAWS project delivered an average of 33,024 gallons of water per day to Berthold; 107,716 gallons to Kenmare; 29,771 gallons to Upper Souris at Donnybrook; 109,887 gallons to Burlington and West River Water District; and Minot delivered 20,153 gallons of water per day to North Prairie Water District turnouts on the NAWS line.

***INTERNATIONAL BOUNDARY ROADWAY
DIKE (PEMBINA COUNTY) REPORT
(SWC Project No. 1401)***

On August 20, 2010, the North Dakota State Water Commission was served with a Third Party Claim by the Municipalities of

Rhineland and Stanley seeking 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. Other third party claims include the construction of dikes along the Pembina River to limit or prevent breakout flows that would naturally occur resulting in increased flow of water northward; 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; and, that Pembina County constructed County Road 55 to prevent or limit water overflowing in the Pembina River from moving southward. The Third Party Claim also 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.

The State Water Commission is required to serve and file a "statement of defence" within 40 days. Because the court is located in Winnipeg, a Canadian solicitor must be retained. On September 1, 2010, the

State Water Commission approved an allocation not to exceed \$30,000 and the secretary to the Commission was authorized to execute the required documents to retain the Canadian law firm of Aikins, MacAulay & Thorvaldson. Colin MacArthur and Jon Martens, solicitors with the Canadian law firm are representing the State Water Commission (as well as Pembina County, Cavalier County Water Resource District, and several individuals) in preliminary motions.

A Notice of Motion and associated filings were submitted to the Federal Court - Trial Division on October 12, 2010, which will be heard on December 17, 2010 in Federal Court in Manitoba.

***SOUTHWEST PIPELINE PROJECT -
CONTRACT AND STATUS REPORT
(SWC Project No. 1736)***

The following Southwest Pipeline Project status report was provided:

Oliver-Mercer-North Dunn Regional Service Area:

Contract 2-8A, main transmission pipeline from Oliver-Mercer-North Dunn water treatment plant to Hazen, consists of 23 miles of pipeline and related appurtenances. The pipeline will provide water service from the Oliver-Mercer-North Dunn water treatment plant to the city of Hazen, city of Zap, Beulah interim service area, and provide transmission flow for most of Oliver and Mercer counties.

Bids were opened on contract 2-8A on June 25, 2009. The bids were reviewed and the contract was awarded to Dave Titus Excavating, Inc., Bismarck, ND, in the amount of \$3,178,510. All pipe has been installed, pressure tested, and chlorinated. The substantial completion date was June 1, 2010.

Contract 2-8B, main transmission line from Hazen to Stanton and Beulah to Center elevated tank. Bids were opened for contract 2-8B on May 12, 2010. The bids were reviewed and the contract awarded to Kamphuis Pipeline Co., Grand Rapids, MI, in the amount of \$3,888,095. A preconstruction conference was held on this contract and easement work is near completion.

Contract 3-1C, Oliver-Mercer-North Dunn water treatment plant membrane equipment procurement. Bids were opened for contract 3-1C on November 20, 2009. The State Water Commission authorized the award of the contract on December 11, 2009, to Wigen Water Technologies, Inc., Chaska, MN, in the amount of \$2,251,250. The contract includes furnishing the membrane filtration and membrane softening systems along with the design phase and construction phase engineering services.

The design phase of the project has been completed. The membrane equipment will be delivered during construction of the plant and installed by the building contractor with supervision by Wigen and Toray Industries, Inc., the membrane supplier. A letter of acceptance from the North Dakota Department of Health was received granting removal credit of 4-log for Giardia, 4-log for Cryptosporidium, and 0.5-log for viruses for membranes. A pilot test was run at the water treatment plant with good results.

Contract 3-1D, Oliver-Mercer-North Dunn water treatment plant building and membrane equipment installation. Bids were opened for contract 3-1D on August 19, 2010. The State Water Commission authorized the award of General, Mechanical, and Electrical construction contracts on September 1, 2010 to PKG Contracting, Inc., Fargo, N.D. (\$7,236,900), Cofell's Plumbing and Heating, Inc., Bismarck, N.D. (\$600,000), and Edling Electric, Inc., Bismarck, N.D. (\$1,209,360), respectively. The contract documents were executed on October 1, 2010, and a preconstruction conference was held on October 19, 2010. It is anticipated that the earthwork will commence during early October, 2010.

Contract 3-1E, Oliver-Mercer-North Dunn water treatment plant concentrate disposal facility. The purpose of this facility will be to dispose of reverse osmosis concentrate from the softening process. It will include a pipeline from the treatment plant back to the lake and a discharge facility in the lake. A permit from the Corps of Engineers is in process to allow access for survey and cultural resource work.

Contract 5-15A, Zap potable reservoir. Contract 5-15A was bid on May 19, 2010. The State Water Commission authorized the award of contract 5-15A on June 1, 2010 to Maguire Iron, Inc., Sioux Falls, S.D., in the amount of \$1,175,000. Construction commenced in October, 2010.

Oliver-Mercer-North Dunn regional service area contracts under design: Contracts under design for the Oliver-Mercer-North Dunn regional service area include: Contract 2-8C, main transmission line from Center elevated tank to Center; Contract 5-16, Center elevated tank; Contract 2-8E, main transmission line from Oliver-Mercer-North Dunn regional service area water treatment plant to Killdeer Mountains area; Contract 7-9C, first Zap service area rural distribution line; and Contract 4-3A/4-4A, Jung Lake and Ray Christensen pump stations upgrades.

Also being considered is the purchase of a generator for the Jung Lake pump station, and replacement of pumps in the high service pump station in Dickinson to reach ultimate capacity.

Oil Industry Water Use:

Contract 4-1D, Dodge water depot contract, was awarded to Mike's Excavation, Dickinson, N.D. The contract was completed in early August, 2010. This site will have capacity of 1,000 gallons per minute. Through October 4, 2010, 6,721,000 gallons of water had been sold, representing 9 percent of the water available in that time.

As part of the design process for contract 2-8E, incremental costs will be determined to increase the capacity of the pipeline to serve the oil industry. Industry representatives have expressed a need for a water depot north of the city of Killdeer. Additional costs to deliver water to that point in the quantities needed to benefit oil exploration and production will also need to be taken into account before considering additional funding sources.

Little Missouri River Washout:

A specific authorization was executed directing Bartlett & West to develop a solution to the Little Missouri River erosion near the Badlands Ministries Bible Camp and the Harold Hugelin ranch south of Medora. Conversations are being held with the U.S. Army Corps of Engineers, which has primacy of Section 404 of the Clean Water Act regulation, and the U.S. Forest Service, which owns some of the affected property.

SOUTHWEST PIPELINE PROJECT - APPROVAL OF WATER SERVICE CONTRACT 1736-37, CITY OF CENTER (SWC Project No. 1736)

The City of Center has requested a water service contract from the State Water Commission and the Southwest Water Authority for the delivery of potable treated water from the Southwest Pipeline Project.

The contract specifies a maximum flow rate of 150 gallons per minute total for all connections and a minimum annual water purchase of 100,000 gallons per year for the entire term of the contract.

It was the recommendation of Secretary Sando that the State Water Commission authorize the secretary to the State Water Commission to finalize and execute Southwest Pipeline Project Water Service Contract 1736-37 with the City of Center.

It was moved by Commissioner Olin and seconded by Commissioner Berg that the State Water Commission authorize the secretary to the State Water Commission to finalize and execute Southwest Pipeline Project Water Service Contract 1736-37 with the City of Center. SEE APPENDIX "E"

Commissioners Berg, Foley, Goehring, Olin, Swenson, Thompson, Vosper, and Governor Hoeven voted aye. There were no nay votes. Governor Hoeven announced the motion unanimously carried.

***WEST AREA WATER SUPPLY -
APPROVAL OF 2009-2011 BIENNIUM
STATE GRANT FUNDS (\$1,500,000)
(SWC Project No. 237-03)***

Northwestern North Dakota is rapidly changing, experiencing considerable new economic development opportunities, and facing urgent challenges in water supply. The regional water stake-

holders of the City of Williston, Williams Rural Water District, McKenzie County Water Resource District, and R&T Water Supply Association have been collaborating on a regional water development plan. Although the initial efforts concentrated on expanding the domestic needs of the area, the efforts are now focused on simultaneously meeting the industrial regional water needs to fully develop the oil-bearing shale formations.

The collaborative efforts have resulted in the development of a regional water supply plan centered on the Missouri River and the Williston regional water treatment facility as the source for the regional water demands. Water transmission lines throughout McKenzie, Williams, Divide and Mountrail counties will deliver large volumes of water into current and future oil exploration areas to meet the industrial water needs while at the same time delivering a high quality and dependable water supply to the communities of Williston, Watford City, Alexander, Trenton, Ray, Tioga, Stanley, Wildrose, Crosby, Fortuna, Noonan, Columbus, and Grenora, and rural water systems in Williams, McKenzie, and portions of Mountrail, Burke, and Divide counties.

While the current oil activity provides a tremendous opportunity to address the short and long-term water needs of the region, there is also considerable risk. The total estimated cost for all of the projects related to a regional water supply plan is \$150,000,000. This cost is more than the residents can afford should the oil activity suddenly come to a stop as has happened in the past. The local sponsors are requesting support on potential project financing options that will allow the regional system to rapidly move forward with the implementation of a water supply plan to fully realize the economic development opportunity without jeopardizing the financial future of their water utilities.

The State Water Commission considered a request through the McKenzie County Water Resource District for state grant funding of \$1,500,000 for conducting a water plan to develop a project schedule, pre-final design, legal process of organizational structure, project and financial management, Environmental Assessment for NEPA compliance, pipeline routing, LiDAR aerial surveying, property title search, easement preparation, and partial easement acquisition. Funding would support bidding of the first phases of this project in mid-2011.

It was the recommendation of Secretary Sando that the State Water Commission approve a state grant not to exceed an allocation of \$1,500,000 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), to the West Area Water Supply stakeholders, through the McKenzie County Water Resource District, to support the development of a regional water supply plan in northwestern North Dakota (West Area Water Supply project).

It was moved by Commissioner Olin and seconded by Commissioner Goehring that the State Water Commission approve a state grant not to exceed an allocation of \$1,500,000 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), to the West Area Water Supply stakeholders, through the McKenzie County Water Resource District, to support the development of a regional water supply plan in northwestern North Dakota as previously outlined (West Area Water Supply project). This action is contingent upon the availability of funds, subject to future revisions, funding shall be a grant towards eligible costs, and the funds shall be considered as an advance of any future grant.

Commissioners Berg, Foley, Goehring, Olin, Swenson, Thompson, Vosper, and Governor Hoeven voted aye. There were no nay votes. Governor Hoeven announced the motion unanimously carried.

**GARRISON DIVERSION
CONSERVANCY DISTRICT
REPORT
(SWC Project No. 237)**

The Dakota Water Resources Act of 2000 authorized the Secretary of the Interior to conduct a comprehensive study of the water quantity and quality needs of the Red River valley in North Dakota and possible options for meeting those needs. The Act identified two project-related studies: the *Report on Red River Valley Water Needs and Options*, and the *Red River Valley Water Supply Project Environmental Impact Statement (EIS)*. The Bureau of Reclamation completed the *Report on Red River Valley Water Needs and Options*. The State of North Dakota and the Bureau jointly prepared the EIS. Governor Hoeven designated the Garrison Diversion Conservancy District to represent the state in this endeavor.

The final EIS was available to the public on December 28, 2007. The U.S. State Department requested that the Bureau of Reclamation delay executing the Record of Decision until discussions with Canada have been concluded.

The September, 2010 status report relating to the specific efforts of the Red River Valley Water Supply project, were provided by Dave Koland, Garrison Diversion Conservancy District general manager, which is attached hereto as **APPENDIX "F"**.

October 26, 2010 - 22

**MISSOURI RIVER REPORT
(SWC Project No. 1392)**

The Missouri River report was provided, which is detailed in the staff memorandum, dated October 13, 2010, and attached hereto as **APPENDIX "G"**.

There being no further business to come before the State Water Commission, Governor Hoeven adjourned the meeting at 4:30 P.M.



John Hoeven, Governor
Chairman, State Water Commission

Todd Sando
North Dakota State Engineer,
and Chief Engineer-Secretary
to the State Water Commission

