

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

**Meeting To Be Held At
State Office Building
900 East Boulevard Avenue
Lower Level Conference Room
Bismarck, North Dakota**

**October 12, 2016
1:00 P.M., CDT**

AGENDA

- A. Roll Call
- B. Consideration of Agenda
- C. **Consideration of Draft Minutes of Following SWC Meetings:**
 - 1) **June 22, 2016 State Water Commission Working Meeting** **
 - 2) **July 6, 2016 State Water Commission Meeting** **
- D. State Water Commission Financial Reports:
 - 1) Agency Program Budget Expenditures
 - 2) 2015-2017 Biennium Resources Trust Fund and Water Development Trust Fund Revenues
- E. **North Dakota State Water Commission Cost-Share Policy, Procedure, and General Requirements** **
- F. Consideration of Following Requests for State Cost Participation:
 - 1) **USGS Cooperative Hydrologic Monitoring Program** **
 - 2) **Barnes Rural Water District - Rural Expansion** **
 - 3) **City of Grand Forks Water Treatment Plant** **
 - 4) **North Central Rural Water Consortium II:**
 - a) **Carpio-Berthold, Phase 2** **
 - b) **Granville-Surrey-Deering** **
 - 5) **Northeast Regional Water District - Rural Expansion** **
 - 6) **Stutsman Rural Water District, Phase 3 Expansion** **
 - 7) **City of Mandan Water System Improvements** **
 - 8) **City of Grafton Flood Risk Reduction Project** **
 - 9) **Herzog Dam Gate and Catwalk Retrofit - Pembina Co.** **
 - 10) **Drain No. 11 Channel Improvements - Sargent County** **
 - 11) **Stavanger-Belmont Drain No. 52 - Traill County** **
 - 12) **Murray Drain No. 17 Channel Improvements - Traill Co.** **
 - 13) **Carson Drain No. 10 Channel Improvements - Traill Co.** **
 - 14) **Sam Berg Coulee Drain - Walsh County** **
 - 15) **Drain No. 31-1 - Walsh County** **
 - 16) **Drain No. 70 - Walsh County** **

AGENDA - Page 2

- G. Fargo Moorhead Area Diversion Project Update
- H. Mouse River Enhanced Flood Protection Project:
 - 1) Project Update
 - 2) ***Utility Relocations*** **
 - 3) ***Highway 83 Bypass and Bridge Replacement*** **
 - 4) ***Rural Reaches Pre-Construction Engineering*** **
 - 5) ***4th Avenue Tieback Levee and Burlington Levee, Pre-Construction Engineering*** **
- I. Northwest Area Water Supply Project:
 - 1) Project Update
 - 2) ***2017 Interim Water Rates*** **
 - 3) ***2015-2017 Biennium Funding*** **
- J. Southwest Pipeline Project:
 - 1) Project Update
 - 2) ***Contract 5-2A, Second Dickinson Raw Water Reservoir*** **
 - 3) ***Change Order Authorization*** **
 - 4) ***Contract 7-9G, Bid Schedules 1 & 2, Change Order; and Contract 7-9F Change Order*** **
- K. Garrison Diversion Conservancy District Report
- L. 2015 North Dakota State Water Management Plan Update
- M. Devils Lake Hydrologic and Projects Updates
- N. Missouri River Update
- O. Other Business:
 - 1) Pembina Border Dike Lawsuit Update
 - 2) ***State Engineer's Compensation*** **
- P. Adjournment

**** BOLD, ITALICIZED ITEMS REQUIRE SWC ACTION**

To provide telephone accessibility to the State Water Commission meeting for those people who are deaf, hard of hearing, deaf and/or blind, and speech disabled, please contact Relay North Dakota, and reference ... TTY-Relay ND ... 1-800-366-6888, or 711.

MINUTES

North Dakota State Water Commission Bismarck, North Dakota

October 12, 2016

The North Dakota State Water Commission held a meeting at the State Office Building, Bismarck, North Dakota, on October 12, 2016. Governor Jack Dalrymple, Chairman, called the meeting to order at 1:00 p.m., and requested Garland Erbele, State Engineer, and Chief Engineer-Secretary to the State Water Commission, to call the roll. Governor Dalrymple announced a quorum was present.

STATE WATER COMMISSION MEMBERS PRESENT:

Governor Jack Dalrymple, Chairman
Tom Bodine, Deputy Commissioner, representing Commissioner Doug Goehring,
North Dakota Department of Agriculture, Bismarck
Arne Berg
Maurice Foley
Larry Hanson
George Nodland
Harley Swenson
Douglas Vosper

STATE WATER COMMISSION MEMBER ABSENT:

Robert Thompson

OTHERS PRESENT:

Garland Erbele, 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

The agenda for the October 12, 2016 State Water Commission meeting was presented; there were no modifications.

It was moved by Commissioner Berg, seconded by Commissioner Foley, and unanimously carried, that the agenda be accepted as presented.

**CONSIDERATION OF DRAFT MINUTES
OF JUNE 22, 2016 STATE WATER
COMMISSION WORKING MEETING -
APPROVED**

The draft final minutes of the June 22, 2016 State Water Commission working meeting were approved by the following motion:

It was moved by Commissioner Vosper, seconded by Commissioner Hanson, and unanimously carried, that the draft final minutes of the June 22, 2016 State Water Commission working meeting be approved as prepared.

**CONSIDERATION OF DRAFT MINUTES
OF JULY 6, 2016 STATE WATER
COMMISSION MEETING - APPROVED**

The draft final minutes of the July 6, 2016 State Water Commission meeting were approved by the following motion:

It was moved by Commissioner Vosper, seconded by Commissioner Hanson, and unanimously carried, that the draft final minutes of the July 6, 2016 State Water Commission meeting be approved as prepared.

**STATE WATER COMMISSION -
PROGRAM BUDGET EXPENDITURES
AND CONTRACT FUND ALLOCATIONS,
2015-2017 BIENNIUM**

In the 2015-2017 biennium, the State Water Commission has two line items - administrative and support services, and water and atmospheric resources expenditures. The allocated program ex-

penditures for the period ending August 31, 2016 were presented and discussed by David Laschkewitsch, State Water Commission's Director of Administrative Services. The expenditures, in total, are within the authorized budget amounts. **SEE APPENDIX "A"**

The Contract Fund for the 2015-2017 biennium, **APPENDIX "B"**, provides information on the committed and uncommitted funds from the Resources Trust Fund and the Water Development Trust Fund. The current Contract Fund total allocation for projects is \$774,095,632 with expenditures of \$312,366,025. A balance of \$250,912,493 remains available to commit to projects in the 2015-2017 biennium.

**STATE WATER COMMISSION -
RESOURCES TRUST FUND
AND WATER DEVELOPMENT
TRUST FUND REVENUES,
2015-2017 BIENNIUM**

end of the 2015-2017 biennium will be short by \$22,173,640.

Oil extraction tax deposits into the Resources Trust Fund total \$144,407,152 through September, 2016, and are currently \$18,006,656 above originally-budgeted revenues. A revised forecast projected the oil extraction revenue at the

Deposits into the Water Development Trust Fund (tobacco settlement) total \$9,119,900 through June, 2016, and are currently \$124,900, or 1.4 percent above budgeted revenues.

**NORTH DAKOTA STATE WATER
COMMISSION COST SHARE POLICY,
PROCEDURE, AND GENERAL
REQUIREMENTS - APPROVAL OF
AMENDMENTS TO POLICY; AND
INCREASE COST SHARE TO 65 PERCENT
FOR MOUSE RIVER ENHANCED FLOOD
PROTECTION PROJECT
(SWC Project Nos. 1753 and 1974)**

and to the staff to develop language for the cost share policy that would allow this level of funding support for similar projects. The policy committee also considered cost share funding for the preservation of breakout corridors, and increasing the individual ring dike funding limit from \$40,000 to \$55,000.

The policy committee of the State Water Commission met on September 21, 2016 to consider the cost share percentage for the Mouse River Enhanced Flood Control project. It was the consensus of the policy committee to increase the cost share percentage for the Mouse River Enhanced Flood Protection project to 65 percent, with a directive to the Commission's Secretary

It was the recommendation of Secretary Erbele that the State Water Commission approve increasing the state cost participation to 65 percent for the Mouse River Enhanced Flood Protection project, and approve the following amendments to the North Dakota State Water Commission Cost Share Policy, Procedure, and General Requirements (new language is underlined), with an effective date of October 12, 2016:

C. Flood Control.

2. Flood Protection Program.

This program supports local sponsor efforts to prevent future property damage due to flood events. The State Water Commission may provide cost share grants for up to 60 percent of eligible costs. For projects with federal participation, the cost share may be up to 50 percent of eligible costs. The State Water Commission may consider a greater level of cost participation for projects involving a total cost greater than \$100 million and having a basin wide or regional benefit.

Costs for property acquired, by easement or fee title, to preserve the existing conveyance of a breakout corridor recognized as essential to FEMA system accreditation may be eligible under this program.

D. Rural Flood Control.

2. Ring Dike Program.

This program is intended to protect individual rural homes and farmsteads through ring dike programs established by water resource districts. All ring dikes within the program are subject to the Commission's individual rural and farmstead ring dike criteria provided in Attachment A. Cost share is limited to \$55,000 per ring dike. ...

It was moved by Commissioner Foley and seconded by Commissioner Berg that the State Water Commission:

- 1) approve the state cost participation of 65 percent for the Mouse River Enhanced Flood Protection project, effective October 12, 2016; and***
- 2) approve the recommended amendments (listed above) to the North Dakota State Water Commission Cost Share Policy, Procedure, and General Requirements, effective October 12, 2016. SEE APPENDIX "C"***

Commissioners Berg, Deputy Bodine representing Commissioner Goehring, Foley, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**SWC/USGS COOPERATIVE
STATEWIDE HYDROLOGIC
MONITORING PROGRAM -
APPROVAL OF 51.6% STATE COST
PARTICIPATION GRANT (\$544,110)
(SWC Project No. 2041)**

A request from the U.S. Geological Survey was presented for the State Water Commission's consideration for state cost participation in the cooperative statewide hydrologic monitoring program. The data collection consists of three components: stream

gaging to measure flow rate and volume, stream and lake water quality monitoring, and aquifer water level and water quality monitoring.

The stream gaging network provides stream flow statistics that are needed for a wide variety of applications including the design of flood control structures, bridges, culverts, general water resource planning, floodplain mapping, water management, and permitting. Many of the gaging sites provide real-time data, which was crucial in responding to the flood events that occurred in 2009 and 2011.

Water samples are collected for chemical analysis at specific stream sites during high and low-flow periods and at selected lakes. This data is used to determine the suitability of the chemical quality for beneficial use, interpret area hydrology, and to assess changes in the quality resulting from the stresses of both man-induced activities and natural processes caused by climatic variations. The water quality data also provides planners with a basis to assess if waste water resulting from beneficial use can be discharged into surface water bodies.

Monitoring ground-water levels and quality in wells completed in selected aquifers throughout the state provides essential information used to allocate and manage the state's ground-water resources. The data collection system includes real-time monitoring capabilities to the continuous recorder wells.

The State Water Commission has participated in a cooperative statewide hydrologic monitoring program since the 1950s. The total cost of the monitoring program for federal Fiscal Year 2017 is \$1,054,580, of which the State Water Commission's obligation of this amount is \$544,110 (51.6 percent); the remaining \$510,470 will be provided by the U.S. Geological Service.

It was the recommendation of Secretary Erbele that the State Water Commission approve a federal 2017 Fiscal Year obligation of \$544,110 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020) to the U.S. Geological Survey Water Science Center, to support the cooperative statewide hydrologic monitoring program.

It was moved by Commissioner Berg and seconded by Deputy Bodine representing Commissioner Goehring that the State Water Commission approve a federal 2017 Fiscal Year obligation of \$544,110 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the U.S. Geological Survey Water Science Center to support the cooperative statewide hydrologic monitoring program. This approval is contingent upon the availability of funds.

Commissioners Berg, Deputy Bodine representing Commissioner Goehring, Foley, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**BARNES RURAL WATER DISTRICT,
RURAL EXPANSION PROJECT -
APPROVAL OF ADDITIONAL 75%
STATE COST PARTICIPATION
GRANT (\$381,750); LOAN (\$835,000)
(SWC Project No. 2050-BAR)**

On October 7, 2013, the State Water Commission adopted a motion approving a state cost participation grant of 75 percent of the eligible costs not to exceed an allocation of \$3,290,000 for their rural expansion project to provide service to 150 new rural

users in the un-served areas. The Barnes Rural Water District currently serves 4,057 people in Barnes county.

On September 15, 2014, the State Water Commission adopted a motion approving a state cost participation grant of 50 percent of the eligible costs, not to exceed an additional allocation of \$643,585 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to support their water treatment plan improvements project.

On March 11, 2015, the State Water Commission adopted a motion approving a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$2,602,750 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to support the rural expansion project.

A request from the Barnes Rural Water District was presented for the State Water Commission's consideration for state cost participation of 75 percent to provide water service for 275 rural users and for the city of Kathryn. The water supply is from the wells in the Spiritwood aquifer and treated with an iron and manganese removal water treatment plant. The project engineer's revised estimated cost is \$8,886,000, which is eligible for state cost participation of 75 percent of the eligible costs for the rural expansion project. The District requested an additional grant of \$381,750, increasing the total grant to \$6,274,500.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$381,750 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020; and a loan not to exceed \$835,000 from the State Water Commission's Infrastructure Revolving Loan Fund, with an interest rate of 1.5 percent and a 20 year term, to the Barnes Rural Water District to support their rural expansion project.

It was moved by Commissioner Berg and seconded by Commissioner Foley that the State Water Commission approve a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$381,750 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020); and a loan not to exceed \$835,000 from the

State Water Commission's Infrastructure Revolving Loan Fund, with an interest rate of 1.5 percent and a 20 year term, to the Barnes Rural Water District to support their rural expansion project. This approval is contingent upon the availability of funds, and is subject to future revisions.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

This action increases the total state cost participation to \$9,063,085 (\$1,953,585 for the Barnes Rural Water District water treatment plant; and \$7,109,500 for the Barnes Rural Water District rural expansion project (\$6,274,500 (grants) and \$835,000 (loan)).

***CITY OF GRAND FORKS, REGIONAL
WATER TREATMENT PLANT PROJECT -
APPROVAL OF APPROPRIATION
(2015 SENATE BILL 2020 - \$30,000,000)
(SWC Project No. 2050-GRF)***

On October 7, 2013, the State Water Commission adopted a motion approving a state cost participation grant not to exceed \$4,990,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B.

1020), to the city of Grand Forks to support construction of a new water treatment plant to provide water supply capacity to meet population and demand projections through 2050. The project will expand the capacity from 16.5 million gallons per day with expandability to 40 million gallons per day. The estimated project cost is \$148,000,000.

The 2015 North Dakota Legislature mandated legislative intent in Senate Bill 2020, Section 13. Grand Forks Water Treatment Plant Project Funding, which states, "It is the intent of the sixty-fourth legislative assembly that the state provide grants for one-half of the cost to construct the Grand Forks water treatment plant project and provide a \$30,000,000 grant for the project during the 2015-2017 biennium and a \$30,000,000 grant for the project during the 2017-2019 biennium."

Based on the legislative guidelines, it was the recommendation of Secretary Erbele that the State Water Commission approve a 50 percent grant allocation of the eligible costs not to exceed \$30,000,000 from the funds appropriated to the State Water Commission in 2015 Senate Bill 2020 to the city of Grand Forks to support construction of a new water treatment plant.

It was moved by Commissioner Vosper and seconded by Commissioner Nodland that the State Water Commission approve a 50 percent grant of the eligible costs not to exceed an allocation of \$30,000,000 from the funds appropriated to the State Water Commission in 2015 Senate Bill 2020 to the city of Grand Forks to support construction of a new water treatment plant. This approval is contingent upon the availability of funds.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

This approval increases the total state allocation grants to \$34,990,000 for the city of Grand Forks for construction of a new water treatment plant.

***NORTH CENTRAL RURAL WATER
CONSORTIUM II, CARPIO-BERTHOLD,
PHASE II -
APPROVAL OF LOAN (\$215,000)
(SWC Project No. 237-03CAR)***

On June 21, 2011, the State Water Commission approved a 65 percent state cost participation grant, not to exceed an allocation of \$3,150,000 from the funds appropriated to the State Water Commission in the 2011-2013

biennium to the North Central Rural Water Consortium II, Carpio-Berthold water supply project, Phase I. The project included 140 miles of 4" to 1.5" pipeline for approximately 125 rural users and service for the city of Carpio.

The 2013 Carpio-Berthold project addressed service to the rural area near the cities of Foxholm and Donnybrook with 70 miles of 3" to 2" pipeline for approximately 50 rural users, with an estimated total cost of \$2,600,000. On July 23, 2013, the State Water Commission approved a 75 percent state cost participation grant, not to exceed an additional allocation of \$1,950,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to the North Central Rural Water Consortium II, to support the Carpio-Berthold water supply project, Phase II. The overall project provides water supply service in northwestern Ward county and extends from Des Lacs to Carpio, at an estimated total project cost of \$4,066,667.

On May 29, 2014, the State Water Commission adopted a motion approving a 75 percent grant, not to exceed an additional allocation of \$1,100,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020) to the North Central Rural Water

Consortium II for the Carpio-Berthold water supply project, Phase II. The 2014 Carpio-Berthold water supply project, Phase II, addresses service to the rural area near Foxholm and Donnybrook with 82 miles of 3" to 1" pipeline for service to approximately 100 rural users.

A request from the North Central Rural Water Consortium II was presented for the State Water Commission's consideration for a loan not to exceed \$215,000 from the State Water Commission's Infrastructure Revolving Loan Fund with a 20-year term at an interest rate of 1.5 percent, for the Carpio-Berthold water supply project, Phase II. The proposed project would provide water supply service in northwestern Ward county for the rural area near the cities of Foxholm and Donnybrook and water service for 128 rural users, at an estimated project cost of \$4,534,358.

It was the recommendation of Secretary Erbele that the State Water Commission approve a loan for the local cost share not to exceed \$215,000 from the State Water Commission's Infrastructure Revolving Loan Fund with a 20-year term at an interest rate of 1.5 percent, for the Carpio-Berthold water supply project, Phase II.

It was moved by Commissioner Foley and seconded by Commissioner Berg that the State Water Commission approve a loan for the local cost share not to exceed \$215,000 from the State Water Commission's Infrastructure Revolving Loan Fund with a 20-year term at an interest rate of 1.5 percent, for the Carpio-Berthold water supply project, Phase II. This approval is contingent upon the availability of funds.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

The total state cost allocation grant for the North Central Rural Water Consortium II, Carpio-Berthold water supply project, Phase I, is \$3,150,000.

The total state cost grants/loan allocation for the North Central Rural Water Consortium II, Carpio-Berthold water supply project, Phase II, is \$3,050,000 (grants) and \$215,000 (loan).

**NORTH CENTRAL RURAL WATER
CONSORTIUM II, GRANVILLE-DEERING-
SURREY RURAL WATER SUPPLY -
APPROVAL OF ADDITIONAL 75% STATE
COST PARTICIPATION GRANT (\$346,000);
AND LOAN (\$139,000)
(SWC Project No. 237-03NOC)**

On July 23, 2013, the State Water Commission adopted a motion approving a state cost participation grant of 75 percent, not to exceed an allocation of \$180,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020) to the North Central Rural Water Consortium II

for engineering and a cultural resource study of the Granville-Deering rural water supply project. The project addressed water supply service in northeastern Ward county and McHenry county. The project involved 147 miles of 3" to 2" pipeline for approximately 165 rural users and service for the city of Deering. The estimated total project cost was \$4,000,000.

On May 29, 2014, the State Water Commission adopted a motion approving a state cost participation grant of 75 percent, not to exceed an additional allocation of \$4,800,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to the North Central Rural Water Consortium II to support the Granville-Deering-Surrey water supply project. The proposed project involved 147 miles of 6" to 2" pipeline for approximately 191 rural users and 69 service connections in the city of Deering.

On March 11, 2015, the State Water Commission adopted a motion approving state cost participation of 75 percent of the eligible costs, not to exceed an additional allocation of \$771,750 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to the North Central Rural Water Consortium II to support the Granville-Deering-Surrey water supply project.

A request from the North Central Rural Water Consortium II for additional state cost participation was presented for the State Water Commission's consideration for a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$346,000; and a loan for the local share in the amount of \$139,000 from the State Water Commission's Infrastructure Revolving Loan Fund.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$346,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020); and a loan for the local cost share in the amount of \$139,000 from the State Water Commission's Infrastructure Revolving Loan Fund, with a 20-year term at an interest rate of 1.5 percent, to the North Central Rural Water Consortium II, Granville-Deering-Surrey water supply project.

It was moved by Commissioner Foley and seconded by Commissioner Berg that the State Water Commission approve a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$346,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020); and a loan for the local cost share in the amount of \$139,000 from the State Water Commission's Infrastructure Revolving Loan Fund, with a 20-year term at an interest rate of 1.5 percent, to the North Central Rural Water Consortium II, Granville-Deering-Surrey water supply project. This approval is contingent upon the availability of funds, and is subject to future revisions.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

The total state cost grants/loan allocation for the North Central Rural Water Consortium II, Granville-Deering-Surrey water supply project is \$6,097,750 (grants) and \$139,000 (loan).

NORTHEAST REGIONAL WATER DISTRICT, 2014 RURAL EXPANSION - APPROVAL OF ADDITIONAL 75% STATE COST PARTICIPATION GRANT (\$123,500); AND TRANSFER BALANCE OF ABM PIPELINE REPLACEMENT PROJECT GRANT FUNDING (\$52,700) TO RURAL EXPANSION PROJECT (SWC Project No. 2050-NOE)

On October 7, 2013, the State Water Commission passed a motion to approve a state cost participation grant of 75 percent of the eligible costs, not to exceed an allocation of \$862,500 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to the North Valley Water District to support the 2013 rural expansion project. The project

involved the installation of 30 miles of 2" transmission pipeline to connect 35 new rural users, at an estimated cost of \$1,150,000.

On January 1, 2014, the North Valley Water District merged with the Langdon Rural Water District to form the Northeast Regional Water District.

On May 29, 2014, the State Water Commission adopted a motion approving a request from the Northeast Regional Water District for additional state cost participation of a 75 percent grant, not to exceed an additional allocation of \$937,500 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020) to support the District's 2014 rural expansion project.

A request from the Northeast Regional Water District was presented for the State Water Commission's consideration for state cost participation of a 75 percent grant for their rural expansion project that would provide water service for 100 rural users, at an estimated project cost of \$2,840,000. The District also requested a transfer of the grant remaining in the North Valley ABM pipeline contract consisting of approximately \$52,700.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant of 75 percent of the eligible costs, not to exceed an additional allocation of \$123,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Northeast Regional Water District to support their rural expansion project.

It was also the recommendation of Secretary Erbele that the State Water Commission approve the transfer of the grant remaining in the North Valley ABM pipeline contract consisting of approximately \$52,700 to the Northeast Regional Water District to support their rural expansion project.

It was moved by Commissioner Berg and seconded by Commissioner Vosper that the State Water Commission:

- 1) approve a state cost participation grant of 75 percent of the eligible costs not to exceed an additional allocation of \$123,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Northeast Regional Water District to support their rural expansion project; and***
- 2) approve the transfer of the grant remaining in the North Valley ABM pipeline contract consisting of approximately \$52,700 to the Northeast Regional Water District to support their rural expansion project.***

These approvals are contingent upon the availability of funds, subject to future revisions, and authorization for the Secretary to the State Water Commission to transfer funds within the project phases to facilitate project completion.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

The total approved state cost grants allocation for the Northeast Regional Water District rural expansion project is \$1,923,500.

***STUTSMAN RURAL WATER DISTRICT,
EXPANSION PROJECT, PHASE III -
APPROVAL OF 75% ADDITIONAL
STATE COST PARTICIPATION
GRANT (\$296,500); AND
LOAN APPROVAL (\$721,000)
(SWC Project No. 237-03STU)***

The Stutsman Rural Water District is developing expansions to address inadequacies in the rural system which limits their ability for the addition of rural water users. The system initially served 1,200 rural users, the cities of Cleveland and Montpelier, and the Northern Prairie Wildlife Research Center. On March 11,

2004, the State Water Commission passed a motion to approve a 65 percent grant not to exceed \$24,700 from the Garrison Diversion Conservancy District Water Development and Research Fund for the Stutsman County Rural Water hydraulic model and feasibility study. On March 10, 2005, the State Water Commission approved a 5 percent grant, not to exceed an allocation of \$83,500 from the Water Development and Research Fund, for the Stutsman Rural Water District infrastructure improvements project. On June 22, 2005, the Commission passed a motion to increase the grant to 10 percent of the eligible costs.

Other previous State Water Commission grant funding approvals include:

On June 21, 2011, the State Water Commission approved a 70 percent grant, not to exceed an additional allocation of \$6,800,000 from the funds appropriated to the State Water Commission in the 2011-2013 biennium (S.B. 2020), to support the 2011 expansion project, Phase II, involving 298 miles of 8" to 1.5" pipeline for 90 rural users and service capacity to the northern Stutsman area and the city of Woodworth.

On February 27, 2013, the State Water Commission approved a 70 percent grant, not to exceed an additional allocation of \$2,500,000 for the Phase II-B expansion project for west central Stutsman county for an area between Woodworth and southeast to Windsor involving 76 miles of 8" to 1.5" pipeline for 244 rural users and a 250,000 gallon storage tank; and

a 75 percent grant not to exceed an additional allocation of \$7,500,000 from the supplemental funds appropriated to the State Water Commission in the 2011-2013 biennium through 2011 House Bill 1269 for the Phase III expansion project involving 270 miles of 8" to 1.5" pipeline for 330 rural users and service to the city of Streeter.

On July 23, 2013, the State Water Commission approved a 75 percent grant not to exceed an additional allocation of \$650,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), for Phase III that involved 32 miles of 4" to 1.5" pipeline for 17 rural users in Kidder county; and

a 75 percent grant not to exceed an additional allocation of \$557,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), for Phase II-B for the Carrington area involving 35 miles of 3" to 1.5" pipeline for 27 rural users.

On March 17, 2014, the State Water Commission approved a 75 percent grant not to exceed an additional allocation of \$1,400,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), for Phase II of the 2014 expansion project.

On September 15, 2014, the State Water Commission approved a 70 percent grant not to exceed an additional allocation of \$1,109,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), for the 2014 expansion project, Phase II-B.

On September 15, 2014, the State Water Commission approved a 75 percent state cost participation grant not to exceed an additional allocation of \$1,046,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), for the 2014 expansion project, Phase III.

On July 29, 2015, the State Water Commission approved a 75 percent state cost participation grant not to exceed an additional allocation of \$1,050,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), for the rural expansion project, Phase III.

A request from the Stutsman Rural Water District was presented for the State Water Commission's consideration for a state cost participation grant of 75 percent not to exceed an additional allocation of \$296,500 for their expansion project, Phase III, to provide water service for 540 rural users at an estimated project cost of \$14,422,000. The District also requested a loan from the State Water Commission's Infrastructure Revolving Loan Fund be considered for the local cost share (\$721,000), with an interest rate of 1.5 percent.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant of 75 percent not to exceed an additional allocation of \$296,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Stutsman

Rural Water District expansion project, Phase III; and a 20-year term loan to the Stutsman Rural Water District from the State Water Commission's Infrastructure Revolving Loan Fund for the local cost share (\$721,000), with an interest rate of 1.5 percent.

It was moved by Commissioner Berg and seconded by Commissioner Vosper that the State Water Commission:

1) approve a 75 percent state cost participation grant not to exceed an additional allocation of \$296,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Stutsman Rural Water District expansion project, Phase III; and

2) approve a 20-year term loan to the Stutsman Rural Water District from the State Water Commission's Infrastructure Revolving Loan Fund for the local cost share in the amount of \$721,000, with an interest rate of 1.5 percent.

These approvals are contingent upon the availability of funds, subject to future revisions, and authorization for the Secretary to the State Water Commission to transfer funds within phases to facilitate project completion.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

The total approved state allocation grants/loan are \$22,908,500 (grants); \$721,000 (loan) to the Stutsman Rural Water District (June 21, 2011 through October 12, 2016). This includes \$10,542,500 (grants) and \$721,000 (loan) for Stutsman Rural Water District rural expansion, Phase III.

***CITY OF MANDAN, 2015 WATER
SYSTEM IMPROVEMENTS -
APPROVAL OF ADDITIONAL STATE
COST PARTICIPATION GRANT (\$292,360)
(SWC Project No. 2050-MAN)***

population growth and the increasing demand for quality water: 1) High Service Optimization project, Phase I; 2) Instrumentation and Controls Upgrades project; and 3) Sunset Booster Station Pumps project. The total grant approved for the three projects is

On October 6, 2015, the State Water Commission adopted a motion approving a state cost participation grant for the design and construction of water supply infrastructure improvements for three projects to address

not to exceed an allocation of \$2,290,175 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), with pre-construction engineering eligible costs funded at 35 percent, and construction engineering and construction eligible costs funded at 60 percent.

The Sunset Booster Station Pumps project involves new controls, instrumentation, and pumps to ensure the pump station can meet the flow demands from new growth areas. The project engineer's revised cost estimate is \$950,994, with pre-construction engineering eligible costs of \$90,385, and construction engineering and construction eligible costs of \$860,609. A request from the city of Mandan was presented for the State Water Commission's consideration for an additional state cost participation grant in the amount of \$292,360, with pre-construction engineering eligible costs of \$21,082 funded at 35 percent, and construction engineering and construction eligible costs of \$271,278 funded at 60 percent, to support the city of Mandan's 2015 water system improvements project.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant not to exceed an additional allocation of \$292,360 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), with pre-construction engineering eligible costs funded at 35 percent, and construction engineering and construction eligible costs funded at 60 percent, to the city of Mandan to support their 2015 water system improvements projects.

It was moved by Commissioner Swenson and seconded by Commissioner Berg that the State Water Commission approve a state cost participation grant not to exceed an additional allocation of \$292,360 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), with pre-construction engineering eligible costs funded at 35 percent, and construction engineering and construction eligible costs funded at 60 percent, to the city of Mandan to support their 2015 water system improvements projects. This approval is contingent upon the availability of funds.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

The total state cost participation grant for the city of Mandan's three 2015 water system improvement projects is \$2,582,535.

CITY OF GRAFTON, FLOOD RISK REDUCTION PROJECT - APPROVAL OF RE-ALLOCATION GRANT (\$7,175,000); APPROVAL OF ADDITIONAL 75% GRANT (\$25,000,000) FROM 2015 SENATE BILL 2020; AND LOAN TO CITY OF GRAFTON (\$3,375,000) (SWC Project No. 1771)

On March 11, 2010, the State Water Commission adopted a motion approving a state cost participation grant as a flood control project at 70 percent of the eligible non-federal costs not to exceed an allocation of \$7,175,000 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), to the city of Grafton to

support the Grafton flood control 2010 diversion channel and flood system works construction project as a match to a federally-funded project. Since that time, the federal funding has changed and there are no federal funds available.

The proposed project is located in the city of Grafton in Walsh county. Approximately 90 percent of Grafton lies in the 100-year floodplain making the community susceptible to flooding from the Park River. Flood insurance premiums have quadrupled as a result of the Biggert-Water Act of 2012 and continue to rise. To address this problem, the city is working on a comprehensive flood risk reduction project that will include levees and a bypass channel. When these items are implemented, it would greatly reduce the risk of flood damage and flood-related issues and effectively remove the community from the 100-year floodplain.

On December 5, 2015, the State Water Commission adopted a motion approving a state cost participation grant as a pre-construction engineering project at 35 percent of the eligible costs, not to exceed an additional allocation of \$1,750,000 from the funds appropriated to the State Water Commission in the 2013-2015 biennium (H.B. 1020), to the city of Grafton to support the pre-construction engineering for the Grafton Flood Risk Reduction project. To date, these approvals total the state cost participation allocation grant of \$8,925,000 for the Grafton Flood Risk Reduction project.

2015 Senate Bill 2020, the State Water Commission appropriation bill, Section 17. State Water Commission Project Funding Designations, states, "Of the funds appropriated in the water and atmospheric resources line item in section 1 of this Act from funds available in the resources trust fund, water development fund, and the line of credit available from the Bank of North Dakota, \$113,000,000 is for flood control projects,",, of which \$25,000,000 was budgeted for the Grafton Flood Risk Reduction project.

On July 9, 2016, representatives from the city of Grafton appeared before the State Water Commission to provide a project update. The hydrology and hydraulics, geotechnical exploration, cultural and wetland field review and reports, wetland mitigation plan, data book creation, title information, and right-of-way plat preparation have been completed, as well as 65 percent of the

design plans. The 404 permit application was submitted to the Corps of Engineers, and meetings have been ongoing with the State Water Commission, FEMA, and the local floodplain administrators on the conditional letter of map revision. The impact analysis, floodplain permits and construction permits are being developed as the project progresses, and utility and agency coordination has been ongoing.

The project engineer's estimated construction and construction engineering costs are \$47,400,000. The city of Grafton passed a sales tax increase in 2014 and a special assessment district has been created to supplement the sales tax revenues. A request from the city of Grafton was presented for the State Water Commission's consideration for a 75 percent total state cost participation grant (\$35,550,000). Representatives from the city of Grafton appeared before the State Water Commission to provide information in support of their request for a deviation from the Commission's cost share policy indicating that "a project of this size is a major financial burden for the city, and we are asking for a deviation from the cost share policy as the city can finance a local share of \$12,000,000 and still be able to maintain other infrastructure needs in the community. Exceeding a local share of \$12,000,000 would place a financial hardship on the community." **SEE APPENDIX "D"**

In discussion of the 75 percent state cost participation request, it was the consensus of the Commission members of the necessity to complete the Grafton Flood Risk Reduction project that would eliminate emergency flood fighting efforts for the community. The project was discussed at length resulting in the proposed funding recommendation: 1) re-allocate \$7,175,000 approved by the State Water Commission on March 11, 2010; 2) approve an additional allocation of \$25,000,000 approved in 2015 Senate Bill 2020 for the city of Grafton; and 3) approve a 30-year term loan to the city of Grafton from the State Water Commission's Infrastructure Revolving Loan Fund in the amount of \$3,375,000, with an interest rate of 1.5 percent. The Commission's affirmative action would increase the total state allocation to \$35,550,000 (\$32,175,000 - state cost participation 75 percent grant; and \$3,375,000 - loan.)

It was moved by Commissioner Berg and seconded by Commissioner Vosper that the State Water Commission:

1) approve the re-allocation of \$7,175,000 from the funds appropriated to the State Water Commission in the 2009-2011 biennium (H.B. 1020), approved by the State Water Commission on March 11, 2010;

2) approve an additional allocation of \$25,000,000 from the funds appropriated to the State Water Commission in 2015 Senate Bill 2020; and

3) *approve a 30-year term loan to the city of Grafton from the State Water Commission's Infrastructure Revolving Loan Fund in the amount of \$3,375,000, with an interest rate of 1.5 percent.*

These approvals are contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

The total state cost participation for the Grafton Flood Risk Reduction Project is \$35,550,000 (\$32,175,000 - state cost participation - 75 percent grant; and \$3,375,000 - loan.)

**HERZOG DAM GATE AND CATWALK
RETROFIT - CONSTRUCTION PROJECT -
APPROVAL OF 75% STATE COST
PARTICIPATION GRANT (\$105,450)
(SWC Project No. 2083)**

A request from the Pembina County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Herzog Dam Gate and Catwalk Retrofit - Construction project.

The annual inspections of the dams along the Tongue River revealed that the gate system on Herzog Dam was nearing the end of its lifespan and replacement was essential in order to ensure the safe operation of the dam. The current catwalk is also becoming deficient and provides an unsafe access to the riser tower where the gate is operated.

The project engineer's cost estimate is \$140,600, which is determined eligible as a dam safety project at 75 percent (\$105,450).

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, not to exceed an allocation of \$105,450 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Pembina County Water Resource District to support the Herzog Dam Gate and Catwalk Retrofit - Construction project.

It was moved by Commissioner Vosper and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, not to exceed an allocation of \$105,450 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Pembina County Water Resource District to support the Herzog Dam Gate and Catwalk Retrofit - Construction project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Tom Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

***SARGENT COUNTY DRAIN NO. 11
CHANNEL IMPROVEMENTS PROJECT -
APPROVAL OF 45% STATE COST
PARTICIPATION GRANT (\$1,417,967)
(SWC Project No. 1222)***

A request from the Sargent County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Sargent County Drain No. 11 channel improvements project. This

drain was built nearly 100 years ago, therefore, the channel is hydraulically undersized, lacks an adequate channel gradient, and has undersized crossings to convey the watershed area that it was built to provide a drainage benefit for.

The proposed project would increase the channel's hydraulic capacity as well as adequately size each culvert crossing along the project's extents. A watershed study was completed in 2015 to determine what downstream impacts would be caused by any channel improvements, and it was determined the impacts were minor. These channel and culvert crossing improvements would provide the drainage benefit to the assessed landowners of this existing legal drain. Drain permit application No. 4857 was received in the Office of the State Engineer on June 27, 2016, and is pending review.

The project engineer's cost estimate is \$3,900,000, of which \$2,998,555 is determined eligible as a rural flood control project at 45 percent (\$1,349,350), and \$196,048 is determined eligible as pre-construction engineering at 35 percent (\$68,617), for a total state cost participation of \$1,417,967.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the

eligible costs for pre-construction engineering, not to exceed a total allocation of \$1,417,967 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Sargent County Water Resource District to support the Sargent County Drain No. 11 channel improvements project.

It was moved by Commissioner Foley and seconded by Deputy Bodine representing Commissioner Goehring that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$1,417,967 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Sargent County Water Resource District to support the Sargent County Drain No. 11 channel improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**STAVANGER-BELMONT DRAIN NO. 52
CHANNEL IMPROVEMENTS PROJECT
(TRAILL COUNTY) - APPROVAL OF STATE
COST PARTICIPATION GRANT (\$435,015)
(SWC Project No. 2075)**

A request from the Traill County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Stavanger-Belmont Drain No. 52 channel improvements

project. The proposed project will improve the legal drain's conveyance near the outlet of the legal drain into Buffalo Coulee.

The proposed improvements will address inadequate drainage along Traill County Drain No. 52 by providing a sufficient channel gradient at the outlet end and increasing the culvert capacities to meet North Dakota stream crossing standards. The proposed project will improve the capacity of the existing drain and reduce damages to adjacent agricultural lands and roads during a rain event and provide flood relief during the spring runoff. The proposed channel and culvert crossings will be analyzed for a 10-year rainfall event except where required to meet higher standards. An assessment district exists to fund the local share of the project. Drain permit application No. 4856 was received in the Office of the State Engineer on June 24, 2016, and is pending review.

The project engineer's cost estimate is \$1,200,000, of which \$915,772 is determined eligible as a rural flood control project at 45 percent (\$412,097), and \$65,479 is determined eligible as pre-construction engineering at 35 percent (\$22,918), for a total state cost participation of \$435,015.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$435,015 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Traill County Water Resource District to support the Stavanger-Belmont Drain No. 52 channel improvements project.

It was moved by Commissioner Nodland and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$435,015 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Traill County Water Resource District to support the Stavanger-Belmont Drain No. 52 channel improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

MURRAY DRAIN NO. 17 CHANNEL IMPROVEMENTS PROJECT (TRAILL COUNTY) - APPROVAL OF 45% STATE COST PARTICIPATION GRANT (\$138,450) (SWC Project No. 1236)

A request from the Traill County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Murray Drain No. 17 channel improvements project.

The proposed project would strive to improve the local channel and drainage systems of the existing legal drain in Mayville and Norway townships, and reduce future sloughing of the existing channel and control storm water runoff and flooding. The proposed location would begin at the intersection of Murray Drain No. 17 and County Road 11 in the south half of Section 30 in Norway township, continue southeast through Sections 31 and 32 of Norway township, and con-

clude with the replacement of the Center Street crossing where the legal drain outlets into an existing watercourse in Section 5 of Bloomfield township. An assessment district exists to fund the local cost share. Drain permit application No. 4853 was received in the Office of the State Engineer on June 17, 2016, and is pending review.

The project engineer's cost estimate is \$490,000, of which \$289,573 is determined eligible as a rural flood control project at 45 percent (\$130,308), and \$23,262 is determined eligible as pre-construction engineering at 35 percent (\$8,142), for a total state cost participation of \$138,450.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$138,450 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Traill County Water Resource District to support the Murray Drain No. 17 channel improvements project.

It was moved by Commissioner Nodland and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$138,450 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Traill County Water Resource District to support the Murray Drain No. 17 channel improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

CARSON DRAIN NO. 10 CHANNEL IMPROVEMENTS PROJECT (TRAILL COUNTY) - APPROVAL OF 45% STATE COST PARTICIPATION GRANT (\$152,328) (SWC Project No. 1231)

A request from the Traill County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Carson Drain No. 10 channel improvements project. The proposed project would improve the local channel and drainage systems of Drain No. 10 in Belmont township, control storm water runoff, and reduce flooding upstream of County Road 2.

The proposed location would begin at the intersection of Carson Drain No. 10 on County Road 2 in the south half of Section 26 in Belmont township. An assessment district exists to fund the local cost share. Drain permit application No. 4852 was received in the Office of the State Engineer on June 17, 2016, and is pending review.

The project engineer's cost estimate is \$500,000, of which \$320,533 is determined eligible as a rural flood control project at 45 percent (\$144,240), and \$23,108 is determined eligible as pre-construction engineering at 35 percent (\$8,088), for a total state cost participation of \$152,328.

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$152,328 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Traill County Water Resource District to support the Carson Drain No. 10 channel improvements project.

It was moved by Commissioner Nodland and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$152,328 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Traill County Water Resource District to support the Carson Drain No. 10 channel improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**SAM BERG COULEE DRAIN PROJECT
(WALSH COUNTY) - APPROVAL OF STATE
COST PARTICIPATION GRANT (\$401,005)
(SWC Project No. 2080)**

A request from the Walsh County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Sam Berg Coulee Drain project. The proposed drain would improve the surface drainage of the adjacent fields, reduce damage to agricultural crops during spring and summer rainfall events, and reduce overland flooding impacts on adjacent residences.

The drain has a drainage area of approximately 15,400 acres, and is 13,672 lineal feet in length. The drain is designed to have 30-foot to 36-foot bottoms and 3:1 side slopes. The culverts along the drains are designed for a 10-year flood event (township road) or 15-year event (gravel county road), and riprap will be placed on the downstream side of the proposed culverts. The local cost share will be paid through a drain assessment. Drain permit application No. 4876 was received in the Office of the State Engineer on September 1, 2016, and is pending review.

The project engineer's cost estimate is \$1,260,205, of which \$891,122 was determined eligible as a rural flood control project at 45 percent (\$401,005).

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, not to exceed an allocation of \$401,005 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Walsh County Water Resource District to support the Sam Berg Coulee Drain project.

It was moved by Commissioner Hanson and seconded by Commissioner Nodland that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, not to exceed an allocation of \$401,005 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Walsh County Water Resource District to support the Sam Berg Coulee Drain project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**WALSH COUNTY DRAIN NO. 31-1
PROJECT - APPROVAL OF 45% STATE
COST PARTICIPATION GRANT (\$111,543)
(SWC Project No. 1975)**

A request from the Walsh County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Walsh County Drain No. 31-1 project. Frequent overland flooding of agricultural lands results in crop damages within the benefitting area. Construction will include a legal lateral to the existing Walsh County Drain No. 31, flattening road in-slopes in the existing drain to 3:1 for safety reasons and facilitate removal of surface waters from surrounding land. Drain permit application No. 4849 was received in the Office of the State Engineer on June 9, 2016, and is pending review.

The project engineer's cost estimate is \$311,957, of which \$247,873 was determined eligible as a rural flood control project at 45 percent (\$111,543).

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, not to exceed an allocation of \$111,543 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Walsh County Water Resource District to support the Walsh County Drain No. 31-1 project.

It was moved by Commissioner Hanson and seconded by Commissioner Nodland that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, not to exceed an allocation of \$111,543 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Walsh County Water Resource District to support the Walsh County Drain No. 31-1 project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**WALSH COUNTY DRAIN NO. 70
PROJECT - APPROVAL OF 45% STATE
COST PARTICIPATION GRANT (\$898,866)
(SWC Project No. 2081)**

A request from the Walsh County Water Resource District was presented for the State Water Commission's consideration for state cost participation for the Walsh County Drain No. 70 project. The proposed drain would improve surface drainage of the adjacent fields and reduce damage to agricultural crops during spring and summer rainfall events.

The main Drain No. 70 is 56,796 lineal feet in length. Lateral No. 70-1 is 2,594 lineal feet in length, and Lateral No. 70-2 is 5,219 lineal feet in length. The drains are designed with 8-foot, 12-foot, and 24-foot bottoms and 3:1 side slopes. The culverts along the drains are designed for a 10-year event (township road) or 25-year event (paved county roads), and riprap will be placed on the downstream side of the proposed culverts. A positive assessment vote has been received. Drain permit application No. 4877 was received in the Office of the State Engineer on September 1, 2016, and is pending review.

The project engineer's cost estimate is \$2,438,917, of which \$1,997,479 was determined eligible as a rural flood control project at 45 percent (\$898,866).

It was the recommendation of Secretary Erbele that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, not to exceed an allocation of \$898,866 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Walsh County Water Resource District to support the Walsh County Drain No. 70 project.

It was moved by Commissioner Hanson and seconded by Commissioner Nodland that the State Water Commission approve a state cost participation grant as a rural flood control project at 45 percent of the eligible costs, not to exceed an allocation of \$898,866 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Walsh County Water Resource District to support the Walsh County Drain No. 70 project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**FARGO MOORHEAD AREA
DIVERSION PROJECT UPDATE
(SWC Project No. 1928)**

state, and federal efforts currently underway on the Fargo Moorhead Area Diversion project. A summary of their presentation is attached as **APPENDIX "E"**.

Timothy Mahoney, Fargo Mayor, and Darrell Vanyo, Cass County Commissioner and Lake Agassiz Water Authority chair, provided updates on the local,

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

The Northwest Area Water Supply (NAWS) project update was provided, which is detailed in the staff memorandum dated September 15, 2016, and included as **APPENDIX "F"**.

**NORTHWEST AREA WATER
SUPPLY (NAWS) PROJECT -
APPROVAL OF INTERIM WATER
RATES FOR CITY OF MINOT AND
NAWS REGION CITIES FOR 2017
(SWC Project No. 237-04)**

operation and maintenance costs, and reserve for replacement and extraordinary maintenance (REM).

The Northwest Area Water Supply (NAWS) project water service contracts recognize an annual review and adjustment of water rates that are effective January 1st of the following year. The proposed water rates are based on capital costs, supply and treatment costs,

The following proposed NAWS project interim water rates for the city of Minot and the NAWS region cities for 2017 were presented for the State Water Commission's consideration:

<u>Capital Costs:</u>	\$0.00 per 1,000 gallons
<u>Supply and Treatment Costs:</u>	City of Minot: \$0.00 per 1,000 gallons
	NAWS region: \$1.42 per 1,000 gallons
<u>Operation and Maintenance Costs:</u>	City of Minot: \$0.26 per 1,000 gallons
	NAWS region: \$1.18 per 1,000 gallons
<u>Replacement and Extraordinary Maintenance:</u>	\$0.15 per 1,000 gallons

It was the recommendation of Secretary Erbele that the State Water Commission approve the following NAWS interim water rates for the 2017 calendar year: city of Minot - \$0.41 per 1,000 gallons; NAWS region - \$2.75 per 1,000 gallons.

It was moved by Commissioner Foley and seconded by Commissioner Hanson that the State Water Commission approve the following Northwest Area Water Supply project interim water rates for the 2017 calendar year:

City of Minot: \$0.41 per 1,000 gallons

NAWS region: \$2.75 per 1,000 gallons

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

NORTHWEST AREA WATER SUPPLY (NAWS) PROJECT - APPROVAL OF APPROPRIATION (2015 SENATE BILL 2020 - \$10,000,000) (SWC Project No. 237-04)

The Sixty-Fourth Legislative Assembly of North Dakota (2015) designated funds for rural and municipal projects in Senate Bill 2020, the State Water Commission's appropriation bill for the 2015-2017 biennium.

The project litigation is fully briefed and a summary judgement could be expected during the winter of 2016-2017. The 2013-2015 biennium NAWS funding was not obligated by the State Water Commission, and the 2017-2019 biennium funding needs for the project will significantly exceed the available funding. If the litigation is resolved by April 1, 2017, the project funding could exceed \$160,000,000 for the 2017-2019 biennium. If the case goes to appeal and is resolved a year later, the project could still commit \$75,000,000 during the 2017-2019 biennium. Approval of the 2015-2017 allocation is critical for the NAWS project to move forward next biennium given the anticipated funding environment regardless of the Court's decision.

Based on the legislative guidelines, it was the recommendation of Secretary Erbele that the State Water Commission approve an allocation not to exceed \$10,000,000 from the funds appropriated to the State Water Commission in 2015 Senate Bill 2020 to the Northwest Area Water Supply project.

It was moved by Commissioner Berg and seconded by Commissioner Hanson that the State Water Commission approve an allocation not to exceed \$10,000,000 from the funds appropriated to the State Water Commission in 2015 Senate Bill 2020 to be dedicated to the Northwest Area Water Supply project. This approval is contingent upon the availability of funds.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

***SOUTHWEST PIPELINE PROJECT -
PROJECT UPDATE
(SWC Project No. 1736-99)***

The Southwest Pipeline Project update was presented, which is detailed in the staff memorandum dated September 13, 2016 and included as ***APPENDIX "G"***.

***SOUTHWEST PIPELINE PROJECT -
AWARD OF CONTRACT 5-2A,
2ND DICKINSON RESERVOIR, TO
JOHN T. JONES CONSTRUCTION
COMPANY, FARGO, ND (\$4,437,806)
(SWC Project No. 1736-99)***

Southwest Pipeline Project Contract 5-2A is for the construction of the 2nd Dickinson reservoir. The scope of work for this contract consists generally of furnishing and installing one partially buried circular steel reinforced concrete cast-in-place or AWWA D110 Type I or

Type III prestressed concrete raw water storage reservoir, 4,800,000 gallons (minimum), 32 feet to overflow, complete with access road, inlet/outlet piping, foundation, site piping, appurtenances, site work, steel reinforced concrete overflow and

channel outlet structures, cathodic protection system, replacement of existing reservoir overflow and drain piping, supplementary overflow weir box and piping for the existing raw water reservoir at the site previously purchased by the State Water Commission.

Four bid packages were received for Contract 5-2A. All four bid packages were found to be in order and were opened on October 4, 2016. Three bid packages were received for Bid Alternate 1 (cast-in-place concrete reservoir) from John T. Jones Construction Company, Fargo, ND; PKG Contracting, Inc., Fargo, ND; and Rice Lake Construction Group, Deerwood, MN. One bid package was received for Bid Alternate 3 (prestressed circular concrete reservoir (AWWA D110 Type III) from Meyer Contracting, Inc., Maple Grove, MN. No bids were received for Bid Alternate 2 (prestressed concrete reservoir (AWWA D110 Type I)). The low bid was received from John T. Jones Construction Company, Fargo, ND, and is a responsive bid in accordance with the Invitation for Construction and Bid documents. It was the recommendation of the project engineer to award Southwest Pipeline Project Contract 5-2A to John T. Jones Construction Company, Fargo, ND in the amount of \$4,437,806 based on Bid Alternate 1.

The contract documents require that the State Water Commission award the contract, if awarded, within 60 calendar days after the bid opening as stipulated in the Invitation for Bids and on the Bid Form, that date would be December 3, 2016. Because the funding for this contract may be used to qualify for future federal cost sharing through the state's Municipal, Rural and Industrial Water Supply program, the award of the contract requires concurrence from the Garrison Diversion Conservancy District and the Bureau of Reclamation, Dakotas Area Office. The award of the contract and the Notice to Proceed are dependent on the satisfactory completion and submission of the contract documents by the contractor, and the review/approval by the Commission's legal counsel.

It was the recommendation of Secretary Erbele that the State Water Commission authorize the Secretary to the Commission to award Southwest Pipeline Project Contract 5-2A to John T. Jones Construction Company, Fargo, ND, in the amount of \$4,437,806 based on Bid Alternate 1.

It was moved by Commissioner Nodland and seconded by Commissioner Foley that the State Water Commission authorize the Secretary to the Commission to award Southwest Pipeline Project Contract 5-2A to John T. Jones Construction Company, Fargo, ND, in the amount of \$4,437,806 based on Bid Alternate 1. This approval is contingent on the satisfactory completion and submission of the contract documents by the contractor, review/approval by the Commission's legal counsel, and concurrence from the Garrison Diversion Conservancy District and the Bureau of Reclamation, Dakotas Area Office.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**SOUTHWEST PIPELINE PROJECT -
AUTHORIZATION FOR SECRETARY
TO STATE WATER COMMISSION TO
EXECUTE PROJECT CHANGE ORDERS
(SWC Project No. 1736-99)**

On November 19, 1992, the State Water Commission adopted a motion authorizing the State Engineer or the Southwest Pipeline Project manager to execute project change orders for 25 percent of the total contract amount not to

exceed \$100,000. Change orders that exceeded \$100,000 would be brought before the State Water Commission for consideration. This authorization occurred in the early stages of construction on the Southwest Pipeline project.

The bid amounts for the construction contracts have been substantially higher in recent years with changes orders well above the \$100,000 limit, and each Southwest Pipeline Project construction contract is brought before the State Water Commission for approval before the award. The Southwest Pipeline Project is a line item on the State Water Commission's agency budget and the expenditure obligation is within the allocated budget for the Southwest Pipeline Project.

The Commission members reiterated the importance to allow for construction on the Southwest Pipeline Project contracts to progress without delays, and stated it would be appropriate that the November 19, 1992 authorization be modified. The Commission members concurred to an authorization to supersede the November 19, 1992 approval that would authorize the Secretary to the State Water Commission to execute Southwest Pipeline Project cumulative change orders up to \$1,000,000, not to exceed 20 percent of the total contract amount.

It was moved by Commissioner Berg and seconded by Commissioner Swenson that the State Water Commission authorize the Secretary to the State Water Commission to execute Southwest Pipeline Project cumulative change orders up to \$1,000,000, not to exceed 20 percent of the total contract amount. Southwest Pipeline Project cumulative change orders exceeding \$1,000,000 or 20 percent of the total contract amount will be brought before the State Water Commission for consideration.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

**SOUTHWEST PIPELINE PROJECT -
AUTHORIZE SECRETARY TO STATE
WATER COMMISSION TO EXECUTE
CHANGE ORDERS FOR SOUTHWEST
PIPELINE PROJECT CONTRACT 7-9G,
BID SCHEDULES 1 AND 2, AND
CONTRACT 7-9F
(SWC Project No. 1736-99)**

Southwest Pipeline Project Contract 7-9G Bid Schedules 1 and 2 are rural distribution contracts in Mercer and Dunn counties. Bid Schedule 1, when bid, had 173 users and 168 miles of pipeline with a contract amount of \$5,664,889. During construction, an additional 98 users (57 percent of the original number of users) signed up for

water. A change order to cross the proposed Dakota Access pipeline with fusible PVC casing pipe was also issued. All of the changes resulted in current change order costs at 33 percent of the contract amount. Construction is ongoing on this contract with additional changes possible in the future.

Contract 7-9G Bid Schedule 2, when bid, had 218 users and 155 miles of pipeline with a contract amount of \$6,767,881. During construction, an additional 98 users (45 percent of the original number of users) signed up for water and resulted in current change order costs at 26 percent of the contract amount. Construction is nearly complete on this contract.

Contract 7-9F is a rural distribution contract mostly compassing eastern Oliver county. The contract, when bid, had 260 miles of pipeline and 341 rural water users. Because of additional sign ups during construction, 67 additional users (approximately 20 percent) and 18 additional miles of pipeline were added to the contract. The total change orders signed to date total \$1,128,533 (13 percent of the contract amount).

Based on the State Water Commission's previous action during the meeting of October 12, 2016 authorizing the Secretary to the State Water Commission to execute Southwest Pipeline Project cumulative change orders up to \$1,000,000, not to exceed 20 percent of the total contract amount, and that Southwest Pipeline Project contracts with change orders exceeding these amounts would be brought before the State Water Commission for consideration, it was the recommendation of Secretary Erbele that the State Water Commission authorize the Secretary to the State Water Commission to execute the change orders on Southwest Pipeline Project Contract 7-9G, Bid Schedule 1 and 2, and Contract 7-9F.

It was moved by Commissioner Swenson and seconded by Commissioner Foley that the State Water Commission authorize the Secretary to the State Water Commission to execute the change orders on Southwest Pipeline Project Contract 7-9G Bid Schedule 1 and 2, and Contract 7-9F.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT UPDATE (SWC Project No. 1974)

The Mouse River Enhanced Flood Protection project status report was provided, which is detailed in the staff memorandum dated September 19, 2016, and included as **APPENDIX "H"**.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT, RELOCATION OF FRANCHISE UTILITIES - APPROVAL OF 65% STATE COST PARTICIPATION GRANT (\$467,057) (SWC Project No. 1974)

The Mouse River Enhanced Flood Protection project is a basin-wide flood risk reduction project in four counties along the Mouse River in North Dakota. The work includes relocation of franchise utilities within the corridors of the Mouse River Enhanced Flood Protection

project occupied by Phases MI-1 (4th Avenue NE floodwalls), MI-2 (Napa Valley), and MI-3 (Forest Road). The utilities are being relocated in advance of the construction of flood control elements in order to minimize the disruption to utility users and to clear the corridor for construction of the levees and floodwalls beginning in 2017. The U.S. Army Corps of Engineers guidance stipulates that the franchise utility crossings must be reconstructed to meet current safety standards. The Souris River Joint Board is in the final negotiations with the utility companies regarding the relocation of their facilities.

The project engineer's estimate of cost for the relocation of the franchise utilities is \$1,437,100, of which \$718,550 is determined eligible for state cost participation. A request from the Souris River Joint Board was presented for the State Water Commission's consideration for a 60 percent state cost participation grant of the eligible costs (\$431,130).

Based on the State Water Commission's action during its meeting on October 12, 2016 to approve a 65 percent state cost participation grant for the Mouse River Enhanced Flood Protection project, it was the recommendation of Secretary Erbele that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$467,057 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project, relocation of franchise utilities within the corridors of the project occupied by Phases MI-1 (4th Avenue NE Floodwalls), MI-2 (Napa Valley), and MI-3 (Forest Road).

It was moved by Commissioner Foley and seconded by Commissioner Berg that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$467,057 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project, relocation of franchise utilities within the corridors of the project occupied by Phases MI-1 (4th Avenue NE Floodwalls), MI-2 (Napa Valley), and MI-3 (Forest Road). This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT - US HIGHWAY 83 BYPASS AND US HIGHWAY 83/ BROADWAY VIADUCT REPLACEMENTS - APPROVAL OF 65% STATE COST PARTICIPATION GRANT (\$1,983,623) (SWC Project No. 1974)

The North Dakota Department of Transportation (Department) is in the process of designing improvements to both the US Highway 83 bypass on the west side of Minot to accommodate an additional two lanes of traffic, and US Highway 83/Broadway Viaduct in Minot. These highways are adjacent to the Mouse

River Enhanced Flood Protection Project phases MI-2 (Napa Valley) and MI-1 (4th Avenue NE floodwalls). The work is related to flood control costs that will be incorporated into the highway project. The US Highway 83 bypass project includes constructing bridges with a longer span than typically required by the Department as well as raising the roadway embankment to mitigate the upstream water surface profile impacts associated with the project for the design event of 27,400 cubic feet per second. The work proposed for the US Highway 83/Broadway viaduct project includes constructing a flood control barrier through the highway embankment concurrent with the bridge work. There will be significant efficiencies realized by combining the highway construction efforts with the flood control efforts.

The project engineer's total cost estimate is \$3,051,727 (US Highway 83 bypass bridge - \$2,416,675; US Highway 83/Broadway Viaduct - \$635,052), which is determined eligible for a state cost participation. A request from the Souris River Joint Board was presented for the State Water Commission's consideration for a 60 percent state cost participation grant of the eligible costs (\$1,831,036).

Based on the State Water Commission's action during its meeting on October 12, 2016 to approve a 65 percent state cost participation grant for the Mouse River Enhanced Flood Protection project, it was the recommendation of Secretary Erbele that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$1,983,623 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project, US Highway 83 Bypass, and US Highway 83/Broadway Viaduct replacements.

It was moved by Commissioner Foley and seconded by Commissioner Vosper that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$1,983,623 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project, US Highway 83 Bypass, and US Highway 83/Broadway Viaduct replacements. This approval is contingent upon the availability of funds, and satisfaction of the required permits.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT, RURAL REACHES PRE-CONSTRUCTION ENGINEERING - APPROVAL OF 65% STATE COST PARTICIPATION GRANT (\$260,000) (SWC Project No. 1974)

The Mouse River Enhanced Flood Protection Project is a basin-wide flood risk reduction project in four counties along the Mouse River in North Dakota. Significant erosion and deposition of sediment have occurred in the reach of the river from Logan downstream to the J. Clark Salyer National Wildlife Refuge.

The work on this initiative is intended to build upon the basin-wide erosion and sedimentation study completed for the State Water Commission in January, 2013. The Souris River Joint Board has been working with the U.S. Fish and Wildlife Service to address conveyance deficiencies in the downstream portion of McHenry county and the upstream portion of the J. Clark Salyer National Wildlife Refuge. This preliminary engineering effort will identify solutions for mitigating specific erosion problems along this reach of the river as well as solutions for improving conveyance at the downstream end of McHenry county into the J. Clark Salyer National Wildlife Refuge.

The project engineer's cost estimate is \$400,000 for the pre-construction engineering work related to addressing erosion, deposition and conveyance issues in a rural reach of the Mouse River from Logan to the upstream end of the J. Clark Salyer National Refuge, which is determined eligible for a state cost participation. A request from the Souris River Joint Board was presented for the State Water Commission's consideration for a 60 percent state cost participation grant of the eligible costs (\$240,000).

Based on the State Water Commission's action during its meeting on October 12, 2016 to approve a 65 percent state cost participation grant for the Mouse River Enhanced Flood Protection project, it was the recommendation of Secretary Erbele that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$260,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project for rural reaches pre-construction engineering.

It was moved by Commissioner Foley and seconded by Commissioner Hanson that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$260,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project for rural reaches pre-construction engineering. This approval is contingent upon the availability of funds.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT, 4TH AVENUE NE TIEBACK LEVEE AND BURLINGTON LEVEE - APPROVAL OF 65% STATE COST PARTICIPATION GRANT (\$3,900,000) (SWC Project No. 1974)

Avenue tieback levee is a proposed extension of the Mouse River Enhanced Flood Protection Project Phase MI-1 (4th Avenue NE Floodwalls) within the city of Minot. This phase of the project will be primarily levees designed to a 100-year protection level

The Mouse River Enhanced Flood Protection Project is a basin-wide flood risk reduction project in four counties along the Mouse River in North Dakota. The work proposed on two urban reaches includes environmental, engineering, and permitting work. The 4th

(10,000 cubic feet per second) and will extend from the eastern end of Phase MI-1 to the east along 4th Avenue NE, until tying into high ground. This segment of the project represents the eastern tieback of the system. Engineers are presently in the process of designing a western 10,000 cubic feet per second tieback levee as part of the Project's Phase MI-2 (Napa Valley). Once these levees are designed and constructed, there is one remaining portion of the project required to remove approximately 60 percent of the homes in Minot from the future regulatory floodplain.

The city of Burlington also experienced significant damage as a result of the 2011 flood. The Souris River Joint Board is proposing to proceed with the design and permitting of the Burlington segment of the Mouse River Enhanced Flood Protection Project. The proposed project will consist of levees, floodwalls, roadway closures and pump stations. Replacement of the Colton Avenue bridge is required due to the hydraulic restriction created by the existing bridge.

The project engineer's cost estimate is \$6,000,000 for the pre-construction engineering work related to the 4th Avenue NE tieback levee and the Burlington levee, which are determined eligible for a state cost participation. A request from the Souris River Joint Board was presented for the State Water Commission's consideration for a 60 percent state cost participation grant of the eligible costs (\$3,600,000).

Based on the State Water Commission's action during its meeting on October 12, 2016 to approve a 65 percent state cost participation grant for the Mouse River Enhanced Flood Protection project, it was the recommendation of Secretary Erbele that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$3,900,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project for pre-construction engineering work related to the Avenue 4th Avenue NE tieback levee and the Burlington levee.

It was moved by Commissioner Foley and seconded by Commissioner Vosper that the State Water Commission approve a 65 percent state cost participation grant as a flood control project not to exceed an allocation of \$3,900,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Board to support the Mouse River Enhanced Flood Protection Project for pre-construction engineering work related to the 4th Avenue NE tieback levee and the Burlington levee. This approval is contingent upon the availability of funds.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

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

Duane DeKrey, Garrison Diversion Conservancy District, general manager, provided a status report on the District's activities relating to the Red River Valley

Water Supply project, operations and maintenance efforts, and funding for the 2017-2019 biennium.

**2017-2019 NORTH DAKOTA STATE
WATER DEVELOPMENT PLAN REPORT
(SWC Project No. 322)**

By virtue of North Dakota Century Code, Section 61-02-14, Powers and Duties of the Commission; Section 61-02-26, Duties of State Agencies Concerned

with Intrastate Use or Disposition of Waters; and Section 61-02-01.3, Comprehensive Water Development Plan, the Commission is required to develop and maintain a comprehensive water development plan.

In preparation for the next budgeting process, the Commission's Planning and Education division is developing an update to the 2015 State Water Plan focusing on the 2017-2019 biennium and beyond. Letters were sent in February, 2016 to potential project sponsors across the state asking them to identify their potential water development projects and programs, timing of implementation, and estimated costs. Approximately 290 project information forms were returned and approximately 270 may have portions that are eligible for cost share assistance. The input gained from the local project sponsors and water managers was the foundation of the State Water Commission's budget request to the Governor and the Legislature. The information provided assisted in the allocation of agency budget resources. A final draft of the 2017-2019 Water Development Report will be available for the State Water Commission's consideration and approval at its meeting on December 9, 2016, with the final report available during the 2017 Legislative Assembly.

To promote and encourage local sponsor participation in water planning and in legislative and agency biennial budgeting efforts, the 2013 Legislative Assembly passed House Bill 1206 (NDCC 61-02-01.3) requiring the Commission to schedule commissioner-hosted meetings within the six major drainage basins of the state - Red River, James River, Mouse River, upper and lower Missouri River, and Devils Lake. These meetings were held July 25-28, 2016. Specific areas of focus for the meetings included an overview of the State Water Commission's current cost share and project prioritization policies; a summary the 2017-2019 water project inventory effort; and encouraged brief project summaries and updates from sponsors who submitted projects to the Commission as part of the 2017-2019 water planning and budgeting process.

**DEVILS LAKE HYDROLOGIC
AND PROJECT UPDATES
(SWC Project No. 416-10)**

The Devils Lake hydrologic report and project updates are detailed in the staff memorandum of September 15, 2016, and included as **APPENDIX "I"**.

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

The Missouri River report was provided, which is detailed in the staff memorandum dated September 14, 2016, and included as **APPENDIX "J"**.

**INTERNATIONAL BOUNDARY
ROADWAY DIKE PROJECT UPDATE -
(SWC Project No. 1401)**

On November 11, 2004, the State Water Commission adopted a motion to approve a state cost participation grant of 50 percent of the eligible costs, not to exceed an allocation of \$200,000 from the funds appropriated to the State Water Commission in the 2003-2005 biennium for legal costs and action of a lawsuit filed on behalf of Pembina county and others against the Minister of Canadian Conservancy and others seeking a court order for the removal of the dike that extends approximately 30 miles along the Canadian border west from the city of Pembina. The dike was constructed between 1946 and 1966 and has caused significant flood damages to North Dakota landowners.

On November 11, 2004, the State Water Commission adopted a motion to approve a state cost participation grant of 50 percent of the eligible costs, not to

Previous state cost participation funding approvals include:

On March 22, 2006, the State Water Commission approved a request from the Pembina County Water Resource District for a 50 percent state cost participation grant, not to exceed an additional allocation of \$100,000 from the funds appropriated to the State Water Commission in the 2005-2007 biennium, for the plaintiff's legal and expert costs in the District's legal action to remove the international boundary roadway dike project. This approval increased the total state cost participation grant to \$300,000.

The State Water Commission provided a letter of intent to Pembina county on May 1, 2006 indicating the Commission's consent that \$175,000 would be reserved to cover any costs assessed to the plaintiffs. To date, the State Water Commission has not approved specific funding for this reserve.

On September 17, 2012, the State Water Commission adopted a motion approving a state cost participation grant of 50 percent, not to exceed an additional allocation of \$200,000 from the funds appropriated to the State Water Commission in the 2011-2013 biennium (S.B. 2020), to the Pembina County Water Resource District for their legal action to remove the Canadian border dike and to recover damages to public property caused by the dike project. This approval increased the total state cost participation grant to \$500,000.

On December 11, 2015, the State Water Commission adopted a motion approving a state cost participation grant of 50 percent, not to exceed an additional allocation of \$125,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Pembina County Water Resource District for their legal action to remove the Canadian border dike and to recover damages to public property caused by the dike project. This approval increased the total state cost participation grant to \$625,000.

On July 6, 2016, the State Water Commission adopted a motion approving a state cost participation grant of 50 percent, not to exceed an additional allocation of \$400,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Pembina County Water Resource District to support the District's legal action to remove the Canadian border dike and to recover damages to public property caused by the dike project.

To date, the state cost participation grants of 50 percent of the eligible items total an allocation of \$1,025,000 to the Pembina County Water Resource District for the international boundary roadway dike project.

The lawsuit trial began in April, 2016 with the Plaintiffs presenting first. The trial was planned to recess until fall after the Plaintiffs concluded. At the beginning of the trial, the Defendants submitted a motion claiming the Court did not have jurisdiction. Since the trial had begun, the judge allowed it to proceed so he could review the motion during the recess. During the recess he did that and concluded the Defendants were correct. The lawsuit was based on a claim of violations of an Act passed by the Canadian Parliament to implement the Boundary Waters Treaty of 1909. No parallel legislation exists in the United States, the Treaty is simply taken at face value. There is language in this Act which limits its provisions to waters moving from Canada into the United States, but not the reverse.

An appeal to the judge's decision was filed, the appeal will be heard in Winnipeg on November 15, 2016.

***STATE ENGINEER'S COMPENSATION -
APPROVAL OF 3 PERCENT INCREASE,
EFFECTIVE NOVEMBER 1, 2016***

In compliance with North Dakota Century Code § 61-03-01 in that the State Water Commission is setting the State Engineer's compensation, on July 6, 2016 Governor Dalrymple appointed Commission members Doug Goehring, Harley Swenson, Arne Berg, and Governor Dalrymple as a subcommittee of the State Water Commission to review the State Engineer's compensation.

The subcommittee of the State Water Commission to review the State Engineer's compensation met on September 21, 2016. It was the recommendation of the subcommittee that based on the Legislature's 2015-2017 biennium salary increments for public employees, the State Water Commission approve the State Engineer's compensation be increased by 3 percent, effective November 1, 2016.

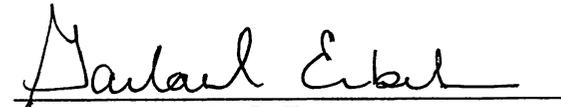
It was moved by Commissioner Berg and seconded by Commissioner Swenson that based on the Legislature's 2015-2017 biennium salary increments for public employees, the State Water Commission approve the State Engineer's compensation be increased by 3 percent, effective November 1, 2016.

Commissioners Berg, Foley, Deputy Bodine representing Commissioner Goehring, Hanson, Nodland, Swenson, Vosper, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.

There being no further business to come before the State Water Commission, Governor Dalrymple adjourned the October 12, 2016 meeting at 4:45 p.m.




Jack Dalrymple, Governor
Chairman, State Water Commission


Garland Erbele, P.E.
North Dakota State Engineer,
and Chief Engineer-Secretary
to the State Water Commission

**STATE WATER COMMISSION
ALLOCATED PROGRAM EXPENDITURES
FOR THE PERIOD ENDED AUG 31, 2016
BIENNIUM COMPLETE: 58%**

APPENDIX "A"
OCTOBER 12, 2016

PROGRAM	SALARIES/ BENEFITS	OPERATING EXPENSES	GRANTS & CONTRACTS	22-Sep-16 PROGRAM TOTALS
ADMINISTRATION				
Allocated	2,729,489	2,806,129		5,535,618
Expended	1,599,624	1,017,733		2,617,357
Percent	59%	36%		47%
			General Fund:	0
			Federal Fund:	49,715
			Special Fund:	2,567,643
PLANNING AND EDUCATION				
Allocated	1,472,573	352,990		1,825,563
Expended	856,445	122,655		979,100
Percent	58%	35%		54%
			General Fund:	0
			Federal Fund:	152,631
			Special Fund:	826,468
WATER APPROPRIATION				
Allocated	5,762,691	1,185,300	1,372,844	8,320,835
Expended	3,159,067	302,261	478,216	3,939,544
Percent	55%	26%	35%	47%
			General Fund:	0
			Federal Fund:	26,000
			Special Fund:	3,913,544
WATER DEVELOPMENT				
Allocated	4,713,717	10,742,500	1,562,500	17,018,717
Expended	2,551,425	5,543,362	457,791	8,552,579
Percent	54%	52%	29%	50%
			General Fund:	0
			Federal Fund:	127,710
			Special Fund:	8,424,869
STATEWIDE WATER PROJECTS				
Allocated			959,003,567	959,003,567
Expended			256,850,507	256,850,507
Percent			27%	27%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	256,850,507
REGULATORY DIVISION				
Allocated	2,828,565	2,947,500	15,000	5,791,065
Expended	1,291,991	580,304	0	1,872,295
Percent	46%	20%	0%	32%
			General Fund:	0
			Federal Fund:	736,204
			Special Fund:	1,136,092
ATMOSPHERIC RESOURCE				
Allocated	1,107,158	743,382	4,885,212	6,735,752
Expended	640,404	244,812	1,231,879	2,117,096
Percent	58%	33%	25%	31%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	2,117,096
SOUTHWEST PIPELINE				
Allocated	512,995	10,461,744	97,502,498	108,477,237
Expended	367,831	6,570,458	35,802,395	42,740,683
Percent	72%	63%	37%	39%
			General Fund:	0
			Federal Fund:	2,000,000
			Special Fund:	40,740,683
NORTHWEST AREA WATER SUPPLY				
Allocated	705,632	13,910,277	31,611,573	46,227,482
Expended	344,370	2,270,812	474,787	3,089,970
Percent	49%	16%	2%	7%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	3,089,970
PROGRAM TOTALS				
Allocated	19,832,820	43,149,822	1,095,953,194	1,158,935,836
Expended	10,811,158	16,652,397	295,295,576	322,759,130
Percent	55%	39%	27%	28%

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 BIENNIUM

Aug-16

	BUDGET	SWC/SE APPROVED	OBLIGATIONS EXPENDITURES	REMAINING UNOBLIGATED	REMAINING UNPAID
FLOOD CONTROL					
FARGO	228,506,200	228,506,200	92,508,346	0	135,997,854
GRAFTON	33,925,000	8,925,000	1,297,891	25,000,000	7,627,109
MOUSE RIVER FLOOD CONTROL	46,513,397	18,621,439	5,970,060	27,891,958	12,651,379
VALLEY CITY	28,458,354	15,015,551	7,541,205	13,442,803	7,474,346
LISBON	15,534,687	8,094,752	3,392,554	7,439,935	4,702,198
FORT RANSOM	225,000	0	0	225,000	0
WILLISTON	7,000,000			7,000,000	
RENWICK DAM	23,320	7,117	7,117	16,203	0
MISSOURI RIVER FLOOD CONTROL	4,000,000	4,000,000	4,000,000	0	0
FLOODWAY PROPERTY ACQUISITIONS					
MINOT	23,879,316	23,879,316	7,978,306	0	15,901,010
WARD COUNTY	6,046,590	6,046,590	31,243	0	6,015,347
VALLEY CITY	4,017,403	4,017,403	142,606	0	3,874,797
BURLEIGH COUNTY	232,649	232,649	0	0	232,649
SAWYER	184,260	184,260	0	0	184,260
LISBON	318,750	318,750	0	0	318,750
BURLINGTON	43,350	43,350	0	0	43,350
STATE WATER SUPPLY					
REGIONAL & LOCAL WATER SYSTEMS	153,320,584	153,320,584	50,212,302	0	103,108,282
FARGO WATER TREATMENT PLANT	22,768,775	22,768,775	12,650,447	0	10,118,328
GRAND FORKS WATER TREATMENT PLANT	30,000,000			30,000,000	
SOUTHWEST PIPELINE PROJECT	104,761,201	104,761,200	40,740,683	0	64,020,517
NORTHWEST AREA WATER SUPPLY	15,754,482	5,754,482	1,523,966	10,000,000	4,230,516
WESTERN AREA WATER SUPPLY AUTHORITY	82,201,384	82,201,384	47,093,723	0	35,107,661
RED RIVER VALLEY WATER SUPPLY	12,521,328	12,521,328	5,032,845	0	7,488,483
CENTRAL NORTH DAKOTA WATER SUPPLY	70,070,800	70,800	69,804	70,000,000	997
UNOBLIGATED STATE WATER SUPPLY	3,596,265			3,596,265	
GENERAL WATER MANAGEMENT					
OBLIGATED	37,912,095	37,912,095	14,894,467	0	23,017,629
UNOBLIGATED GENERAL WATER	35,013,911			35,013,911	
DEVILS LAKE					
OUTLET	870,802	870,802	0	0	870,802
OUTLET OPERATIONS	18,534,211	18,534,210	5,886,606	0	12,647,604
DL EAST END OUTLET	2,774,011	2,774,011	505,355	0	2,268,656
REVOLVING LOAN FUND					
GENERAL WATER PROJECTS	11,000,000	1,656,700	886,500	9,343,300	770,200
WATER SUPPLY	25,000,000	13,056,885	10,000,000	11,943,115	3,056,885
TOTALS	1,025,008,125	774,095,632	312,366,025	250,912,493	461,729,607

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium

PROGRAM OBLIGATION

Approved SWC By	No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Aug-18 Balance	
Flood Control:									
	SB 2020	1928-01	5000	City of Fargo	Fargo Flood Control Project	6/23/2009	99,506,200	21,883,302	77,622,898
	SB 2020	1928-02	5000	City of Fargo	Interior Flood Control Project	12/11/2015	30,000,000	30,000,000	0
	SB 2020	1928-03	5000	City of Fargo	Interior Disaster Relief Fund	12/11/2015	30,000,000	30,000,000	0
	SB 2020	1928-05	5000	Metrol Flood Diversion Authority	Fargo Metro Flood Diversion Authority 2015-2017	7/6/2016	69,000,000	10,625,044	58,374,956
		1771-01	5000	City of Grafton	Grafton Flood Control Project	3/11/2010	7,175,000	0	7,175,000
		1771-02	5000	City of Grafton	Grafton Flood Risk Reduction Project	12/5/2014	1,750,000	1,297,891	452,109
		1974-06	5000	Souris River Joint WRD	Development of 2011 Flood Inundation Maps	12/18/2015	5,600	0	5,600
	SB 2371	1974-08	5000	Souris River Joint WRD	Mouse River Reconnaissance Study to Meel Fed Guic	2/15/2013	809	0	809
		1974-09	5000	Souris River Joint WRD	4th Ave NE & Napa Valley/Forest Rd Flood Improvem	8/8/2016	7,317,512	5,050,351	2,267,161
		1974-11	5000	Souris River Joint WRD	Funding of 214 agreement between SRJB & USACE	12/5/2014	0	0	0
		1974-14	5000	Souris River Joint WRD	STARR Program (Structure Acquisition, Relocation, or	3/9/2016	7,200,000	12,466	7,187,534
		1974-15	5000	Souris River Joint WRD	Perkett Ditch Improvements	7/6/2016	2,188,592	0	2,188,592
		1974-16	5000	Souris River Joint WRD	Corps of Engineers Feasibility Study MREFFPP	7/6/2016	350,000	87,500	262,500
		1758	5000	Souris River Joint WRD-no agreemen	International Joint Commission Study Board	5/29/2014	302,500	0	302,500
		1993-01	5000	City of Minot	Down/own Infrastructure Improvements	9/15/2014	1,256,426	819,743	436,683
	SB 2371	1344-01	5000	Valley City	Sheyenne River Valley Flood Control Project	12/5/2015	156,993	156,993	0
		1344-04	5000	Valley City	Sheyenne River Valley Flood Control Project PHII	8/29/2016	1,147,500	276,326	871,174
		1504-01	5000	Valley City	Permanent Flood Protection Project	12/5/2014	9,850,444	7,107,866	2,742,558
		1504-02	5000	Valley City	Permanent Flood Protection Project (LOAN)	12/5/2014	3,860,614	0	3,860,614
	SB 2371	1344-02	5000	City of Lisbon	Sheyenne River Valley Flood Control Project	6/19/2013	2,281,610	92,810	2,188,800
		1991-01	5000	City of Lisbon	Permanent Flood Protection Project	5/29/2014	581,702	414,733	146,969
		1991-03	5000	City of Lisbon	Permanent Flood Protection - Levee C Project	3/11/2015	3,153,440	2,761,641	391,799
		1991-06	5000	City of Lisbon	Permanent Flood Protection - Levee E Project	3/9/2016	2,098,000	123,370	1,974,630
	SB 2371	1344-03	5000	Fort Ransom	Sheyenne River Valley Flood Control Project	6/19/2013	0	0	0
		849	5000	Pembina Co. WRD	Renwick Dam Rehabilitation	6/26/2014	7,117	7,117	0
	SB 2020	1992-02	5000	Burleigh Co. WRD	Missouri River Correctional Center	9/21/2015	1,200,000	1,200,000	0
	SB 2020	1992-03	5000	Burleigh Co. WRD	Fox Island Flood Control Funding Update	9/21/2015	2,800,000	2,800,000	0
Subtotal Flood Control						283,170,059	114,717,173	168,452,886	
Floodway Property Acquisitions:									
		1993-05	5000	City of Minot	Minot Phase 2 - Floodway Acquisitions	10/7/2013	23,879,316	7,978,306	15,901,010
	SB 2371	1523-05	5000	Ward County	Ward County Phase 1, 2 & 3 - Floodway Acquisitions	1/27/2012	6,046,590	31,243	6,015,347
	SB 2371	1504-05	5000	Valley City	Valley City Phase 1 - Floodway Acquisitions	8/29/2016	4,017,403	142,606	3,874,797
	SB 2371	1992-05	5000	Burleigh Co. WRD	Burleigh Co. Phase 1 - Floodway Acquisitions	3/7/2012	232,649	0	232,649
	SB 2371	2000-05	5000	City of Sawyer	Sawyer Phase 1 - Floodway Acquisitions	6/13/2012	184,260	0	184,260
		1991-05	5000	City of Lisbon	Lisbon - Floodway Acquisition	8/8/2016	318,750	0	318,750
		1987-05	5000	City of Burlington	Mouse River Enhanced Flood Plan Property Acquisitio	12/29/2015	43,350	0	43,350
Subtotal Floodway Property Acquisitions						34,722,318	8,152,155	26,570,163	
State Water Supply Grants:									
		2373-35	5000	Grand Forks - Traill RWD	Grand Forks - Traill County WRD	6/13/2012	303,715	226,068	77,648
		2373-36	5000	Stutsman Rural RWD	Stutsman Rural Water System - Phase IIB, III	2/27/2013	4,443,172	4,443,172	0
		2373-38	5000	Stutsman Rural RWD	Kidder Co & Carrington Area Expansion	7/23/2013	991,361	991,361	0
		2373-39	5000	North Central Rural Water Consortium	Carpio Berthold Phase 2	5/29/2014	2,970,141	527,965	2,442,176
		2373-41	5000	North Central Rural Water Consortium	Granville-Deering Area	3/11/2015	5,594,102	2,639,444	2,954,658
		2050-01	5000	Missouri West Water System	South Mandan	3/17/2014	168,606	168,606	0
		2050-02	5000	Grand Forks Traill RWD	Improvements	3/11/2015	4,369,058	2,289,878	2,079,180
		2050-03	5000	Northeast Regional WD	Langdon RWD - ABM Pipeline Phase 1	10/7/2013	540,526	540,437	89
		2050-04	5000	Northeast Regional WD	Langdon RWD - North Valley Nekoma	3/11/2015	859,341	832,707	26,633
		2050-05	5000	Northeast Regional WD	North Valley WD - ABM Pipeline Phase 1	3/11/2015	292,958	231,265	61,693
		2050-06	5000	Northeast Regional WD	North Valley WD - 93 Street	3/11/2015	937,870	937,870	0
		2050-07	5000	Northeast Regional WD	North Valley WD - Rural Expansion	5/29/2014	1,481,717	1,480,645	1,072
		2050-08	5000	Walsh RWD	Ground Storage	10/7/2013	169,977	169,977	(5)
		2050-09	5000	City of Park River	Water Tower	3/11/2015	571,225	571,225	0
		2050-10	5000	City of Surrey	Water Supply Improvements	10/7/2013	1,117,800	999,362	118,438
		2050-11	5000	Cass RWD	Phase 2 Plant Improvements	10/7/2013	3,951,363	3,700,399	250,965
		2050-13	5000	City of Mandan	New Raw Water Intake	10/7/2013	1,567,676	49,399	1,518,277
		2050-14	5000	City of Mandan	Water Treatment Plant Improvements	10/7/2013	226,762	226,762	0
		2050-15	5000	City of Washburn	New Raw Water Intake	10/7/2013	2,334,250	0	2,334,250
		2050-16	5000	Tri-County RWD	Improvements	10/7/2013	845,000	251,110	593,890
		2050-17	5000	Bames Rural RWD	Improvements	3/11/2015	6,512,662	4,942,192	1,570,470
		2050-18	5000	City of Grafton	Water Treatment Plant Phase 3	10/7/2013	3,381,148	1,639,745	1,741,403
		2050-19	5000	City of Grand Forks	Water Treatment Plant Improvements	10/7/2013	3,849,151	2,448,264	1,400,887
		2050-20	5000	City of Dickinson	Capital Infrastructure	10/6/2015	9,875,025	5,489,597	4,385,428
		2050-21	5000	Waford City	Capital Infrastructure	2/27/2014	1,897,040	1,178,862	718,178
		2050-22	5000	City of Williston	Capital Infrastructure	2/27/2014	4,119,610	1,461,203	2,658,407
		2050-23	5000	Greater Ramsey WRD	SW Nelson County Expansion	3/17/2014	4,199,547	2,780,423	1,419,124
		2050-24	5000	All Seasons Water District	System 1 Well Field Expansion	9/15/2014	292,500	0	292,500
		2050-25	5000	All Seasons Water District	Bottineau County Extension, Phase I	7/29/2015	896,000	533,810	362,190
		2050-26	5000	City of Fargo	Fargo Water System Regionalization Improvements	7/29/2015	6,841,750	1,764,854	5,076,896
		2050-27	5000	City of Tioga	Tioga Water Supply Improvement Project	7/29/2015	2,190,000	1,518,269	671,731
		2050-28	5000	City of Mandan	Water Systems Improvement Project	10/6/2015	2,290,175	39,311	2,250,864
		2050-29	5000	City of Minot	Water Systems Improvement Project	10/6/2015	3,634,000	67,194	3,566,806
		2050-30	5000	Waford City	Water Systems Improvement Project	10/6/2015	5,435,087	16,151	5,418,936
		2050-31	5000	City of West Fargo	Water Systems Improvement Project	10/6/2015	3,426,210	1,453,614	1,972,596
		2050-32	5000	City of Williston	Water Systems Improvement Project	10/6/2015	10,890,472	2,798,641	8,091,831
		2050-33	5000	Stutsman RWD	Phase V Storage & Pipeline Expansion Project	10/6/2015	4,170,100	0	4,170,100
		2050-34	5000	North Prairie RWD	Storage and Water Main	10/6/2015	3,459,837	43,015	3,416,822
		2050-35	5000	Southeast Water Users Dist	System Wide Expansion Feasibility Study	10/6/2015	11,826,000	84,369	11,741,631
		2050-36	5000	City of Dickinson	Water Systems Improvement Project	10/6/2015	1,042,500	0	1,042,500
		2050-37	5000	City of Dickinson	Dickinson State Avenue South Water Main	12/11/2015	965,000	0	965,000
		2050-38	5000	Dakota Rural Water District	Reservoir C Expansion	12/11/2015	901,500	383,424	518,076
		2050-39	5000	Missouri West Water System	Crown Butte Service Area Expansion Phase II	12/11/2015	308,000	3,678	304,322
		2050-41	5000	Northeast Regional WD	City of Devils Lake Water Supply Project	12/11/2015	15,543,750	209,228	15,334,522
		2050-42	5000	Walsh RWD	Phase 1 & 2 System Expansion	12/11/2015	2,093,350	78,807	2,014,543
		2050-43	5000	All Seasons Water District	System 4 Connection to System 1	12/11/2015	4,900,000	0	4,900,000
		2050-44	5000	City of Beulah	Water Treatment Plant	3/9/2016	2,640,000	0	2,640,000
		2050-45	5000	Garrison Rural Water District	System Expansion Project	3/9/2016	2,003,550	0	2,003,550
Subtotal State Water Supply						153,320,584	50,212,302	103,108,282	
		1984-02	5000	City of Fargo	Fargo Water Treatment Plant	3/17/2014	22,768,775	12,650,447	10,118,328
		1736-05	8000	SWPP	Southwest Pipeline Project	7/1/2013	104,761,200	40,740,683	64,020,517
		2374	9000	NAWS	Northwest Area Water Supply	7/1/2013	5,754,482	1,523,966	4,230,516
		1973-02	5000	WAWSA	WAWSA - (GRANT)	10/6/2015	12,061,806	11,242,137	819,668
		1973-05	5000	WAWSA	WAWSA - (GRANT)	10/6/2015	60,000,000	25,712,007	34,287,993
		1973-03	5000	Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,139,576	10,139,578	0
		325-102	5000	RRVWSP	Red River Valley Water Supply - Intake Design Study	5/29/2014	162,328	32,845	129,483
	SB 2020	325-104	5000	Garrison Diversion	Red River Valley Water Supply Project	7/29/2015	12,359,000	5,000,000	7,359,000
		2051-101	5000	Central ND Water Supply	Black and Veatch investigation	1/27/2015	70,800	69,804	997
Subtotal State Water Supply						228,077,989	107,111,408	120,966,500	

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium

PROGRAM OBLIGATION

Approved SWC By	No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Aug-16 Balance
General Water Management								
Hydrologic Investigations:							1,125,267	
	2041	3000	US Geological Survey	USGS Stream Gage Joint Funding Agreement	3/9/2016	529,075	352,716	176,359
	1400	3000	Fireside Office Solutions	Document Conversion (Water Permit Scanning)	8/23/2016	50,000	0	50,000
Hydrologic Investigations Obligations Subtotal						579,075	352,716	226,359
Remaining Hydrologic Investigations Authority						546,192		
Hydrologic Investigations Authority Less Payments								
General Projects Obligated						27,273,306	6,411,453	20,861,854
General Projects Completed						9,513,522	8,130,298	1,383,224
Subtotal General Water Management						37,912,095	14,894,467	23,017,629
Deviils Lake Basin Development:								
SWC	416-07	5000	Multiple	Deviils Lake Outlet	7/1/2013	870,802	0	870,802
SWC	416-10	4700	Operations	Deviils Lake Outlet Operations	3/9/2016	18,534,210	5,886,606	12,647,604
SWC	416-15	5000	Multiple	DL East End Outlet	7/1/2013	2,774,011	505,355	2,268,656
Deviils Lake Subtotal						22,179,023	6,391,961	15,787,062
Revolving Loan Fund:								
(General Water)								
2077-02	1050		City of Lisbon	Permanent Flood Protection - Levee C (LOAN)	3/11/2015	886,500	886,500	0
2077	1050		City of Lisbon	Sheyenne River Flood Protection - Levee E (LOAN)	3/9/2016	527,000	0	527,000
2077	1050		City of Lisbon	Permanent Flood Protection - Levee D & F (LOAN)	7/6/2016	243,200	0	243,200
(Water Supply)								
2077-01	1050		Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,000,000	10,000,000	0
2077	1050		North Prairie Rural Water District	Storage & Water Mains (LOAN)	12/11/2015	239,475	0	239,475
2077	1050		City of Beulah	Water Treatment Plant (LOAN)	3/9/2016	880,000	0	880,000
2077	1050		Northeast Regional WD	City of Devils Lake Water Supply Project (LOAN)	3/9/2016	1,686,920	0	1,686,920
2077	1050		Walsh Rural WD	Phase 1, 2, & 3 System Expansion Project (LOAN)	3/9/2016	250,490	0	250,490
Revolving Loan Fund Subtotal						14,713,585	10,886,500	3,827,085
TOTAL						774,095,632	312,366,025	461,729,607

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium
Resources Trust Fund

GENERAL PROJECT OBLIGATIONS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Aug-16 Balance
SE	274	5000	2015-17	City of Neche	Neche Levee Certification Project	3/21/2016	54,000	0	54,000
SWC	322	5000	2009-11	ND Water Education Foundati	ND Water: A Century of Challenge	2/22/2010	36,800	0	36,800
SWC	346	5000	2015-17	Williams County WRD	Epping Dam Spillway Reconstruction	3/9/2016	719,045	0	719,045
SWC	347	5000	2009-11	City of Velva	City of Velva's Flood Control Levee System Certificati	3/28/2011	102,000	69,503	32,497
SE	390	5000	2015-17	Logan County WRD	Beaver Lake Dam Rehabilitation Feasibility Study	6/8/2016	16,076	0	16,076
SE	399	5000	2013-15	Barnes Co WRD	Kalhryn Dam Feasibility Study	9/19/2014	21,250	8,508	12,742
SE	460	5000	2015-17	Griggs Co. WRD	Ueland Dam Rehabilitation Feasibility Study	5/20/2016	17,500	0	17,500
SE	477	5000	2015-17	Valley City	Mill Dam Rehabilitation Feasibility Study	6/8/2016	15,073	0	15,073
SE	561	5000	2015-17	City of Tioga	Tioga Dam EAP	5/20/2016	40,000	0	40,000
SWC	568	5000	2013-15	Southeast Cass WRD	Sheyenne River Reaches Snagging & Clearing Projec	12/5/2014	94,238	0	94,238
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches I	12/11/2015	99,000	25,098	73,902
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches II	12/11/2015	105,000	77,095	27,905
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches III	12/11/2015	90,000	2,965	87,035
SE	568	5000	2015-17	Barnes Co WRD	Sheyenne River Snagging & Clearing Reach 1 Proj 2	6/8/2016	49,000	0	49,000
SE	571	5000	2013-15	Oak Creek WRD	Oak Creek Snagging & Clearing Project	3/30/2015	3,672	2,565	1,107
SWC	620	5000	2007-09	Lower Heart WRD	Mandan Flood Control Protective Works (Levee)	9/29/2008	125,396	0	125,396
SE	662	5000	2015-17	Walsh Co. WRD	Park River Snagging & Clearing	1/12/2016	29,264	0	29,264
SWC	710	5000	2015-17	Maple River WRD	Upper Swan Creek Channel Improvement Project	10/6/2015	171,763	10,177	161,586
SE	841	5000	2013-15	Maple River WRD	Garsteig Dam Repair Project	1/26/2015	40,163	21,502	18,661
SWC	841	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #5(Garsteig Dam)	12/11/2015	125,473	4,574	120,899
SWC	841	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #12(Absaraka Dam)	12/11/2015	109,032	5,298	103,734
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-1-A (Brummond-Lubke) Dam EAP	12/18/2015	20,000	7,406	12,594
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-7 (Nelson) Dam EAP	12/18/2015	20,000	7,426	12,574
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Emergency Action Plan	9/29/2015	63,680	27,630	36,050
SWC	980	5000	2015-17	Cass Co. Joint WRD	Rush River Watershed Detention Study	1/7/2016	154,000	18,260	137,740
SWC	980	5000	2013-15	Cass Co. Joint WRD	Swan Creek Watershed Detention Study PHII	3/11/2015	154,000	17,954	136,046
SWC	980	5000	2015-17	Cass Co. Joint WRD	Upper Maple River Watershed Detention Study	1/11/2016	154,000	13,231	140,769
SWC	1056	5000	2015-17	Bottineau Co. WRD	Tacoma Bitz Legal Drain	7/6/2016	312,105	0	312,105
SWC	1064	5000	2013-15	Rush River WRD	Cass County Drain No. 2 Channel Improvements Proj	3/11/2015	106,989	65,306	41,683
SWC	1071	5000	2015-17	Maple River WRD	Cass County Drain #15 Channel Improvements	3/9/2016	296,562	0	296,562
SWC	1088	5000	2015-17	Maple River WRD	Cass Drain #37 Channel Improvements	3/9/2016	230,326	0	230,326
SWC	1089	5000	2015-17	Maple River WRD	Cass County Drain #39 Channel Improvements	3/9/2016	221,871	0	221,871
SWC	1101	5000	2011-13	Dickey Co. WRD	Yorktown-Maple Drainage Improvement Dist No. 3	12/11/2015	798,562	0	798,562
SWC	1101	5000	2011-13	Dickey-Sargent Co WRD	Riverdale Township Improvement District #2 - Dickey	9/21/2011	500,000	0	500,000
SE	1140	5000	2015-17	Pembina Co. WRD	Drain 11 Outlet Extension Cost Overrun Project	7/7/2015	5,088	0	5,088
SWC	1174	5000	2015-17	Richland Co. WRD	Legal Drain #31 Improvements Project	3/9/2016	161,852	0	161,852
SWC	1176	5000	2015-17	Richland Co. WRD	Legal Drain #2 Reconstruction/Extension Project	3/9/2016	535,500	0	535,500
SWC	1179	5000	2015-17	Richland Co. WRD	Legal Drain #5 (Lateral 27) Reconstruction	3/9/2016	531,000	0	531,000
SWC	1179	5000	2015-17	North Cass Co. WRD	Drain #23 Channel Improvements	3/9/2016	137,181	0	137,181
SWC	1217	5000	2013-15	Tri-County WRD	Tri-County Drain Reconstruction Project	3/11/2015	911,881	312,762	599,119
SWC	1219	5000	2011-13	Sargent Co WRD	City of Forman Floodwater Outlet	9/21/2011	31,472	0	31,472
SWC	1224	5000	2013-15	Trails Co. WRD	Palace Drain Improvement District No. 80	5/20/2015	149,828	121,787	28,041
SWC	1227	5000	2011-13	Trails Co. WRD	Mergenthal Drain No. 5 Reconstruction	9/15/2014	18,502	6,277	12,225
SWC	1242	5000	2013-15	Trails Co. WRD	Rust Drain No. 24 Project	12/13/2013	25,152	3,002	22,150
SE	1264	5000	2013-15	Barnes Co WRD	Little Dam Repurposing Feasibility Study	6/17/2015	16,100	3,715	12,385
SWC	1270	5000	2013-15	Burleigh Co. WRD	Apple Creek Industrial Park Levee Feasibility Study	10/7/2013	65,180	0	65,180
SE	1270	5000	2015-17	City of Wilton	Wilton Pond Dredging Recreation Project	12/29/2015	35,707	0	35,707
SWC	1273	5000	2015-17	City of Oakes	James River Bank Stabilization	12/11/2015	262,500	0	262,500
SE	1287	5000	2013-15	McHenry Co. WRD	Souris River Snagging & Clearing Project	2/3/2015	15,000	4,500	10,500
SE	1289	5000	2011-13	McKenzie Co. Weed Control E	Control of Noxious Weeds on Sovereign Lands	9/30/2015	12,514	0	12,514
SWC	1294	5000	2013-15	Nelson Co. Park Board	Stump Lake Park Bank Stabilization Project	3/11/2015	115,436	0	115,436
SE	1296	5000	2013-15	Pembina Co. WRD	Bathgate-Hamilton & Carlisle Watershed Study	10/17/2013	45,226	38,500	6,726
SWC	1301	5000	2015-17	Richland Co. WRD	North Branch Antelope Creek NRCS Small Watershed	3/9/2016	113,400	0	113,400
SE	1303	5000	2013-15	Sargent Co WRD	Gwinner Dam Improvement Feasibility Study Program	4/17/2015	42,844	18,063	24,781
SWC	1303	5000	2015-17	Sargent Co WRD	Shortfoot Creek Watershed Planning Program	3/9/2016	154,000	14,810	139,190
SWC	1311	5000	2015-17	Trails Co. WRD	Buxton Township Improvement District No. 68	3/9/2016	512,090	0	512,090
SE	1314	5000	2013-15	Wells Co. WRD	Hurdsfield Area Drain Preliminary Engineering Project	6/11/2015	35,000	0	35,000
SE	1328	5000	2015-17	North Cass Co. WRD	Drain No. 23 Channel Improv Preliminary Engineering	9/30/2015	5,775	4,854	921
SWC	1389	5000	2013-15	Bank of ND	BND AgPace Program	12/13/2013	180,316	24,737	155,578
SWC	1401	5000	2015-17	Pembina Co. WRD	International Boundary Roadway Dike Pembina	12/11/2015	786,032	467,237	318,795
SWC	1418	5000	2013-15	City of Bisbee	Big Coulee Dam Feasibility Study	5/29/2014	10,963	0	10,963
SWC	1418	5000	2013-15	City of Bisbee	Design & Repair of Big Coulee Dam	8/23/2016	1,015,983	145,255	870,728
SE	1427	5000	2015-17	Bottineau Co. WRD	Moen Legal Drain	9/6/2016	63,458	0	63,458
SE	1444	5000	2015-17	City of Pembina	Flood Protection System Certification	4/19/2016	75,000	36,683	38,317
SE	1453	5000	2015-17	Hettinger County WRD	Karey Dam Rehabilitation Feasibility Study	5/23/2016	13,550	0	13,550
SWC	1486	5000	2015-17	Griggs Co. WRD	Thompson Bridge Outlet No. 4 Project	10/6/2015	621,661	0	621,661
SE	1520	5000	2015-17	Walsh Co. WRD	Walsh Co Drain #30-1	8/29/2016	14,000	0	14,000
SWC	1523	5000	2015-17	Ward Co. WRD	Robinwood Bank Stabilization Project	10/6/2015	256,449	0	256,449
SWC	1554	5000	2013-15	McLean Co. WRD	City of Underwood Floodwater Outlet Project	12/13/2013	1,483,268	1,004,376	478,892
SWC	1613	5000	2013-15	North Cass Co. WRD	Cass County Drain No. 55 Channel Improvements Prc	9/15/2014	99,923	42,152	57,771
SE	1625	5000	2015-17	HDR Engineering, Inc	Dakota Access PipeLine Missouri River crossing sour	2/9/2016	25,000	21,315	3,685
SWC	1638	5000	2009-11	Multiple	Red River Basin Non-NRCS Rural/Farmstead Ring Di	6/23/2009	177,864	0	177,864
SWC	1650	5000	2015-17	Sargent Co WRD	Drain #7 Improvement	7/6/2016	202,663	0	202,663
SE	1667	5000	2015-17	Trails Co. WRD	Goose River Snagging & Clearing	9/2/2016	47,500	0	47,500
SWC	1705	5000	2011-13	Red River Joint Water Resour	Red River Joint WRD Watershed Feasibility Study - Pl	9/21/2011	60,000	40,782	19,218
SWC	1705	5000	2011-13	Red River Joint Water Resour	Red River Basin Distributed Plan Study	12/7/2012	560,000	0	560,000
SE	1808	5000	2015-17	Steele Co WRD	Beaver Creek Dam Safety Inspection	5/23/2016	2,625	0	2,625
SE	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing	10/27/2015	57,000	37,334	19,666
SWC	1859	5000	2015-17	ND Dept of Health	NPS Pollution Project	7/29/2015	200,000	67,003	132,997
SWC	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement	7/6/2016	411,773	669	411,104
SWC	1921	5000	2007-09	Morton Co. WRD	Square Butte Dam No. 6/(Harmon Lake) Recreation F	3/23/2009	231,002	38,651	192,351
SWC	1932	5000	2015-17	Nelson Co. WRD	Michigan Spillway Rural Flood Assessment	3/9/2016	1,214,256	1,188,406	25,850
SE	1934	5000	2015-17	Trails Co. WRD	Elm River Snagging & Clearing	9/2/2016	47,500	0	47,500

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium
Resources Trust Fund

GENERAL PROJECT OBLIGATIONS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Aug-16 Balance
SE	1946	5000	2015-17	Walsh Co. WRD	Improvement of Walsh Co Drain #22 Preliminary Engi	4/19/2016	10,500	0	10,500
SWC	1951	5000	2015-17	Maple River WRD	Lynchburg Channel Improvements	7/6/2016	1,195,126	0	1,195,126
SWC	1960	5000	2009-11	Ward Co. WRD	Puppy Dog Coulee Flood Control Diversion Ditch Con	8/18/2009	796,976	0	796,976
HB 2305	1963	5000	2009-11	Emmons County WRD	Beaver Bay Embankment Feasibility Study	8/10/2009	18,078	0	18,078
SWC	1968	5000	2013-15	Garrison Diversion	McClusky Canal Mile Marker 10 & 49 Irrigation Project	3/17/2014	256,321	204,707	51,614
SE	1974	5000	2015-17	USGS	USGS Web-Based Mouse River Information Page	1/19/2016	24,700	0	24,700
SWC	1977	5000	2011-13	Dickey-Sargent Co WRD	Jackson Township Improvement Dist. #1	5/20/2015	1,601,325	783,167	818,158
SWC	1978	5000	2011-13	Richland & Sargent Joint WRD	Richland & Sargent WRD RS Legal Drain No. 1 Exten	7/23/2015	245,250	145,910	99,340
SWC	1990	5000	2011-13	Mercer Co. WRD	Lake Shore Estates High Flow Diversion Project	3/7/2012	43,821	0	43,821
SWC	1991	5000	2013-15	City of Lisbon	Sheyenne Riverbank Stabilization Project	9/15/2014	163,720	115,952	47,768
SWC	2008	5000	2013-15	City of Mapleton	Recertification of Flood Control Levee System Project	3/17/2014	101,100	0	101,100
SWC	2022	5000	2011-13	Pembina Co. WRD	Drain #73 Project	6/19/2013	350,400	26,391	324,009
SWC	2042	5000	2013-15	Bottineau Co. WRD	Haas Coulee Drain Project	9/15/2014	500,000	455,818	44,182
SWC	2043	5000	2013-15	Pembina Co. WRD	District's Drain 78 Outlet Extension Project	12/13/2013	287,778	278,826	8,952
SWC	2045	5000	2013-15	Mercer Co. WRD	LiDAR Collection Project	5/29/2014	10,425	0	10,425
SWC	2045	5000	2013-15	McKenzie Co. Commission	LiDAR Collection Project	9/15/2014	262,308	0	262,308
SE	2045	5000	2013-15	Stark County	Stark County LiDAR Collection Project (FEMA)	7/17/2015	33,584	0	33,584
SWC	2047	5000	2013-15	LaMoure County	LaMoure Co Memorial Park Streambank Restoration	8/3/2016	91,042	0	91,042
SE	2055	5000	2015-17	Red River Joint Water Resour	Lower Red Basin Regional Detention Study	7/17/2015	45,500	0	45,500
SE	2058	5000	2015-17	City of Grafton	Grafton Debris Removal Plan	9/17/2015	3,900	0	3,900
SWC	2059	5000	2015-17	Park River Joint WRD	North Branch Park River NRCS Watershed Study	10/6/2015	81,200	0	81,200
SWC	2060	5000	2015-17	Walsh Co. WRD	Forest River Watershed Study	10/6/2015	114,100	0	114,100
SWC	2062	5000	2015-17	Traill Co. WRD	Traill Co. Drain #64	7/6/2016	116,558	0	116,558
SWC	2063	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #8(Embsden Dam)	12/11/2015	113,500	4,526	108,974
SWC	2065	5000	2015-17	Cass Co. Joint WRD	Lake Bertha Flood Control Project No. 75	3/9/2016	201,350	0	201,350
SWC	2066	5000	2015-17	Southeast Cass WRD	Sheyenne-Maple Flood Control Dist #1 Mitigation Impr	3/9/2016	198,023	0	198,023
SE	2068	5000	2015-17	Traill Co. WRD	Stavanger-Belmont Drain No. 52 Channel Impr Feasib	4/1/2016	18,589	0	18,589
SE	2069	5000	2015-17	Center Township	Wild Rice River Bank Stabilization	4/19/2016	43,036	37,495	5,541
SE	2070	5000	2015-17	Garrison Diversion Conservar	Mile Marker 42 Irrigation Project	5/20/2016	29,741	0	29,741
SE	2071	5000	2015-17	Foster County WRD	Alkali Lake High Water Feasibility Study	4/19/2016	5,250	0	5,250
SE	2072	5000	2015-17	Barnes Co WRD	Ten Mile Lake Flood Risk Reduction Project	8/8/2016	37,800	988	36,812
SWC	2073	5000	2015-17	Walsh Co. WRD	Oslo Area Ag Levee Feasibility Study	7/6/2016	187,000	0	187,000
SWC	2074	5000	2015-17	City of Wahpeton	Flood Control - Levee Certification	7/6/2016	247,500	0	247,500
SWC	2074	5000	2015-17	City of Wahpeton	Toe Drain & Encroachment Project	7/6/2016	1,125,482	0	1,125,482
SWC	2074	5000	2015-17	City of Wahpeton	Breakout Easements	7/6/2016	265,000	0	265,000
SWC	2075	5000	2015-17	Ward Co. WRD	Second Larson Coulee Detention Pond	7/6/2016	602,307	0	602,307
SE	2076	5000	2015-17	Elm River Joint WRD	Elm River Dam #1 Modification Study	7/6/2016	9,503	0	9,503
SE	1396-01	5000	2013-15	Trout, Raley, Montano, Witwe	Missouri River Recovery Program	11/17/2015	75,000	15,165	59,835
SE	1878-02	5000	2015-17	Maple-Steele Joint WRD	Upper Maple River Dam EAP	5/20/2016	12,800	0	12,800
SB2020	1928-04	5000	2015-17	NDSU	Fargo Moorhead Diversion Agricultural Impact (Study)	1/20/2016	80,000	40,658	39,342
SWC	849-01	5000	2015-17	Pembina Co. WRD	Tongue River NRCS Watershed Plan	3/9/2016	104,703	0	104,703
SWC	AOC/ASS	5000	2015-17	Assiniboine River Basin	Assiniboine River Basin Initiative Funding	7/29/2015	100,000	50,000	50,000
SWC	AOC/IRA	5000	2015-17	ND Irrigation Association (NDI	ND Irrigation Association	10/6/2015	100,000	50,000	50,000
SWC	AOC/RRBC	5000	2015-17	Red River Basin Commission	Red River Basin Commission Contractor	5/20/2015	200,000	100,000	100,000
SWC	AOC/WEF	5000	2015-17	ND Water Education Foundati	ND Water Magazine	5/20/2015	36,000	18,000	18,000
SE	AOC/WUA	5000	2011-13	ND Water Users Association	Dave Koland Term as WUA President	3/23/2015	9,672	4,170	5,501
SE	ASNDS	5000	2015-17	NDSU	Oaks Irrigation Research Site - New Linear Irrigation S	11/18/2015	25,636	23,464	2,172
SWC	PS/WRD/DEV	5000	2015-17	Devils Lake Joint WRB	DL Manager	5/20/2015	60,000	0	60,000
SWC	PS/WRD/ELM	5000	2013-15	Elm River Joint WRD	Dam #3 Safety Improvements Project	9/15/2014	7,297	1,625	5,672
SWC	PS/WRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board, (MRJWB) Start up	5/20/2015	20,000	6,347	13,653
SWC	PS/WRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board (MRRIC) T. FLECK	5/20/2015	45,000	20,212	24,788
SWC	PS/WRD/UPP	5000	2015-17	Upper Sheyenne River Joint V	Upper Sheyenne River WRB Administration (USRJWF	5/20/2015	12,000	2,664	9,336
SE	PS/IRBUF	5000	2015-17	Buford Trenton Irrigation Distri	Upgrade to 3-Phase Power	4/19/2016	32,770	0	32,770
SE	PSWRDBUR	5000	2015-17	Burleigh Co. WRD	Pebble Creek Golf Course - Hay Creek Bank Stabiliza	10/15/2015	22,782	0	22,782
TOTAL							27,273,306	6,411,453	20,861,854

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium
Resources Trust Fund

COMPLETED GENERAL PROJECTS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Aug-16 Balance
SWC	228	5000	2013-15	U.S. Geological Survey	(USGS) Operation & Maint of Gaging Station on the Missouri R	12/8/2014	8,970	8,970	0
SWC	240	5000	2011-13	Eddy County WRD	Warwick Dam Repair Project	12/7/2012	110,150	110,150	0
SE	274	5000	2013-15	City of Neche	FEMA Levee Certification Feasibility Study	10/17/2014	37,500	37,500	0
SWC	281	5000	2009-11	Three Affiliated Tribes	Three Affiliated Tribes/Fort Berthold Irrigation Study	10/26/2010	37,500	0	37,500
SWC	346	5000	2011-13	Williams County WRD	Epping Dam Evaluation Project	2/27/2013	66,200	60,840	5,360
SE	346	5000	2013-15	Williams County WRD	Design Engineering for Epping Dam Safety Repair	7/6/2016	24,658	24,658	0
SE	391	5000	2011-13	Sargent Co WRD	Sargent Co WRD, Silver Lake Dam Emergency Repairs	10/12/2011	2,800	0	2,800
SE	568	5000	2013-15	Barnes Co WRD	Sheyenne River Snagging & Clearing Project	4/17/2015	49,500	49,500	0
SWC	645	5000	2009-11	City of Fargo	Hickson Dam Recreation Retrofit Project	10/26/2010	44,280	44,280	0
SWC	646	5000	2009-11	City of Fargo	Christine Dam Recreation Retrofit Project	10/26/2010	184,950	139,034	45,916
SWC	829	5000	2011-13	Rush River WRD	Rush River WRD Berlin's Township Improvement District No. 7	10/19/2011	101,317	0	101,317
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Gate Repair	9/4/2015	53,700	50,066	3,634
SWC	980	5000	2011-13	Maple River WRD	Maple River Watershed Flood Water Retention Study/ Maple R	2/19/2015	3,687	3,687	0
SE	1069	5000	2015-17	North Cass & Rush River	Drain #13 Channel Improvements Project	9/29/2015	46,150	12,293	33,857
SWC	1082	5000	2013-15	Rush River WRD	Cass Co. Drain No. 30 Channel Improvement Project	3/17/2014	5,976	5,970	6
SWC	1135	5000	2011-13	Pembina Co. WRD	Drain #4 Reconstruction Project	6/19/2013	2,673	0	2,673
SWC	1161	5000	2009-11	Pembina Co. WRD	Drain 55 Improvement Reconstruction	3/28/2011	13,846	0	13,846
SE	1179	5000	2013-15	Richland Co. WRD	Drain #5 (27) Reconstruction Project	3/30/2015	13,543	13,543	0
SWC	1183	5000	2013-15	Richland Co. WRD	Drain No. 15 Reconstruction Project	9/15/2014	60,300	49,055	11,245
SE	1219	5000	2013-15	Sargent Co WRD	Drain No. 8 Channel Improvement Preliminary Engineering Pro	5/7/2015	6,650	6,650	0
SE	1290	5000	2015-17	McLean Co. WRD	Painted Woods Lake Flood Mitigation Study	4/1/2016	53,200	53,200	0
SE	1301	5000	2009-11	City of Lidgerwood	City of Lidgerwood Engineering & Feasibility Study for Flood Co	2/4/2011	15,850	0	15,850
SE	1301	5000	2011-13	City of Wahpeton	City of Wahpeton Water Reuse Feasibility Study/Richland Co	9/8/2011	2,500	0	2,500
SE	1303	5000	2013-15	Sargent Co WRD	Upper Wild Rice Watershed Study	6/24/2015	73,500	73,485	15
SE	1311	5000	2013-15	Trail Co. WRD	Buxton Township Improvement District No. 68	6/17/2015	15,745	15,745	0
SE	1312	5000	2011-13	Walsh Co. WRD	Skyrud Dam 2011 EAP	12/15/2011	10,000	8,073	1,927
SE	1312	5000	2011-13	Walsh Co. WRD	Union Dam 2011 EAP	12/15/2011	10,000	8,350	1,650
SWC	1314	5000	2013-15	Wells Co. WRD	Oak Creek Drain Lateral E Reconstruction Project	9/15/2014	73,057	73,057	0
SE	1314	5000	2015-17	Wells Co. WRD	Oak Creek Lateral E Reconstruction	12/29/2015	20,173	20,173	0
SWC	1396	5000	2011-13	U.S. Geological Survey	(USGS) Missouri River Geomorphic Assessment	3/7/2012	10,000	10,000	0
SE	1403	5000	2015-17	ND Water Resources Re	(NDWRRI) Student Fellowship Program	12/23/2015	18,850	18,850	0
SWC	1438	5000	2011-13	Cavalier County WRD	Mulberry Creek Phase IV Reconstruction Project	6/19/2013	102,019	2,250	99,769
SWC	1444	5000	2013-15	City of Pembina	2014 Flood Protection System Modification Project	5/29/2014	61,331	61,331	0
SWC	1523	5000	2015-17	Ward Co	Flood Control County Road 18	5/29/2015	325,208	325,208	0
SWC	1577	5000	2013-15	City of Killdeer & Dunn Co	Floodplain Mapping Project	5/29/2014	55,000	55,000	0
SE	1607	5000	2011-13	Ward Co. WRD	Flood Inundation Mapping of Areas Along Souris & Des Lacs R	6/15/2011	13,011	0	13,011
SWC	1625	5000	2013-15	Houston Engineering	(OHWM) Ordinary High Water Mark Delineations	8/20/2014	4,560	0	4,560
SE	1625	5000	2015-17	Ross Engineering, LLC	Gather info regarding pipeline waterway crossings	2/9/2016	25,000	8,745	16,255
SE	1640	5000	2013-15	U.S. Geological Survey	(USGS) Maintenance of gaging station on Missouri River below	9/25/2013	8,710	0	8,710
SE	1650	5000	2015-17	Sargent Co WRD	Drain #7 Channel Improvements Study	1/17/2016	6,214	6,214	0
SE	1667	5000	2015-17	Trail Co. WRD	Goose River Snagging & Clearing	12/18/2015	47,500	47,500	0
SE	1701	5000	2013-15	US Army Corps of Engine	Red River of the North Unsteady Flow Model	11/25/2015	17,825	17,825	0
SWC	1758	5000	2013-15	U.S. Geological Survey	(USGS) Stochastic Model for the Mouse River Basin	12/13/2013	40,000	40,000	0
SWC	1792	5000	2009-11	Southeast Cass WRD	SE Cass Wild Rice River Dam Study Phase II	1/29/2015	32,252	32,252	0
SE	1814	5000	2013-15	Richland Co. WRD	Wild Rice River Snagging & Clearing - Bridge #121-2	5/28/2015	16,000	16,000	0
SE	1815	5000	2013-15	Ransom Co. WRD	Sheyenne River Snagging & Clearing - Fort Ransom Reach	6/11/2015	6,350	6,350	0
SE	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing - Bridge Location Sites	2/3/2015	11,063	0	11,063
SE	1842	5000	2015-17	Southeast Cass WRD	Wild Rice River Snagging & Clearing	7/6/2016	24,948	24,948	0
SE	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement Preliminary Engineering Pro	9/29/2015	17,500	17,500	0
SE	1967	5000	2009-11	Grand Forks Co. WRD	Grand Forks County Legal Drain No. 55 2010 Construction	11/30/2010	9,652	9,652	0
SWC	1970	5000	2009-11	Walsh Co. WRD	Walsh Co. Construction of Legal Assessment Drain # 72	3/28/2011	39,115	39,115	0
SWC	1975	5000	2011-13	Walsh Co. WRD	Walsh Co. Drain No. 31 Reconstruction Project	9/21/2011	37,742	37,742	0
SWC	1983	5000	2011-13	City of Harwood	City of Harwood Engineering Feasibility Study	12/9/2011	62,500	0	62,500
SWC	1989	5000	2011-13	Barnes Co WRD	Hobart Lake Outlet Project	3/7/2012	266,100	0	266,100
SE	1991	5000	2011-13	City of Lisbon	Sheyenne River Snagging & Clearing Project	2/12/2013	5,000	5,000	0
SWC	1992	5000	2011-13	Burleigh Co. WRD	Burnt Creek Flood Restoration Project	7/29/2015	179,890	176,524	3,366
SE	1998	5000	2011-13	Grand Forks Co. WRD	Upper Turtle River Dam #1 2012 EAP	6/28/2012	10,000	9,365	635
SE	2002	5000	2011-13	Grand Forks Co. WRD	Trutle River Dam #4 2012 EAP	6/29/2012	10,000	8,656	1,344
SWC	2004	5000	2013-15	Grand Forks Co. WRD	Drain No. 57 Project	10/7/2013	413,576	413,576	0
SE	2005	5000	2011-13	Grand Forks Co. WRD	Turtle River Dam #8 2012 EAP	6/29/2012	10,000	9,069	931
SWC	2007	5000	2011-13	Maple River WRD	Pontiac Township Improvement District No. 73 Project	5/11/2015	747,093	594,183	152,910
SWC	2013	5000	2011-13	Richland-Cass Joint WRL	Wild Rice River Watershed Retention Plan	6/8/2015	45,905	45,905	0
SWC	2019	5000	2011-13	Valley City	Sheyenne River Snagging & Clearing Project	12/7/2012	75,000	0	75,000
SWC	2040	5000	2013-15	Walsh Co. WRD	Drain #74 Project	10/7/2013	211,600	211,600	0
SWC	2046	5000	2013-15	Walsh Co. WRD	North Branch Park River Comprehensive Flood Damage Redu	12/13/2013	134,400	108,772	25,628
SWC	2048	5000	2013-15	City of Marion	Marion Flood Mitigation & Lagoon Drainage Project	5/29/2014	116,659	116,599	60
SWC	1878-02	5000	2011-13	Maple-Steele Joint WRD	Upper Maple River Dam Construction Phase	12/13/2013	4,702,936	4,415,496	287,440
SB2009	1986-03	5000	2015-17	USDA-APHIS, ND Dept A	USDA Wildlife	9/9/2015	250,000	250,000	0
SWC	2003-02	5000	2011-13	Southeast Cass WRD	Re-Certification of the West Fargo Diversion Levee System	7/23/2015	52,564	32,813	19,751
SWC	2009-02	5000	2011-13	Southeast Cass WRD	Recertification of the Horace to West Fargo Diversion Levee S	9/17/2012	25,504	25,504	0
SE	CON/CAR	5000	2015-17	Garrison Diversion	Will and Carlson Consulting Services	11/12/2016	17,500	10,795	6,705
SWC	CON/WIL/CAF	5000	2013-15	Garrison Diversion Conse	Will and Carlson Consulting Contract	12/13/2013	26,451	1,828	24,623
SE	NDAWN	5000	2015-17	NDSU	NDAWN CENTER	2/11/2016	1,500	1,500	0
SWC	PS/WRD/MRJ	5000	2013-15	Missouri River Joint WRB	Missouri River Coordinator	10/7/2013	37,094	14,327	22,767
SE	PSWRDCAS	5000	2015-17	Cass Co. Joint WRD	Red River Watershed Comprehensive Detention Plan Updates	11/19/2015	34,025	34,025	0

TOTAL

9,513,522 8,130,298 1,383,224

NORTH DAKOTA STATE WATER COMMISSION

COST-SHARE POLICY, PROCEDURE, AND GENERAL REQUIREMENTS

The State Water Commission has adopted this policy to support local sponsors in development of sustainable water related projects in North Dakota. This policy reflects the State Water Commission's cost-share priorities and provides basic requirements for all projects considered for prioritization during the agency's budgeting process. Projects and studies that receive cost-share funding from the agency's appropriated funds are consistent with the public interest. The State Water Commission values and relies on local sponsors and their participation to assure on-the-ground support for projects and prudent expenditure of funding for evaluations and project construction. It is the policy of the State Water Commission that only the items described in this document will be eligible for cost-share upon approval by the State Water Commission, unless specifically authorized by State Water Commission action.

I. DEFINITIONS AND ELIGIBILITY

- A. CONSTRUCTION COSTS** include earthwork, concrete, mobilization and demobilization, dewatering, materials, seeding, rip-rap, crop damages, re-routing electrical transmission lines, moving storm and sanitary sewer system and other underground utilities and conveyance systems affected by construction, mitigation required by law related to the construction contract, irrigation supply works, and other items and services provided by the contractor. Construction costs are only eligible for cost-share if incurred after State Water Commission approval and if the local sponsor has complied with North Dakota Century Code (N.D.C.C.) in soliciting and awarding bids and contracts, and complied with all applicable federal, state, and local laws.
- B. COST-SHARE** is grant or loan funds provided through the State Water Commission.
- C. ENGINEERING SERVICES** include pre-construction and construction engineering. Pre-construction engineering is the engineering necessary to develop plans and specifications for permitting and construction of a project including preliminary and final design, material testing, flood insurance studies, hydraulic models, and geotechnical investigations. Construction engineering is the engineering necessary to build the project designed in the pre-construction phase including construction contract management, and project inspection. Administrative and support services not specific to the approved project are not engineering services. Engineering services are eligible costs if incurred after State Water Commission approval. If cost-share is expected to be greater than \$25,000, the local sponsor must follow the engineering selection process in NDCC 54-44.7 and provide a copy of the selection committee report to the Chief Engineer. The local sponsor will be considered to have complied with this requirement if they have completed this

selection process for a general engineering services agreement at least once every three years and have formally assigned work to a firm or firms under an agreement. The local sponsor must inform the Chief Engineer of any change in the provider of general engineering services.

- D. IMPROVEMENTS** are construction related projects that upgrade a facility to provide increased efficiency or capacity. Improvements do not include any activities that are maintenance, replacement, or reconstruction.
- E. INELIGIBLE ITEMS** excluded from cost-share include:
- 1 Administrative and easement costs, including those related to permits;
 - 2 Property acquisitions, property surveys, and legal expenses unless specifically identified as eligible within the Flood Recovery Property Acquisition Program, the Flood Protection Program, or the Water Retention Projects;
 - 3 Work and costs incurred prior to a cost-share approval date, except for emergencies as determined by the Chief Engineer;
 - 4 Project related operation and regular maintenance costs;
 - 5 Funding contributions provided by federal, other state, or other North Dakota state entities that supplant costs;
 - 6 Work incurred outside the scope of the approved study or project.
- F. EXPANSIONS** are construction related projects that increase the project area or users served. Expansions do not include maintenance, replacement, or reconstruction activities.
- G. LOCAL SPONSOR** is the entity submitting a cost-share application and must be a political subdivision, state entity, or commission legislatively granted North Dakota recognition that applies the necessary local share of funding to match State Water Commission cost-share. They provide direction for studies and projects, public point of contact for communication on public benefits and local concerns, and acquire necessary permits and rights-of-way.
- H. REGULAR MAINTENANCE COSTS** include normal repairs and general upkeep of facilities to allow facilities to continue proper operation and function. These maintenance items occur on a regular or annual basis. Regular maintenance activities simply help ensure the asset will remain serviceable throughout its originally predicted useful life.
- I. PROGRAM** is a subcategory of cost-share that is typically associated with a federal initiative and may cover all phases of a study or implementation of a project.
- J. PROJECT** is the water-related construction activity.
- K. EXTRAORDINARY MAINTENANCE COSTS** include the repair or replacement of portions of facilities or components that extends the overall life of the system or

components that are above and beyond regular or normal maintenance. Extraordinary maintenance activities extend the asset's useful life beyond its originally predicted useful life.

- L. **SUSTAINABLE OPERATION, MAINTENANCE, AND REPLACEMENT PLAN** is a description of the anticipated operation, maintenance, and replacement costs with a statement that the operation, maintenance, and replacement of the project will be sustainable by the local sponsor. For water supply projects, a summary of the project sponsor's Capital Improvement Fund must also be included.
- M. **CAPITAL IMPROVEMENT FUND** is money set aside using a portion of user fees for future asset replacement and a cost share application shall include documentation of the following:
 - 1. Current capital improvement fund balance
 - 2. Existing and new assets
 - 3. Replacement cost of assets
 - 4. Average life of assets
 - 5. Current and future monthly reserve per user

II. COST-SHARE APPLICATION AND APPROVAL PROCEDURES. The State Water Commission will not consider any cost-share applications for water related projects or studies unless the local sponsor first makes an application to the Chief Engineer. No funds will be used in violation of Article X, § 18 of the North Dakota Constitution (Anti-Gift Clause).

- A. **APPLICATION REQUIRED.** An application for cost-share is required in all cases and must be submitted by the local sponsor on the State Water Commission Cost-Share Application form. Applications for cost-share are accepted at any time. Applications received less than 30 days before a State Water Commission meeting will not be considered at that meeting and will be held for consideration at a future meeting. The application form is maintained and updated by the Chief Engineer and must include the following:
 - 1 Category of cost-share activity
 - 2 Location of the proposed project or study area
 - 3 Description, purpose, goal, objective, narrative of the proposed activities
 - 4 Delineation of costs
 - 5 Potential federal, other state, or other North Dakota state entity participation
 - 6 Engineering plans, if applicable
 - 7 Status of required permitting
 - 8 Potential territorial service area conflicts or service area agreements, if applicable
 - 9 Sustainable operation, maintenance, and replacement plan for projects
 - 10 Additional information as deemed appropriate by the Chief Engineer

Applications for cost-share are separate and distinct from the State Water Commission biennial project information collection effort that is part of the budgeting process and published as the State Water Plan. All local sponsors are encouraged to submit project and study financial needs for the State Water Plan. Projects and studies not submitted as part of the State Water Plan development process may be held until action can be taken on those that were included during budgeting, unless determined to be an emergency that directly impacts human health and safety or that are a direct result of a natural disaster.

- B. PRE-APPLICATION.** A pre-application process is allowed for cost-share of assessment projects. This process will require the local sponsor to submit a brief narrative of the project, preliminary designs, and a delineation of costs. The Chief Engineer will then review the material presented, make a determination of project eligibility, and estimate the cost-share funding the project may anticipate receiving. A project eligibility letter will then be sent to the local sponsor noting the percent of cost-share assistance that may be expected on eligible items as well as listing those items that are not considered to be eligible costs. In addition, the project eligibility letter will state that the Chief Engineer will recommend approval when all cost-share requirements are addressed. The local sponsor may use the project eligibility letter to develop a project budget for use in the assessment voting process. Upon completion of the assessment vote and all other requirements an application for cost-share can be submitted.
- C. REVIEW.** Upon receiving an application for cost-share, the Chief Engineer will review the application and accompanying information. If the Chief Engineer is satisfied that the proposal meets all requirements, the Chief Engineer will present the application along with a recommendation to the State Water Commission for its action. The Chief Engineer's review of the application will include the following items and any other considerations that the Chief Engineer deems necessary and appropriate.
- 1 Applicable engineering plans;
 - 2 Field inspection, if deemed necessary by the Chief Engineer;
 - 3 The percent and limit of proposed cost-share determined by category of cost-share activity and eligible expenses;
 - 4 Assurance of sustainable operation, maintenance, and replacement of project facilities by the local sponsor;
 - 5 Status of permitting and service area agreements;
 - 6 Available funding in the State Water Commission budget, if in the State Water Plan, and a priority ranking when appropriate.

For cost-share applications over \$100 million, additional information requested by the State Water Commission will be used to determine cost-share.

The Chief Engineer is authorized to approve cost-share up to \$75,000 in state funds and also approve cost overruns up to \$75,000 in state funds without State Water Commission action.

- D. NOTICE.** The Chief Engineer will give notice to local sponsors when their application for cost-share is placed on the tentative agenda of the State Water Commission's next meeting.
- E. AGREEMENT AND DISTRIBUTION OF FUNDS.** No funds will be disbursed until the State Water Commission and local sponsor have entered into an agreement for cost-share participation. No agreement for construction funding will be entered into until all required State Engineer permits have been acquired.

For construction projects, the agreement will address indemnification and vicarious liability language. The local sponsor must require that the local sponsor and the state be made an additional insured on the contractor's commercial general liability policy including any excess policies, to the extent applicable. The levels and types of insurance required in any contract must be reviewed and agreed to by the Chief Engineer. The local sponsor may not agree to any provision that indemnifies or limits the liability of a contractor.

For any property acquisition, the agreement will specify that if the property is later sold, the local sponsor is required to reimburse the Commission the percent of sale price equal to the percent of original cost-share.

The Chief Engineer may make partial payment of cost-sharing funds as deemed appropriate. Upon notice by the local sponsor that all work or construction has been completed, the Chief Engineer may conduct a final field inspection. If the Chief Engineer is satisfied that the work has been completed in accordance with the agreement, the final payment will be disbursed to the local sponsor, less any partial payment previously made.

- F. LITIGATION.** If a project submitted for cost-share is the subject of litigation, the application may be deferred until the litigation is resolved. If a project approved for cost-share becomes the subject of litigation before all funds have been disbursed, the Chief Engineer may withhold funds until the litigation is resolved. Litigation for this policy is defined as legal action that would materially affect the ability of the local sponsor to construct the project; that would delay construction such that the authorized funds could not be spent; or is between political subdivisions related to the project.

III. COST-SHARE CATEGORIES. The State Water Commission supports the following categories of projects and studies for cost-share. Engineering expenses related to construction are cost-shared at the same percent as the construction costs when approved by the State Water Commission.

- A. PRE-CONSTRUCTION EXPENSES.** The State Water Commission supports local sponsor development of feasibility studies, engineering designs, and mapping as part of pre-construction activities to develop support for projects within this cost-share policy. Pre-construction expenses approved by the State Water Commission are cost-shared up to 35 percent. The following projects and studies are eligible.

- 1 Feasibility studies to identify water related problems, evaluate options to solve or alleviate the problems based on technical and financial feasibility, and provide recommendation and cost estimate, of the best option to pursue.
- 2 Engineering design to develop plans and specifications for permitting and construction of a project, including associated cultural resource and archeological studies.
- 3 Mapping and surveying to gather data for a specific task such as flood insurance studies and flood plain mapping, LiDAR acquisition, and flood imagery attainment, which are valuable to managing water resources.

Copies of the deliverables must be provided to the Chief Engineer upon completion. The Chief Engineer will determine the payment schedule and interim progress report requirements.

B. WATER SUPPLY

- 1 **WATER SUPPLY PROJECT.** The State Water Commission supports water supply efforts and will use a grant and loan program. The local sponsor may apply for water supply funding, and the application will be reviewed to determine project priority. Projects within category (1) may be considered for grant funding up to 75 percent cost-share. Projects in category (2) may be considered for grant funding up to 60 percent of cost-share. Grant funding within category (3) will be on a case-by-case basis. Projects within categories (1) through (4) may be considered for loan funding. After cost-share for grant funding has been determined, the local sponsor may be considered for loan funding in addition to the grant funding. The combination of grant and loan funding will not exceed 80 percent from the State Water Commission.

(1) In most cases a 75% cost-share is intended to address improvements to meet primary drinking water standards or expansion into new rural water service areas. Factors considered include:

- (a) Connection of communities to the regional system as part of this expansion as determined by the Chief Engineer.
- (b) Willingness of water users at far reaches of the system to pay additional costs for water service as an indicator of greater need for access to water and local commitment in the project as determined by the Chief Engineer.
- (c) Affordable and sustainable water rate as determined by the Chief Engineer.

Lower rates of cost-share up to 60% may be made available to address other necessary improvements in rural water systems as defined in I-D.

(2) Supports improvements or connection of new customers within the existing service area of a municipal water system. Population growth and affordability may be used in prioritizing projects in this category.

(3) Water treatment improvements that address impacts from other State Water Commission projects. Grant funding is based on level of impact as determined by the State Water Commission.

(4) Addresses extraordinary repairs or replacement needs of a water supply system due to damages from a recent natural disaster.

Debt per capita, either actual or anticipated, may be used as an additional determinant of financial need.

Water Depots for industrial use receiving water from facilities constructed using State Water Commission funding or loans have the following additional requirements:

a) Domestic water supply has priority over industrial water supply in times of shortage. This must be explicit in the water service contracts with industrial users.

b) If water service will be contracted, public notice of availability of water service contracts is required when the depot becomes operational.

c) A portion of the water supply at any depot must be available on a non-contracted basis for public access.

2 MUNICIPAL, RURAL, AND INDUSTRIAL WATER SUPPLY PROGRAM. The Municipal, Rural, and Industrial Water Supply Program, which uses federal funds, is administered according to North Dakota Administrative Code Article 89-12.

3 DROUGHT DISASTER LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM. This program is to provide assistance with water supply for livestock impacted during drought declarations and is administered according to North Dakota Administrative Code Article 89-11.

C. FLOOD CONTROL. The State Water Commission may provide cost-share for eligible items of flood control projects protecting communities from flooding and may include the repair of dams that provide a flood control benefit.

1 FLOOD RECOVERY PROPERTY ACQUISITION GRANT PROGRAM. This program is used to assist local sponsors with flood recovery expenses that provide long term flood damage reduction benefits through purchase and removal of structures in areas where flood damage has occurred. All contracted costs directly associated with the acquisition will be considered eligible for cost-share. Contracted costs may include: appraisals, legal fees (title and abstract search or update, etc.), property survey, closing costs, hazardous materials abatement needs (asbestos, lead paint, etc.), and site restoration.

The State Water Commission may provide cost-share of the eligible costs of approved flood recovery expenses that provide long term flood reduction benefits based on the following criteria and priority order:

- a) Local Sponsor has flood damage and property may be needed for construction of temporary or long-term flood control projects, may be cost-shared up to 75 percent.
- b) Local Sponsor has flood damage and property would increase conveyance or provide other flood control benefits, may be cost-shared up to 60 percent.

Prior to applying for assistance, the local sponsor must adopt and provide to the Chief Engineer an acquisition plan (similar to plans required by Hazard Mitigation Grant Program (HMGP)) that includes the description and map of properties to be acquired, the estimated cost of property acquisition including contract costs, removal of structures, the benefit of acquiring the properties, and information regarding the ineligibility for HMGP funding. Property eligible for HMGP funding is not eligible for this program. The acquisition plan must also include a description of how the local sponsor will insure there is not a duplication of benefits.

Over the long-term development of a flood control project following a voluntary acquisition program, the local sponsor's governing body must officially adopt a flood risk reduction plan or proposal including the flow to be mitigated. The flow used to develop the flood risk reduction plan must be included in zoning discussions to limit new development on other flood-prone property. An excerpt of the meeting minutes documenting the local sponsor's official action must be provided to the Chief Engineer.

Local sponsor must fund the local share for acquisitions; this requirement will not be waived. Federal funds are considered "local" for this program if they are entirely under the authority and control of the local sponsor.

The local sponsor must include a perpetual restrictive covenant similar to the restrictions required by the federal HMGP funding with the additional exceptions being that the property may be utilized for flood control structures and related infrastructure, paved surfaces, and bridges. These covenants must be recorded either in the deed or in a restrictive covenant that would apply to multiple deeds.

The local sponsor must provide justification, acceptable to the Chief Engineer, describing the property's ineligibility to receive federal HMGP funding. This is not meant to require submission and rejection by the federal government, but rather an explanation of why the property would not be eligible for federal funding. Example explanations include: permanent flood control structures may be built on the property; project will not achieve required benefit-cost analysis to support HMGP eligibility; or lack of available HMGP funding. If inability to receive federal funding is not shown to the satisfaction of the Chief Engineer, following consultation with the North Dakota Department of Emergency

Services, the cost-share application will be returned to the local sponsor for submittal for federal funding prior to use of these funds.

- 2 **FLOOD PROTECTION PROGRAM.** This program supports local sponsor efforts to prevent future property damage due to flood events. The State Water Commission may provide cost-share grants for up to 60 percent of eligible costs. For projects with federal participation, the cost-share may be up to 50 percent of eligible costs. The State Water Commission may consider a greater level of cost participation for projects involving a total cost greater than \$100 million and having a basin wide or regional benefit.

The cost-share application must include the return interval or design flow for which the structure will provide protection. Local share must be provided on a timely basis. The State Water Commission may lend a portion of the local share based on demonstrated financial need.

Property acquisition costs limited to the purchase price of the property that is not eligible for HMGP funding and within the footprint of a project may be eligible under this program. The local sponsor must include a perpetual restrictive covenant on any properties purchased under this program similar to the restrictions required by the federal HMGP funding with the additional exceptions being that the property may be utilized for flood control structures and related infrastructure, paved surfaces, and bridges. These covenants must be recorded either in the deed or in a restrictive covenant that would apply to multiple deeds.

Costs for property acquired, by easement or fee title, to preserve the existing conveyance of a breakout corridor recognized as essential to FEMA system accreditation may be eligible under this program.

- 3 **FEMA LEVEE SYSTEM ACCREDITATION PROGRAM.** The State Water Commission may provide cost-share up to 60 percent for eligible services for FEMA 44 CFR 65.10 flood control or reduction levee system certification analysis. The analysis is required for FEMA to accredit the levee system for flood insurance mapping purposes. Typical eligible costs include site visits and field surveys to include travel expenses, hydraulic evaluations, closure evaluations, geotechnical evaluations, embankment protection, soils investigations, interior drainage evaluations, internal drainage hydrology and hydraulic reports, system modifications, break-out flows and all other engineering services required by FEMA. The analysis will result in a comprehensive report to be submitted to FEMA and the Chief Engineer.

Administrative costs to gather existing information or to recreate required documents, maintenance and operations plans and updates, and emergency warning systems implementation are not eligible.

- 4 **DAM SAFETY AND EMERGENCY ACTION PLANS.** The State Water Commission supports dam safety including repairs and removals, as well as emergency action plans. The State Water Commission may provide cost-share for up to 75 percent of the eligible items for dam safety repair projects and dam

breach or removal projects. Dam safety repair projects that are funded with federal or other agency funds may be cost-shared up to 75 percent of the eligible non-matched costs. The intent of these projects is to return the dam to a state of being safe from the condition of failure, damage, error, accidents, harm or other events that are considered non-desirable. The State Water Commission may lend a portion of the local share based on demonstrated financial need.

The State Water Commission may provide cost-share up to 80 percent, for emergency action plans (EAPs) of each dam classified as high or medium significant hazard. The cost of a dam break model is only eligible for reimbursement for dams classified as a high hazard.

- 5 **WATER RETENTION PROJECTS.** The goal of water retention projects is to reduce flood damages by storing floodwater upstream of areas prone to flood damage. The State Water Commission may provide cost-share up to 60 percent of eligible costs for flood retention projects including purchase price of the property. For projects with federal participation, the cost-share may be up to 50 percent. Water retention structures constructed with State Water Commission cost-share must meet state dam safety requirements, including the potential of cascade failure. A hydrologic analysis including the operation plan, quantifying the flood reduction benefits for 25, 50, and 100-year events must be submitted with the cost-share application.
- 6 **SNAGGING AND CLEARING PROJECTS.** Snagging and clearing projects consist of the removal and disposal of fallen trees and associated debris encountered within or along the channel. Snagging and clearing projects are intended to prevent damage to structures such as bridges, and maintain the hydraulic capacity of the channel during flood flows. The State Water Commission may provide cost-share for up to 50 percent of the eligible items for snagging and clearing as well as any sediment that has accumulated in the immediate vicinity of snags and any trees in imminent danger of falling in the channel on watercourses as defined in N.D.C.C. § 61-01-06. Items that are not eligible include snagging and clearing of man-made channels; the dredging of watercourses for sediment removal; the clearing and grubbing of cattails and other plant vegetation; or the removal of any other unwanted materials.

D. RURAL FLOOD CONTROL. The primary purpose of rural flood control projects is to manage runoff or drainage from agricultural sources or to provide flood control in a rural setting. Typically, rural flood control projects consist of drains, channels, diversion ditches, or ring dikes. Items that are not eligible include projects that are managing runoff or drainage from residential or urban sources.

- 1 **DRAINS, CHANNELS, OR DIVERSION PROJECTS.** These projects are intended to improve the drainage and management of runoff from agricultural sources. The State Water Commission may provide cost-share up to 45 percent of the eligible items for the construction of drains, channels, or diversion ditches. Expansions and improvements may be cost-shared on the basis of increased drainage capacity achieved or increased area served. Construction costs for public road crossings that are integral to the project are eligible for cost-share

as defined in N.D.C.C. § 61-21-31 and 61-21-32. If an assessment-based rural flood control project involves multiple districts, each district involved must join in the cost-share application.

Cost-share applications for rural assessment drains will only be processed after the assessment vote has passed, the final design is complete, and a drain permit has been obtained. If the local sponsor wishes to submit a cost-share application prior to completion of the aforementioned steps, a pre-application process will be followed.

- 2 **RING DIKE PROGRAM.** This program is intended to protect individual rural homes and farmsteads through ring dike programs established by water resource districts. All ring dikes within the program are subject to the Commission's Individual Rural and Farmstead Ring Dike Criteria provided in Attachment A. Cost-share is limited to \$55,000 per ring dike. Protection of a city, community or development area does not fall under this program, but may be eligible for the flood control program. The State Water Commission may provide up to 60 percent cost-share of eligible items for ring dikes.

Landowners enrolled in the Natural Resource Conservation Service's (NRCS) Environmental Quality Incentive Program (EQIP) who intend to construct rural or farmstead ring dikes that meet the State Water Commission's elevation design criteria are eligible for a cost-share reimbursement of 20 percent of the NRCS construction payment, limited to a combined NRCS and State Water Commission contribution of 80 percent of project costs.

- E. **RECREATION.** The State Water Commission may provide cost-share up to 40 percent for projects intended to provide water-based recreation. Typical projects provide or complement water-based recreation associated with dams.
- F. **IRRIGATION.** The State Water Commission may provide cost-share for up to 50 percent of the eligible items for irrigation projects. The items eligible for cost-share are those associated with new central supply works, including water storage facilities, intake structures, wells, pumps, power units, primary water conveyance facilities, and electrical transmission and control facilities.
- G. **BANK STABILIZATION.** The State Water Commission may provide cost-share up to 50 percent of eligible items for bank stabilization projects on public lands or those lands under easement by federal, state, or political subdivisions. Bank stabilization projects are intended to stabilize the banks of lakes or watercourses, as defined in N.D.C.C § 61-01-06, with the purpose of protecting public facilities. Drop structures and outlets are not considered for funding as bank stabilization projects, but may be eligible under other cost-share program categories. Bank stabilization projects typically consist of a rock or vegetative design and are intended to prevent damage to public facilities including utilities, roads, or buildings adjacent to a lake or watercourse.

- The topsoil and embankment quantities will be estimated based on dike dimensions. Construction costs in excess of the 3:1 side slope standard will be the responsibility of the landowner. Invoices will be used for the cost of seed, culverts, and flap gates.
- Height can be determined by existing FIRM data or known elevations available at county floodplain management offices. Engineers or surveyors may also assist in establishing height elevations.
- The projects will not require extensive engineering design or extensive cross sections.
- A dike permit is required if the interior volume of the dike consists of 50 acre-feet, or more.

GRAFTON FLOOD RISK REDUCTION

PROJECT NUMBER: 6413107



Grafton Flood Risk Reduction

Currently, the City of Grafton does not have permanent flood protection, placing a majority of the city in the 100-year floodplain which is detrimental to the community. The completed permanent flood protection project will eliminate the need for emergency flood fighting efforts for the community. Not having to construct and remove emergency levees will mitigate damage to already aging city infrastructure that would be damaged by heavy construction equipment.



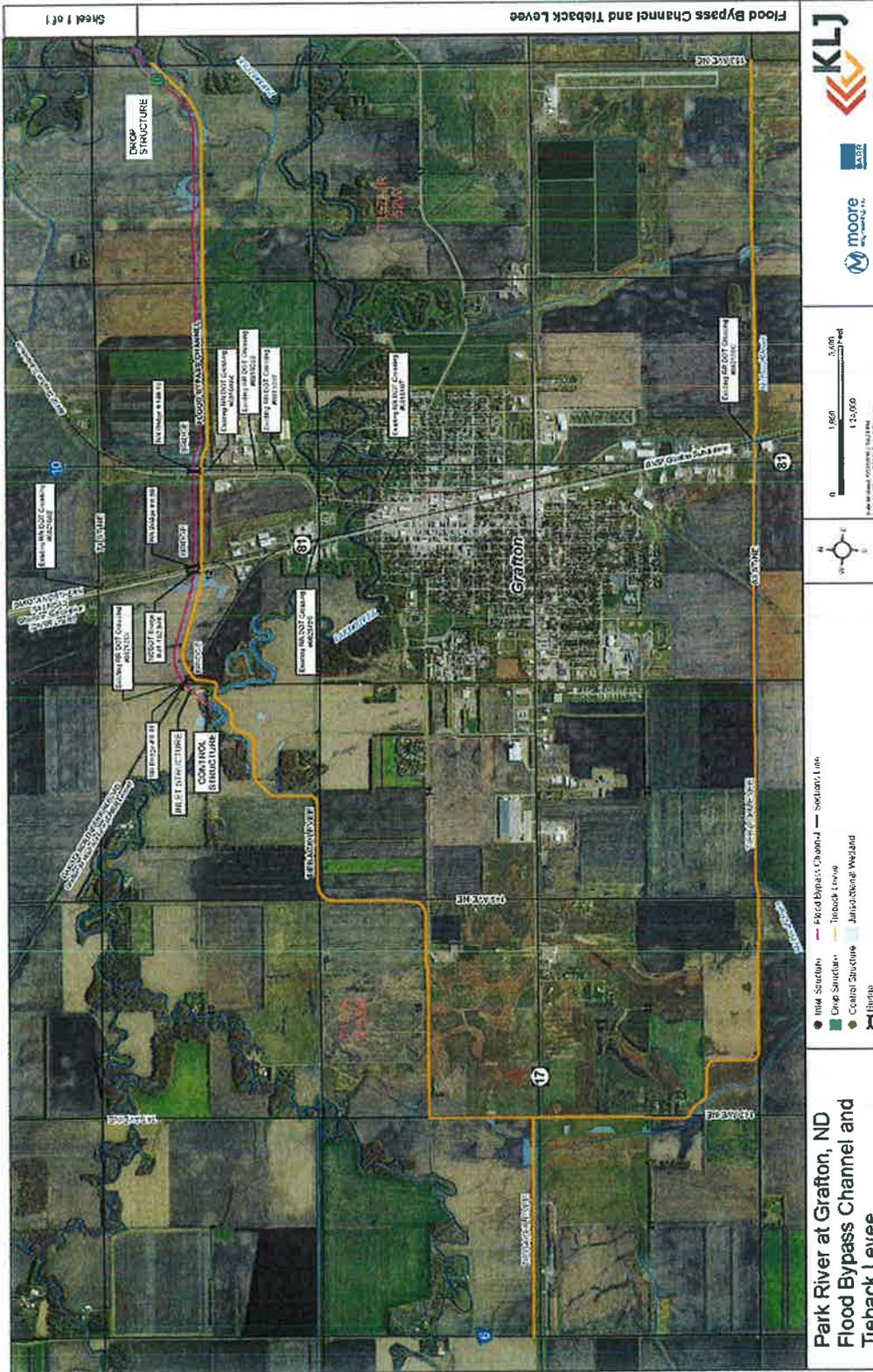
Funding – Construction

State/Local Cost Share (\$47,400,000)

60/40	65/35	70/30	75/25
• \$28,440,000 / \$18,960,000	• \$30,810,000 / \$16,590,000	• \$33,180,000 / \$14,220,000	• \$35,550,000 / \$11,850,000

GRAFTON FLOOD RISK REDUCTION

PROJECT NUMBER: 6413107



Sheet 1 of 1

Flood Bypass Channel and Tieback Levee



- Intake Structure
- Flood Bypass Channel
- Seepage Line
- Drop Structure
- Tieback Levee
- Control Structure
- Antecedent Wetland
- Bridge

Park River at Grafton, ND
Flood Bypass Channel and
Tieback Levee



Oct. 12, 2016

Mitigation Plan Summary

Table of Contents

The full Mitigation Plan is 177 pages and includes the following items.

- Property Acquisition Philosophies
- Typical Property Acquisition Process
- Appraisal Review Plan
- Offer Presentation AND Negotiation Process
- Property Rights Map
- Property Acquisition Schedule
- Early Residential Property Acquisition
- Organic Farmland Acquisition Plan
- Acquisition/Mitigation of Properties in Upstream Retention Area
- USACE / FEMA Coordination Plan
- Flowage Easement Plan
- Sample Flowage Easement
- Disposal of Excess Property
- Cemetery Mitigation Plan
- Mitigation of Historic Places
- Post-Operation Debris Clean-Up Plan
- Summer Operation Supplemental Farm Revenue Program
- Financial Assurance Plan for On-going Mitigation
- Mitigation Communications Plan
- OHB Mitigation Project
- Comstock Mitigation Plan
- In-Town Levee Mitigation Projects
- Environmental Mitigation

The Diversion Authority has developed a detailed Mitigation Plan outlining mitigation requirements that will be followed for the Fargo-Moorhead Area Diversion Project (Project) to address mitigation needs previously identified during studies by the US Army Corps of Engineers and the Minnesota Department of Natural Resources (MDNR). The plan was submitted to the MDNR and the North Dakota State Water Commission (NDSWC).

The plan outlines the steps the Diversion Authority will take to ensure the fair treatment of people, property and the environment impacted by the project. The Mitigation Plan consists of comprehensive property mitigation and environmental mitigation components. The Mitigation Plan is also a compilation of a series of plans for a variety of topics.

The Diversion Authority is following all federal and state laws related to acquisition of property rights. In addition, the Diversion Authority has established additional protections beyond federal and state requirements for impacted properties in its Mitigation Plan.

The Project has been studied extensively by the Diversion Authority, Corps, MDNR and others. The Project has received a Federal Record of Decision (ROD), Federal authorization by Congress through the Water Resources Reform and Development Act (WRRDA) of 2014. The Project received a new start and its first Federal construction appropriation in 2016. In addition, the Diversion Authority entered into a Project Partnership Agreement (PPA) with USACE on July 11, 2016. The MDNR issued a Determination of Adequacy regarding its environmental study of the project in June 2016.

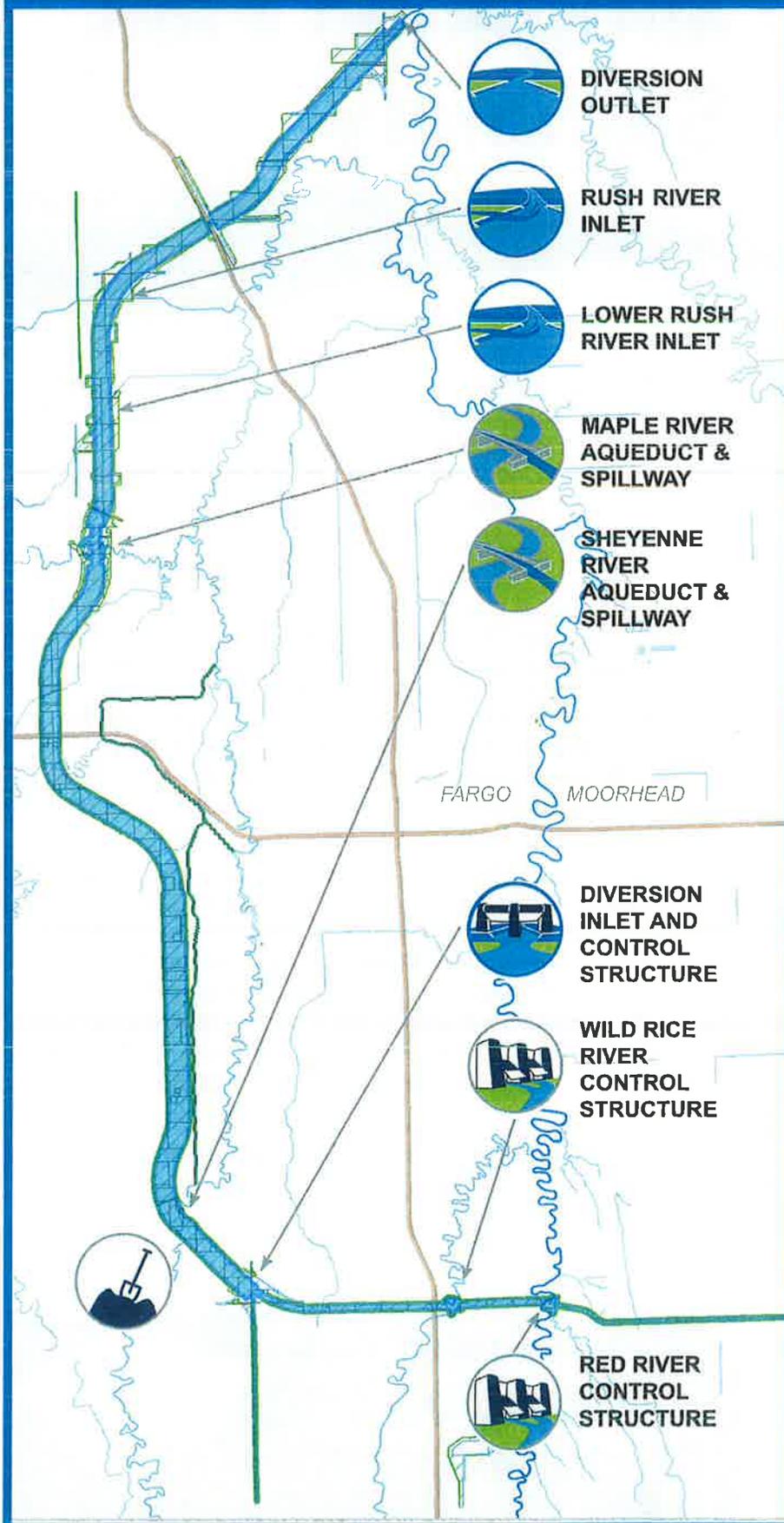
The Mitigation Plan is intended to be a living document that will be reviewed and amended periodically as additional information and operations prompt updates.

**Full Mitigation Plan
Document Available**

www.fmdiversion.com/studies-technical-documents/



Project Footprint Properties Impacted



Process and Procedure

The Diversion Authority has adopted a thorough process for acquiring property. The mission of the Authority is to acquire necessary property in compliance with State and Federal guidelines and in accordance with the philosophy of being friendly, fair, and flexible to those whose property is required for the project.

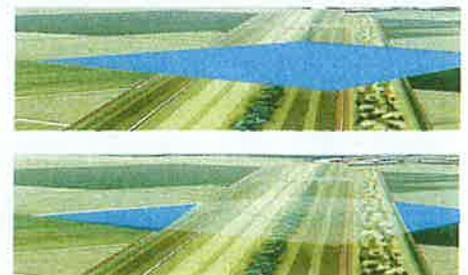
The Diversion Authority aims to acquire properties following a time line based on design and construction schedules. That being said, and now that the Project Partnership Agreement (PPA) has been executed with the Federal Government, the Diversion Authority will entertain requests for early acquisition from impacted residences. The intention of this program is to allow residents to be acquired early if they desire.

By the Numbers

- Approximately 1,500 total impacted parcels
- Flowage easements on approximately 840 parcels
- Approximately 660 parcels to acquire in fee title
- 1,125 North Dakota parcels
- 375 Minnesota parcels
- 100 total residential structures in the Project Area
- 75 residential structures in the upstream mitigation area

Excess Property

If requested by the property owner, the Diversion Authority may purchase full parcels of land rather than simply the bare minimum property needed to implement the Project. If, as a result, the Diversion Authority owns excess property, the remnants will be sold via public sale in a timely fashion.



Overview Of Some Key Elements

CLEAN UP PLANS

Operation of the Project will result in the staging and retention of flood waters upstream of the Fargo-Moorhead metro area. The upstream retention area will impact a different amount of acres for each flood event depending on the magnitude of the flood. The Diversion Authority will obtain flowage easements on the properties that are within a defined mitigation area. The flowage easement will compensate property owners for the impacts associated with the Project. However, in recognition that operation of the upstream retention area may cause debris (logs, straw, trash, etc.) to accumulate within and along the edges of the upstream retention area, the Diversion Authority has developed post-operation debris clean-up plans for both private and public properties. The private-lands debris clean-up plan is patterned after the “clean-up week” approach used in the metro area where items to be disposed of are piled up at the curb. The public-lands repair and debris clean-up plan is patterned after the approach FEMA uses for post-disaster damage assessment and reimbursement where local government units are reimbursed for cleanup costs.

FLOWAGE EASEMENTS

The FM Area Diversion Project includes a retention area upstream of the Project. The retention area is a necessary component of the Project, and it will occasionally and temporarily store flood waters. Flowage Easements will be purchased and applied to the properties in the upstream retention area. The value of each flowage easement will be determined through an appraisal that will consider the depth, duration, and frequency of additional flooding, and the highest and best use of the property to determine the market value of the property. For properties on the fringe of the impacted area, the Diversion Authority will offer to pay actual, physical damages after the Project operations as an alternative to encumbering those lands with a flowage easement.

SUPPLEMENTAL FARM REVENUE PROGRAM

Summer operation of the Project would likely damage growing crops. Even though summer operation is extremely unlikely, the Diversion Authority will adopt a Summer Operation Supplemental Farm Revenue program to provide additional assurance to producers in the upstream retention area. The Program would provide producers with coverage for the risk associated with Project induced flooding on growing crops if the Project operates during summer. The Diversion Authority understands and acknowledges that this program is important to the agricultural community because under these events, it is anticipated that producers will not be able to utilize the federal crop insurance program(s) for damages caused by operation of the Project.

CEMETERIES

There are 11 cemeteries upstream of the Diversion Project that may potentially be impacted by varying levels (ranging from 0.1 feet to 8.3 feet) of additional water during major floods due to operation of the Project in a 100-year (one-percent annual chance) flood. Analysis was also completed on these cemeteries for the 500-year event and those impacts are detailed on individual cemetery maps. Additionally, there are 19 cemeteries that currently would flood within the protected area that will now have permanent flood protection due to construction of the Project.

Some of the recommended mitigation steps for cemeteries include protective berms, access changes, debris fencing, anchoring headstones, and/or raising the site. The previously completed cemetery studies can be found at www.fndiversion.com/studies-technical-documents/.

FINANCIAL CONSIDERATIONS

The Diversion Authority will establish an on-going O&M Funding Program and utilize either sales taxes or a maintenance district, or a combination of both to fund the program. In addition, the Diversion Authority will make sure that all of the mitigation costs outlined in the Mitigation Plan will be eligible for funding through the O&M Funding Program. The O&M Funding Program will also provide a mechanism for funding unforeseen mitigation needs that may arise due to Project operation.

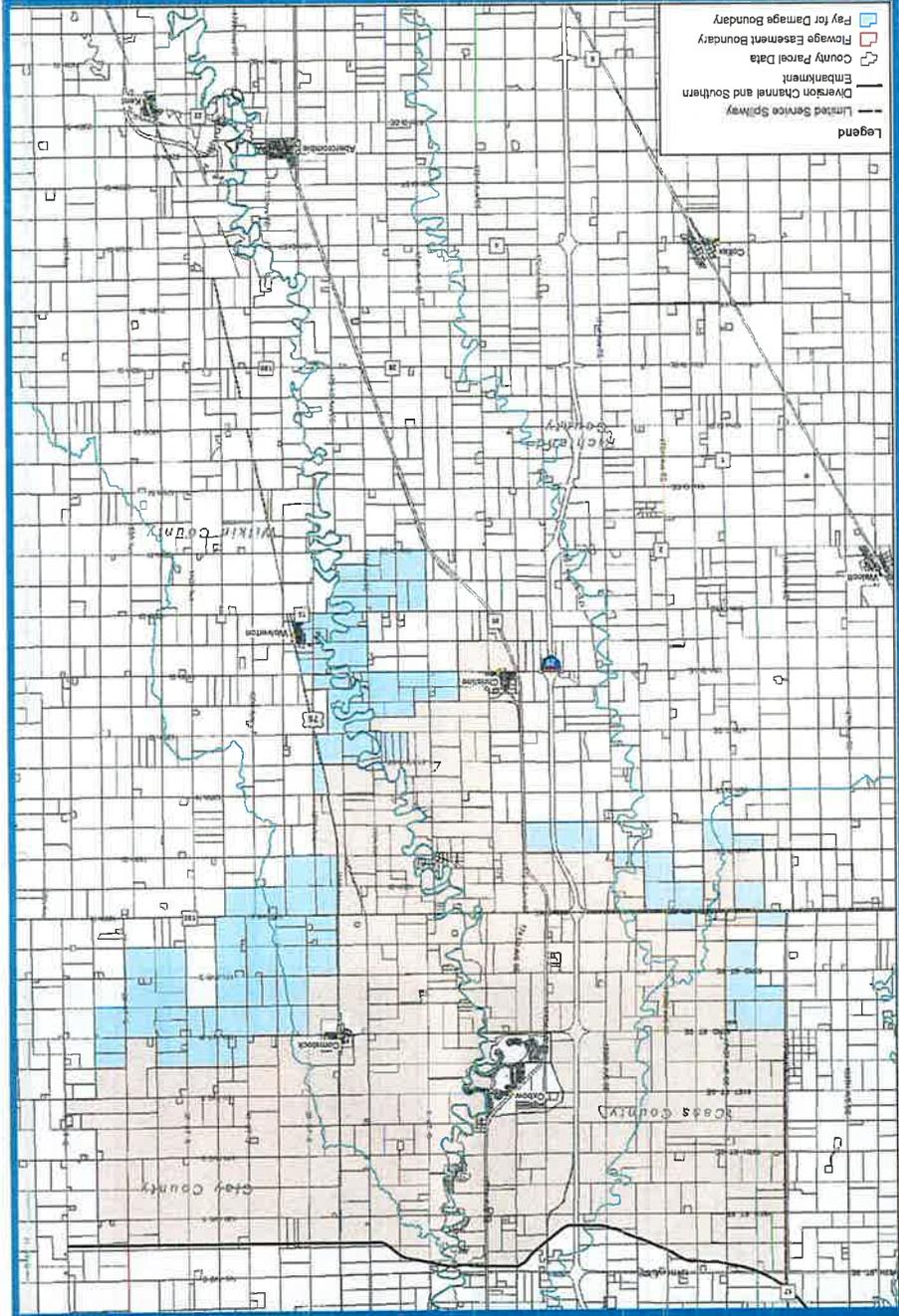
INDEPENDENT MITIGATION PROJECTS

The Diversion Authority has the following independent mitigation projects.

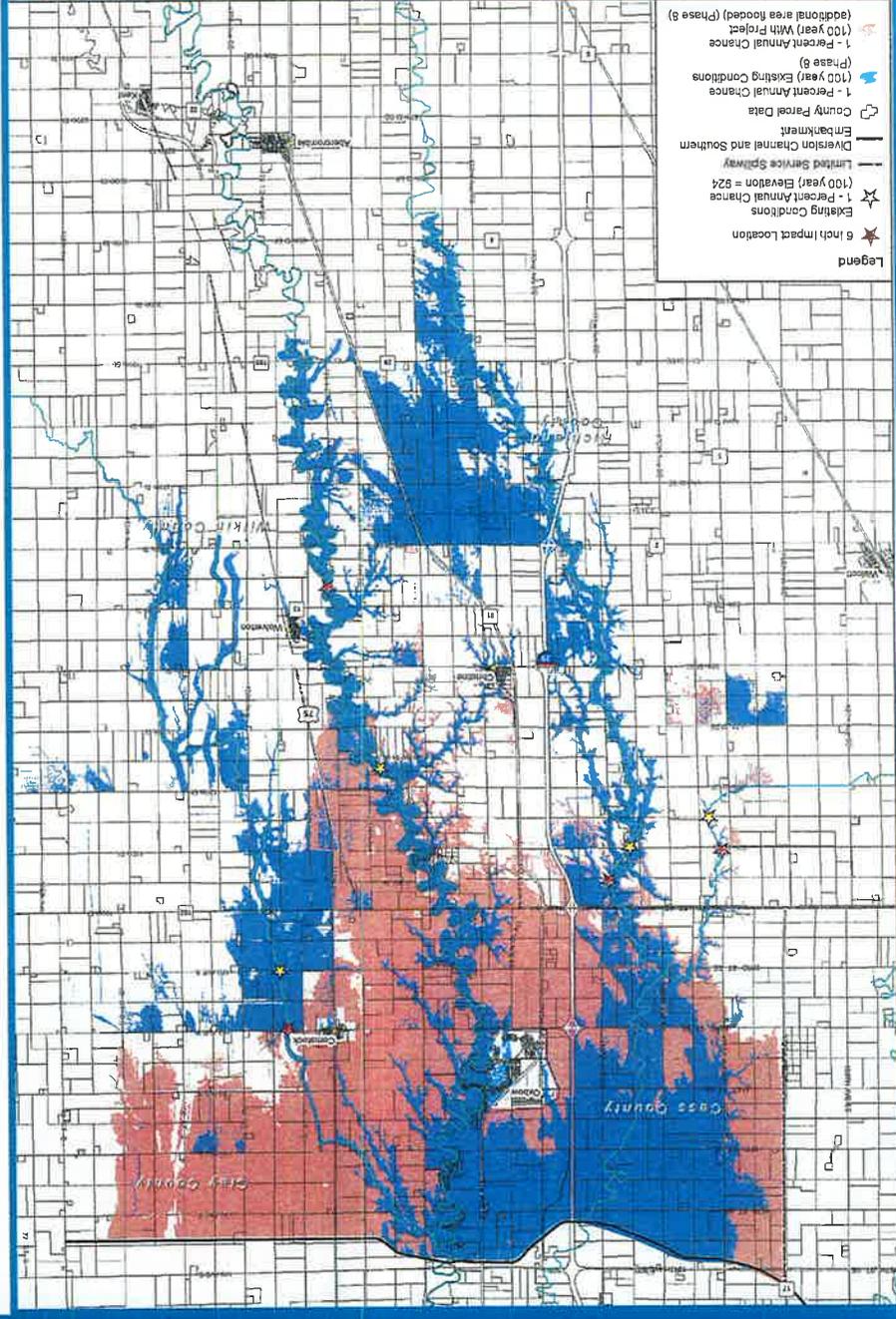
- In-town Levees
- Oxbow-Hickson-Bakkee Ring Levee
- Comstock Ring Levee
- Drayton Dam Improvements



Upstream mitigation areas



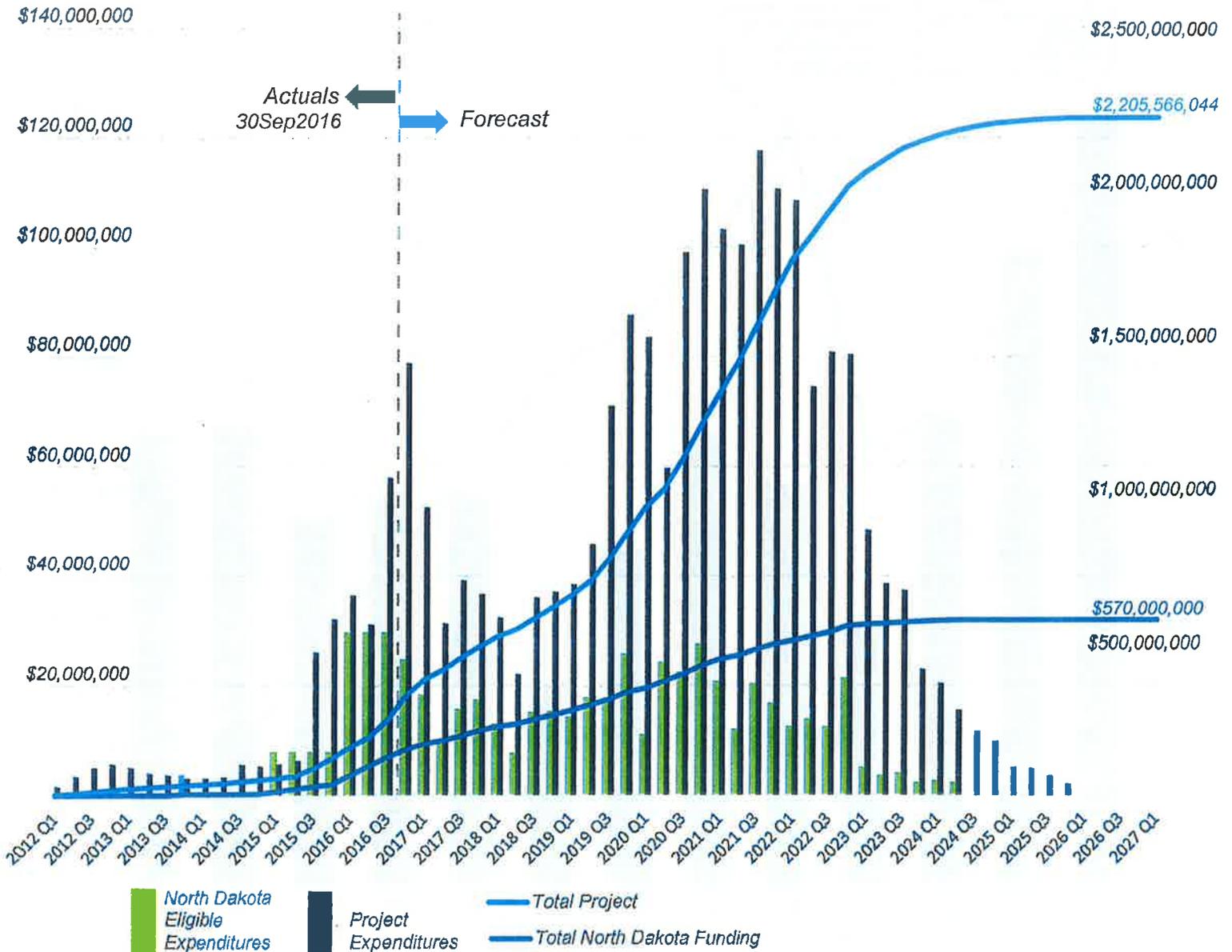
Upstream impacts with and without the project





Project Expenditures

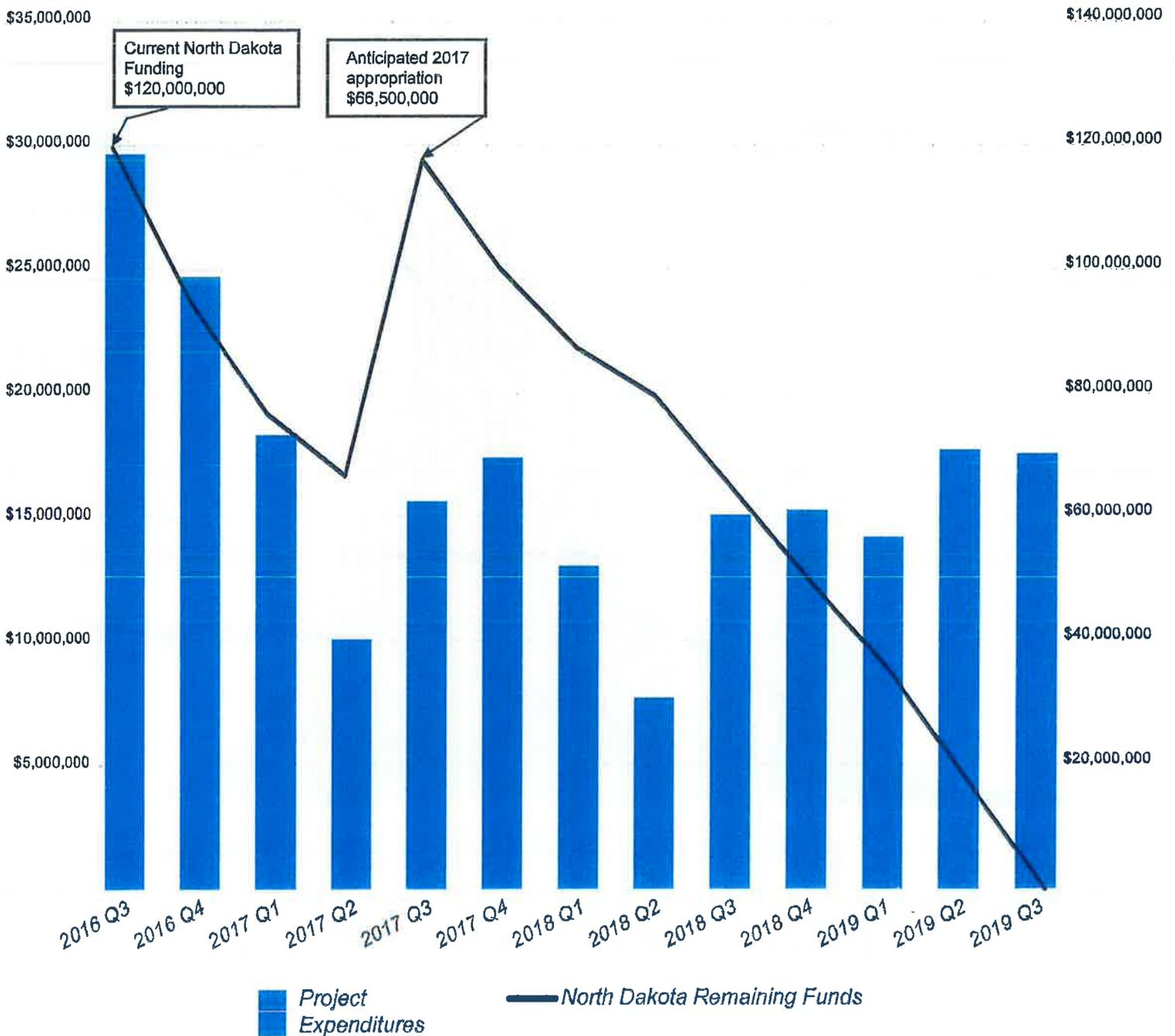
(2015 Dollars)



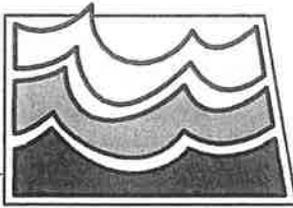


ND Funding and Project Expenditures

(2015 Dollars)



OCTOBER 12, 2016



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
 (701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

MEMORANDUM

TO: Governor Jack Dalrymple
 Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer-Secretary
SUBJECT: NAWS – Project Update
DATE: September 15, 2016

Supplemental EIS

Reclamation issued the Record of Decision for the Final Supplemental Environmental Impact Statement (FSEIS) for the Northwest Area Water Supply on August 21, 2015. Reclamation received seven comment letters on the FSEIS, which along with point-by-point responses were included as an appendix to the Record of Decision. The Preferred Alternative includes a supply from the Missouri River (Lake Sakakawea) with an intake at Snake Creek Pumping Station along with a conventional treatment option for the Biota Water Treatment Plant near Max. This level of treatment includes five treatment processes versus two from the draft SEIS and the initial Environmental Assessment. Although all biota treatment options were considered sufficient by Reclamation, the conventional treatment option was chosen to address drinking water issues raised by the EPA.

Manitoba & Missouri Lawsuit

A Joint Motion for Entry of Case Management and Scheduling Order was submitted to the District of Columbia District Court December 22, 2015 and accepted with minor modifications December 23, 2015. The plaintiffs filed supplemental Complaints January 29, 2016 and the defendants lodged and served the Administrative Record February 5, 2016. A Motion to Modify Injunction *Pendente Lite* was filed by the State of North Dakota as intervenor defendant March 1, 2016. Oppositions by the plaintiffs were filed April 4, 2016 and a reply was filed April 25, 2016 by the State. The Plaintiffs filed a Motion for Leave to sur-reply May 18th and an opposition to that motion was filed May 20th by the State of North Dakota. The Plaintiffs then filed a response to our opposition May 25th and the Motion for Leave was accepted by the Court May 27th. The Motion for Modification to the Injunction was denied by the Court June 14, 2016. A notice of appeal was filed with the DC Appellate court July 1st.

Motions for Summary Judgment were originally to be filed by the defendants April 11, 2016 with combined cross-motions/opposition by the plaintiffs due May 13, 2016 and combined oppositions/replies by the defendants due June 17, 2016. However, the briefing schedule was delayed once due to a desire by the federal defendants for additional time for review and a medical issue for the plaintiff's legal counsel and then again for the same medical issue for the plaintiffs' legal counsel. We consented on both requests to delay the briefing but filed a joinder on the second

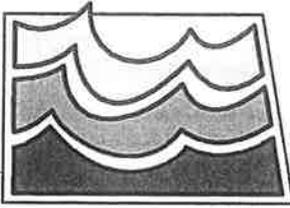
request to ask the court to expedite the judgment on the injunctive relief motion. The Motions for Summary Judgment filed by the defendants June 3, 2016 with combined Opposition/Cross-Motion by the plaintiffs filed July 8, 2016 and combined Reply/Opposition by the defendants filed August 16, 2016. Plaintiffs Manitoba filed a motion for leave to sur-reply September 12th which was accepted by the Court the next day. The first summary judgement in this case was delivered eight months after briefing was completed and the second was four months after the final briefings.

NAWS High Service Pump Station

Contract 4-2A-1 included furnishing and installing a 125 hp ‘Jockey’ pump to compliment the existing 350 hp pumps and maintenance work in the pump station. This contract is substantially complete but has not been closed out.

NAWS Contract 2-2A-1

Contract 2-2A-1 included furnishing and installing roughly 300 feet of split casing to encase existing pipeline for upcoming road work in the western portion of Minot in 2017. The contract was awarded to Wagner construction in the amount of \$763,575 on August 24th. The preconstruction conference was held September 8, 2016. Work will commence upon delivery of the casing materials. Substantial completion is November 15, 2016.



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
 (701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

MEMORANDUM

TO: Governor Jack Dalrymple
 Members of the State Water Commission
FROM:  Garland Erbele, P.E., Chief Engineer - Secretary
SUBJECT: SWPP Project Update
DATE: September 13, 2016

Oliver, Mercer, North Dunn (OMND) Regional Service Area Center SA Rural Distribution System 7-9E & 7-9F:

The State Water Commission (SWC) awarded Contract 7-9F to Eatherly Constructors, Inc. at its October 7, 2013 meeting. This contract initially consisted of 260 miles of 8" -1½" PVC pipe serving 341 rural water customers. The contract has an intermediate completion date of September 29, 2015 for the original 341 users. The contractor completed 355 users on December 7, 2015. Fifteen change orders have been signed by all parties to date, which added 66 additional users and 18 more miles of pipeline to the contract. The substantial completion date including modifications through Change Order No. 15 is October 18, 2016. The contractor has turned over all users for service. The contractor is currently working on punch list items.

Contract 7-9E is the west Center SA rural distribution system. This contract includes furnishing and installing approximately 275 miles of 6"-1 ½" PVC pipe serving 255 rural water customers. The SWC awarded this contract to Swanberg Construction, Valley City, North Dakota at its May 29, 2014 meeting. Twelve change orders have been signed by all parties to date, which added 50 additional users and 18 more miles of pipeline to the contract. The change orders changed the original intermediate completion date of July 15, 2015 to July 18, 2015 because of weather delays. The original substantial completion date of November 15, 2015 for 255 users was changed to another milestone completion date of May 15, 2016 for 287 users. The addition of users is because of removal of the intermediate completion date for Contract 7-9G Bid Schedule 1 for 32 users which was awarded to the same contractor. The contractor reached the May 15, 2016 completion date on May 18, 2016. The substantial completion date including modifications through Change Order No. 12 is July 1, 2016. The contractor turned over all users on this contract on June 21, 2016. The contractor is currently working on punch list items.

Contract 7-9G Halliday and Dunn Center Service Area:

This contract includes furnishing and installing approximately 330 miles of 6"-1 ½" ASTM D2241 gasketed joint pipe; 395 services; road crossings; connections to existing pipelines and other related appurtenances. The project is located in Mercer and Dunn Counties of North Dakota. The contract has two Bid Schedules. The SWC awarded Bid Schedule 1 to Swanberg Construction, Inc., and Bid Schedule 2 to Northern Improvement Company at its March 11, 2015 meeting.

Bid Schedule 1 consists of furnishing and installing approximately 170 miles of 6" – 1 ½" ASTM D2241 PVC gasketed joint pipe and 173 services. This contract had an intermediate completion date of November 1, 2015 for installation of 37 miles of pipeline and 32 users. Because of the 50 additional users added to Contract 7-9E and removal of intermediate completion date, a new milestone completion date was added to this contract. The milestone completion date is August 1, 2016 for 123 users. The contractor requested a 21-day extension on the milestone completion date because of delays caused by easement problems, permit delays and changes made in the field. The 21-day extension was granted to the contractor. The contractor turned over 123 users on August 27, 2016. Eight change orders have been signed by all parties to date, which added 39 additional users and 15 more miles of pipeline to the contract. The proposed Dakota Access Pipeline (DAPL) crosses at five locations in this contract. A change order was issued to bore the crossings with a minimum of 7 foot separation between the proposed DAPL line and the rural water line and to case the water line with fusible PVC. This change order cost will be reimbursed by DAPL through an agreement with Southwest Water Authority (SWA). The substantial completion date including modifications through Change Order No. 8 is September 27, 2017. Multiple field orders and change orders are pending with this contract. With all the field orders issued by Bartlett & West/AECOM, an additional 102 users are added to the contract. The contractor has indicated that they may not be able to complete all the users added to date. Discussion is ongoing with the contractor, and other possibilities for adding the users is being explored.

Bid Schedule 2 consists of furnishing and installing approximately 164 miles of 6" – 1 ½" ASTM D2241 PVC gasketed joint pipe and 218 services. The area is west of Halliday. The substantial completion date for Bid Schedule 2 is September 15, 2016.

To date, 20 change orders have been signed by all parties, which added 36 miles of pipeline and 92 additional users. The substantial completion date including modifications through Change Order No. 20 is August 18, 2017. Five more users were added through field orders. The contractor has turned over 314 users to date.

Contract 2-8E/2-8F Dunn Center SA Main Transmission Line (MTL):

Both contracts have been closed out.

Contract 5-17 Dunn Center Elevated Reservoir:

This contract includes furnishing and installing a 1,000,000 gallon elevated composite reservoir. The substantial completion date on this contract was August 15, 2014. The tank was turned over for service on August 13, 2015. The contractor signed the latest partial pay estimate protesting the liquidated damages withheld. A meeting with the contractor is currently being scheduled to discuss the liquidated damages.

Contract 3-1H OMND Water Treatment Plant (WTP) Phase II Expansion:

Both the General and Electrical contracts have been closed out.

Contract 5-15A 1st Zap Potable Reservoir:

The contract is closed out.

Other Contracts

Contract 8-1A New Hradec Reservoir:

This contract involves furnishing and installing a 296,000-gallon fusion powder coated bolted steel reservoir. Olander Contracting Company is the contractor. The contract documents were executed on May 16, 2013, and the Notice to Proceed was issued on June 3, 2013. The substantial completion date on this contract was September 15, 2013. The tank was put into service on February 20, 2014. The contractor disputes the liquidated damages withheld. The contractor has not provided any justification for the delays. The contractor's attorney has contacted our legal counsel inquiring the possibility of having a three party mediation between SWC, Olander Contracting and Tank Connections LLC (Olander's subcontractor).

Contract 4-5 Finished Water Pumping Station (FWPS):

This contract consists of the construction of a 60' by 85' reinforced concrete and precast concrete building and the installation of pumping, piping, mechanical, and electrical and instrumentation systems. On October 15, 2015 the milestone completion was achieved. The FWPS was able to serve the SWPP and the City of Dickinson on October 15, 2015. The contract specified August 15, 2015 as the milestone completion date. Initially a 21-day extension was granted to the contractor. Based on the additional documentation provided by the contractor, additional 13-day and 2-day extensions were provided to the milestone completion date and substantial completion date respectively. Based on the extension provided, the milestone completion date for the contract was October 3, 2015 and substantial completion date was December 6, 2015. The contractor reached the milestone and substantial completion date on October 15, 2015 and December 10, 2015 respectively. An eight-day extension for abnormal weather and four-day extension for completing the tie-in to the reservoir ahead of the estimated 60 day completion time were also provided to the contractor. The early completion resulted in SWA staff resuming their normal operating schedule at the treatment plant instead of working 24 hours on demand schedule to meet the Project needs. The contract is closed out.

Contract 1-2A Supplemental Raw Water Intake:

The first section of the intake pipe was lowered on July 15, 2015. Through October 31, 2015 tunneling had proceeded to approximately 1786 feet.

In the early morning of November 1, 2015 the contractor's employees heard a loud pop and noticed uncontrolled flow of sand and water entering the pipe approximately 40-50 feet from the caisson end of the pipe. The water and sand flowed out from the pipe and into the caisson shaft, and the employees quickly evacuated the caisson shaft as the water and sand level began to rise.

The contractor's current plan to remedy the problem include stabilizing the existing pipe to stop the inflow of sand and water with jet grouting. Jet grouting will also be done at the microtunnelling launch zone. Jet grouting is a construction process using high pressure to loosen up the ground and mix it with thin slurry and forming soilcrete columns. Once the inflow of sand and water is

stopped, a new secondary floor will be installed and a new intake pipe will be launched from a higher elevation. The new intake pipe is expected to be 12 feet above the center line of the existing installed intake pipe. The intake alignment is expected to change slightly. The new alignment will be rotated 7 degrees to the east from the installed intake alignment. This would result in the intake screen center line to be at 1785' compared to 1782' originally specified in the Bid Documents. For comparison the permanent pool elevation for Lake Sakakwea is 1776.3'.

The contractor has completed installing the casing holes for the jet grouting. Jet grouting sub-contractor has mobilized to the site, and the jet grouting operation is expected to start on September 13, 2016.

The SWC has submitted a claim of \$835,000 for the additional engineering expense to the Contract's Builder's Risk Policy.

Contract 3-2D Six (6) MGD Water Treatment Plant (WTP) at Dickinson:

The preconstruction conference for Contract 3-2D was held on January 13, 2016 with both the General contractor, John T. Jones Construction Co., Inc., and the Mechanical contractor, Williams Plumbing and Heating, Inc. Bids for Contract 3-2D Electrical Contract were opened on January 28, 2016, and the contract was awarded to Edling Electric, Inc. at the March 3, 2016 meeting.

The General contractor, John T. Jones is working in the basement. Most of the slabs are complete, and the contractor is completing the exterior walls of the basement. The first pour out of the five pours scheduled for the shored slab was completed on August 30, 2016. Backfilling on the east and south sides of the WTP is ongoing. The contractor is also working on the site piping. One change order has been executed by all parties on the General Contract. The change order provided a 19-day extension to the Intermediate, Substantial and Final completion date because of abnormal weather and changes made to the contract drawings.

The Electrical contractor, Edling Electric, Inc., has completed installation of lower level conduits and encased the utility conduit entering the building. The Mechanical contractor, Williams Plumbing, installed the lower level plumbing piping, had it reviewed by the plumbing inspector, and also installed plumbing penetrations through the shored slab.

Contract 4-1F/4-2C Generator Upgrades:

The scope of this contract includes relocating the existing 1000 kW generator at the Dodge pump station to the Dickinson Finished Water Pump Station and installing a new standby engine generator at the Dodge pump station. This contract also includes relocating the existing 1,500 kW generator at the Richardton Pump Station to the intake booster pump station and installing a new generator at the Richardton Pump Station. Bids for this contract were opened on January 28, 2016, and the contract was awarded to Edling Electric, Inc. at the March 3, 2016 meeting. The preconstruction conference for this contract was held on May 19, 2016. The contractor has completed pouring the generator slab at the intake site.

Contract 5-1A and 5-2A 2nd Richardton Reservoir and 2nd Dickinson Reservoir:

Contract 5-2A, 2nd Dickinson Reservoir is currently advertised for bids with a bid opening date of October 4, 2016. More details on this contract are discussed in a separate memo.

Contract 5-1A, 2nd Richardton Reservoir is currently under design. We expect bidding this contract in a month.

Raw Water Line Capacity Upgrade:

Design on the 4-mile parallel piping segment between the intake and the OMND Water Treatment plant is ongoing. The proposed alignment for the parallel piping for the most part is within 30 feet from the Basin Electric Power Cooperative (BEPC)'s raw water line. BEPC has exclusive easements for their raw water line and have expressed concerns with our proposed location. A meeting with BEPC is currently being scheduled.

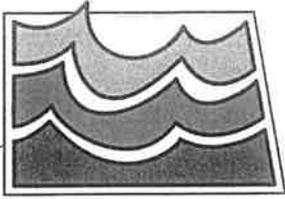
Condemnation:

Vietz Family Trust, a landowner on Contract 7-9E, was condemned for easement in June 2015. However, the paperwork was not claimed by the landowner until early January 2016, when it was physically served by the Idaho Sheriff's office. They appealed the condemnation in March 2016. The Mercer County District court dismissed the case. The deadline to appeal to the Supreme Court is October 26.

Mr. Robert Braun, a landowner on Contract 7-9G BS 1 was condemned for easement in June 2016. We received a notice of appeal for the compensation on July 7, 2016. An email from Mr. Braun's attorney on August 24, 2016, requested \$20,542.50 in just compensation for an easement for 4,107 feet of pipeline on Mr. Braun's property. Our field staff reviewed the route again and were able to get the neighboring landowners to remove some trees at their own expense and reroute the pipeline on the neighboring landowner's property. Mr. Braun's attorney was informed and asked to stipulate to dismissal of the case and return of the easement. The response was only to inquire whether the SWC would pay for Mr. Braun's attorney's fees, and he was informed SWC would not agree to that.

Transfer of Service Agreements:

At the December 12, 2015 SWC meeting, the Commission approved the Transfer of Service agreement between City of Killdeer, SWA and SWC. This was the first annexation agreement negotiated between a City served by Southwest Pipeline Project and SWA. In early January 2016, SWA mailed similar agreements to 33 communities within the SWPP service area except for City of Dickinson using the same template as used for City of Killdeer. SWA has been negotiating different terms with the City of Dickinson. Some communities executed the agreement, while many communities expressed concerns about terms of the annexation agreement that was mailed to them. SWA continues to meet with the communities to negotiate the terms.



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 • FAX (701) 328-3696 • <http://swc.nd.gov>

MEMORANDUM

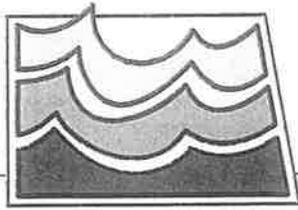
TO: Governor Jack Dalrymple
Members of the State Water Commission
FROM: Garland Erberle, P.E., Chief Engineer-Secretary
SUBJECT: Mouse River Enhanced Flood Protection Plan Project Status Update
DATE: September 19, 2016

Design of the Napa Valley and Forest Road levees at the 100% level have been submitted. The next step is the permits (404 and 408), which require an Environmental Impact Statement. The EIS has been completed and submitted to the Corps of Engineers, who are reviewing it. After review by the Corps the statement will be released for public comment and if found acceptable it will be approved and permits can be issued. This is a critical step in the process. If the review is delayed, acceptance could be delayed. The project timetable calls for construction to begin next spring, and if permits are not available by June, 2017 it is likely we will have missed the construction season. Fortunately the EIS covers the entire reach from Burlington to downstream of Velva. So when this process is completed it will no longer be an obstacle.

There is considerable effort under way to coordinate the Corps Feasibility Study with the ongoing development of the project. A conference call was held August 8 to discuss synchronizing efforts. We have attempted to keep the Corps informed from the beginning, which has been helpful. Now, with the Feasibility Study, there are more people involved. The Corps continues to keep abreast of the status and to work with the project sponsors to coordinate. A three day workshop is scheduled for September 21-23 to help define alternatives for the Feasibility Study.

There are several difficult issues to resolve. For example, 404 permits will not be issued unless the feature has "independent utility", in other words, it's not just a part of a project. On the other hand, if a unit which functions with independent utility is displayed, the benefits of that must be eliminated from the Feasibility Study's benefit/cost calculations, which would reduce the potential feasibility of the whole project. This all hinges on when and how the Corps defines the "future without project" conditions. Once that is defined, it is fixed, so when and how it is determined is critical. Then all this must also be reconciled with FEMA and the pending revision of Minot's flood plain maps.

The Souris River Joint Board is beginning to address issues outside the City of Minot. The response to the StARR program is growing and some other structural measures and analyses are planned. These will all help to realize the Total Basin scope of the project.



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

MEMORANDUM

TO: Governor Jack Dalrymple
Members of the State Water Commission
FROM:  Garland Erbele, P.E., Chief Engineer – Secretary
SUBJECT: Devils Lake Hydrologic and Outlet Update
DATE: September 15, 2016

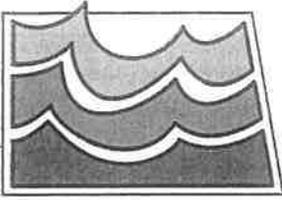
The September 15th water surface elevation of Devils Lake is 1450.15 feet, approximately 0.1 ft below the elevation on April 18th, 2016 when pumping was started for the year. The lake rise from spring runoff was minimal and the lake was down to 1449.75 on July 4th. Since that time, above average precipitation and large inflows have caused the lake to rise to current levels.

The average daily discharge rate since both outlets have been operational (May 2nd) is 342 cubic feet per second (cfs) and 86,379 acre-feet have been discharged as of August 31, 2016. Discharges have been limited throughout the pumping season for a variety of reasons. Earlier in the year, Sheyenne River streamflow and water quality constraints alternated multiple times to limit the discharge volume. More recently, foam overtopping the West End Outlet standpipes has limited the possible discharge from the West Outlet. With less west end water for dilution the East Outlet has operated at a reduced rate to prevent downstream exceedances of water quality constraints. Multiple efforts have been made to control the foam and increase discharges with little success. Additional modifications will be explored for the rest of the pumping season and over the winter.

With the reduced Devils Lake Outlet discharges, flow in the Sheyenne River at Cooperstown has exceeded 800 cfs only one time and no mitigation requests have been received related to 2016 outlet operations. In general, representatives of the Upper Sheyenne River Joint Water Resource Board and other interested downstream parties have been appreciative of the reduced river flows and fewer exceedances of the sulfate constraint.

On August 26th, the National Weather Service forecasted a 50 percent chance of the lake level dropping to 1449.7 ft by the end of November. Currently, basin soils are near saturation and the NWS Climate Prediction Center is indicating equal chances for above or below normal precipitation for the October-November-December timeframe. Any additional water throughout the fall and winter could potentially keep the basin wet and vulnerable to a springtime lake rise.

GE:JK:TD:ph/416-10



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TTY 800-366-6888 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

MEMORANDUM

TO: Governor Jack Dalrymple
Members of the State Water Commission
FROM: *DEB* Garland Erbele, P.E., Chief Engineer-Secretary
SUBJECT: Missouri River Update
DATE: September 14, 2016

System/Reservoir Status

System volume on September 14 in the six mainstem reservoirs was 57.7 million acre-feet (MAF), 1.6 MAF above the base of flood control. This is 0.5 MAF above the average system volume for the end of August and 2.1 MAF less than last year.

On September 14, Lake Sakakawea was at an elevation of 1838.5 feet msl, 1.0 foot above the base of flood control. This is 3.6 feet lower than a year ago and 0.3 feet above its average end of August elevation. The minimum end of August elevation was 1812.1 feet msl in 2006, and the maximum end of August elevation was 1851.2 feet msl in 1975.

On September 14, the elevation of Lake Oahe was 1610.1 feet msl, 2.6 feet above the base of flood control. This is 2.2 feet lower than a year ago and 7.4 feet higher than the average end of August elevation. The minimum end of August elevation was 1570.3 feet msl in 2006, and the maximum end of August elevation was 1617.1 feet msl in 1975.

On September 14, the elevation of Fort Peck was 2233.4 feet msl, which is 0.6 feet below the base of flood control. This is 1.4 feet lower than a year ago and 1.7 feet higher than the average end of August elevation. The minimum end of August elevation was 2200.9 feet msl in 2007, and the maximum end of August elevation was 2248.5 feet msl in 1975.

Runoff and Reservoir Forecasts

The September runoff forecast predicts runoff above Sioux City for this year to be 22.4 MAF or 89 percent of normal. The U.S. Army Corps of Engineers' (Corps) three-week forecast shows that releases from Garrison Dam will be reduced to 13,000 cfs by September 21. According to the Corps' monthly reservoir forecast, releases of 13,000 cfs are expected to continue through October and November, after which releases are forecasted to increase to about 16,000 cfs.

Garrison Dam releases of 13,000 cfs in the fall and early winter occurred in 2013 and 2015. During those times, the stage of the Missouri River at Bismarck was about 3 to 3.5 feet. It is expected that approximately the same stage will occur this year when flows are decreased.

Annual Operating Plan

The Corps will host public meetings in October to present their *2016-2017 Draft Annual Operating Plan*. The meeting in Bismarck will be held on October 6 at Bismarck State College.

Missouri River Recovery Implementation Committee (MRRIC)

Section 5018 of the 2007 Water Resources Development Act (WRDA) authorized the Missouri River Recovery Implementation Committee (MRRIC). The Committee is to make recommendations and provide guidance on activities of the Missouri River Recovery Program (MRRP). MRRIC has nearly 70 members representing local, state, tribal, and federal interests throughout the Missouri River Basin.

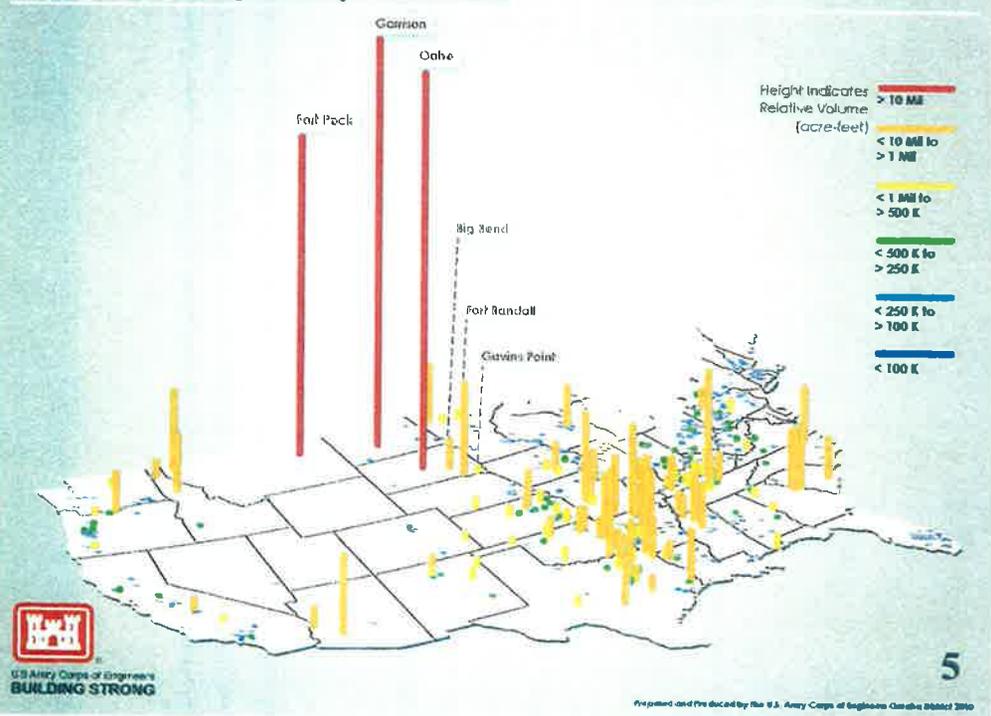
The Corps is currently in the process of preparing the Missouri River Recovery Management Plan and Environmental Impact Statement (MRRMP & EIS). This process involves the development of a range of alternatives for the purposes of avoiding jeopardy on species on the Missouri River protected under the Endangered Species Act, specifically the threatened piping plover and endangered least tern and pallid sturgeon.

MRRIC met in La Vista, NE on August 8 to 11. At the meeting, the Corps announced their tentative Preferred Alternative (PA) for the upcoming Draft EIS. The tentative PA includes mechanical construction of habitat for the piping plover, least tern, and pallid sturgeon. In North Dakota, this would include the construction of new or maintenance of existing emergent sandbar habitat on the Garrison Reach. The tentative PA also includes a flow test for the pallid sturgeon spawning cue if naturally high flow does not occur on the Missouri River within about the next ten years. Further specifics on the flow test are unknown at this time.

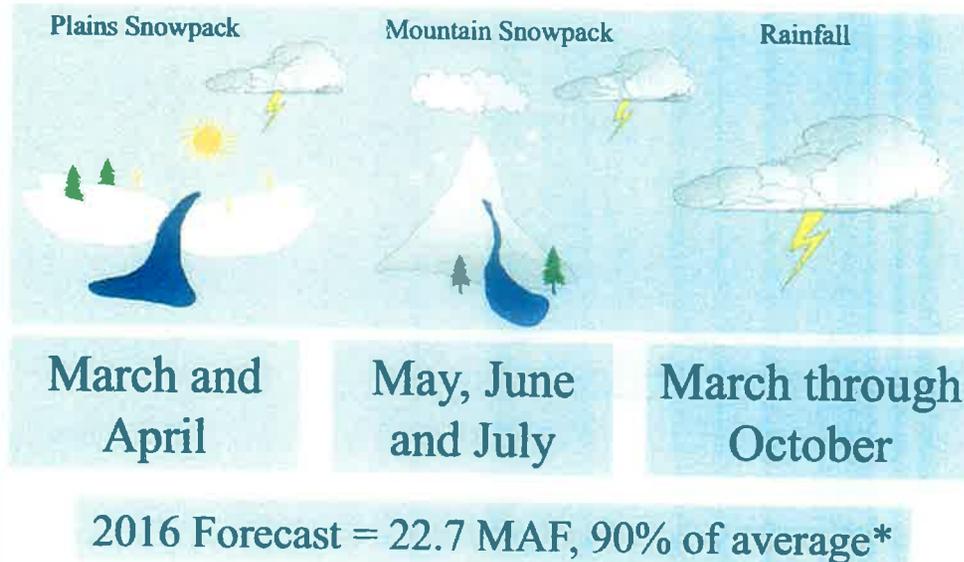
The tentative schedule for compliance with the National Environmental Policy Act (NEPA) is as follows:

- December 28, 2016: Release Draft EIS for 60-day public comment period
- January to June 2017: Tribal government-to-government consultation
- February 2017: Corps will host public meetings throughout basin. Public meeting in Bismarck tentatively scheduled for week of February 6th.
- January 2018: Issue Final EIS
- March 2018: Issue Record of Decision

Storage Capacity of Corps Reservoirs

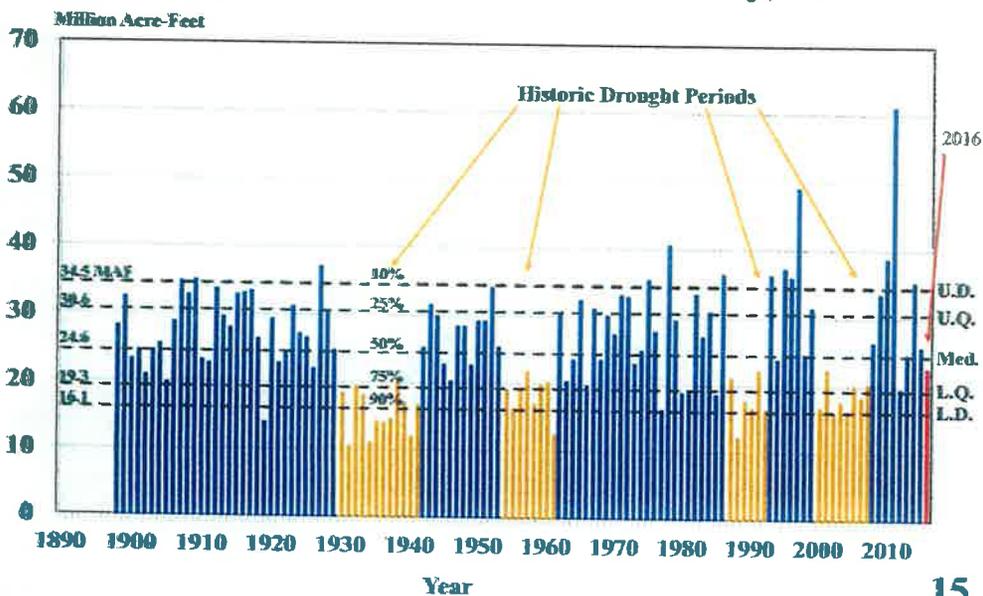


Runoff Components

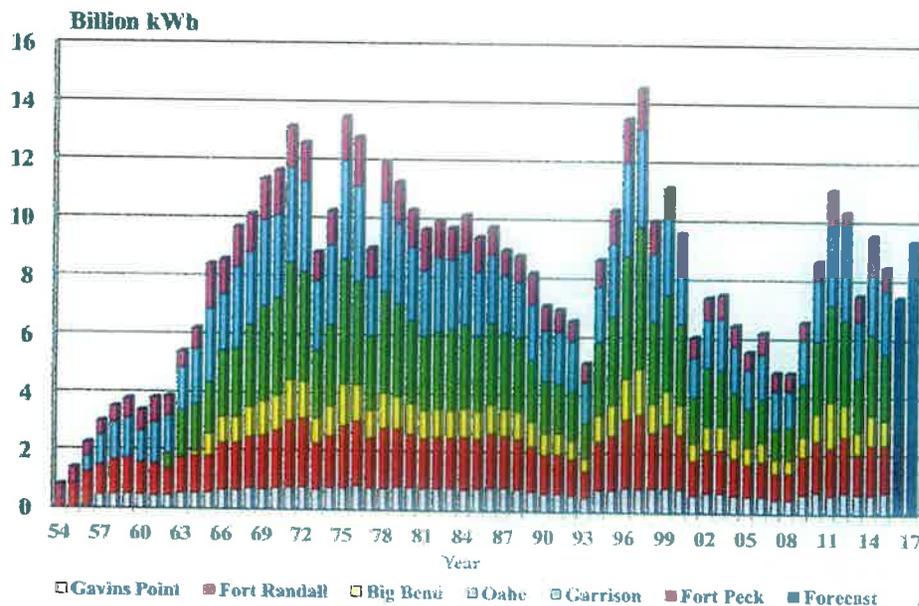


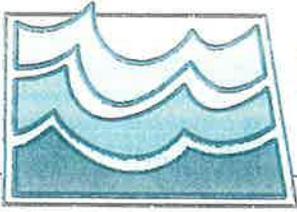
*October 1 forecast; average runoff is 25.3 MAF

Missouri River Mainstem System Annual Runoff above Sioux City, IA



Hydropower





North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-368-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

Missouri River Draft AOP Meeting

Garland Erbele, P.E., State Engineer
North Dakota State Water Commission

October 6, 2016, 6pm
Bismarck State College
National Energy Center of Excellence, Bldg. 15, Room 335

Good evening and welcome to North Dakota, my name is Garland Erbele. I am the North Dakota State Engineer. We want to thank the Corps for coming to Bismarck to take comments on the 2017 AOP.

The AOP (pg. 4) mentions the efforts of the Corps, US Fish and Wildlife Service, and MRRIC (Missouri River Recovery Implementation Committee) in the development of a new recovery plan that would incorporate adaptive management for the recovery of the listed species. Adaptive management could result in significant changes in Corps actions for recovery of the species, including changes in operations of the mainstem dams. Changes to the Master Manual should only be made after adequate public input in addition to these AOP meetings. Also, each State has responsibilities through various Federal and State statutory and constitutional authorities, for management of water quantity, water quality, flood risk management, and fish and wildlife resources within their boundaries that could be affected by these changes. We strongly urge the Corps to work with the Missouri River Basin States to determine how best the States' input can be incorporated into the adaptive management process.

We support the Corps continued collaboration with other Federal, State, and local agencies for plains snowpack monitoring (AOP pg. 5). The ND State Water Commission survey crew has participated in this effort for many years. We encourage the Corps to use not only their own monitoring network, but also other existing plains snowpack monitoring networks to the extent possible, such as those established by the ND Atmospheric Resource Board, National Weather Service, and CoCoRaHS. Utilizing these networks will increase sampling coverage in the basin and potentially improve runoff forecasts.

The Water Resources and Reform Development Act (WRRDA) of 2014 authorized the Corps to coordinate with various Federal agencies to improve soil moisture and snowpack monitoring in the Upper Missouri River Basin. These monitoring improvements were recommended in a 2014 Government Accountability Office report. The AOP states (pg. 5) that progress has been limited due to lack of funding. We advise the Corps to pursue funding for this effort because basin conditions drive operation of the dams, and better monitoring would improve forecasts.

The AOP discusses (pg. 23-24) the authorized purpose of flood control and how the dams would be operated during a flood. We encourage the Corps to include language in the AOP that describes “flood control” as “flood risk management” or “flood risk reduction”. It is impossible to control a flood, which we learned in 2011, but it is possible to reduce or manage flood risk. It is important for the public to understand the distinction so that they can make informed decisions.

Ice jam induced flooding are a special concern on the Missouri River in North Dakota, especially in the Bismarck-Mandan area. One location of particular concern is

the confluence of the Heart and Missouri Rivers. Since the 2011 flood, sediment has accumulated just downstream of the mouth of the Heart River reducing conveyance and increasing the risk of ice-induced flooding. The AOP specifies (pg. 14) that releases will be temporarily reduced to prevent ice-induced flooding during freeze-in followed by a gradual increase as conditions permit. The flood stage at the Missouri River at Bismarck stream gage station is 14.5 feet. In both the AOP and Master Manual, the Corps has indicated that they plan on preventing the exceedance of a stage of 13 feet. We recommend the operating plan be based on avoiding the exceedance of a stage of 11.5 feet, to better reduce the flood risk. We also recommend continued communication with other federal, state, and local entities during periods of freeze-in and ice-out to ensure awareness of rapidly changing conditions.

North Dakota supports the Corps working with water supply intake owners to ensure modifications are made to intakes affected by drought conditions. A letter was sent in 2013 to intake owners encouraging them to take necessary action to modify inadequate intakes. It is not clear from the AOP if the Corps has followed-up with intake owners since 2013. We urge the Corps to again contact these intake owners and ensure that intakes can operate during drought conditions.

The graphs on Plate 12 of the AOP (attached) display actual dam releases since January 2015, as well as Missouri River flows that would have resulted if the reservoirs were not in place, also known as "Unregulated Flows". The graphs show that the "Unregulated Flow" is nearly zero fairly frequently. One example is the "Unregulated Flow" at Fort Peck, which decreases to zero at the end of July in 2015. An analysis using USGS gage daily flows, Corps' daily reservoir inflows, and Corps' monthly runoff

for this time period shows that the minimum daily flow on the Missouri River near Fort Peck should be about 5,000 cfs, not zero (attached). This raises questions about how “Unregulated Flow” is calculated, because the upper basin has not experienced a prolonged severe drought since the 2000-2007 drought. It is not clear from reading the AOP how “Unregulated Flows” are calculated. We recommend that the Corps clarify how these flows are calculated in their AOP’s.

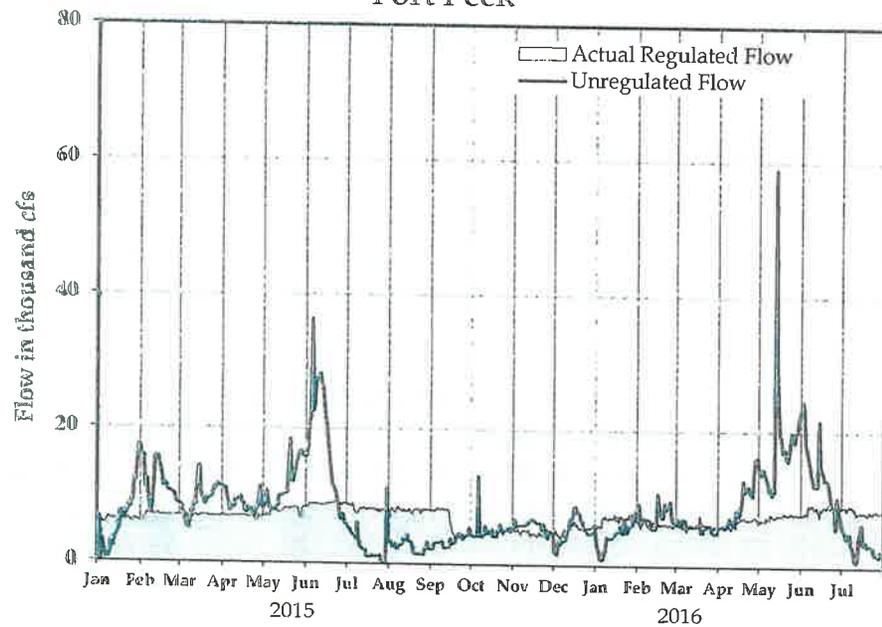
While not an AOP issue, we remind the Corps that the State of North Dakota is adamantly opposed to any effort by the Corps to charge our water users or interfere with their use of water that rightfully belongs to the people of North Dakota. The basin States and Tribes have a clear right to the use of the natural flow of the Missouri River without obligation to the federal government.

Again, thank you for the opportunity to provide comments on the 2017 AOP. We want to work with the Corps in the management of this great water resource.

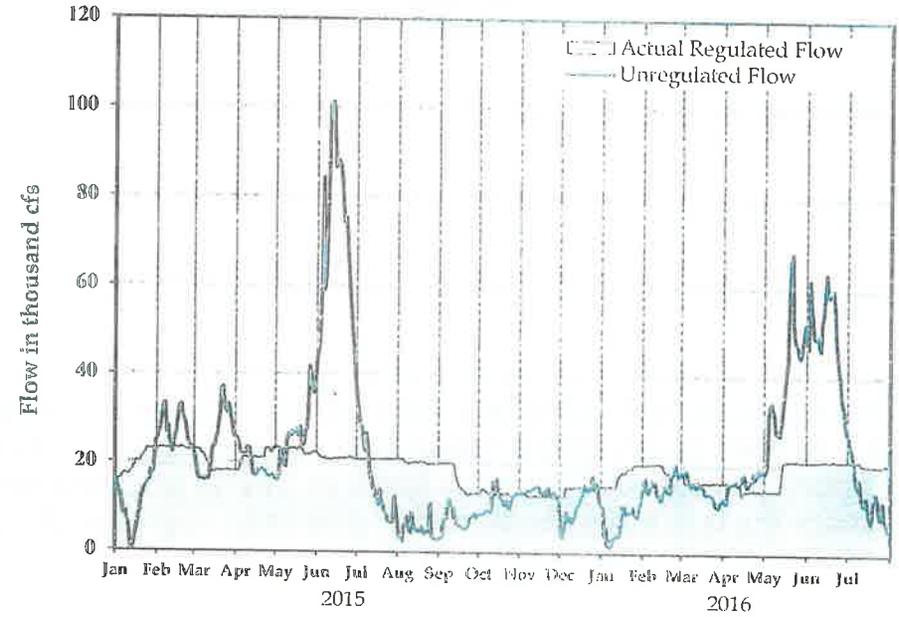
BE:CO:LCA:pdh/1392

Reservoir Release and Unregulated Flow

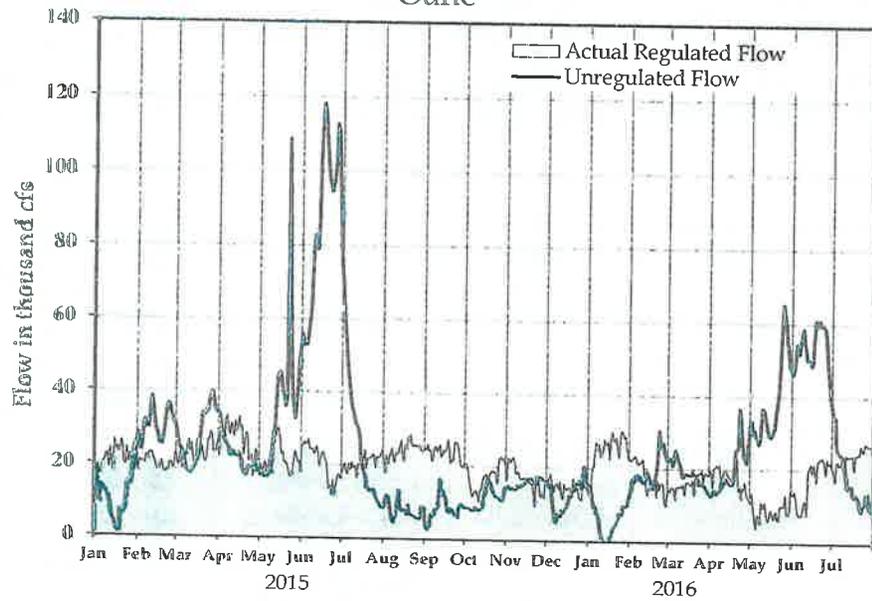
Fort Peck



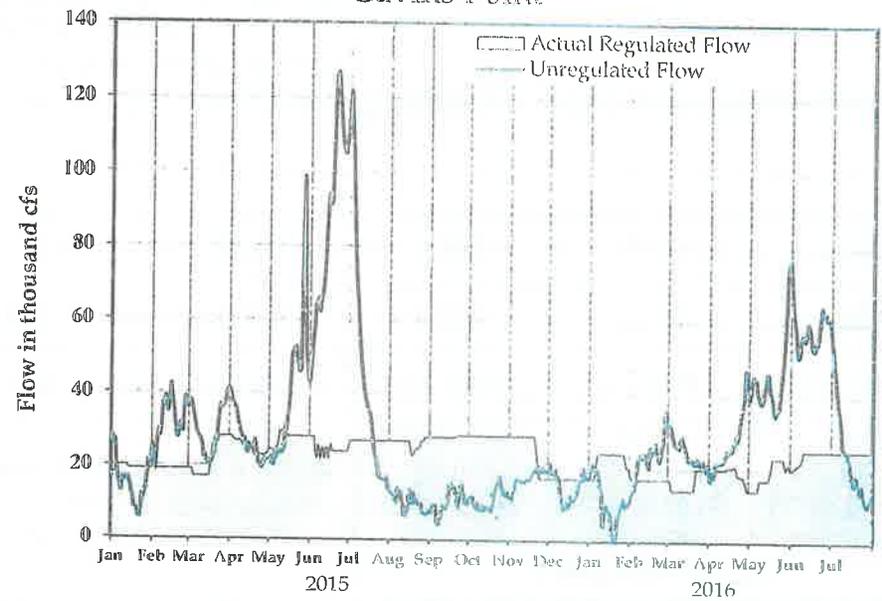
Garrison



Oahe



Gavins Point



	Corps' Monthly Runoff for Above Fort Peck Reach*			Corps' Daily Inflows for Fort Peck**			USGS Daily Data for Missouri River near Landusky, MT***		
	Monthly Runoff (ac-ft)	Average Daily Runoff for the Month (ac-ft/day)	Average Daily Flow for the Month (cfs)	Average Daily Inflow for the Month (cfs)	Minimum Daily Inflow for the Month (cfs)	Maximum Daily Inflow for the Month (cfs)	Average Daily Flow for the Month (cfs)	Minimum Daily flow for the Month (cfs)	Maximum Daily flow for the Month (cfs)
January 2015	399,000	12,871	6,489	8,839	3,000	18,000	No data	No data	No data
July 2015	508,000	16,387	8,262	6,774	5,000	16,000	6,575	6,120	7,450
August 2015	336,000	10,839	5,464	6,129	5,000	8,000	5,935	5,570	7,020

*Source: Monthly runoff numbers are from Corps' *Missouri River Mainstem Reservoir System Summary of Actual 2015 Regulation*

**Source: Daily inflows are from Corps' Missouri River Monthly Reservoir Summaries (0168's)

***Source: Daily flow data is from USGS Missouri River near Landusky, MT gage

(http://waterdata.usgs.gov/mt/nwis/dv/?site_no=06130500&agency_cd=USGS&referred_module=sw)

The "Unregulated Flow" at Fort Peck, as shown on Plate 12 of the Corps' 2016-2017 Draft AOP, indicates that the flow in the absence of the dam would be zero (or nearly zero) at several points in time. Two instances of zero, or nearly zero, flows are shown to occur in January 2015 and July/August 2015. An analysis using (1) Corps' monthly runoff, (2) Corps' daily inflow, and (3) USGS daily data for the Missouri River near Landusky, MT shows that the minimum flow near Fort Peck for January 2015 and July/August 2015 is about 3,000 cfs and 5,000 cfs, respectively.

L.C. Ackerman
9/29/2016