



# North Dakota State Water Commission

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

## **NOTICE OF MEETING**

The North Dakota State Water Commission, a state agency, has scheduled a meeting on March 9, 2016, at 1:30 p.m., Central Standard Time. The meeting will be held in the lower level conference room at the State Office Building, 900 East Boulevard Avenue, Bismarck, North Dakota.

At the time this notice is being prepared, the North Dakota State Water Commission anticipates the agenda of its meeting to include those topics as listed on the agenda. The discussion of agenda topics, where noted, may be held in executive session rather than during the portion of the meeting which is open to the public.

*Date of Notice:*

*March 5, 2016*

*Contact:*

*Sharon Locken  
Administrative Staff Officer  
North Dakota State Water Commission  
900 East Boulevard Avenue  
Bismarck, ND 58505  
701.328.4940  
Email: [slocken@nd.gov](mailto:slocken@nd.gov)*

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.



# North Dakota State Water Commission

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

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

**March 9, 2016  
1:30 P.M., CST**

## PRELIMINARY AGENDA

- A. Roll Call
- B. Consideration of Agenda --- *Information pertaining to the agenda items is available on the State Water Commission's website at <http://www.swc.nd.gov>*
- C. **Consideration of Draft Minutes of Following SWC Meetings:**
- 1) **December 11, 2015 State Water Commission Meeting** \*\*
  - 2) **February 9, 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. Consideration of Following Requests for State Cost Participation:
- 1) **City of Beulah Water Treatment Plant Improvements** \*\*
  - 2) **City of Williston, Water System Improvements 2015** \*\*
  - 3) **Garrison Rural Water District System Expansion** \*\*
  - 4) **Northeast Regional Water District, Devils Lake Water Supply** \*\*
  - 5) **Southeast Water Users District, System Wide Expansion** \*\*
  - 6) **Walsh Rural Water District, Phases 1 & 2 System Expansion** \*\*
  - 7) **USGS Cooperative Hydrologic Monitoring Program** \*\*
  - 8) **Legal Drain #2 Reconstruction/Extension - Richland County** \*\*
  - 9) **Buxton Township Improvement District #68 - Traill County** \*\*
  - 10) **Lake Bertha Flood Control Project #75 - Cass County** \*\*
  - 11) **Legal Drain #31 Improvements - Richland County** \*\*
  - 12) **Shortfoot Creek Watershed Planning Program - Sargent Co.** \*\*
  - 13) **City of Lisbon Levee E Construction** \*\*
  - 14) **Epping Dam Spillway Reconstruction - Williams County** \*\*
  - 15) **Legal Drain #5 Reconstruction - Richland County** \*\*
  - 16) **Michigan Spillway, Cost Overrun - Nelson County** \*\*
  - 17) **Tongue River NRCS Watershed Plan - Pembina County** \*\*
  - 18) **North Branch Antelope Creek NRCS - Richland County** \*\*
  - 19) **Cass County Drain #23 Channel Improvements - Cass Co.** \*\*
  - 20) **City of Underwood Floodwater Outlet, Cost Overrun** \*\*
  - 21) **Cass County Drain No. 15 Channel Improvements** \*\*
  - 22) **Cass County Drain No. 37 Channel Improvements** \*\*
  - 23) **Cass County Drain No. 39 Channel Improvements** \*\*
  - 24) **Sheyenne-Maple Flood Control District #1 Improvements** \*\*

**PRELIMINARY AGENDA - Page 2**

- F. **2016 Federal Municipal, Rural and Industrial Water Supply Funding:**
  - 1) **City of Burlington, Water Tower** \*\*
  - 2) **Cass Rural Water Users District, City of Leonard Service Area** \*\*
  - 3) **City of Carrington, Water Tower** \*\*
  - 4) **City of Casselton, Water Tower** \*\*
  - 5) **City of New England, Water Tower** \*\*
  - 6) **City of Rugby, Water Treatment Plant Improvements** \*\*
  - 7) **City of Wahpeton, Water Treatment Plant Improvements** \*\*
  - 8) **City of Westhope, Water System Improvements** \*\*
  - 9) **Southwest Pipeline Project** \*\*
  
- G. Fargo Moorhead Area Diversion Update
  
- H. Southwest Pipeline Project:
  - 1) Project Update
  - 2) **Contract 3-2D - Dickinson WTP, Electrical Contract** \*\*
  - 3) **Contract 4-1F/4-2C - Generator Upgrade Contracts** \*\*
  - 4) **Transfer of Service Agreements** \*\*
  
- I. Northwest Area Water Supply Project Update
  
- J. Mouse River Enhanced Flood Protection (MREFPP) Project:
  - 1) Project Update
  - 2) **MREFPP Structure Acquisition, Relocation or Ring Dike (STARR) Program** \*\*
  - 3) **MREFPP Design Engineering Amendment, Phases 1, 2, & 3** \*\*
  
- K. Devils Lake:
  - 1) Hydrologic and Projects Update
  - 2) **Devils Lake Outlets Funding Appropriation** \*\*
  
- L. 2016 Spring Flood Outlook
  
- M. Missouri River Update
  
- N. Garrison Diversion Conservancy District Report
  
- O. Other Business
  
- 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.

DRAFT FINAL

**MINUTES**

**North Dakota State Water Commission  
Bismarck, North Dakota**

**December 11, 2015**

The North Dakota State Water Commission held a meeting at the Best Western Ramkota Hotel, Bismarck, North Dakota, on December 11, 2015. Governor Jack Dalrymple, Chairman, called the meeting to order at 9:00 a.m., and requested Todd Sando, 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  
Doug Goehring, North Dakota Department of Agriculture, Bismarck  
Arne Berg  
Maurice Foley  
Larry Hanson  
Harley Swenson  
Robert Thompson

**STATE WATER COMMISSION MEMBERS ABSENT:**

George Nodland  
Douglas Vosper

**OTHERS PRESENT:**

Todd Sando, State Engineer, and Chief Engineer-Secretary,  
North Dakota State Water Commission, Bismarck  
State Water Commission Staff  
Approximately 75 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 December 11, 2015 State Water Commission meeting was presented; there were no modifications.

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

**CONSIDERATION OF DRAFT MINUTES  
OF OCTOBER 6, 2015 STATE WATER  
COMMISSION MEETING - APPROVED**

The draft final minutes of the October 6, 2015 State Water Commission meeting were approved by the following motion:

*It was moved by Commissioner Foley, seconded by Commissioner Thompson, and unanimously carried, that the draft final minutes of the October 6, 2015 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 October 31, 2015 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 \$555,903,819 with expenditures of \$63,799,348. A balance of \$469,104,307 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**

Oil extraction tax deposits into the Resources Trust Fund total \$52,143,547, through November, 2015, and are currently \$42,047,115 above budgeted revenues. It was explained that the budgeted revenues were based on a legislative

revenue forecast that assumed the tax reduction trigger would have been in effect for the first six months of the biennium and that normal distributions would be received for the remainder of the biennium. However, the trigger did not go into effect, which resulted in the legislature eliminating the trigger and reducing the extraction rate, effective January 1, 2016. Consequently, the revenues will be above the budgeted figures for the first six months, but will then likely fall short of projections for the remainder of the biennium.

No deposits have been received for the Water Development Trust Fund (tobacco settlement) in the 2015-2017 biennium. The first planned deposit is for \$8,900,000 in April, 2016.

**2015 SENATE BILL 2020 -  
LEGISLATIVE INTENT (\$60,000,000)  
TO CITY OF FARGO TO SUPPORT  
FARGO INTERIOR FLOOD CONTROL  
PROJECT  
(SWC Project No. 1928)**

The 2015 North Dakota Legislature included legislative intent in Senate Bill 2020, Section 9 of the State Water Commission's appropriation bill for the 2015-2017 biennium states "... that the state provide one-half of the local share of Fargo flood control projects, including

constructing a federally authorized Fargo flood control project, and that the total Fargo flood control project funding to be provided by the state not exceed \$570,000,000. It is the intent of the sixth-fourth legislative assembly that \$120,000,000 of the \$570,000,000 be used for Fargo interior flood control projects and that any funds spent for Fargo interior flood control projects after July 1, 2017 require 50 percent matching funds from the Fargo flood authority. It is the intent of the sixth-fourth legislative assembly that the \$266,000,000 yet to be designated by the state for the Fargo flood control project be made available in equal installments over the next four bienniums beginning July 1, 2017. It is the intent of the sixty-fourth legislative assembly that funding for the Fargo flood control project will end June 30, 2021, if a federal appropriation for project construction has not been provided by June 30, 2021."

Section 11 of 2015 Senate Bill 2020 states, "There is appropriated out of any moneys in the state disaster relief fund in the state treasury, the sum of \$30,000,000, or so much of the sum as may be necessary, for the purpose of providing funding for flood protection projects within the city limits of Fargo, for the period beginning with the effective date of this Act, and ending June 30, 2017. The city of Fargo shall apply for flood protection funding, but the state water commission may not deny an application unless the funds are not intended to be used in accordance with provisions of this section. The city of Fargo may use the funds for costs directly associated with completion of interior flood protection projects within its city limits, including engineering and legal fees, right-of-way acquisition costs, land purchases, home buyouts, and construction costs. No more than ten percent of these funds may be used for engineering and legal fees. Funds may not be used for general operations or administrative costs. Any funds designated by the sixty-fourth legislative assembly for Fargo interior flood control projects may be expended only for Fargo interior flood control projects, including levees and dikes until a federal appropriation is provided for project construction for the Fargo flood control project at which time it may be used for a federally authorized Fargo flood control project."

Section 12 of 2015 Senate Bill 2020 states, "Of the funds appropriated in the water and atmospheric resources line item in Section 1 of this Act, \$30,000,000 is for Fargo interior flood control projects, for the period beginning with the effective date of this Act, and ending June 30, 2017. Any funds not spent by June 30, 2017 are not subject to section 54-44.1-11 and must be continued into the next or subsequent bienniums and may be expended only for Fargo interior flood control projects. The city of Fargo shall apply for flood protection funding,

but the state water commission may not deny an application unless the funds are not intended to be used in accordance with provisions of this section. The city of Fargo may use the funds for costs directly associated with completion of interior flood protection projects within its city limits, including engineering and legal fees, right-of-way acquisition costs, land purchases, home buyouts, and construction costs. No more than ten percent of these funds may be used for engineering and legal fees. Funds may not be used for general operations or administrative costs. Any funds designated by the sixty-fourth legislative assembly for Fargo interior flood control projects may be expended only for Fargo interior flood control projects, including levees and dikes, until a federal appropriation is provided for project construction for the Fargo flood control project at which time it may be used for a federally authorized Fargo flood control project."

The Commission members were informed of the process for compliance with the legislative obligation to the city of Fargo.

**2015 SENATE BILL 2020 -  
LEGISLATIVE EARMARK (\$2,800,000)  
TO BURLEIGH COUNTY WATER  
RESOURCE DISTRICT TO SUPPORT FOX  
ISLAND FLOOD CONTROL PROJECT  
(SWC Project No. 1992-03)**

Section 15 of 2015 Senate Bill 2020 states, "There is appropriated out of any moneys in the state disaster relief fund in the state treasury the sum of \$4,000,000 or so much of the sum as may be necessary, to the state water commission, for the purpose of

providing funding for levee projects for the biennium, beginning July 1, 2015, and ending June 30, 2017. Of the funds, the state water commission shall make available \$1,200,000 for a levee for the Missouri River correctional center, and \$2,800,000 for a levee for Lincoln township's Fox Island area."

A request from the Burleigh County Water Resource District was received on September 25, 2015 that the allocation of \$1,200,000 authorized in the 2015 Senate Bill 2020 be made available for the Missouri River correctional center project. At the October 6, 2015 meeting, the State Water Commission members were informed of the process for compliance with the legislative obligation to the Burleigh County Water Resource District, and noted the funds had been transferred to the District.

A request from the Burleigh County Water Resource District was received on November 23, 2015 that the allocation of \$2,800,000 authorized in 2015 Senate Bill 2020 be made available for the Fox Island flood control project. The State Water Commission members were informed of the process for compliance with the legislative obligation to the Burleigh County Water Resource District.

**NORTH DAKOTA STATE WATER COMMISSION COST SHARE POLICY, PROCEDURE, AND GENERAL REQUIREMENTS (Effective October 1, 2014; Amended October 6, 2015) (SWC Project No. 1753)**

structure, rural water improvements versus expansions, and permits. These options and other potential changes to the policy will be addressed during the Commission's policy meeting scheduled for February 9, 2016. Policy decisions are necessary to develop recommendations for cost share requests primarily related to water supply improvement projects. The staff memorandum summarizing the potential policy options dated November 24, 2015 is included as **APPENDIX "C"**.

The Commission staff discussed potential options to the agency's cost share policy in consideration of statutory requirements in 2015 Senate Bill 2020, and the State Water Commission's Infrastructure Revolving Loan fund. Potential policy options focused on the capital improvement fund and sustainable infrastructure,

**CITY OF DICKINSON, STATE AVENUE SOUTH WATER MAIN - APPROVAL OF STATE COST PARTICIPATION GRANT (\$965,000) (SWC Project No. 2050-DIK)**

the southern pressure zone 1. The total project eligible costs are estimated at \$1,650,000, with pre-construction engineering eligible costs of \$100,000, and construction engineering and construction eligible costs of \$1,550,000.

A request from the city of Dickinson was presented for the State Water Commission's consideration for a state cost participation grant for the design and construction of the State Avenue south water main to address growth in

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$965,000 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 Dickinson to support the design and construction of the State Avenue south water main project.

***It was moved by Commissioner Berg and seconded by Commissioner Foley that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$965,000 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 Dickinson to support the design and construction of the State Avenue south water main project. This approval is contingent upon the availability of funds.***

**Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.**

**DAKOTA RURAL WATER DISTRICT,  
RESERVOIR C EXPANSION -  
APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$901,500)  
(SWC Project No. 2050-DAK)**

A request from the Dakota Rural Water District was presented for the State Water Commission's consideration for a state cost participation grant towards the design and construction for the addition of 200,000 gallons of storage at

Reservoir C and to upsize the transmission pipelines near the city of Finley. The proposed project is to address adequate pressure and water supply to current and new users. The total project eligible costs are estimated at \$1,266,000, with pre-construction engineering eligible costs of \$120,000, and construction engineering and construction eligible costs of \$1,146,000.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$901,500 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 75 percent, to the Dakota Rural Water District to support the design and construction of the Reservoir C expansion project.

***It was moved by Commissioner Thompson and seconded by Commissioner Berg that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$901,500 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 75 percent, to the Dakota Rural Water District to support the design and construction of the Reservoir C expansion project. This approval is contingent upon the availability of funds.***

**Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.**

**MISSOURI WEST WATER SYSTEM,  
CROWN BUTTE SERVICE AREA  
EXPANSION PROJECT, PHASE II -  
APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$308,000)  
(SWC Project No. 2050-MIS)**

A request from the Missouri West Water System was presented for the State Water Commission's consideration for a state cost participation grant towards the design and construction of the Crown Butte Service Area Expansion project, Phase II. This proposed project will

continue the water supply project built in 2014 to provide additional flows along the Interstate 94 business loop corridor to address current and future water demands. The total project eligible costs are estimated at \$416,000, with pre-construction engineering costs of \$10,000, and construction engineering and construction eligible costs of \$406,000.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$308,000 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 75 percent, to the Missouri West Water System to support the design and construction of the Crown Butte Service Area Expansion project, Phase II.

***It was moved by Commissioner Berg and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$308,000 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 75 percent, to the Missouri West Water System to support the design and construction of the Crown Butte Service Area Expansion project, Phase II. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**NORTH PRAIRIE RURAL WATER  
DISTRICT, STORAGE AND WATER  
MAINS PROJECT - APPROVAL OF  
5 PERCENT LOAN (\$239,475)  
(SWC Project No. 2050-NOR)**

On October 6, 2015, the State Water Commission adopted a motion to approve a state cost participation grant not to exceed an allocation of \$3,459,837, with pre-construction engineering eligible costs funded at 35 percent, and

construction engineering and construction eligible costs funded at 75 percent, to the North Prairie Rural Water District to support their storage and water mains project.

The current State Water Commission's cost share policy provides funding for the construction engineering and construction through a combination grant and loan not to exceed 80 percent of the eligible costs. A request from the North Prairie Rural Water District was presented for the State Water Commission's consideration for a 5 percent loan from the State Water Commission's Infrastructure Revolving Loan Fund towards the design and construction of a 10-inch water main between two pump stations, elevated water storage south of the city of Minot, and above-ground storage near the radar base. These proposed projects address current and future water demands resulting from the increasing population.

It was the recommendation of Secretary Sando that the State Water Commission approve a 5 percent loan for the pre-construction engineering eligible costs and the construction engineering and construction eligible costs not to exceed \$239,475 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 North Prairie Rural Water District to support their storage and water mains project.

***It was moved by Commissioner Foley and seconded by Commissioner Thompson that the State Water Commission approve a 5 percent loan not to exceed \$239,475 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 North Prairie Rural Water District to support their storage and water mains project. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***NORTHEAST RURAL WATER  
DISTRICT, CITY OF DEVILS LAKE  
WATER SUPPLY PROJECT -  
APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$533,750)  
(SWC Project No. 2050-NOE)***

A request from the Northeast Regional Water District was presented for the State Water Commission's consideration for a state cost participation grant towards the feasibility study and pre-construction engineering on their project to address a water supply for the

Langdon rural water branch of the Northeast Rural Water District and the city of Langdon. The proposed project provides system capacity for an additional project to add 150 new rural users in the Langdon rural water branch. The project involves a pipeline to bring treated water from the city of Devils Lake's water treatment plant. The estimated project cost is \$24,000,000, with pre-construction engineering eligible costs of \$1,525,000, and potential construction engineering and construction eligible costs of \$22,475,000.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$533,750 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), towards the feasibility study, with pre-construction engineering eligible costs funded at 35 percent, to the Northeast Rural Water District to support the city of Devils Lake water supply project. Pending completion of the feasibility study, funding for the construction engineering and construction eligible costs may be considered.

***It was moved by Commissioner Berg and seconded by Commissioner Thompson that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$533,750 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), towards the feasibility study, with pre-construction engineering eligible costs funded at 35 percent, to the Northeast Rural Water District to support the city of Devils Lake water supply project. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**WALSH RURAL WATER DISTRICT,  
SYSTEM EXPANSION, PHASES I & II -  
APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$2,093,350)  
(SWC Project No. 2050-WAL)**

A request from the Walsh Rural Water District was presented for the State Water Commission's consideration for a state cost participation grant toward the design and construction of their system expansion, Phases I and II. The objective of the proposed project will include the addition of 15 new rural users and upsizing approximately 30 miles of undersized pipeline. The pipeline expansion is required due to system expansion and increased demand over the past 10-15 years. The additional piping will ensure adequate pressure and water supply service to all current and new users. The project engineer's cost estimate is \$2,929,800, with pre-construction engineering eligible costs of \$260,000, and construction engineering and construction eligible costs of \$2,669,800.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant not to exceed \$2,093,350 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 75 percent, to the Walsh Rural Water District to support their system expansion, Phases I and II project.

In discussion, it was noted that the estimated project costs submitted by the project sponsor inadvertently included "engineering bidding" costs (\$42,590,80) within the construction estimates. The State Water Commission's cost share policy criteria provides for the "engineering bidding" costs to be considered as pre-construction engineering eligible costs and, therefore, those costs are funded at 35 percent.

***It was moved by Commissioner Thompson and seconded by Commissioner Foley that the State Water Commission approve a state cost participation grant not to exceed \$2,093,350 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 75 percent, to the Walsh Rural Water District to support their system expansion, Phases I and II project. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**ALL SEASONS WATER USERS  
DISTRICT, SYSTEM 4 CONNECTION TO  
SYSTEM I - APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$4,900,000)  
(SWC Project No. 2050-ALL)**

A request from the All Seasons Water Users District was presented for the State Water Commission's consideration for a state cost participation grant for the design and construction of a System 4 to System I connection southeast of the city of Bottineau. The project includes construction of a 200,000-gallon storage tank, the installation of 27.7 miles of pipeline, and modifications to the System 4 water treatment plant. The proposed project will address water supply shortages in System I by connecting to System 4 and expanding the System 4 well field. The project engineer's estimated cost is \$6,633,000, with pre-construction engineering eligible costs of \$186,875, and construction engineering and construction eligible costs of \$6,446,125.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$4,900,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2050), with pre-construction engineering eligible costs funded at 35 percent, and construction engineering and construction eligible costs funded at 75 percent, to the All Seasons Water Users District to support their System 4 connection to System I project.

***It was moved by Commissioner Foley and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant not to exceed a total allocation of \$4,900,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2050), with pre-construction engineering eligible costs funded at 35 percent, and construction engineering and construction eligible costs funded at 75 percent, to the All Seasons Water Users District to support their System 4 connection to System I project. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***2015/2016 SHEYENNE RIVER SNAG  
AND CLEAR REACHES I, II, AND III -  
APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$294,000)  
(SWC Project No. 568)***

A request from the Southeast Cass Water Resource District was presented for the State Water Commission's consideration for a state cost participation grant for their project to snag and clear three reaches of the Sheyenne

River. Reach I consists of snagging and clearing the Sheyenne River from State Highway 46 along the Cass County-Richland County line, proceeding downstream to the Horace diversion inlet structure in Section 19 of Stanley Township. Reach I is estimated to cost \$198,000. Reach II consists of snagging and clearing the Sheyenne River from the Horace diversion inlet structure in Section 19 of Stanley Township proceeding downstream to the Sheyenne River closure structure located north of County Road 10. Reach II is estimated to cost \$210,000. Reach III consists of snagging and clearing the Sheyenne River beginning at the Sheyenne River closure structure located north of County Road 10 proceeding downstream to the Red River of the North. Reach III is estimated to cost \$180,000.

The proposed work includes removal and disposal of fallen trees and debris along the Sheyenne River, removal and disposal of accumulated sediment in the vicinity of the fallen trees and debris, and removal and disposal of trees in imminent danger of falling into the Sheyenne River.

The project engineer's cost estimate is \$588,000, of which all is determined eligible as a snag and clear project at 50 percent of the eligible costs (\$294,000).

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant as a snag and clear project at 50 percent of the eligible costs not to exceed an allocation of \$294,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Southeast Cass Water Resource District to support their Sheyenne River 2015/2016 snag and clear Reaches I, II, and III projects.

***It was moved by Commissioner Berg and seconded by Commissioner Swenson that the State Water Commission approve a state cost participation grant as a snag and clear project at 50 percent of the eligible costs not to exceed an allocation of \$294,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Southeast Cass Water Resource District to support their Sheyenne River 2015/2016 snag and clear Reaches I, II, and III projects. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***INTERNATIONAL BOUNDARY  
ROADWAY DIKE PROJECT -  
APPROVAL OF ADDITIONAL STATE  
COST PARTICIPATION GRANT (\$125,000)  
(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 causes considerable flood damages to North Dakota landowners.

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.

The lawsuit trial is scheduled to begin in Winnipeg on February 15, 2016 and is estimated to last approximately six weeks due to the significant volume of technical evidence that must be presented. The trial phase is estimated to cost \$250,000. A request from the Pembina County Water Resource District was presented for the State Water Commission's consideration for state cost participation of 50 percent not to exceed an additional allocation of \$125,000 in the District's legal action to remove the Canadian border dike and recover damages to public property caused by the dike project.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant of 50 percent, not to exceed \$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. The Commission's affirmative action would increase the total state cost participation grant to \$625,000.

***It was moved by Commissioner Goehring and seconded by Commissioner Berg that the State Water Commission approve 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 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. This approval is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***These approvals increase the total state cost allocation grants to \$625,000 to the Pembina County Water Resource District for the international boundary roadway dike project.***

***YORKTOWN-MAPLE DRAINAGE  
IMPROVEMENT DISTRICT NO. 3  
(DICKEY COUNTY) - APPROVAL  
OF ADDITIONAL STATE COST  
PARTICIPATION GRANT (\$444,062)  
(SWC Project No. 1101)***

On September 21, 2011, the State Water Commission approved a request from the Dickey County Water Resource District for state cost participation to support the Yorktown-Maple Drainage Improvement District No. 3 project as a rural flood control project at 45 percent

of the eligible costs not to exceed an allocation of \$242,795 from the funds appropriated to the State Water Commission in the 2011-2013 biennium (S.B. 2020). The closed basin was inundated by rising floodwaters and multiple roadways were overtopped. The project consists of a channel through Yorktown and Maple townships with discharge into Dickey County Drain No. 1 and the Maple River conveying the water out of the closed basin to alleviate the problem.

Following the Commission's cost share participation approval on September 21, 2011, landowners along the course of the proposed channel were made aware of existing U.S. Fish and Wildlife Service wetland easements on their property which would be impacted by the project. The project design was modified to prevent adverse impacts to the wetland easements. The project engineer's revised cost estimate was \$1,154,000, of which \$787,778 was determined eligible for state cost participation as a rural flood control project at 45 percent of the eligible costs (\$354,500). On September 17, 2012, the State Water Commission adopted a motion approving an additional state cost participation grant in the amount of \$111,705 (eligible costs of \$354,500 less \$242,795 approved on September 21, 2011) from the funds appropriated to the State Water Commission in the 2011-2013 biennium (S.B. 2020).

Since the prior State Water Commission state cost participation approvals, modifications were made to the alignment of the Yorktown-Maple Drainage Improvement District No. 3 project resulting in additional permitting requirements. The project will consist of a buried pipeline to convey the water out of the closed basin and into an existing legal drain to alleviate the problems. The local assessment vote on the project was held resulting in a positive vote.

The project engineer's revised cost estimate is \$2,110,000, of which \$1,664,916 is determined eligible for state cost participation as a rural flood control project at 45 percent of the eligible costs (\$749,212), and \$141,000 is determined eligible for pre-construction engineering costs at 35 percent (\$49,350), for a total state cost participation of \$798,562. A request from

the Dickey County Water Resource District was presented for the State Water Commission's consideration for an additional state cost participation grant in the amount of \$444,062 (eligible costs of \$798,562 less \$242,795 approved on September 21, 2011, and \$111,705 approved on September 17, 2012).

It was the recommendation of Secretary Sando 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 pre-construction engineering eligible costs at 35 percent, not to exceed an additional allocation of \$444,062 (eligible costs of \$798,562 less \$242,795 approved on September 21, 2011, and \$111,705 approved on September 17, 2012), from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to support the Yorktown-Maple Drainage Improvement District No. 3 project. The Commission's affirmative action would increase the total state allocation to \$798,562.

***It was moved by Commissioner Foley and seconded by 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 pre-construction engineering eligible costs at 35 percent, not to exceed an additional allocation of \$444,062 (eligible costs of \$798,562 less \$242,795 approved on September 21, 2011, and \$111,705 approved on September 17, 2012), from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to support the Yorktown-Maple Drainage Improvement District No. 3 project. This approval is contingent upon the availability of funds, a positive assessment vote, satisfaction of the required permits, and receipt of the final engineering plans.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***This approval increases the total state allocation grant to \$798,562 for the Yorktown-Maple Drainage Improvement District No. 3 project.***

**JAMES RIVER BANK STABILIZATION  
PROJECT (DICKEY COUNTY) -  
APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$262,500)  
(SWC Project No. 1273)**

A request from the city of Oakes was presented for the State Water Commission's consideration for state cost participation for their James River bank stabilization project.

Bank erosion along the James River has become a concern to the city due to potential impacts to the city's infrastructure, specifically the wastewater treatment lagoon. The proposed project will provide bank stabilization to address the erosion issue.

The project engineer's estimated cost is \$550,000, of which \$483,000 is determined eligible for state cost participation at 50 percent as a bank stabilization project (\$241,500), and \$60,000 is determined eligible for state cost participation at 35 percent as pre-construction engineering (\$21,000), for a total state cost participation of \$262,500.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant as a bank stabilization project at 50 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$262,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the city of Oakes to support the James River bank stabilization project.

***It was moved by Commissioner Berg and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant as a bank stabilization project at 50 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$262,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the city of Oakes to support the James River bank stabilization project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SWAN BUFFALO DETENTION DAM  
NO. 5 (GARSTEIG DAM) SAFETY  
IMPROVEMENTS PROJECT  
(CASS COUNTY) - APPROVAL OF  
STATE COST PARTICIPATION  
GRANT (\$125,473)  
(SWC Project No. 841)**

A request from the Maple River Water Resource District was presented for the State Water Commission's consideration for state cost participation for their Swan Buffalo Detention Dam No. 5 (Garsteig Dam) safety improvements project. The project is located on a tributary to the Buffalo Creek in Gill Township, Cass

County, and is owned and operated by the Maple River Water Resource District.

The dam was originally built in 1961 and permitted by the North Dakota State Water Commission under water permit No. 1440. Since it was constructed, the dam has provided flood protection for properties along the tributaries and Buffalo Creek. The proposed project will repair deteriorated portions of the dam that are safety issues.

The project engineer's cost estimate is \$192,180, of which \$160,390 is determined eligible as a dam safety project at 75 percent (\$120,293), and \$14,800 is determined eligible as pre-construction engineering at 35 percent (\$5,180), for a total state cost participation grant of \$125,473.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$125,473 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Maple River Water Resource District to support the Swan Buffalo Detention Dam No. 5 (Garsteig Dam) safety improvements project.

***It was moved by Commissioner Foley and seconded by Commissioner Thompson that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$125,473 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Maple River Water Resource District to support the Swan Buffalo Detention Dam No. 5 (Garsteig Dam) safety improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SWAN BUFFALO DETENTION DAM  
NO. 8 (EMBDEN DAM) SAFETY  
IMPROVEMENTS PROJECT  
(CASS COUNTY) - APPROVAL OF  
STATE COST PARTICIPATION  
GRANT (\$113,500)  
(SWC Project No. 2063)**

A request from the Maple River Water Resource District was presented for the State Water Commission's consideration for state cost participation for their Swan Buffalo Detention Dam No. 8 (Embden Dam) safety improvements project. The project is located on Buffalo Creek in Howes Township, Cass County, and is

owned and operated by the Maple River Water Resource District.

The dam was originally built in 1968 and permitted by the North Dakota State Water Commission under water permit No.1441. Since it was constructed, the dam has provided flood protection for properties along Buffalo Creek. The proposed project will repair deteriorated portions of the dam that are safety issues.

The project engineer's cost estimate is \$183,760, of which \$144,380 is determined eligible as a dam safety project at 75 percent (\$108,285), and \$14,900 is determined eligible as pre-construction engineering at 35 percent (\$5,215), for a total state cost participation grant of \$113,500.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$113,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Maple River Water Resource District to support the Swan Buffalo Detention Dam No. 8 (Embden Dam) safety improvements project.

***It was moved by Commissioner Thompson and seconded by Commissioner Foley that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$113,500 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Maple River Water Resource District to support the Swan Buffalo Detention Dam No. 8 (Embden Dam) safety improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SWAN BUFFALO DETENTION DAM  
NO. 12 (ABSARAKA DAM) SAFETY  
IMPROVEMENTS PROJECT  
(CASS COUNTY) - APPROVAL OF  
STATE COST PARTICIPATION  
GRANT (\$109,032)  
(SWC Project No. 841)**

A request from the Maple River Water Resource District was presented for the State Water Commission's consideration for state cost participation for their Swan Buffalo Detention Dam No.12 (Absaraka Dam) safety improvements project. The project is located on Swan Creek in Empire Township, Cass County, and is

owned and operated by the Maple River Water Resource District.

The dam was originally built in 1960 and permitted by the North Dakota State Water Commission under water permit No. 1442. Since it was constructed, the dam has provided flood protection for properties along Swan Creek. The proposed project will repair deteriorated portions of the dam that are safety issues.

The project engineer's cost estimate is \$168,964, of which \$138,842 is determined eligible as a dam safety project at 75 percent (\$104,132), and \$14,000 is determined eligible as pre-construction engineering at 35 percent (\$4,900), for a total state cost participation grant of \$109,032.

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$109,032 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Maple River Water Resource District to support the Swan Buffalo Detention Dam No. 12 (Absaraka Dam) safety improvements project.

***It was moved by Commissioner Thompson and seconded by Commissioner Foley that the State Water Commission approve a state cost participation grant as a dam safety project at 75 percent of the eligible costs, and 35 percent of the eligible costs for pre-construction engineering, not to exceed a total allocation of \$109,032 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Maple River Water Resource District to support the Swan Buffalo Detention Dam No. 12 (Absaraka Dam) safety improvements project. This approval is contingent upon the availability of funds, and satisfaction of the required permits.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SAFE DRINKING WATER ACT -  
APPROVAL OF PROJECT  
PRIORITY LIST IN FY 2016  
INTENDED USE PLAN,  
DATED NOVEMBER 18, 2015  
(SWC File AS-HEA)**

The Drinking Water State Revolving Loan Fund was authorized by Congress in 1996 under the Safe Drinking Water Act with the intention of assisting public water systems in complying with the Act. Funding in North Dakota for public water systems is in the form of a loan program

administered by the Environmental Protection Agency through the North Dakota Department of Health. North Dakota Century Code ch. 61-28.1, Safe Drinking Water Act, gives the Department the powers and duties to administer and enforce the Safe Drinking Water Act and to administer the program.

Section 1452(b) of the Safe Drinking Water Act requires each state to annually prepare an Intended Use Plan. The plan is to describe how the state intends to use the funds to meet the program objectives and further the goal of protecting public health. A public review period is required prior to submitting the annual plan to the Environmental Protection Agency as part of the capitalization grant application process. The North Dakota Department of Health held public hearings on the draft Intended Use Plan on November 10, 2015, with comments accepted until November 17, 2015.

In accordance with North Dakota Century Code 61-28-1, the Department must administer and disburse the funds with the approval of the State Water Commission. The Department must establish assistance priorities and expend grant funds pursuant to the priority list for the Drinking Water State Revolving Loan Fund.

David Bruschwein, North Dakota Department of Health, presented the Fiscal Year 2016 Intended Use Plan for the North Dakota Drinking Water Revolving Loan Fund, dated November 18, 2015, for the State Water Commission's consideration. The 2016 Intended Use Plan is included as **APPENDIX "D"**. The comprehensive project priority list includes 219 projects, with a cumulative total project cost of \$669,000,000 for Fiscal Years 1997 through 2016. The fundable list for Fiscal Year 2016 is anticipated to be approximately \$11,600,000 with 9 projects. The Commission's approval of the 2016 comprehensive project priority list and fundable list will allow the Department to submit an application to the U.S. Environmental Protection Agency for the program in order to proceed with disbursement of funds.

It was the recommendation of Secretary Sando that the State Water Commission approve the comprehensive project priority list and the fundable list for Fiscal Year 2016 as listed in the 2016 Intended Use Plan, dated November 18, 2015, and authorize the North Dakota Department of Health to administer and disburse the Fiscal Year 2016 program funds pursuant to the 2016 Intended Use Plan.

***It was moved by Commissioner Goehring and seconded by Commissioner Hanson that the State Water Commission approve the comprehensive project priority list and the fundable list for Fiscal Year 2016 as listed in the 2016 Intended Use Plan, dated November 18, 2015, and authorize the North Dakota Department of Health to administer and disburse the Fiscal Year 2016 program funds pursuant to the 2016 Intended Use Plan.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

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

Keith Berndt, Fargo, representing Cass County, provided updates on the local, state and federal efforts currently underway on the Fargo Moorhead Area Diversion project.

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

The Southwest Pipeline Project report was presented, which is detailed in the staff memorandum dated November 24, 2015, and included as ***APPENDIX "E"***.

***SOUTHWEST PIPELINE PROJECT -  
APPROVAL OF CAPITAL REPAYMENT  
RATES, AND REPLACEMENT AND  
EXTRAORDINARY MAINTENANCE  
RATES FOR 2016  
(SWC Project No. 1736-99)***

Under the Agreement for the Transfer of Management, Operations, and Maintenance Responsibilities for the Southwest Pipeline Project, the Southwest Water Authority is required to submit a budget to the State Water Commission's secretary by December 15 of each year. The

budget is deemed approved unless the Commission's secretary notifies the Authority of his disapproval by February 15. The Southwest Water Authority submitted its budget on November 16, 2015.

On October 19, 1998, the State Water Commission approved an amendment to the Transfer of Operations Agreement, which changed the Consumer Price Index (CPI) date used for calculating the project's capital repayment rates from January 1 to September 1. This amendment was necessary to bring the transfer of operations into line with the water service contracts and streamline the budget process. The agreement specifies that the water rates for capital repayment be adjusted annually based on the Consumer Price Index; the September 1, 2015 CPI

was 238.3 versus 237.9 on September 1, 2014. The new capital repayment rates are \$1.15 per thousand gallons for contract users and \$34.95 per month for rural users. These compare with 2015 rates of \$1.14 per thousand gallons for contract users and \$34.88 per month for rural users. The State Water Commission has the responsibility of adjusting the capital repayment rates annually.

At the June 22, 2005 meeting, the State Water Commission approved the 2005 capital repayment rate for rural users in Morton county receiving water through the Missouri West Water system transmission pipelines at \$22.00 per month. Applying the Consumer Price Index adjustment to this figure results in a 2016 rate for these users from \$27.63 to \$27.68 per month.

The rate for replacement and extraordinary maintenance (REM) was approved by the State Water Commission at its February 9, 1999 meeting at \$0.35 per thousand gallons. The original rate of \$0.30 per thousand gallons was approved in 1991. The REM rate was increased to \$0.40 per thousand gallons for the Southwest Water Authority's 2013 budget, and \$0.50 per thousand gallons in the 2014 budget. Based on a study conducted by Bartlett & West/AECOM to determine the REM rate, which included the entire present and future planned infrastructure for the Southwest Pipeline Project, the Southwest Water Authority board of directors voted to increase the REM rate to \$0.55 from \$0.50 per thousand gallons for the 2015 budget. The 2016 REM rate is increased \$0.10 to \$0.65 per thousand gallons.

In preparation of the budget for 2016, the Southwest Water Authority proposed a \$22.00 per thousand gallons water rate for oil industry contracts, which does not recognize an increase from 2015. The account allocations of the oil industry rate will remain the same as 2015. The oil industry rate will be divided into thirds for all contracts except the water depot east of Dickinson built by the Southwest Water Authority.

The capital repayment rate for the Southwest Water Authority water depot will remain at \$2.46 per thousand gallons, and the REM rate at \$5.14 per thousand gallons. The remaining \$14.40 will go to the Southwest Water Authority.

The minimum monthly rate for rural customers in 2016 is increasing from \$39.88 to \$39.95, consisting of \$34.95 towards capital repayment and \$5.00 towards the operations and maintenance fee.

It was the recommendation of Secretary Sando that the State Water Commission concur with the proposed 2016 Southwest Pipeline Project capital repayment and replacement and extraordinary rates as presented. These proposed rates were approved by the Southwest Water Authority board of directors at its November, 2015 meeting:

Capital repayment for contract and rural customers:

Contract users	\$ 1.15 per thousand gallons
Rural customers	\$ 34.95 per month
Morton county users with water service from Missouri West Water System	\$ 27.68 per month

Capital Repayment for oil industry contracts:

Southwest Water Authority's Dickinson water depot	\$ 2.46 per thousand gallons
Other oil industry contracts	\$ 7.73 per thousand gallons

Replacement and extraordinary maintenance (REM):

Contract customers and rural users	\$ 0.65 per thousand gallons
Southwest Water Authority's Dickinson water depot	\$ 5.14 per thousand gallons
Other oil industry contracts	\$ 7.73 per thousand gallons

***It was moved by Commissioner Foley and seconded by Commissioner Goehring that the State Water Commission approve the proposed 2016 capital repayment and replacement and extraordinary maintenance rates for the Southwest Pipeline Project as recommended.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SOUTHWEST PIPELINE PROJECT -  
APPROVAL OF EXPENDITURE  
REIMBURSEMENT FROM RESERVE  
FUND FOR REPLACEMENT AND EXTRA-  
ORDINARY MAINTENANCE  
(\$311,265.74)  
(SWC Project No. 1736-99)**

The Southwest Water Authority collects and maintains a reserve fund for "replacement and extraordinary maintenance". This fund, which is required by authorizing legislation, exists to fund replacement and maintenance of items that exceed annual budgeted amounts. Expenditures from this fund are to be

authorized by the State Water Commission.

A request from the Southwest Water Authority was presented for the State Water Commission's consideration for reimbursement of expenditures from the replacement and extraordinary maintenance fund that include the Southwest Water Authority's portion for the Rhame booster pump station, costs not covered by insurance at the RO concentrate discharge vault, pump motor replacement at the intake, replacement of the electrical service at the water treatment plant in Dickinson, electrical bushing and pump motors at the Richardton pump station, and the control valve at the Dodge pump station. The total cost for all of the items requested for reimbursement from the replacement and extraordinary maintenance fund is \$311,265.74.

It was the recommendation of Secretary Sando that the State Water Commission approve the reimbursement of expenditures from the reserve fund for replacement and extraordinary maintenance not to exceed \$311,265.74. The Southwest Water Authority adopted similar action at its November 2, 2015 meeting.

***It was moved by Commissioner Foley and seconded by Commissioner Hanson that the State Water Commission approve the reimbursement of expenditures from the reserve fund for replacement and extraordinary maintenance not to exceed \$311,265.74.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SOUTHWEST PIPELINE PROJECT -  
CITY OF BELFIELD, APPROVAL OF  
AMENDMENT TO WATER SERVICE  
CONTRACT 1736-24  
(SWC Project No. 1736-99)**

On May 6, 1993, the State Water Commission approved water service contract 1736-24 between the city of Belfield, the Southwest Water Authority, and the State Water Commission.

A request from the city of Belfield was presented for the State Water Commission's consideration for an amendment to the city's water service agreement changing their current point of connection to an emergency connection and establishing a new main point of connection. The main water connection for the city is at a point located at the north side of 6th Avenue NE (Highway 10) in easement at the ditch and the alley of Block 6 O'Connor Addition. The emergency connection is at a point located at the intersection of 6th Avenue East and the alley of Block 2 O'Connor Addition.

It was the recommendation of Secretary Sando that the State Water Commission authorize the Secretary to the State Water Commission to execute the amendment to water service contract 1736-24 between the city of Belfield, the Southwest Water Authority, and the State Water Commission.

***It was moved by Commissioner Hanson and seconded by Commissioner Berg that the State Water Commission authorize the Secretary to the State Water Commission to execute the amendment to water service contract 1736-24 between the city of Belfield, the Southwest Water Authority, and the State Water Commission. SEE APPENDIX "F"***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**SOUTHWEST PIPELINE PROJECT -  
CITY OF KILLDEER, APPROVAL OF  
CONTRACT FOR TRANSFER OF  
SERVICE AREA  
(SWC Project No. 1736-99)**

The Southwest Pipeline Project contract agreement for the transfer of the service area between the Southwest Water Authority, the State Water Commission, and the city of Killdeer was presented for the State Water Commission's

consideration. This is the first annexation agreement negotiated between a city served by the Southwest Pipeline Project and the Southwest Water Authority.

It was the recommendation of Secretary Sando that the State Water Commission authorize the Secretary to the State Water Commission to execute the Southwest Pipeline Project contract for transfer of service area.

***It was moved by Commissioner Berg and seconded by Commissioner Thompson that the State Water Commission authorize the Secretary to the State Water Commission to execute the agreement between the Southwest Water Authority, the State Water Commission, and the city of Killdeer for the transfer of the service area. SEE APPENDIX "G"***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***NORTHWEST AREA WATER  
SUPPLY (NAWS) PROJECT -  
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 November 24, 2015, and included as ***APPENDIX "H"***.

***NORTHWEST AREA WATER  
SUPPLY (NAWS) PROJECT -  
APPROVAL OF EXPENDITURE  
REIMBURSEMENT FROM RESERVE  
FUND FOR REPLACEMENT AND  
EXTRAORDINARY MAINTENANCE  
(\$304,040.24)  
(SWC Project No. 237-04)***

The State Water Commission collects and maintains a reserve fund for "replacement and extraordinary maintenance" (REM) from water sales revenues from the Northwest Area Water Supply (NAWS) system. Funds are collected on all NAWS contracts, including all users served through the city of Minot's contract, all communities,

and rural water systems served through the NAWS infrastructure, and the city of Rugby. Since 2005, the city of Rugby has paid a total of \$304,040.24 into the replacement and extraordinary maintenance reserve fund.

The Rugby water treatment facility was upgraded as part of the NAWS project prior to other construction on the NAWS system. The city has incurred expenses to date totaling \$632,625.16 for the filter rehabilitation, of which 52 percent of the costs are determined eligible for reimbursement based on the work initially performed at the water treatment plant as part of the NAWS project (\$328,965.10). A request was presented for the State Water Commission's consideration for reimbursement from the REM reserve fund for the expenses incurred for the water treatment facility upgrade.

It was the recommendation of Secretary Sando that the State Water Commission approve an allocation not to exceed \$304,040.24 from the Northwest Area Water Supply project replacement and extraordinary maintenance reserve fund for reimbursement to the city of Rugby for expenses incurred for the water treatment facility upgrade.

***It was moved by Commissioner Foley and seconded by Commissioner Thompson that the State Water Commission approve an allocation not to exceed \$304,040.24 from the Northwest Area Water Supply project replacement and extraordinary maintenance reserve fund for reimbursement to the city of Rugby for expenses incurred for the water treatment facility upgrade.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

***MOUSE RIVER ENHANCED  
FLOOD PROTECTION PROJECT -  
STATUS REPORT  
(SWC Project No. 1974)***

The Mouse River Enhanced Flood Protection project status report was provided, which is detailed in the staff memorandum dated November 24, 2015, and included as **APPENDIX "I"**.

***MOUSE RIVER ENHANCED  
FLOOD PROTECTION PROJECT -  
DESIGN OF PHASE I BROADWAY PUMP  
STATION - APPROVAL OF STATE COST  
PARTICIPATION GRANT (\$1,440,000)  
(SWC Project No. 1974)***

A request from the Souris River Joint Water Resource Board was presented for the State Water Commission's consideration for state cost participation relating to the design of a pump station that is adjacent to Phase I of the Mouse River Enhanced Flood Protection project, which is currently in design and approximately 50 percent complete. The pump station is being advanced following an analysis of storm sewers and providing interior drainage without increasing the interior flood risk in the interim. Phase I, the 4th Avenue North Flood Wall, will protect the area west of Broadway and north of the river.

The project engineer's cost estimate of the pump station is \$24,000,000. The estimated design cost for the pump station is \$2,400,000, of which 60 percent is determined eligible for state cost participation (\$1,440,000).

It was the recommendation of Secretary Sando that the State Water Commission approve a state cost participation grant at 60 percent of the eligible costs, not to exceed an allocation of \$1,440,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Water Resource Board for design of the Broadway Phase I pump station for the Mouse River Enhanced Flood Protection project.

***It was moved by Commissioner Foley and seconded by Commissioner Hanson that the State Water Commission approve a state cost participation grant at 60 percent of the eligible costs, not to exceed an allocation of \$1,440,000 from the funds appropriated to the State Water Commission in the 2015-2017 biennium (S.B. 2020), to the Souris River Joint Water Resource Board for design of the Phase I Broadway pump station for the Mouse River Enhanced Flood Protection project. This action is contingent upon the availability of funds.***

***Commissioners Berg, Foley, Goehring, Hanson, Swenson, Thompson, and Governor Dalrymple voted aye. There were no nay votes. Governor Dalrymple announced the motion unanimously carried.***

**2015 NORTH DAKOTA STATE  
WATER MANAGEMENT PLAN  
UPDATE  
(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 a maintain a comprehensive water development plan.

In preparation for the next budgeting process, the Commission's Planning and Education division will begin to develop an update to the 2015 State Water Plan focusing on the 2017-2019 biennium and beyond. Letters will be 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. The input gained from the local project sponsors and water managers will become the foundation of the State Water Commission's budget request to the Governor and the Legislature. The information provided will assist in the allocation of agency budget resources.

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.

Commissioner-hosted meetings will be held during the summer of 2016 within the six major drainage basins for the purpose of reviewing the potential projects identified by stakeholders and project sponsors and for an opportunity to present their project(s) to the Commission members.

**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 MR&I Water

Supply program, the Red River Valley Water Supply project, and operations and maintenance efforts.

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

The Devils Lake hydrologic report and project updates were provided, which are detailed in the staff memorandum, dated November 23, 2015, and included as **APPENDIX "J"**.

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

The Missouri River report was provided, which is detailed in the staff memorandum dated November 20, 2015, and included as **APPENDIX "K"**.

There being no further business to come before the State Water Commission, Governor Dalrymple adjourned the December 11, 2015 meeting at 11:50 a.m.



---

Jack Dalrymple, Governor  
Chairman, State Water Commission

---

Todd Sando, 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 OCTOBER 31, 2015  
BIENNIUM COMPLETE: 17%**

APPENDIX "A"  
December 11, 2015

PROGRAM	SALARIES/ BENEFITS	OPERATING EXPENSES	GRANTS & CONTRACTS	23-Nov-15 PROGRAM TOTALS
<b>ADMINISTRATION</b>				
Allocated	2,729,489	2,806,129		5,535,618
Expended	449,347	226,779		676,126
Percent	16%	8%		12%
			General Fund:	0
			Federal Fund:	11,566
			Special Fund:	664,560
<b>PLANNING AND EDUCATION</b>				
Allocated	1,472,573	352,990		1,825,563
Expended	243,008	47,211		290,219
Percent	17%	13%		16%
			General Fund:	0
			Federal Fund:	63,757
			Special Fund:	226,462
<b>WATER APPROPRIATION</b>				
Allocated	5,762,691	1,185,300	1,372,844	8,320,835
Expended	905,724	101,580	0	1,007,304
Percent	16%	9%	0%	12%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	1,007,304
<b>WATER DEVELOPMENT</b>				
Allocated	4,713,717	10,742,500	1,562,500	17,018,717
Expended	726,626	1,761,880	40,918	2,529,424
Percent	15%	16%	3%	15%
			General Fund:	0
			Federal Fund:	55,567
			Special Fund:	2,473,857
<b>STATEWIDE WATER PROJECTS</b>				
Allocated			959,003,567	959,003,567
Expended			46,367,105	46,367,105
Percent			5%	5%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	46,367,105
<b>REGULATORY DIVISION</b>				
Allocated	2,828,565	2,947,500	15,000	5,791,065
Expended	332,292	224,136	0	556,428
Percent	12%	8%	0%	10%
			General Fund:	0
			Federal Fund:	261,903
			Special Fund:	294,525
<b>ATMOSPHERIC RESOURCE</b>				
Allocated	1,107,158	743,382	4,885,212	6,735,752
Expended	196,085	56,664	422,940	675,689
Percent	18%	8%	9%	10%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	675,689
<b>SOUTHWEST PIPELINE</b>				
Allocated	512,995	10,461,744	97,502,498	108,477,237
Expended	105,259	2,010,337	12,529,702	14,645,298
Percent	21%	19%	13%	14%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	14,645,298
<b>NORTHWEST AREA WATER SUPPLY</b>				
Allocated	705,632	13,910,277	31,611,573	46,227,482
Expended	98,314	285,069	12,855	396,237
Percent	14%	2%	0%	1%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	396,237
<b>PROGRAM TOTALS</b>				
Allocated	19,832,820	43,149,822	1,095,953,194	1,158,935,836
Expended	3,056,654	4,713,657	59,373,519	67,143,830
Percent	15%	11%	5%	6%

December 11, 2015

**STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 BIENNIUM**

				<i>Oct-15</i>	
	BUDGET	SWC/SE APPROVED	OBLIGATIONS EXPENDITURES	REMAINING UNOBLIGATED	REMAINING UNPAID
<b>FLOOD CONTROL</b>					
FARGO	228,506,200	99,506,200	2,833,772	129,000,000	96,672,428
GRAFTON	33,925,000	8,925,000	522,987	25,000,000	8,402,013
MOUSE RIVER FLOOD CONTROL	46,556,747	6,556,747	1,146,078	40,000,000	5,410,669
VALLEY CITY	32,208,354	14,208,354	2,112,511	18,000,000	12,095,843
LISBON	15,807,952	3,807,952	2,185,008	12,000,000	1,622,944
FORT RANSOM	225,000	225,000	0	0	225,000
WILLISTON	7,000,000			7,000,000	
RENWICK DAM	23,320	23,320	0	0	23,320
MISSOURI RIVER FLOOD CONTROL	4,000,000	4,000,000	1,200,000	0	2,800,000
<b>FLOODWAY PROPERTY ACQUISITIONS</b>					
MINOT	23,879,316	23,879,316	2,060,183	0	21,819,133
WARD COUNTY	6,046,590	6,046,590	31,243	0	6,015,347
VALLEY CITY	267,403	267,403	0	0	267,403
BURLEIGH COUNTY	232,649	232,649	0	0	232,649
SAWYER	184,260	184,260	0	0	184,260
LISBON	45,485	45,485	0	0	45,485
<b>STATE WATER SUPPLY</b>					
REGIONAL & LOCAL WATER SYSTEMS	112,779,928	112,779,928	14,770,074	0	98,009,854
FARGO WATER TREATMENT PLANT	22,768,775	22,768,775	0	0	22,768,775
GRAND FORKS WATER TREATMENT PLANT	30,000,000			30,000,000	
SOUTHWEST PIPELINE PROJECT	104,448,803	104,448,803	14,645,298	0	89,803,504
NORTHWEST AREA WATER SUPPLY	15,754,482	5,754,482	122,913	10,000,000	5,631,569
WESTERN AREA WATER SUPPLY AUTHORITY	82,201,384	82,201,384	15,152,153	0	67,049,231
RED RIVER VALLEY WATER SUPPLY	12,521,328	12,521,328	2,004,800	0	10,516,528
CENTRAL NORTH DAKOTA WATER SUPPLY	70,070,800	70,800	0	70,000,000	70,800
UNOBLIGATED STATE WATER SUPPLY	44,449,318			44,449,318	
<b>GENERAL WATER MANAGEMENT</b>					
OBLIGATED	25,384,521	25,384,521	2,344,796	0	23,039,726
UNOBLIGATED GENERAL WATER	47,541,485			47,541,485	
<b>DEVILS LAKE</b>					
OUTLET	870,802	870,802	0	0	870,802
OUTLET OPERATIONS	18,534,210	7,534,210	1,781,032	11,000,000	5,753,178
DL EAST END OUTLET	2,774,011	2,774,011	0	0	2,774,011
<b>REVOLVING LOAN FUND</b>					
GENERAL WATER PROJECTS	11,000,000	886,500	886,500	10,113,500	0
WATER SUPPLY	25,000,000	10,000,000	0	15,000,000	10,000,000
<b>TOTALS</b>	<b>1,025,008,125</b>	<b>555,903,819</b>	<b>63,799,348</b>	<b>469,104,307</b>	<b>492,104,471</b>

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 Biennium

PROGRAM OBLIGATION

Approvec SWC By No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Oct-15 Balance	
<b>Flood Control:</b>								
SB 2020	1928-01	5000	City of Fargo	Fargo Flood Control Project	6/23/2009	99,506,200	2,833,772	96,672,428
	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	522,987	1,227,013
SB 2371	1974-08	5000	Souris River Joint WRD	Mouse River Reconnaissance Study to Meet Fed Gui	2/15/2013	809	0	809
	1974-09	5000	Souris River Joint WRD	4th Ave NE & Napa Valley/Forest Rd Flood Improver	10/7/2013	4,890,512	1,146,078	3,744,434
	1758	5000	Souris River Joint WRD-no agreemen	International Joint Commission Study Boarc	5/29/2014	302,500	0	302,500
	1974-11	5000	Souris River Joint WRD	Funding of 214 agreement between SRJB & USACE	12/5/2014	106,500	0	106,500
	1993-01	5000	City of Minot	Downtown Infrastructure Improvements	9/15/2014	1,256,426	0	1,256,426
	1344-01	5000	Valley City	Sheyenne River Valley Flood Control Projec	12/5/2015	157,296	156,993	303
	1344	5000	Valley City	Sheyenne River Valley Flood Control Project PHI	5/20/2015	340,000	0	340,000
	1504-01	5000	Valley City	Permanent Flood Protection Project	12/5/2014	9,850,444	1,955,518	7,894,926
	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	92,810	58,843	33,967
	1991-01	5000	City of Lisbon	Permanent Flood Protection Project	5/29/2014	561,702	398,104	163,598
	1991-03	5000	City of Lisbon	Permanent Flood Protection - Levee C Project	3/11/2015	3,153,440	1,728,061	1,425,379
SB 2371	1344-03	5000	Fort Ransom	Sheyenne River Valley Flood Control Project	6/19/2013	225,000	0	225,000
	849	5000	Pembina Co. WRD	Renwick Dam Rehabilitation	6/26/2014	23,320	0	23,320
	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	0	2,800,000
<b>Subtotal Flood Control</b>						<b>137,252,573</b>	<b>10,000,356</b>	<b>127,252,217</b>
<b>Floodway Property Acquisitions:</b>								
	1993-05	5000	City of Minot	Minot Phase 2 - Floodway Acquisitions	10/7/2013	23,879,316	2,060,183	21,819,133
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	7/23/2013	267,403	0	267,403
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	3/11/2015	45,485	0	45,485
<b>Subtotal Floodway Property Acquisitions</b>						<b>30,655,703</b>	<b>2,091,426</b>	<b>28,564,277</b>
<b>State Water Supply Grants:</b>								
	2373-35	5000	Grand Forks - Traill RWD	Grand Forks - Traill County WRD	6/13/2012	303,715	178,027	125,689
	2373-36	5000	Stutsman Rural RWD	Stutsman Rural Water System - Phase IIB, II	2/27/2013	4,443,172	2,697,537	1,745,635
	2373-38	5000	Stutsman Rural RWD	Kidder Co & Carrington Area Expansion	7/23/2013	991,361	0	991,361
	2373-39	5000	North Central Rural Water Consortiu	Carpio Berthold Phase 2	5/29/2014	2,970,141	478,254	2,491,888
	2373-41	5000	North Central Rural Water Consortiu	Granville-Deering Area	3/11/2015	5,594,102	1,489,785	4,104,317
	2050-01	5000	Missouri West Water System	South Mandan	3/17/2014	205,711	138,803	66,907
	2050-02	5000	Grand Forks Traill RWD	Improvements	3/11/2015	4,369,058	637,830	3,731,228
	2050-03	5000	Northeast Regional WD	Langdon RWD - ABM Pipeline Phase 1	10/7/2013	540,526	296,292	244,234
	2050-04	5000	Northeast Regional WD	Langdon RWD - North Valley Nekoma	3/11/2015	859,341	645,343	213,997
	2050-05	5000	Northeast Regional WD	North Valley WD - ABM Pipeline Phase 1	3/11/2015	292,958	198,177	94,781
	2050-06	5000	Northeast Regional WD	North Valley WD - 93 Street	3/11/2015	937,870	429,589	508,301
	2050-07	5000	Northeast Regional WD	North Valley WD - Rural Expansion	5/29/2014	1,481,717	237,102	1,244,616
	2050-08	5000	Walsh RWD	Ground Storage	10/7/2013	322,656	169,977	152,679
	2050-09	5000	City of Park River	Water Tower	3/11/2015	633,778	415,537	218,241
	2050-10	5000	City of Surrey	Water Supply Improvements	10/7/2013	1,117,800	737,279	380,521
	2050-11	5000	Cass RWD	Phase 2 Plant Improvements	10/7/2013	3,951,363	69,468	3,881,895
	2050-13	5000	City of Mandan	New Raw Water Intake	10/7/2013	1,567,676	24,823	1,542,853
	2050-14	5000	City of Mandan	Water Treatment Plant Improvements	10/7/2013	267,521	202,929	64,592
	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	0	845,000
	2050-17	5000	Barnes Rural RWD	Improvements	3/11/2015	6,512,662	1,751,631	4,761,031
	2050-18	5000	City of Grafton	Water Treatment Plant Phase 3	10/7/2013	3,381,148	0	3,381,148
	2050-19	5000	City of Grand Forks	Water Treatment Plant Improvements	10/7/2013	3,849,151	423,558	3,425,593
	2050-20	5000	City of Dickinson	Capital Infrastructure	10/6/2015	11,229,922	916,725	10,313,197
	2050-21	5000	Wattford City	Capital Infrastructure	2/27/2014	1,897,040	1,055,708	841,332
	2050-22	5000	City of Williston	Capital Infrastructure	2/27/2014	4,119,610	279,884	3,839,726
	2050-23	5000	Greater Ramsey RWD	SW Nelson County Expansion	3/17/2014	4,199,547	1,011,270	3,188,278
	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	7/29/2015	896,000	0	896,000
	2050-26	5000	City of Fargo	Fargo Water System Regionalization Improvement	7/29/2015	6,841,750	0	6,841,750
	2050-27	5000	City of Tioga	Tioga Water Supply Improvement Projec	7/29/2015	2,190,000	284,566	1,905,434
	2050	5000	City of Mandan	Water Systems Improvement Project	10/6/2015	2,290,175	0	2,290,175
	2050	5000	City of Minot	Water Systems Improvement Project	10/6/2015	3,634,000	0	3,634,000
	2050	5000	Wattford City	Water Systems Improvement Project	10/6/2015	5,435,087	0	5,435,087
	2050	5000	City of West Fargo	Water Systems Improvement Project	10/6/2015	3,426,210	0	3,426,210
	2050	5000	City of Williston	Water Systems Improvement Project	10/6/2015	10,890,472	0	10,890,472
	2050	5000	Stutsman RWD	Phase V Storage & Pipeline Expansion Projec	10/6/2015	4,170,100	0	4,170,100
	2050	5000	North Prairie RWD	Storage and Water Main	10/6/2015	3,459,837	0	3,459,837
	2050	5000	Southeast Water Users Dist	System Wide Expansion Feasibility Study	10/6/2015	35,000	0	35,000
<b>Subtotal State Water Supply</b>						<b>112,779,928</b>	<b>14,770,074</b>	<b>98,009,854</b>
	1984-02	5000	City of Fargo	Fargo Water Treatment Plant	3/17/2014	22,768,775	0	22,768,775
	1736-05	8000	SWPP	Southwest Pipeline Project	7/1/2013	104,448,803	14,645,298	89,803,504
	2374	9000	NAWS	Northwest Area Water Supply	7/1/2013	5,754,482	122,913	5,631,569
	1973-02	5000	WAWSA	WAWSA- (GRANT)	10/6/2015	72,081,806	7,215,634	64,866,171
	1973-03	5000	Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,139,578	7,936,519	2,203,060
	325-102	5000	RRVWSP	Red River Valley Water Supply - Intake Design Study	5/29/2014	162,328	4,800	157,528
SB 2020	325-104	5000	Garrison Diversion	Red River Valley Water Supply Project	7/29/2015	12,359,000	2,000,000	10,359,000
	2051	5000	Central ND Water Supply	Black and Veatch investigation	1/27/2015	70,800	0	70,800
<b>Subtotal State Water Supply</b>						<b>227,765,571</b>	<b>31,925,164</b>	<b>195,840,407</b>

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 Biennium

PROGRAM OBLIGATION

Approved SWC By	No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Oct-15 Balance	
<b>General Water Management</b>									
<b>Hydrologic Investigations:</b>							<b>1,125,267</b>		
	1395D	3000	U. S. Geological Survey	Eaton Irrigation Project on the Souris River	7/13/2012	15,300	0	15,300	
<b>Hydrologic Investigations Obligations Subtotal</b>							<b>15,300</b>	<b>0</b>	
<b>Remaining Hydrologic Investigations Authority</b>							<b>1,109,967</b>	<b>15,300</b>	
<b>Hydrologic Investigations Authority Less Payments</b>									
<b>General Projects Obligated</b>							<b>23,178,448</b>	<b>1,263,990</b>	<b>21,914,459</b>
<b>General Projects Completed</b>							<b>1,080,806</b>	<b>1,080,806</b>	<b>0</b>
<b>Subtotal General Water Management</b>							<b>25,384,521</b>	<b>2,344,796</b>	<b>23,039,726</b>
<b>Devils Lake Basin Development:</b>									
SWC	416-07	5000	Multiple	Devils Lake Outlet	7/1/2013	870,802	0	870,802	
SWC	416-10	4700	Operations	Devils Lake Outlet Operations	7/1/2013	7,534,210	1,781,032	5,753,178	
SWC	416-15	5000	Multiple	DL East End Outlet	7/1/2013	2,774,011	0	2,774,011	
<b>Devils Lake Subtotal</b>							<b>11,179,023</b>	<b>1,781,032</b>	<b>9,397,991</b>
<b>Revolving Loan Fund:</b>									
	1991-04	5000	City of Lisbon	Permanent Flood Protection - Levee C (LOAN);	3/11/2015	886,500	886,500	0	
	1973-04	5000	Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,000,000	0	10,000,000	
<b>Revolving Loan Fund Subtotal</b>							<b>10,886,500</b>	<b>886,500</b>	<b>10,000,000</b>
<b>TOTAL</b>							<b>555,903,819</b>	<b>63,799,348</b>	<b>492,104,471</b>

**STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
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	Oct-15 Balance	
HB 2305	1963	5000	2009-11	Emmons County WRD	Beaver Bay Embankment Feasibility Study	8/10/2009	18,078	0	18,078
SB2009	1986-03	5000	2015-17	USDA-APHIS, ND Dept Agricu	USDA Wildlife	9/9/2015	250,000	0	250,000
SE	1301	5000	2009-11	City of Lidgerwood	City of Lidgerwood Engineering & Feasibility Study for	2/4/2011	15,850	0	15,850
SE	1607	5000	2011-13	Ward Co. WRD	Flood Inundation Mapping of Areas Along Souris & De	6/15/2011	13,011	0	13,011
SE	1301	5000	2011-13	City of Wahpeton	City of Wahpeton Water Reuse Feasibility Study/Richl	9/8/2011	2,500	0	2,500
SE	1991	5000	2011-13	City of Lisbon	Sheyenne River Snagging & Clearing Project	2/12/2013	5,000	0	5,000
SE	1640	5000	2013-15	U.S. Geological Survey	(USGS) Maintenance of gaging station on Missouri Ri	9/25/2013	8,710	0	8,710
SE	1296	5000	2013-15	Pembina Co. WRD	Bathgate-Hamilton & Carlisle Watershed Study	10/17/2013	45,226	38,500	6,726
SE	399	5000	2013-15	Barnes Co WRD	Kathryn Dam Feasibility Study	9/19/2014	21,250	0	21,250
SE	274	5000	2013-15	City of Neche	FEMA Levee Certification Feasibility Study	10/17/2014	37,500	0	37,500
SE	841	5000	2013-15	Maple River WRD	Garsteig Dam Repair Project	1/26/2015	40,163	0	40,163
SE	1287	5000	2013-15	McHenry Co. WRD	Souris River Snagging & Clearing Project	2/3/2015	15,000	0	15,000
SE	AOC/WUA	5000	2011-13	ND Water Users Association	Dave Koland Term as WUA President	3/23/2015	9,672	1,111	8,561
SE	346	5000	2013-15	Williams County WRD	Design Engineering for Epping Dam Safety Repair	3/30/2015	21,333	0	21,333
SE	571	5000	2013-15	Oak Creek WRD	Oak Creek Snagging & Clearing Project	3/30/2015	3,672	2,565	1,107
SE	1179	5000	2013-15	Richland Co. WRD	Drain #5 (27) Reconstruction Project	3/30/2015	13,543	0	13,543
SE	568	5000	2013-15	Barnes Co WRD	Sheyenne River Snagging & Clearing Project	4/17/2015	49,500	0	49,500
SE	1303	5000	2013-15	Sargent Co WRD	Gwinner Dam Improvement Feasibility Study Program	4/17/2015	42,844	0	42,844
SE	1219	5000	2013-15	Sargent Co WRD	Drain No. 8 Channel Improvement Preliminary Engine	5/7/2015	6,650	0	6,650
SE	1814	5000	2013-15	Richland Co. WRD	Wild Rice River Snagging & Clearing - Bridge #121-2	5/28/2015	16,000	0	16,000
SE	1314	5000	2013-15	Wells Co. WRD	Hurdsfield Area Drain Preliminary Engineering Project	6/11/2015	35,000	0	35,000
SE	1815	5000	2013-15	Ransom Co. WRD	Sheyenne River Snagging & Clearing - Fort Ransom F	6/11/2015	6,350	0	6,350
SE	1264	5000	2013-15	Barnes Co WRD	Little Dam Repurposing Feasibility Study	6/17/2015	16,100	0	16,100
SE	1311	5000	2013-15	Trall Co. WRD	Buxton Township Improvement District No. 68	6/17/2015	15,745	0	15,745
SE	1303	5000	2013-15	Sargent Co WRD	Upper Wild Rice Watershed Study	6/24/2015	73,500	0	73,500
SE	1140	5000	2015-17	Pembina Co. WRD	Drain 11 Outlet Extension Cost Overrun Project	7/7/2015	5,088	0	5,088
SE	1290	5000	2015-17	McLean Co. WRD	Painted Woods Lake Flood Mitigation Study	7/7/2015	24,500	0	24,500
SE	2045	5000	2013-15	Stark County	Stark County LiDAR Collection Project (FEMA)	7/17/2015	33,584	0	33,584
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	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Gate Repair	9/4/2015	53,700	0	53,700
SE	2058	5000	2015-17	City of Grafton	Grafton Debris Removal Plan	9/17/2015	3,900	0	3,900
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Emergency Action Plan	9/29/2015	63,680	0	63,680
SE	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement Preliminary Engine	9/29/2015	17,500	0	17,500
SE	1328	5000	2015-17	North Cass Co. WRD	Drain No. 23 Channel Improv Preliminary Engineering	9/30/2015	5,775	0	5,775
SE	PSWRDBUR	5000	2015-17	Burleigh Co. WRD	Pebble Creek Golf Course - Hay Creek Bank Stabiliza	10/15/2015	22,782	0	22,782
SE	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing	10/27/2015	57,000	0	57,000
SE	1396-01	5000	2013-15	Trout, Raley, Montano, Witwer	Missouri River Recovery Program	11/17/2015	75,000	0	75,000
SE	ASNDS	5000	2015-17	NDSU	Oaks Irrigation Research Site - New Linear Irrigation S	11/18/2015	25,636	0	25,636
SE	PSWRDCAS	5000	2015-17	Cass Co. Joint WRD	Red River Watershed Comprehensive Detention Plan	11/19/2015	34,025	0	34,025
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	620	5000	2007-09	Lower Heart WRD	Mandan Flood Control Protective Works (Levee)	9/29/2008	125,396	0	125,396
SWC	1921	5000	2007-09	Morton Co. WRD	Square Butte Dam No. 6(Harmon Lake) Recreation F	3/23/2009	731,002	0	731,002
SWC	1638	5000	2009-11	Muple	Red River Basin Non-NRCS Rural/Farmstead Ring Di	6/23/2009	177,864	0	177,864
SWC	1960	5000	2009-11	Ward Co. WRD	Puppy Dog Coulee Flood Control Diversion Ditch Con	8/18/2009	796,976	0	796,976
SWC	322	5000	2009-11	ND Water Education Foundati	ND Water: A Century of Challenge	2/22/2010	36,800	0	36,800
SWC	281	5000	2009-11	Three Affiliated Tribes	Three Affiliated Tribes/Fort Berthold Irrigation Study	10/26/2010	37,500	0	37,500
SWC	646	5000	2009-11	City of Fargo	Christine Dam Recreation Retrofit Project	10/26/2010	184,950	0	184,950
SWC	646	5000	2009-11	City of Fargo	Hickson Dam Recreation Retrofit Project	10/26/2010	44,280	0	44,280
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
SWC	1161	5000	2009-11	Pembina Co. WRD	Drain 55 Improvement Reconstruction	3/28/2011	13,846	0	13,846
SWC	1101	5000	2011-13	Dickey Co. WRD	Yorktown-Maple Drainage Improvement Dist No. 3	9/21/2011	354,500	0	354,500
SWC	1101	5000	2011-13	Dickey-Sargent Co WRD	Riverdale Township Improvement District #2 - Dickey	9/21/2011	500,000	0	500,000
SWC	1219	5000	2011-13	Sargent Co WRD	City of Forman Floodwater Outlet	9/21/2011	31,472	0	31,472
SWC	1705	5000	2011-13	Red River Joint Water Resour	Red River Joint WRD Watershed Feasibility Study - Pl	9/21/2011	60,000	0	60,000
SWC	829	5000	2011-13	Rush River WRD	Rush River WRD Berlin's Township Improvement Dist	10/19/2011	101,317	0	101,317
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
SWC	1990	5000	2011-13	Mercer Co. WRD	Lake Shore Estates High Flow Diversion Project	3/7/2012	43,821	0	43,821
SWC	1401	5000	2009-11	Pembina Co. WRD	International Boundary Roadway Dike Pembina	9/27/2012	261,032	0	261,032
SWC	240	5000	2011-13	Eddy County WRD	Warwick Dam Repair Project	12/7/2012	110,150	0	110,150
SWC	1705	5000	2011-13	Red River Joint Water Resour	Red River Basin Distributed Plan Study	12/7/2012	560,000	0	560,000
SWC	2019	5000	2011-13	Valley City	Sheyenne River Snagging & Clearing Project	12/7/2012	75,000	0	75,000
SWC	346	5000	2011-13	Williams County WRD	Epping Dam Evaluation Project	2/27/2013	66,200	0	66,200
SWC	1135	5000	2011-13	Pembina Co. WRD	Drain #4 Reconstruction Project	6/19/2013	2,673	0	2,673
SWC	1438	5000	2011-13	Cavalier County WRD	Mulberry Creek Phase IV Reconstruction Project	6/19/2013	102,019	0	102,019
SWC	2022	5000	2011-13	Pembina Co. WRD	Drain #73 Project	6/19/2013	350,400	0	350,400
SWC	1270	5000	2013-15	Burleigh Co. WRD	Apple Creek Industrial Park Levee Feasibility Study	10/7/2013	65,180	0	65,180
SWC	2004	5000	2013-15	Grand Forks Co. WRD	Drain No. 57 Project	10/7/2013	413,576	0	413,576
SWC	2040	5000	2013-15	Walsh Co. WRD	Drain #74 Project	10/7/2013	197,604	140,279	57,325
SWC	PS/WRD/MRJ	5000	2013-15	Missouri River Joint WRB	Missouri River Coordinator	10/7/2013	37,094	14,327	22,767
SWC	1242	5000	2013-15	Trall Co. WRD	Rust Drain No. 24 Project	12/13/2013	25,152	0	25,152
SWC	1389	5000	2013-15	Bank of ND	BND AgPace Program	12/13/2013	180,316	24,737	155,578
SWC	2043	5000	2013-15	Pembina Co. WRD	District's Drain 78 Outlet Extension Project	12/13/2013	287,778	242,328	45,450
SWC	2046	5000	2013-15	Walsch Co. WRD	North Branch Park River Comprehensive Flood Dama	12/13/2013	134,400	0	134,400
SWC	1554/2046?	5000	2013-15	McLean Co. WRD	City of Underwood Floodwater Outlet Project	12/13/2013	1,100,727	0	1,100,727
SWC	1878-02	5000	2011-13	Maple-Steele WRD	Upper Maple River Dam Construction Phase	12/13/2013	4,702,936	0	4,702,936
SWC	CON/WIL/CARL	5000	2013-15	Garrison Diversion Conservan	Will and Carlson Consulting Contract	12/13/2013	26,451	1,828	24,623
SWC	1082	5000	2013-15	Rush River WRD	Cass Co. Drain No. 30 Channel Improvement Project	3/17/2014	5,976	0	5,976
SWC	1968	5000	2013-15	Garrison Diversion	McClusky Canal Mile Marker 10 & 49 Irrigation Project	3/17/2014	256,321	0	256,321
SWC	2008	5000	2013-15	City of Mapleton	Recertification of Flood Control Levee System Project	3/17/2014	101,100	0	101,100
SWC	1418	5000	2013-15	City of Bisbee	Big Coulee Dam Feasibility Study	5/29/2014	10,963	0	10,963
SWC	1577	5000	2013-15	City of Killdeer & Dunn Co.	Floodplain Mapping Project	5/29/2014	55,000	0	55,000
SWC	2045	5000	2013-15	Mercer Co. WRD	LiDAR Collection Project	5/29/2014	10,425	0	10,425

**STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 Biennium  
Resources Trust Fund**

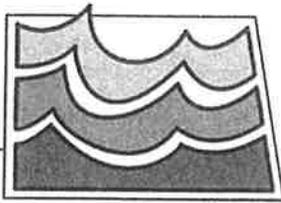
GENERAL PROJECT OBLIGATIONS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Oct-15 Balance
SWC	1753/1523?	5000	2013-15	Ward Co. Hwy Dept	County Road 18 Flood Control Project	5/29/2014	325,208	0	325,208
SWC	1932	5000	2005-07	Nelson Co. WRD	Michigan Spillway Rural Flood Assessment	8/15/2014	832,207	556,022	276,185
SWC	1625	5000	2013-15	Houston Engineering	(OHWM) Ordinary High Water Mark Delineations	8/20/2014	4,560	0	4,560
SWC	1227	5000	2011-13	Trall Co. WRD	Mergenthal Drain No. 5 Reconstruction	9/15/2014	18,502	0	18,502
SWC	1285	5000	2013-15	LaMoure County	LaMoure Co Memorial Park Streambank Restoration	9/15/2014	91,042	0	91,042
SWC	1314	5000	2013-15	Wells Co. WRD	Oak Creek Drain Lateral E Reconstruction Project	9/15/2014	73,057	0	73,057
SWC	1613	5000	2013-15	North Cass Co. WRD	Cass County Drain No. 55 Channel Improvements Pr	9/15/2014	99,923	42,152	57,771
SWC	1613	5000	2013-15	Richland Co. WRD	Drain No. 15 Reconstruction Project	9/15/2014	60,300	0	60,300
SWC	1991	5000	2013-15	City of Lisbon	Sheyenne Riverbank Stabilization Project	9/15/2014	163,720	9,706	154,014
SWC	2042	5000	2013-15	Bottineau Co. WRD	Haas Coulee Drain Project	9/15/2014	500,000	0	500,000
SWC	2045	5000	2013-15	McKenzie Co. Commission	LIDAR Collection Project	9/15/2014	262,308	0	262,308
SWC	PS/WRD/ELM	5000	2013-15	Elm River Joint WRD	Dam #3 Safety Improvements Project	9/15/2014	7,297	0	7,297
SWC	568	5000	2013-15	Southeast Cass WRD	Sheyenne River Reaches Snagging & Clearing Projec	12/5/2014	94,238	0	94,238
SWC	980	5000	2013-15	Cass Co. Joint WRD	Rush River Watershed Detention Study	3/11/2015	120,750	0	120,750
SWC	980	5000	2013-15	Cass Co. Joint WRD	Swan Creek Watershed Detention Study PHII	3/11/2015	120,750	0	120,750
SWC	980	5000	2013-15	Cass Co. Joint WRD	Upper Maple River Watershed Detention Study	3/11/2015	120,750	0	120,750
SWC	1064	5000	2013-15	Rush River WRD	Cass County Drain No. 2 Channel Improvements Proj	3/11/2015	106,989	0	106,989
SWC	1217	5000	2013-15	Tri-County WRD	Tri-County Drain Reconstruction Project	3/11/2015	911,881	0	911,881
SWC	1294	5000	2013-15	Nelson Co. Park Board	Stump Lake Park Bank Stabilization Project	3/11/2015	115,436	0	115,436
SWC	1418	5000	2013-15	City of Bisbee	Design & Repair of Big Coulee Dam	3/11/2015	862,218	0	862,218
SWC	1224	5000	2013-15	Trall Co. WRD	Palace Drain Improvement District No. 80	5/20/2015	118,933	7,574	111,359
SWC	1977	5000	2011-13	Dickey-Sargent Co WRD	Jackson Township Improvement Dist. #1	5/20/2015	1,601,325	0	1,601,325
SWC	AOC/RRBC	5000	2015-17	Red River Basin Commission	Red River Basin Commission Contractor	5/20/2015	200,000	0	200,000
SWC	AOC/WEF	5000	2015-17	ND Water Education Foundati	ND Water Magazine	5/20/2015	36,000	0	36,000
SWC	PS/WRD/DEV	5000	2015-17	Devils Lake Joint WRB	DL Manager	5/20/2015	60,000	0	60,000
SWC	PS/WRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board, (MRJWB) Start up	5/20/2015	20,000	0	20,000
SWC	PS/WRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board (MRRIC) T. FLECK	5/20/2015	45,000	0	45,000
SWC	PS/WRD/UPP	5000	2015-17	Upper Sheyenne River Joint V	Upper Sheyenne River WRB Administration (USRJWF)	5/20/2015	12,000	0	12,000
SWC	1978	5000	2011-13	Richland & Sargent Joint WRI	Richland & Sargent WRD RS Legal Drain No. 1 Exten	7/23/2015	245,250	113,358	131,892
SWC	2003-02	5000	2011-13	Southeast Cass WRD	Re-Certification of the West Fargo Diversion Levee Sy	7/23/2015	52,564	0	52,564
SWC	1859	5000	2015-17	ND Dept of Health	NPS Pollution Project	7/29/2015	200,000	0	200,000
SWC	1992	5000	2011-13	Burleigh Co. WRD	Burnt Creek Flood Restoration Project	7/29/2015	179,890	0	179,890
SWC	AOC/ASS	5000	2015-17	Assiniboine River Basin	Assiniboine River Basin Initiative Funding	7/29/2015	100,000	0	100,000
SWC	710	5000	2015-17	Maple River WRD	Upper Swan Creek Channel Improvement Project	10/6/2015	171,763	0	171,763
SWC	1486	5000	2015-17	Griggs Co. WRD	Thompson Bridge Outlet No. 4 Project	10/6/2015	621,661	0	621,661
SWC	1523	5000	2015-17	Ward Co. WRD	Robinwood Bank Stabilization Project	10/6/2015	256,449	0	256,449
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	Walsch Co. WRD	Forest River Watershed Study	10/6/2015	114,100	0	114,100
SWC	AOC/IRA	5000	2015-17	ND Irrigation Association (NDI	ND Irrigation Association	10/6/2015	100,000	0	100,000
TOTAL							23,178,448	1,263,990	21,914,459

**STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
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	Oct-15 Balance	
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	
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	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	
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	Turtle River Dam #4 2012 EAP	6/29/2012	10,000	8,656	1,344	
SE	2005	5000	2011-13	Grand Forks Co. WRD	Turtle River Dam #8 2012 EAP	6/29/2012	10,000	9,069	931	
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	1069	5000	2015-17	North Cass & Rush River	Drain #13 Channel Improvements Project	9/29/2015	46,150	12,293	33,857	
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	1396	5000	2011-13	U.S. Geological Survey	(USGS) Missouri River Geomorphic Assessment	3/7/2012	10,000	10,000	0	
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	
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	1444	5000	2013-15	City of Pembina	2014 Flood Protection System Modification Project	5/29/2014	61,331	61,331	0	
SWC	2048	5000	2013-15	City of Marion	Marion Flood Mitigation & Lagoon Drainage Project	5/29/2014	116,659	116,659	0	
SWC	228	5000	2013-15	U.S. Geological Survey	(USGS) Operation & Maint of Gaging Station on the Missouri Ri	12/8/2014	8,970	8,970	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	
SWC	980	5000	2011-13	Maple River WRD	Maple River Watershed Flood Water Retention Study/ Maple Ri	2/19/2015	3,687	3,687	0	
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 WRC	Wild Rice River Watershed Retention Plan	6/8/2015	45,905	45,905	0	
TOTAL								1,287,923	1,080,806	207,117



# 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:**  Todd Sando, P.E., Chief Engineer-Secretary  
**SUBJECT:** Cost-Share Policy Update  
**DATE:** November 24, 2015

The purpose of this memo is to provide options for your consideration in preparation for the next cost-share policy meeting.

### Capital Improvement Fund and Sustainable Infrastructure

There is a legal requirement for the project sponsor to have a capital improvement fund as a condition of funding extraordinary maintenance projects. Also the cost-share policy requires the local sponsor to provide a sustainable operation, maintenance, and replacement plan for projects. The specific language follows.

*SB2020 - The commission shall require a water project sponsor to maintain a capital improvement fund from the rates charged customers for future extraordinary maintenance projects as a condition of funding an extraordinary maintenance project.*

*Cost-share policy – 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. The application form... must include... Sustainable operation, maintenance, and replacement plan for projects.*

The direction is to have project sponsors provide a plan for long-term care and replacement of the projects that were built with the assistance from state grant funding. There are several options that can be considered to provide staff direction in how to carry out these requirements. Attached are two examples on determining the water rates within Capital Improvement Plans for your consideration. Another option could include setting a minimum water rate to allow eligibility of grant funding. If there are other options that the Commissioners would want to explore, we are open to developing information on other options prior to the next policy meeting.

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY

### **Rural Water Improvements versus Expansions**

Improvements increase system efficiencies or output capacity. Expansion projects increase the project area or users served. The current recommendations have included improvements related to recent expansions as part of the system expansion. Currently rural water improvements that are not related to recent expansions are not addressed in the current cost-share policy. The recommendation is to consider addition of the following underlined language during the next policy meeting.

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

- (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 are intended to address other necessary capacity improvements in rural water systems beyond normal maintenance and operations.

### **Permits**

The policy has language stating “permit related costs” are not eligible, however on page 5 under pre-construction costs the policy states that engineering design to develop plans and specifications for permitting is eligible. In practice we have been removing permit related costs in the engineering bills for general water management. However, if engineering contracts are lump sum these type of permit fees are included in the costs. Also on the water supply projects the permit fees were not removed. The permit costs are small amounts and the related engineering costs are already eligible. With the legislation stating all project costs being potentially eligible, we recommend removal of the “permit related costs” under the ineligible items section.

# User-friendly Capital Improvement Plan (CIP) for Water and Wastewater Utilities

Version 2.5 (Updated March 2014)

20-year capital planning  
 Financial dashboard outputs

Debt and/or capital reserve financing options  
 Estimates necessary rate increases over time to pay for capital projects

Guided data inputs

Simple data needs

Start

1) Use tabs at bottom of screen and buttons to navigate to different pages.



Financed	\$	950,000
et	\$	750,000

Pre-Exist  
 Input annu  
 incurred for

2) In "Data Input 1", enter utility characteristics, rates and usage information in blue cells.

Name of Utility  
 Town of Anytown

Type of  
 Water an

Current Fiscal Year  
 FY15

Water and Sewer Rates in FY15

Expected Revenues and Expenses in FY15

Usage Billed to Customers in FY15

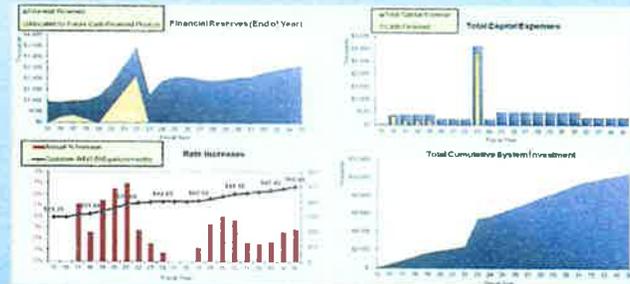
3) In "Data Input 2", enter details on capital improvement projects in the light blue cells. Each row is a different project.

Project	Project Contribution	Project Expenditures	Project Funding	Amount of Contribution	Amount of Contribution	Estimated Cost	Year
Project 1	100%	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	2015
Project 2	100%	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2016

4) In "20-Year Projections", view your fund balance projections for 20 years and observe the estimated rate increases needed each year to pay for your Capital Improvement. No data entry required on this page.

	FY15	FY16	FY17	FY18
<b>Estimated Rate Changes Needed to Maintain the Fund Balance</b>				
View Interest Increases in Water (Rate and Volume)	0.0%	0.1%	0.1%	2.6%
Increase (Decrease) in the Monthly Bill for 5,000 Gallons	N/A	\$0.00	\$1.61	\$8.79
Increase (Decrease) in the Monthly Sewer Charge	N/A	\$0.00	\$8.64	\$11.31
Monthly Base Charge (Minimum Charge)	\$12.34	\$12.34	\$12.34	\$12.34
Volume Rate at 5,000 Gallons/month (5,000 gallons)	\$6.67	\$6.67	\$6.67	\$6.67
Volume included with the Base Charge (5,000 gallons)	0	0	0	0
Approximate Monthly Charge for 5,000 gallons (S)	\$29.25	\$29.25	\$30.95	\$31.95
<b>Projected Fund Balance</b>				
Total Revenue	\$ 4,810,000	\$ 5,043,830	\$ 5,290,187	\$ 5,164,605
Base Charge	\$ 1,276,200	\$ 1,276,200	\$ 1,276,200	\$ 1,276,200
Usage Charge	\$ 3,479,683	\$ 3,018,200	\$ 3,018,200	\$ 3,018,200
Interest Exp'd from Previous Years' Unpaid Balance	\$ 0	\$ 0	\$ 0	\$ 0
Revenue from Other Sources (Debt/Grant Charge)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000

5) After all your utility information and capital improvement project details are entered, go to the "Dashboard" to view long term trends in your financial reserves, rate increases and average bills, and capital investments.



Example 1 - University North Carolina School of Government





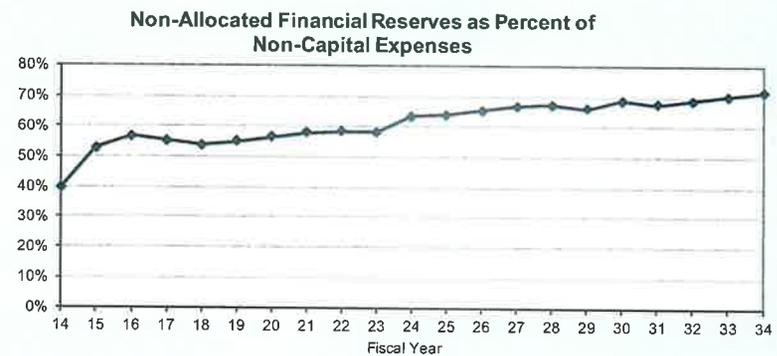
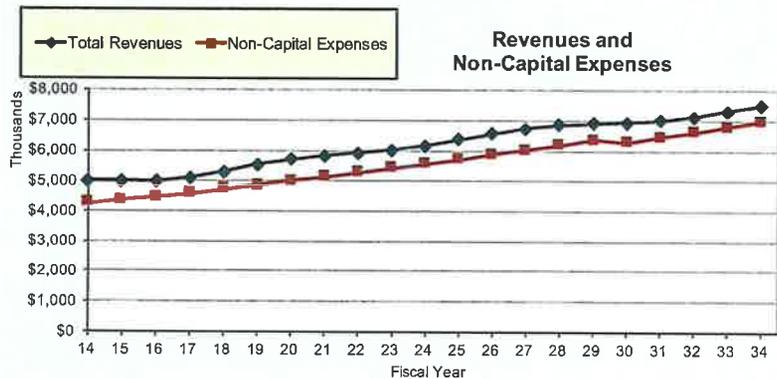
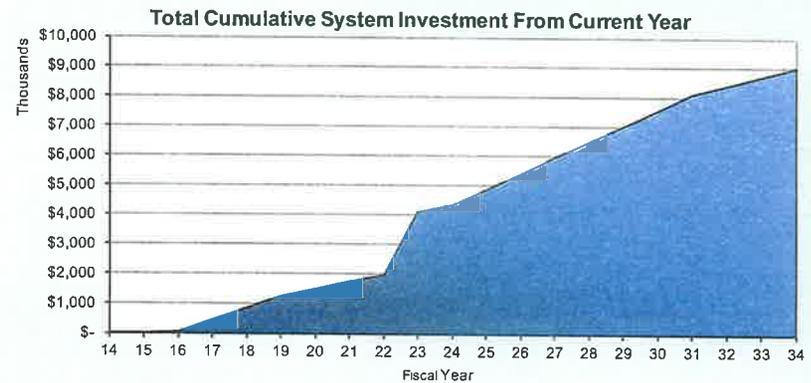
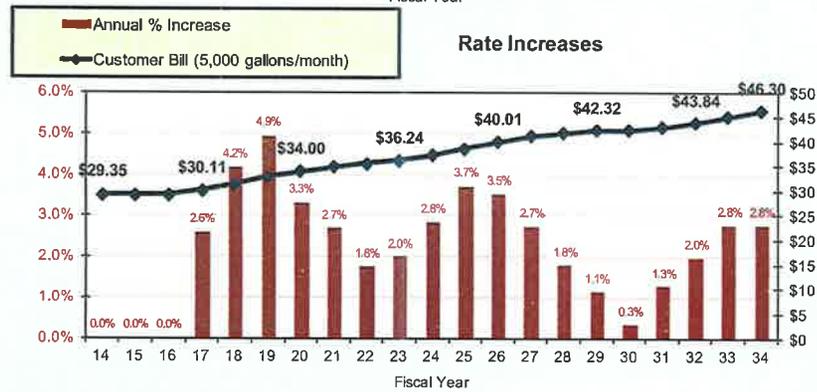
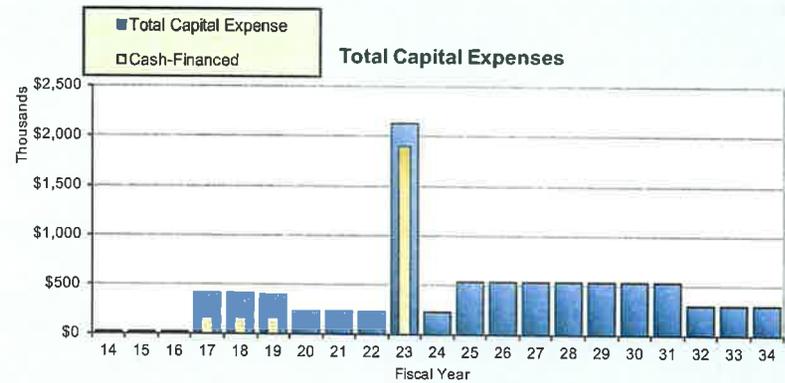
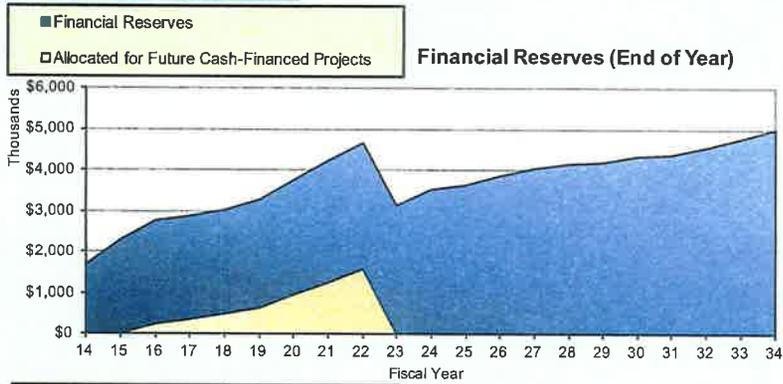
Edit Inputs

Edit C.I.P. Projects

View Projected 20-Yr Fund Balance

### User-Friendly Capital Improvement Plan (CIP) Tool for Water & Wastewater Utilities

### Dashboard for Town of Anytown's 20-year Water and Sewer C.I.P. starting In FY14



## BUDGET CALCULATOR GUIDELINES

This is a simple budget calculator to be used for a small water system. It is an Excel spreadsheet that consists of three tabs which are located near the bottom of your screen:

the **5-Year Budget Projection** tab, the **Capital Improvement Plan (CIP)** tab, and this **Guidelines** tab.

All three sheets including the instructions are formatted to print on standard 8.5 x 11 inch paper. When the pertinent expense figures have been inserted, the program will calculate a minimum flat monthly rate per customer.

Be sure to use only the expenses and revenues related to the water system. For example, if the bill for electricity covers the entire establishment, estimate the amount of electricity that the water system uses. The number of connections can be changed to enable the user to factor in growth or costs associated with a certain portion of the system. The inflation factor percentage can also be changed.

Sample numbers have been inserted into both spreadsheets. The yellow shaded cells are for data entry. The two orange cells are linked from the CIP on the third tab. Except for line item descriptions which can be changed if needed, all other cells are locked for the calculations. To calculate the actual budget for the water system, remove the sample numbers in the yellow shaded cells and enter the actual figures for your system.

On the Budget tab the spreadsheet automatically projects many costs over the next four years. Expenses in Years 2 through 5 are compounded automatically by the inflation factor in cell G6 which can be changed.

On the CIP tab there are examples of various water system components, numbers of components, unit costs, and equipment life expectancy. To determine the CIP for the water system enter the information for these categories specific to the system. Information on typical equipment life expectancy can be found at: [http://ww2.cdph.ca.gov/certlic/drinkingwater/Documents/TMFplanningandreports/Typical\\_life.pdf](http://ww2.cdph.ca.gov/certlic/drinkingwater/Documents/TMFplanningandreports/Typical_life.pdf) The CIP Annual Reserve total is linked to the Budget tab on Line 20, Existing Contribution to CIP to enable the monthly rate per customer to include the cost of replacing equipment that has served its useful life.

For funding projects include the new infrastructure components under the New Project CIP Costs at the bottom of the CIP tab. The total of these figures links to the Budget tab on Line 25, Additional New Project Contribution to CIP. In this example the existing budget is shown in Years 1 and 2. The grant or loan is received in Year 3, and the debt service is paid in Years 4, 5, and beyond. The Additional O&M for New Project costs is listed in the expense section of the Budget tab beginning in Year 4 since these costs are not included in the funding.

If you have further questions, please call the Drinking Water Capacity Development Coordinator Robin Belle Hook at 916-449-5627.

## FIVE YEAR BUDGET PROJECTION (Small Community Water System)

INSTRUCTIONS: Yellow-shaded cells are for data entry; all other cells are locked except line item descriptions which can be changed if needed.

Years 2 through 5 will be compounded automatically by the inflation factor in Cell G6.

System Name:

XYZ Water Company

Inflation Factor (%): 3.0

System ID Number: 1000002

LINE	EXPENSES AND SOURCE OF FUNDS	2009	2010	2011	2012	2013
1	<b>OPERATIONS AND MAINTENANCE (O&amp;M) EXPENSES</b>					
2	Salaries and Benefits	30,000.00	30,900.00	31,827.00	32,781.81	33,765.26
3	Contract Operation and Maintenance	0.00	0.00	0.00	0.00	0.00
4	Power and Other Utilities	2,500.00	2,575.00	2,652.25	2,731.82	2,813.77
5	Fees Regulatory	500.00	515.00	530.45	546.36	562.75
6	Treatment Chemicals	100.00	103.00	106.09	109.27	112.55
7	Coliform Monitoring	1,500.00	1,545.00	1,591.35	1,639.09	1,688.26
8	Chemical Monitoring	500.00	515.00	530.45	546.36	562.75
9	Transportation	0.00	0.00	0.00	0.00	0.00
10	Materials, Supplies, and Parts	150.00	154.50	159.14	163.91	168.83
11	Office Supplies	200.00	206.00	212.18	218.55	225.10
12	Miscellaneous	300.00	309.00	318.27	327.82	337.65
13	Additional O&M for New Project	0.00	0.00	0.00	2,000.00	2,060.00
14	<b>Total O&amp;M Expenses:</b>	35,750.00	36,822.50	37,927.18	41,064.99	42,296.94
16	<b>GENERAL AND ADMINISTRATIVE EXPENSES</b>					
17	Engineering and Professional Services	500.00	515.00	530.45	546.36	562.75
18	Depreciation and Amortization	0.00	0.00	0.00	0.00	0.00
19	Insurance	1,000.00	1,030.00	1,060.90	1,092.73	1,125.51
20	Existing Contribution to CIP (From CIP J48)	16,712.50	16,712.50	16,712.50	16,712.50	16,712.50
21	O&M Reserve	0.00	0.00	0.00	0.00	0.00
22	Other Reserves	0.00	0.00	0.00	0.00	0.00
23	Miscellaneous	100.00	103.00	106.09	109.27	112.55
24	** New Funding Project Costs	0.00	0.00	250,000.00	0.00	0.00
25	Additional New Project Contribution to CIP (From CIP J59)	0.00	0.00	0.00	9,954.44	9,954.44
26	** Debt Service	0.00	0.00	0.00	10,000.00	10,000.00
27	<b>Total General and Administrative Expenses:</b>	18,312.50	18,360.50	268,409.94	38,415.31	38,467.76
28	<b>TOTAL EXPENSES (Line 14+ Line 27):</b>	54,062.50	55,183.00	306,337.12	79,480.30	80,764.70
30	<b>REVENUES RECEIVED</b>					
31	Cash Revenues (Water Rates)	55,000.00	55,000.00	55,000.00	55,000.00	55,000.00
32	** Depreciation Reserves	0.00	0.00	0.00	0.00	0.00
33	** Fees and Services	0.00	0.00	0.00	0.00	0.00
34	** Hookup Charges	0.00	0.00	0.00	0.00	0.00
35	** Withdrawal from CIP or Other Reserves	0.00	0.00	0.00	0.00	0.00
36	** Other Fund Sources: Interest, Etc.	200.00	200.00	200.00	200.00	200.00
37	** Grants	0.00	0.00	0.00	0.00	0.00
38	** SRF Loan	0.00	0.00	250,000.00	0.00	0.00
39	** Business Loans	0.00	0.00	0.00	0.00	0.00
40	<b>TOTAL REVENUE (Lines 31 through 39):</b>	55,200.00	55,200.00	305,200.00	55,200.00	55,200.00
41	<b>NET LOSS OR GAIN:</b>	1,137.50	17.00	-1,137.11	-24,280.30	-25,564.70

Report Prepared by (Name and Title): \_\_\_\_\_

Date: \_\_\_\_\_

(\*\* Inflation factor not applied to future year projections)

**Number of Customers:**  
**Average Monthly Revenue Needed Per Customer:**

2009	2010	2011	2012	2013
85	85	85	85	85
53.00	54.10	55.23	77.92	79.18

(total expenses ÷ # of customers ÷ 12)

# SIMPLIFIED CAPITAL IMPROVEMENT PLAN (CIP)

System Name: **XYZ Water Company**

Date:    
 System ID No.: **1000002**  
 Service Connections: **85**

\*Enter information only in YELLOW shaded cells

QTY	COMPONENT	UNIT COST	INSTALLED COST	AVG LIFE, YEARS	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER	
2	Drilled Well, 6", steel casing	Depth: 150	80	24000	25	960.00	80.00	0.94
	Drilled Well, 8", steel casing	Depth: 600	130	0	25	0.00	0.00	0.00
	Drilled Well, 12", steel casing	Depth:	200	0	25	0.00	0.00	0.00
2	Wellhead Electrical Controls		700	1400	25	56.00	4.67	0.05
	Submersible Pump, 20 HP		9000	0	7	0.00	0.00	0.00
	Submersible Pump, 3 HP		2000	0	7	0.00	0.00	0.00
2	Submersible Pump, 5 HP		3500	7000	7	1000.00	83.33	0.98
	Booster Pump Station, 25 HP, complete		14000	0	5	0.00	0.00	0.00
	Booster Pump Station Electrical Controls		900	0	5	0.00	0.00	0.00
	Pressure Tank	Gallons: 1.5	1.5	0	10	0.00	0.00	0.00
2	Pressure Tank	Gallons: 80	1.5	240	10	24.00	2.00	0.02
	Storage Tank, Plastic	Gallons: 0.5	0.5	0	10	0.00	0.00	0.00
	Storage Tank, Redwood	Gallons: 1.3	1.3	0	40	0.00	0.00	0.00
	Storage Tank, Redwood	Gallons: 1.3	1.3	0	40	0.00	0.00	0.00
1	Storage Tank, Steel	Gallons: 200,000	1.2	240000	50	4800.00	400.00	4.71
	Storage Tank, Steel	Gallons: 1.2	1.2	0	50	0.00	0.00	0.00
	Storage Tank, Steel	Gallons: 1.2	1.2	0	50	0.00	0.00	0.00
	Storage Tank, Concrete	Gallons: 1.5	1.5	0	80	0.00	0.00	0.00
	Master Meter, 2"		450	0	10	0.00	0.00	0.00
2	Master Meter, 3"		800	1600	10	160.00	13.33	0.16
	Master Meter, 4"		2500	0	10	0.00	0.00	0.00
2	Hypochlorinator w/ Tank & Pump, Complete		800	1600	10	160.00	13.33	0.16
100	Pipe w/ sand bedding, 1" (Enter linear feet for quantity)		20	2000	50	40.00	3.33	0.04
0	Pipe w/ sand bedding, 2" (Enter linear feet for quantity)		25	0	50	0.00	0.00	0.00
0	Pipe w/ sand bedding, 3" (Enter linear feet for quantity)		30	0	50	0.00	0.00	0.00
600	Pipe w/ sand bedding, 4" (Enter linear feet for quantity)		35	21000	50	420.00	35.00	0.41
7000	Pipe w/ sand bedding, 6" (Enter linear feet for quantity)		50	350000	50	7000.00	583.33	6.86
	Standpipe Hydrant, 1-1/2"		700	0	20	0.00	0.00	0.00
7	Standpipe Hydrant, 2-1/2"		900	6300	20	315.00	26.25	0.31
85	Customer Meter w/ Box & Shutoff, Complete		250	21250	20	1062.50	88.54	1.04
	Distribution Valve, 2"		150	0	10	0.00	0.00	0.00
4	Distribution Valve, 3"		250	1000	10	100.00	8.33	0.10
4	Distribution Valve, 4"		600	2400	20	120.00	10.00	0.12
9	Distribution Valve, 6"		850	7650	20	382.50	31.88	0.38
6	Air & Vacuum Relief Valve, Typical		375	2250	20	112.50	9.38	0.11
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
<b>SUBTOTAL Existing CIP Costs</b>				<b>\$689,690.00</b>		<b>\$16,712.50</b>	<b>\$1,392.71</b>	<b>\$16.38</b>
<b>NEW Project CIP Costs</b>								
1	Iron & manganese removal plant		350000	350000	45	7777.78	648.15	7.63
1	New well & controls, complete		65300	65300	30	2176.67	181.39	2.13
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
	OTHER ITEM			0	1	0.00	0.00	0.00
<b>SUBTOTAL New Project CIP Costs</b>				<b>\$415,300.00</b>		<b>\$9,954.44</b>	<b>\$829.54</b>	<b>\$9.76</b>
<b>TOTAL Existing and New Project CIP:</b>				<b>\$1,104,990.00</b>		<b>\$26,666.94</b>	<b>\$2,222.25</b>	<b>\$26.14</b>

Report Prepared by (Title): \_\_\_\_\_

Date: \_\_\_\_\_

NOTE: Installed costs are averages and include all materials and contracted labor and equipment.

NOTES:

**2016 INTENDED USE PLAN  
FOR THE  
NORTH DAKOTA DRINKING WATER STATE REVOLVING LOAN FUND**

**PREPARED BY THE  
DRINKING WATER STATE REVOLVING LOAN FUND PROGRAM  
MUNICIPAL FACILITIES DIVISION  
ENVIRONMENTAL HEALTH SECTION  
NORTH DAKOTA DEPARTMENT OF HEALTH**

**November 18, 2015**

## TABLE OF CONTENTS

	<u>Page</u>
A. <b>Introduction</b> .....	1
B. <b>Priority List of Projects</b> .....	2
Background .....	2
Development Process.....	2
Comprehensive Project Priority List and Fundable List .....	3
Fundable List.....	3
C. <b>Criteria and Methods for the Distribution of Funds</b> .....	3
Background .....	3
Priority Ranking System.....	4
Ranking and Project Bypass Considerations .....	4
Capacity.....	5
D. <b>Set-Aside and Fee Activities</b> .....	6
Background .....	6
Mandatory Small System Project Set-Asides.....	6
Mandatory Additional Subsidization Set-Aside.....	6
Mandatory Green Project Reserve (GPR) Set-Aside .....	7
Optional Project Set-Asides.....	8
Optional Nonproject Set-Asides.....	8
Nonproject Set-Aside and Fee Activity .....	9
E. <b>Financial Status</b> .....	10
Background .....	10
Financial Structure.....	10
State 20 Percent Match Requirement.....	11
Anticipated Proportionality Ratio .....	11
Disbursement of Funds.....	11
Transfers of funds between the CWSRF and DWSRF .....	12
Funding Process .....	12
Loan Assistance Terms.....	13
Sources and Uses of Funds.....	14
State and Tribal Assistance Grants .....	14
F. <b>Short- and Long-Term Goals</b> .....	14
Background .....	14
Short-Term Goals .....	15
Long-Term Goals .....	15
Environmental Results .....	16
G. <b>Public Participation</b> .....	16
Background .....	16
Process.....	16

## **ATTACHMENTS**

- Attachment 1 - Eligible and Ineligible Projects and Project-Related Costs Under the Drinking Water State Revolving Loan Fund (DWSRF) Program
- Attachment 2 - Comprehensive Project Priority List And Fundable List
- Attachment 3 - Priority Ranking System for Financial Assistance Through the Drinking Water State Revolving Loan Fund (DWSRF) Program
- Attachment 4 - Nonproject Set-Aside and Loan Fee Activity Table
- Attachment 5 - Amounts Available to Transfer Between State Revolving Fund Programs
- Attachment 6 - Sources and Uses Table

## **A. Introduction**

On August 6, 1996, President Clinton signed into law the Safe Drinking Water Act (SDWA) Amendments of 1996 (P.L. 104-182). Section 1452 of the SDWA authorizes a Drinking Water State Revolving Loan Fund (DWSRF) program. It further requires the U.S. Environmental Protection Agency (EPA) to enter into agreements with and make capitalization grants to eligible states to assist public water systems (PWSs) in financing the costs of infrastructure needed to achieve or maintain compliance with the SDWA and to protect public health.

North Dakota's DWSRF federal allotments for fiscal years (FY) 1997 through 2015 totaled \$179,870,767 and the anticipated 2016 allotment is \$9,000,000. Allotted funds are provided by the EPA through capitalization grants and matched 20% by North Dakota.

DWSRF funds may be used for: loans, loan guarantees, as a source of reserve and security for leveraged loans (the proceeds of which must be placed in the DWSRF), to buy or refinance existing local debt obligations (publicly-owned systems only) where the initial debt was incurred and construction started after July 1, 1993, and to earn interest prior to disbursement of assistance. To the extent that there are a sufficient number of eligible projects, at least 15 percent of the funds available for construction must be annually used to provide loan assistance to PWSs that serve fewer than 10,000 persons. Up to 30 percent of the funds available for construction may also be used to provide subsidized loans to disadvantaged communities. A portion of the DWSRF allotments may also be used for nonproject set-aside activities such as: administration (up to 4 percent), state program assistance (up to 10 percent), small system technical assistance (up to 2 percent), and local assistance and state programs including the delineation and assessment of source water protection areas (up to 10 percent for any one activity with a maximum of 15 percent for all activities combined).

PWSs eligible for DWSRF assistance include community water systems, both publicly- and privately-owned, and nonprofit noncommunity water systems. Federally-owned PWSs are not eligible to receive DWSRF assistance. Attachment 1 depicts the types of projects and project-related costs that are eligible and ineligible for DWSRF assistance.

Section 1452(b) of the SDWA requires each state to annually prepare an Intended Use Plan (IUP). The IUP must describe how the state intends to use the DWSRF funds to meet the objectives of the SDWA and further the goal of protecting public health. The IUP must be made available to the public for review and comment prior to submitting it to the EPA as part of the capitalization grant application. Specifically, the IUP must include:

1. A priority list of projects, including a description of the projects and the present size of the PWSs served.
2. A description of the criteria and methods to be used for the distribution of funds.

3. A description of the financial status of the DWSRF program, including the use of set-asides along with funds reserved, and the amount of funds that will be used to assist disadvantaged communities; and,
4. A description of the short and long-term goals of the DWSRF program, including how the capitalization grant funds will be used to ensure compliance and protect public health.

This document is intended to serve as the state of North Dakota's IUP for 2016 and will stay in effect until superseded by a subsequent IUP. As per the authority granted to the North Dakota Department of Health (NDDoH) under NDCC Chapter 61-28.1, this document, as amended based on comments received from the public, will be incorporated into a capitalization grant application and submitted to the EPA to further capitalize the state's DWSRF program in the amount of \$9,000,000 (anticipated amount). State match bonds were issued in 2015 to provide the 20 percent match for capitalization grants through 2023.

## **B. Priority List of Projects**

### Background

States are required to develop and maintain a comprehensive priority list of eligible projects for funding and identify projects that will receive funding in the first year after the capitalization grant award. In determining funding priority, states must ensure, to the maximum extent practicable, that priority for the use of funds be given to projects that: 1) address the most serious risks to human health, 2) are necessary to ensure compliance under the SDWA, and 3) assist systems most in need on a per household basis (i.e., affordability).

### Development Process

As part of the IUP development process, all potential DWSRF loan recipients were requested to notify the NDDoH if they had a drinking water project not presently on the list for which they were interested in pursuing DWSRF financial assistance. Systems with already ranked and listed projects were requested to provide the NDDoH with a written update for each project either not yet under construction, or under construction using other than DWSRF funds. The updates were to include a detailed project description and cost estimate, the amount of DWSRF funds needed, and, as applicable, the anticipated construction start date. In lieu of this information, systems were asked to inform the NDDoH if they no longer intended to complete a project, or no longer intended to complete a project using DWSRF assistance. Systems requesting ranking of new projects were provided ranking questionnaires. Requests for project reranking or deletion were evaluated on a case-by-case basis, with ranking questionnaires provided as needed. Several projects were deleted due to completion (with or without DWSRF assistance) or the acquisition of other funding sources.

Finalized Project Priority Lists may be amended to include new non-emergency projects. Amendments are subject to public review and comment and may require State Water Commission approval.

### Comprehensive Project Priority List

See Attachment 2.

### Fundable List

The fundable list represents those projects from the comprehensive project priority list anticipated to receive loan assistance this year. The list of projects is based on anticipated start dates, projected funding needs, and expected available loan funds (see Section E). The list will change if such information or assumptions vary, if higher ranked projects not on the list become ready to proceed, or if projects on the list are bypassed (see Section C).

## **C. Criteria and Methods for the Distribution of Funds**

### Background

A DWSRF may provide assistance only for expenditures (excluding operation, maintenance, and monitoring) of a type or category which will facilitate compliance or otherwise significantly further health protection under the SDWA. Projects eligible for DWSRF financial assistance include investments to: address present SDWA exceedances, prevent future SDWA exceedances (of regulations presently in effect), replace aging infrastructure, restructure or consolidate water supplies, and buy or refinance existing debt obligations (publicly-owned systems only) where the initial debt was incurred and construction started after July 1, 1993. Attachment 1 provides additional information concerning the types of projects and project-related costs that are eligible for DWSRF financial assistance.

To the maximum extent possible, states are required to prioritize projects needed for SDWA compliance, projects that provide the greatest public health protection, and those projects that assist systems most in need based on affordability. The information below describes the process used by the NDDoH to select projects for potential DWSRF assistance.

## Priority Ranking System

The priority ranking system was developed by the NDDoH, the state agency with primary enforcement authority for the SDWA. The priority ranking system is designed to ensure that DWSRF funds are focused on projects that address the most serious risks to human health, rectify SDWA compliance problems, and assist those systems most in need based on affordability considerations. The priority ranking system has received both EPA Region VIII and Headquarter concurrence. The priority ranking system will be amended as needed to reflect the changing nature of the SDWA and the DWSRF Program. Any significant amendments will be presented for public review and comment in an IUP.

## Ranking and Project Bypass Considerations

It is the intent of the NDDoH that DWSRF funds are directed towards North Dakota's most pressing SDWA compliance problems and public health protection needs. To this end, the NDDoH reserves the right to require the separation, if feasible, of project components into separate projects if necessary to focus on critical water supply problems. Project components which are separated will be ranked independently. Projects for existing PWSs, including refinancing projects, will be given preference over projects for the development of new water systems.

Under the SDWA, DWSRF funds may be used to buy or refinance existing local debt obligations (publicly-owned systems only) where the initial debt was incurred and construction started after July 1, 1993. Cross-cutter requirements apply to these projects, including American Iron and Steel requirements for projects with initial debt and construction after January 17, 2014. DWSRF assistance requests of this type, if eligible, will be ranked based on the original purpose and success of the constructed improvements. In the event of a tie in project rankings, new projects for existing systems will be given preference over refinancing projects.

The NDDoH reserves the right to fund lower-ranked projects ahead of higher-ranked projects based on the considerations below. To the maximum extent possible, the NDDoH will work with bypassed projects to ensure that they will be eligible for funding in the following fiscal year. Criteria reviewed in bypassing a project included:

1. Readiness to proceed (i.e., applicant is prepared to begin construction and is immediately ready, or poised to be ready, to enter into assistance agreements)
2. Willingness to proceed (i.e., applicant withdraws project from consideration, obtains other funding sources, or is nonresponsive)
3. Emergency conditions (i.e., an unanticipated failure occurs requiring immediate attention to protect public health)

4. Financial (includes inability to pay and loan repayment issues), technical, or managerial capability
5. Meet the 15 percent requirement (i.e., funding lower-ranked project would satisfy the requirement that at least 15 percent of the funds available for construction be annually used to provide loan assistance to PWSs that serve fewer than 10,000 persons)
6. Meet the Green Project Reserve (if required)
7. Initial ranking score cannot be verified

The NDDoH, without going through a public review process, reserves the right to fund unanticipated, non-ranked emergency projects determined to require immediate attention to protect public health. Such assistance will be limited to eligible PWS types and project features, and to situations involving acute contaminants, loss or potential loss of a water supply in the near future, or that otherwise represent an unreasonable risk to health.

#### Capacity

Section 1452 of the 1996 SDWA Amendments precludes states from providing DWSRF assistance to any eligible PWS that lacks the capacity to maintain SDWA compliance unless the PWS owner or operator agrees to undertake feasible and appropriate changes to ensure compliance over the long term. States are also precluded from providing DWSRF assistance to any eligible PWS that is in significant noncompliance with any requirement of a National Primary Drinking Water Regulation (NPDWR) or variance unless such assistance will ensure compliance. PWS capacity, in the context of the SDWA, refers to the overall technical, managerial, and financial capability of a PWS to consistently produce and deliver drinking water meeting all NPDWRs. The NDDoH has the legal authority and responsibility under NDCC Chapter 61-28.1 to ensure PWS capacity.

The NDDoH will use the DWSRF loan application as the principal control point for capacity assessment. Information from the loan application, and other available and relevant information (such as SDWA compliance data, sanitary survey reports, and operator certification status), will be evaluated to assess capacity at present and for the foreseeable future. The North Dakota Public Finance Authority (PFA), as financial agent for the DWSRF Program through formal agreement, will evaluate the financial information requested in the loan application. Based upon input provided by the DWSRF Program regarding technical and managerial capability, the PFA will make recommendations to the DWSRF Program concerning financial capability. The final decision regarding overall capacity will be made by the DWSRF Program.

As required by the SDWA, DWSRF assistance will be denied to applicants that are considered a Priority System because they score eleven or higher in the Enforcement Tracking Tool if it is determined that the project will not ensure compliance. Likewise, DWSRF assistance will be denied to applicants that lack capacity if they are unwilling or unable to undertake feasible and

appropriate changes to ensure capacity over the long term. The lack of capacity at the time of loan application will not preclude DWSRF assistance if the project will ensure compliance, or the applicant agrees to implement changes that will rectify capacity problems. On a case-by-case basis, special conditions may be included in loan agreements to rectify compliance and/or capacity problems. As needed and appropriate, the NDDoH will utilize other specific legal authorities as control points to ensure capacity. This includes the review and approval of plans and specifications. Under North Dakota Century Code Chapter 61-28.1 and North Dakota Administrative Code Chapters 33-03-08 and 33-18-01, the NDDoH is both empowered and required to review and approve plans and specifications for all new or modified drinking water facilities prior to construction.

#### **D. Set-Aside and Fee Activities**

##### Background

Under the SDWA, states are required to set aside a certain percentage of their available DWSRF loan funds to provide financial assistance to small systems. States at their option may also set aside a portion of their federal DWSRF allotment for certain other project and nonproject activities, and assess fees on loans to help support administration costs. A description of the different set-asides and past/proposed activities related to both set-asides and fees follows.

##### Mandatory Small System Project Set-Aside

States must annually use at least 15 percent of all funds credited to the DWSRF loan fund to provide loan assistance to PWSs that serve fewer than 10,000 people to the extent that there are a sufficient number of eligible projects to fund. States that exceed the 15 percent requirement in any one year are permitted to bank the excess toward future years.

One hundred ninety (190) loans totaling \$422,164,799 have been approved to date. One hundred sixty five (165) of these loans (totaling \$205,367,966 or 49 percent of loan total) represent PWSs that serve fewer than 10,000 people. The NDDoH envisions that additional loans will be made to small PWSs based on the comprehensive project list and fundable list (See Attachment 2).

##### Mandatory Additional Subsidization Set-Aside

Congress has mandated in several previous appropriations bills that 20 to 30 percent of assistance provided from DWSRF capitalization grants be in the form of additional subsidies. The DWSRF program provides these additional subsidies as loan forgiveness. The NDDoH has the authority under state law, N.D.C.C. Chapter 61-28.1, to provide financial assistance through the DWSRF as authorized by federal law and the USEPA.

Criteria for determining the amount of loan forgiveness is on a project specific basis. Loan forgiveness will be based on the relative future water cost index (RFWCI). The RFWCI is defined as the ratio of expected average annual residential user charge for water service resulting

from the project, including costs recovered through special assessments, to the local median household income (based on the American Communities Survey (ACS) 5-Year Estimate).

For 2016, projects with a RFWCI of 2.0 percent or greater will qualify for 75 percent loan forgiveness. Projects with a RFWCI of 1.5 percent to 1.9 percent will qualify for 40 percent loan forgiveness. Projects with a RFWCI less than 1.5 percent will not qualify for any loan forgiveness. Projects that do not qualify for loan forgiveness still qualify for a traditional DWSRF loan. The loan forgiveness cap for any one project is \$1.25 million.

Loan forgiveness will only be used to finance new construction. DWSRF loan and loan forgiveness can be bundled together with funding from other sources to form funding packages for projects.

To meet Congressional and EPA capitalization grant spend-down intent for the DWSRF program, the loan forgiveness cap for FY2015 and earlier capitalization grants is removed. The max percentage of loan forgiveness will also be raised to 75 percent from 60 percent and to 40 percent from 30 percent for these capitalization grants.

Timely progression of additional subsidization projects is required. To ensure this, there will be an application deadline, a binding commitment deadline, and a loan forgiveness disbursement deadline. If projects identified as receiving additional subsidization do not meet these deadlines the additional subsidization set-aside will be used to fund lower ranked projects on the project priority list.

It is unknown at this time if mandatory additional subsidization will apply to the FY2016 DWSRF allotment. To address this potential requirement, the fundable portion of the comprehensive project priority list depicts at least 20 percent (\$1,800,000) additional subsidization through loan forgiveness. Adjustments will be made, as necessary, based on the actual required subsidization level and capitalization grant amount.

#### Mandatory Green Project Reserve (GPR) Set-Aside

Congress has mandated in several previous appropriations bills that 10 to 20 percent of assistance provided from DWSRF capitalization grants, to the extent there are sufficient eligible project applications, be used for water efficiency, energy efficiency, green infrastructure, or other environmentally innovative activities. Where it is not clear that a project or component qualifies to be included as counting towards the requirement, the files for such projects will contain documentation of the business case on which the project was judged to qualify, as described in the DWSRF capitalization grant requirements.

It is unknown at this time if mandatory GPR will apply. Adjustments will be made to the priority list based on the actual GPR requirement and capitalization grant amount.

### Optional Project Set-Asides

States may provide additional loan subsidies (i.e., reduced interest or negative interest rate loans, principal forgiveness) to benefit communities meeting the definition of disadvantaged or which the state expects to become disadvantaged as the result of the project. A disadvantaged community is one in which the entire service area of a PWS meets affordability criteria established by the state following public review and comment. The value of the subsidies cannot exceed 30 percent of the amount of the federal capitalization grant for any fiscal year. The EPA is required to provide guidance to assist states in developing affordability criteria.

The NDDoH has not developed a disadvantaged community program, and is not proposing to do so in this IUP. This decision is based primarily upon majority opinions obtained during initial development of the DWSRF Program, and the NDDoH's desire to maximize the long-term availability of funds for construction purposes.

### Optional Nonproject Set-Asides

States may use a portion of their federal DWSRF allotment (up to specified ceilings) for the following nonproject set-aside activities:

- DWSRF Administration - up to 4 percent
- State Program Administration - up to 10 percent
- Public Water Supply Supervision (PWSS) Program, source water protection program(s), capacity development program, and operator certification program
- Small System Technical Assistance (serving 10,000 or fewer people) - up to 2 percent
- Local Assistance and Other State Programs - up to 10 percent for any one activity with a maximum of 15 percent for all activities combined
- Loans to PWSs to acquire land or conservation easements for source water protection programs
- Loans to community water systems to implement source water protection measures, or to implement recommendations in source water petitions
- Assist PWSs in capacity development
- Assist states in developing/implementing an EPA-approved wellhead protection program

States may transfer funds among the nonproject set-aside categories, or between the loan fund and such set-aside categories, provided that the statutory set-aside ceilings are not exceeded. Nonproject set-aside funds may be transferred at any time to the loan fund. However, loan commitments must be made for the transferred funds within one year of the transfer if payments have already been taken for the set-aside funds. Monies intended for the loan fund may be transferred to nonproject set-asides only if no payments have yet been taken for the monies to be transferred. Otherwise, funds in or transferred to the loan fund must remain in the loan fund. Transfers may be done only if described in an IUP and approved by the EPA as part of a capitalization grant agreement or amendment.

## Nonproject Set-Aside and Fee Activity

Attachment 4 depicts nonproject set-aside and fee activity. The anticipated FY 2016 federal DWSRF allotment for North Dakota is \$9,000,000. The NDDoH intends to set aside \$1,025,000 of the allotment for non-project activities. The NDDoH also intends to reserve \$415,000 of set-aside funds of the FY2016 capitalization grant for use in future years in addition to funds held in reserve from previous years. The state program administration (PWSS Program) set-aside is \$500,000 and an additional \$400,000 will be held in reserve for future years. The 2 percent set-aside for small system technical assistance is \$165,000 and an additional 15,000 will be held in reserve for use in future years. The 4 percent set-aside for DWSRF administration is \$360,000. The 4 percent set-aside will be held for ongoing and future DWSRF program administration. The 10 percent set-aside will also be held for ongoing and future PWSS administration. The 2 percent set-aside will be held for ongoing and future small system technical assistance. Should the capitalization grant be different from \$9,000,000, the set-aside for DWSRF program administration will be adjusted to 4 percent of the actual capitalization grant awarded. The amount held in reserve from the 2 percent and state program administration will be changed to hold in reserve the remainder of the set-aside that is not being taking in addition to funds held in reserve from previous Intended Use Plans.

The NDDoH has limited and will continue to limit the usage of set-asides to maximize funds available for construction. Set-aside usage has been restricted to that necessary to administer the program (4 percent set-aside), provide technical assistance to small PWSs (2 percent set-aside), to provide state program administration (10 percent set-aside), and to complete source water assessments mandated under the SDWA (15 percent set-aside).

The 4 percent set-aside is inadequate to cover the cost of administering the DWSRF Program. Also, Congress will choose at some point to no longer capitalize the program, at which time no new funds will be available for program administration. Based on these considerations, the NDDoH considers it both prudent and necessary to set-aside and hold the full 4 percent from each grant, and to hold accumulated loan administration fees to enable ongoing and future administration of the program.

Funds from the 2 percent set-aside have been used to assist small PWSs in capacity development, financial capacity, operator certification, managerial capacity and source water protection. Funds from this set-aside will continue to be used for these purposes and for new initiatives such as assisting these communities be in compliance with the new RTCR rule. The NDDoH closely monitors demand and need for this set-aside to avert over-accumulation of funds.

The 10 percent state program administration set-aside will be used to help fund administration of the PWSS program in pursuit of its mission. This set-aside requires 1:1 match by the state. One of the sources of funds for this 1:1 match is the 0.5 percent loan administration fee. Another source of funding for the 1:1 match is credit for state match funds spent in 1993 on administration of the PWSS program. This credit is good for up to half of the 1:1 match with a maximum credit of \$236,359 per year. This match credit does not represent spendable funds.

Under the SDWA, states are permitted to assess fees on loans to support DWSRF administration costs. North Dakota DWSRF loan recipients are required to pay an annual loan administration fee presently set at 0.5 percent of the outstanding loan principal balance. This loan administration fee is payable semiannually on each loan payment date. The fees are held under the master trust indenture and are available to pay DWSRF program administration costs allowable under the SDWA. To enable continued management of the DWSRF once it is no longer annually capitalized through federal grants, loan administration fees will be held and used for loan-bond servicing and DWSRF Program administration as allowed under the SDWA.

Starting in

2008, the loan administration fees are also used as a source of 1:1 match that is required when using the state program administration set-aside to administer the PWSS program.

To meet Congressional and EPA capitalization grant spend-down intent for the DWSRF program, \$327,112 (or what amount remains) from the FY2013 10 percent state program administration set-aside will be moved to the construction loan fund during 2016.

## **E. Financial Status**

### Background

States are required to provide a description of the financial status of their DWSRF Program. The information presented below describes the financial structure of the North Dakota DWSRF, the method used to generate the required state match, transfers between SRF's (State Revolving Loan Funds), the basis for approving loans, loan assistance terms including a discussion concerning market interest rates in North Dakota, sources and intended use of funds, and special considerations for State and Tribal Assistance Grants.

### Financial Structure

Bonds for the 20 percent state match are issued by the PFA under a master trust indenture adopted by the Industrial Commission of North Dakota. The PFA may also issue leveraged bonds under the master trust indenture, the proceeds of which can be used to fund loans.

The current demand for DWSRF loan assistance in North Dakota exceeds authorized federal DWSRF allotments and the required state match for those allotments. Under the financial structure initially established for the DWSRF, excess leveraging and higher loan interest rates would be needed to satisfy this excess demand.

A modified financial structure within the existing master trust indenture has been implemented to better satisfy the continuing high demand for DWSRF financial assistance, yet avert excessive leveraging and higher loan interest rates. Under the modified structure, DWSRF allotments and state match bond proceeds will be used first to fund loans. Leveraged bonds will be issued only if loan demand exceeds the amount of DWSRF allotments and state match available for loans or

if deemed in the best interest of the program. If leveraged bonds are issued, they will be sized, together with DWSRF allotments and state match, to satisfy current cash flow needs as represented by the projected annual construction costs of eligible projects. This funding approach will expedite loan assistance to more projects that are ready to proceed to construction, avert premature or unnecessary bond issuances, and ensure a more reliable loan repayment stream to satisfy both bond debt service requirements and future loan demand.

The master trust indenture for the DWSRF provides that, in the event there are insufficient amounts available to make scheduled principal and interest payments on outstanding DWSRF bonds when payments are due, the trustee may transfer available excess revenues from the Clean Water State Revolving Fund (CWSRF) to the DWSRF bond fund to meet the deficiency. Following such a transfer, the DWSRF has an obligation to reimburse the CWSRF with future available DWSRF excess revenues.

#### State 20 Percent Match Requirement

Under the SDWA, states are required to match their DWSRF allotment at an amount at least equal to 20 percent. North Dakota has issued state match bonds to satisfy through FY2023 match requirements.

#### Anticipated Proportionality Ratio

Bonds were sold in 2015 to provide the required 20 percent state match through FY2023. Payments were made using 100 percent state match funds until all of the match funds were disbursed. The program is in an over-matched condition at this time. Funds will be disbursed at a rate of 100 percent federal, state match, leveraged, or FCLA funds because of this over-match condition.

#### Disbursement of Funds

Funds will be dispersed in the following order: federal, state match, leveraged bond proceeds, and FCLA. To increase the rate of draw for both capitalization grant and leveraged funds, leveraged bonds proceeds will be used to fund loan payment requests. Capitalization grant funds will be immediately requested to replace the disbursed leveraged bond proceeds and deposited into the FCLA account.

The DWSRF is currently over-matched with no state match funds available for disbursement. Set-asides are closely monitored and disbursed quickly when requests are made to ensure timely expenditure and avoid over-accumulation. All federal funds are disbursed in a first-in, first-out manner.

## Transfer of Funds Between DWSRF and CWSRF

At the governor's discretion, a state may transfer up to 33 percent of its DWSRF capitalization grant to the CWSRF or an equal amount from the CWSRF to the DWSRF. In addition to transferring grant funds, states can transfer state match, investment earnings, principal and interest repayments, unrestricted cumulative excess, restricted cumulative excess, or FCLA between SRF programs.

Transfers were authorized by the Governor in 2002, 2004, 2007 and 2015. These funds are transferred between the programs on an as needed basis. The Governor's authorizations are as follows:

- 2002 - \$10.0 million from CWSRF to DWSRF
- 2004 - \$4.0 million from CWSRF to DWSRF
- 2007 - \$20.0 million from CWSRF to DWSRF (with provision to return funds to CWSRF as needed)
- 2009 - \$2.6 million of ARRA funds from CWSRF to DWSRF
- 2015 - \$60.0 million from DWSRF to CWSRF (with provision to return funds to DWSRF as needed)

The NDDoH is anticipating the continued transfer of funds to the CWSRF in 2016 as authorized in 2015. Approximately \$1,000,000 of non-federal funds will be transferred.

The NDDoH transfers funds on a net basis, since prior transfers have occurred between the two SRFs. Transferring funds will not impact DWSRF set-aside funding. The long-term impact to the DWSRF of the \$20 million transferred to the CWSRF in 2015 is estimated to be an average revolving level decrease of \$2 million/year over the next 20 years. With this transfer, the CWSRF Program will be able to fund additional water projects during 2016. The net transfer between programs is \$4,415,627 million from the DWSRF to the CWSRF. Attachment 5 itemizes the amount of funds transferred to and from the DWSRF program.

## Funding Process

Projects may be submitted to the NDDoH each year for consideration and inclusion into an IUP. A new IUP is developed for public review and comment in the fall of each year. New and eligible projects for which ranking questionnaires are submitted are evaluated, ranked (if possible), and included on the comprehensive project priority list. Requests for reranking of already-listed and ranked projects are evaluated on a case-by case basis, and may require the completion of an updated ranking questionnaire.

Loan approvals are based on project ranking, readiness to proceed, and availability of funds based on cash flow considerations including projected disbursements under already approved and potential new loans. The NDDoH is prepared to issue leveraged bonds if the loan demand exceeds the amount of available DWSRF allotments and state match or if it is in the best interest of the program.

## Loan Assistance Terms

The base repayment period for DWSRF loans under the SDWA is 20 years following project completion. The NDDoH may utilize shorter repayment periods on a project-by-project basis. Candidate projects include low-cost projects for which minimal water rate increases will be required to retire the loan debt. The present loan interest rate is 2.0 percent for PWSs that qualify for tax-exempt financing and 3.0 percent for those that do not qualify for tax-exempt financing, with the exception of projects that use leveraged bond proceeds. Leveraged bonds will be discussed later in this section. As discussed under Section D, an annual loan fee of 0.5 percent is assessed on all loans to support DWSRF administration.

The SDWA requires that the interest rate for a loan be less than or equal to the market interest rate. The NDDoH will monitor compliance with this requirement by establishing as the market interest rate the average interest rate received by the North Dakota political subdivisions on bond issues with twenty-year maturity sold on a competitive or negotiated basis during the prior quarter. This rate will be calculated and updated quarterly based upon the prior quarter bond sales. If there are no qualified bond sales, the market rate for that quarter will be calculated using comparable regional bond issues. Based upon fourth quarter 2015 North Dakota twenty-year competitive bond sales, the current market interest rate is 2.95 percent

Leveraging the fund is appropriate where financing needs significantly exceed available funds; however, it impacts the DWSRF by reducing the interest rate subsidy provided or reducing future loan capacity. By continuing to leverage, the program will be able to assist more communities currently on the priority list and help those communities achieve or remain in compliance with the SDWA. Loans necessitating leveraging will be subject to a loan interest rate (including the 0.5 percent administration fee) of 75 percent of the current market interest rate if needed to maintain program viability. The interest rate on these loans will be more than regular DWSRF interest rate, which currently is 2.5 percent (which includes the 0.5 percent administration fee).

There is now an option for extended term financing beyond the base 20-year loan repayment period. Extended term financing allows for repayment periods to be 30 years or the useful life of the project, whichever is less. A 30-year repayment period will be granted if it is determined that the principal portion of the loan for project components that have a useful life of 20 years or less will be paid off within 20 years. Project components that are considered to have a 20-year or less useful life are: process equipment, pumps, electrical equipment, controls, and auxiliary equipment. Project components that are considered to have a 30-year or more useful life are: buildings, concrete, other structures, conveyance structures (piping), and earthen structures.

Extended term financing will be given to the extent that loans to projects on the fundable list with repayment periods of more than 20 years do not decrease expected DWSRF program repayments by more than 10% annually over the next 5 years, as compared to 20-year repayment at the same rate. Allowing extended term financing for projects on the Fundable List could cause

the loan repayments over the next five years to decline by an average 9.61%. Refinancing of existing DWSRF loans will not be allowed using extended term financing.

### Sources and Uses of Funds

Attachment 6 depicts a detailed breakdown of sources and uses of funds from FY1997 through FY2016. Sources of funds include \$3,399,188 in funds available from prior years. An additional \$7,975,000 of new funds are anticipated to become available in 2016. Thus \$10,374,188 of funds is available for projects. All of the funds are allocated to projects as shown in the Comprehensive Project Priority List and Fundable List (Attachment 2). This amount does not include any leveraged bonds, but the NDDoH is prepared to issue bonds if the near-term loan demand exceeds available funds.

### State and Tribal Assistance Grants

State and Tribal Assistance Grants (STAG grants) are grants that pass through EPA and go straight to drinking water systems. These grants are for 55 percent of the project. The system must provide the remaining 45 percent of the project as a local match. To avoid the higher cost of issuing municipal bonds, most systems wish to utilize DWSRF loan funds to satisfy the match requirement for these grants. By EPA policy, only non-federal DWSRF funds may be used toward the match. Non-federal funds are limited to loan repayments, earnings, bond proceeds in excess of the capitalization grants, and other state contributions in excess of the required 20 percent state match. Initially the North Dakota DWSRF had insufficient non-federal funds to satisfy match requirements for these grants. Consequently, the NDDoH in the past has transferred \$14.0 million from the CWSRF to the DWSRF to acquire sufficient non-federal funds to assist systems in this matter. The DWSRF has transferred back \$10 million in federal funds to the CWSRF.

Currently Grafton has an open STAG grant and must provide a 45 percent local match. Systems in North Dakota have received a combined \$28.7 million in STAG grants since 1999 and must provide a combined \$23.0 million in matching funds. The NDDoH will fund loans to these and other systems that are awarded STAG grants as long as the program has non-federal funds available. Should the program not have non-federal funds to make loans, loans will be made in future years as these funds become available.

## **F. Short- and Long-Term Goals**

### Background

The 1996 SDWA Amendments authorize a DWSRF Program to assist PWSs finance the costs of infrastructure needed to achieve or maintain compliance with SDWA requirements and to protect public health. The objectives of the NDDoH's DWSRF Program include addressing public problems and priorities, ensuring compliance with the SDWA, assisting systems to ensure affordable drinking water, and maintaining the long-term viability of the fund. To address these

objectives, the DWSRF Program will help ensure that North Dakota's public water supplies remain safe and affordable through prioritized financial assistance, enhanced source water protection activities, and increased technical assistance to small systems. The short and long-term goals set forth below are established to accomplish these objectives.

### Short-Term Goals

1. On December 11, obtain North Dakota State Water Commission approval of this IUP.
2. Continue to implement the DWSRF program for the state of North Dakota by funding projects for systems that are having problems maintaining compliance with the revised total coliform rule, ground water treatment rule, the arsenic rule, the disinfection byproduct rule series and the surface water treatment rule series.

### Long-Term Goals

1. Help North Dakota PWSs achieve and maintain compliance with the SDWA. This is accomplished by coordinating with the PWSS Program and targeting those rules that systems in the state are having problems maintaining in compliance. These include revised total coliform rule, ground water treatment rule, arsenic, disinfection byproduct rule series and the surface water treatment rule series.
2. Assist the PWSS Program meet their goals. The DWSRF program assistance includes providing technical support on infrastructure issues, capacity reviews and small system technical assistance. Through the small system technical assistance set-aside the DWSRF Program helps operators become certified, systems return to compliance, and systems maintain capacity.
3. Administer the DWSRF Program in a manner that will maximize the long-term availability of funds for eligible and needed drinking water infrastructure improvements.
4. Assist North Dakota PWSs in improving drinking water quality, quantity, and dependability by providing reduced interest rate, long-term financial assistance for eligible and needed drinking water infrastructure improvements. This infrastructure assistance helps with compliance of drinking water rules, regionalization/consolidation and replacement of aging infrastructure.
5. Continue to integrate to the maximum extent possible DWSRF funding with other available funding to maximize the benefits to public water systems and needed drinking water projects statewide. The cooperating agencies include the United States Department of Agriculture, Community Development Block Grant Program, North Dakota Department of Land Trusts, and the North Dakota State Water Commission.

## Environmental Results

### 3. Loan Fund

- a. Through 12/31/14, the fund utilization rate, as measured by the ratio of executed loans to funds available for projects, was 96 percent, which is above the national average of 93 percent. For 2016, the goal of the DWSRF program is to maintain the fund utilization rate at 90 percent or above.
- b. Through 12/31/14, the rate at which projects progressed as measured by disbursements as a percentage of assistance provided was 73 percent. This is below the national average of 80 percent. The 2016 goal is to return the construction pace to 80 percent.
- c. The DWSRF program funded 6 projects in the first nine months of 2015 totaling \$11.7 million and serving a population of 8,285. For 2016, the goal of the DWSRF program is to fund 7 loans, totaling \$10.8 million and serving a population of 15,000.

### 4. Set asides, Small System Technical Assistance

- a. The goal for systems receiving training is 120.
- b. The goal for systems receiving on-site technical assistance is 50.

## G. Public Participation

### Background

States are required to make their annual IUP available to the public for review and comment prior to submitting it to the EPA as part of its capitalization grant application. States are also required to describe the public review process used and how it responded to major comments and concerns that were received.

### Process

The public was invited to comment on the draft 2016 IUP at a public hearing held in Bismarck on November 10, 2015. Written comments were also accepted until November 17, 2015. No comments were received.

## ATTACHMENT 1

### **ELIGIBLE AND INELIGIBLE PROJECTS AND PROJECT-RELATED COSTS UNDER THE DRINKING WATER STATE REVOLVING LOAN FUND (DWSRF) PROGRAM**

#### **EXAMPLES OF ELIGIBLE PROJECTS AND PROJECT-RELATED COSTS**

- Projects that address present Safe Drinking Water Act (SDWA) exceedances
- Projects that prevent future SDWA exceedances (applies only to regulations in effect)
- Projects to replace aging infrastructure
  - rehabilitate or develop drinking water sources (excluding reservoirs, dams, dam rehabilitation and water rights) to replace contaminated sources
  - install or upgrade drinking water treatment facilities if the project would improve the quality of drinking water to comply with primary or secondary SDWA standards
  - install or upgrade storage facilities, including finished water reservoirs, to prevent microbiological contaminants from entering the water system
  - install or replace transmission and distribution piping to prevent contamination caused by leaks or breaks, or to improve water pressure to safe levels
- Projects to restructure and consolidate water supplies to rectify a contamination problem, or to assist systems unable to maintain SDWA compliance for financial or managerial reasons (assistance must ensure compliance)
- Projects that purchase a portion of another system's capacity, if such purchase will cost-effectively rectify a SDWA compliance problem
- Land acquisition
  - land must be integral to the project (i.e., needed to meet or maintain compliance and further public health protection such as land needed to locate eligible treatment or distribution facilities)
  - acquisition must be from a willing seller

Note: The cost of complying with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act) is an eligible cost.
- Planning (including required environmental assessment reports), design, and construction inspection costs associated with eligible projects

#### **EXAMPLES OF INELIGIBLE PROJECTS AND PROJECT-RELATED COSTS**

- Dams, or rehabilitation of dams
- Water rights, except if the water rights are owned by a system that is being purchased through consolidation as part of a capacity development strategy
- Reservoirs, except for finished water reservoirs and those reservoirs that are part of the treatment process and are located on the property where the treatment facility is located
- Drinking water monitoring costs
- Operation and maintenance costs
- Projects needed mainly for fire protection
- Projects for systems that lack adequate technical, managerial and financial capability, unless assistance will ensure compliance
- Projects for priority systems in the Enforcement Tracking Tool, unless funding will ensure compliance
- Projects primarily intended to serve future growth

## Attachment 2

## State of North Dakota

## Drinking Water State Revolving Loan Fund Program

Comprehensive Project Priority List and Fundable List for 2016<sup>(1)</sup>

Shaded projects are on the fundable list

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
14	21	0901530-01	Alexander	1,100	Replacement of aging distribution, water treatment, wells, meters and looping of mains	2016	3,000	3,000	
103	12	3200023-02	Aneta	222	Fire hydrant replacement	2016	291	3,291	
131	10	0900030-03	Argusville	475	Watermain replacement and looping	2016	1,066	4,357	
92	12	2701506-01	Arnegard	700	Distribution system improvements	2016	4078	8,435	
69	14	0900035-01	Arthur	337	Water tower replacement	2016	1,400	9,835	
57	15	0900035-02	Arthur	337	Watermain, hydrant, gate valve, and service replacement	2016	3,025	12,860	
82	13	0501057-03	ASWUD	764	Water supply increase by paralell and looping	2016	796	13,656	
122	11	0501057-04	ASWUD	1,130	Water system improvements	2016	27,919	41,575	
12	22	4001153-05	ASWUD	670	New transmission line, WTP upgrades, well field expansion, new water storage	2016	10,463	52,038	
48	16	1700059-01	Beach	1,300	Distribution system repair, water tower rehabilitation	2017	1,996	54,034	
174	7	4500065-01	Belfield	1,005	New transmission line	2017	1,343	55,377	
23	19	2900074-01	Beulah	3,121	WTP improvements and water storage	2016	6,000	61,377	
208	5	2900074-02	Beulah	3,121	Watermain, hydrant, and gate valve replacement	2016	1,000	62,377	
184	7	2900074-03	Beulah	3,121	Water tower rehabilitation	2016	1,000	63,377	
151	9	0600119-01	Bowman	1,800	Watermain replacement	2016	1,320	64,697	
112	11	0600119-02	Bowman	1,800	Watermain replacement	2017	1,000	65,697	
100	12	0900134-02	Buffalo	225	Replace existing watermains, gate valves and hydrants	2016	1,900	67,597	
74	13	0900134-03	Buffalo	225	New pump house and reservoir	2016	650	68,247	
49	15	5100138-01	Burlington	1,060	New water tower, transmission main and pump station	2017	2,594	70,841	
61	14	4800152-01	Cando	1,115	Water treatment plant improvements and well replacement	2016	1,500	72,341	
181	7	4800152-02	Cando	1,115	Watermain replacement	2016	1,750	74,091	
56	15	1900162-01	Carson	293	Watermain replacement	2016	3,941	78,032	
206	5	0900166-02	Casselton	2,329	Water tower replacement	2017	1,955	79,987	
17	21	3400170-01	Cavalier	1,302	Water tower rehabilitation	2018	2,006	81,993	
173	7	3300174-02	Center	580	Watermain replacement (Main St)	2016	525	82,518	
62	14	3900183-02	Christine	150	Watermain replacement and looping	2016	580	83,098	
109	11	3900196-01	Colfax	141	Watermain replacement and looping	2016	478	83,576	
9	24	0700198-03	Columbus	125	Watermain replacement, smart meters, treated water storage reservoir	2016	1,585	85,161	20 yr
87	13	2000203-08	Cooperstown	984	Reservoir replacement	2016	600	85,761	
3	31	0901060-05	CRW	13,385	Leonard Area Arsenic Project	2016	2,500	88,261	20 yr

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
193	6	0901060-06	CRW	7,750	Increased capacity to Horace Area - wellfield, WTP, reservoir, and transmission main improvements	2016	6,800	95,061	
146	9	0901060-07	CRW	7,750	System elevated tower	2016	3,584	98,645	
142	9	0901060-08	CRW	13,385	New transmission lines, distribution lines, and storage	2017	2,750	101,395	
113	11	2001061-01	Dakota RWD	3,523	Watermain replacement, upgrade vaults	2016	1,325	102,719	
18	20	0900217-01	Davenport	252	New transmission main, increased storage and control replacement	2016	616	103,335	
77	13	3400269-02	Drayton	824	Replace clearwell, replace chemical feed and rehab water tower	2017	2,000	105,335	
59	15	1900303-01	Elgin	642	Watermain replacement	2016	1,076	106,411	
8	24	1100306-01	Ellendale	1,394	Storage tank replacement, WTP improvements, distribution system improvements	2016	2,013	108,424	20 yr
140	10	3700314-04	Enderlin	886	New wells & transmission line	2016	1,648	110,072	
117	11	3700314-05	Enderlin	886	Watermain replacement	2016	773	110,845	
30	18	3700314-06	Enderlin	886	New lime softening WTP & storage	2016	8,065	118,910	
118	11	3700314-07	Enderlin	886	Water tower replacement	2016	1,957	120,867	
36	17	3900333-02	Fairmount	367	Water tower and controls replacement	2016	950	121,817	
111	11	3900333-03	Fairmount	367	Watermain replacement and looping	2016	655	122,472	
164	8	0900336-04	Fargo	105,549	Water tower rehabilitation 2019	2019	2,300	124,772	
139	10	0900336-05	Fargo	105,549	Water system regionalizaion project	2016	12,000	136,772	
165	8	0900336-06	Fargo	105,549	Water tower rehabilitation 2016	2016	528	137,300	
97	12	0900336-07	Fargo	105,549	Water tower level and distribution controls	2018	1,489	138,789	
166	8	0900336-09	Fargo	105,549	Water tower rehabilitation 2017	2017	3,110	141,899	
167	8	0900336-11	Fargo	105,549	Low lift transfer pump station	2021	8,221	150,120	
168	8	0900336-12	Fargo	105,549	WTP residuals facility	2018	23,361	173,481	
169	8	0900336-13	Fargo	105,549	Water tower rehabilitation 2018	2018	2,257	175,738	
170	8	0900336-14	Fargo	105,549	Water tower rehabilitation 2021	2021	2,178	177,916	
98	12	0900336-15	Fargo	105,549	Ground storage reservoir 2 and pump station	2021	11,774	189,690	
202	6	0900336-16	Fargo	105,549	WTP study	2016	7,500	197,190	
55	15	3000342-01	Flasher	230	Watermain replacement	2016	409	197,599	
31	18	0700344-01	Flaxton	66	Watermain replacement and additional well	2016	282	197,881	
53	15	1100346-1	Forbes	53	Watermain, gate valve & hydrant replacement	2016	1,000	198,881	
150	9	4100357-01	Forman	504	Water tower replacement	2016	1,000	199,881	
60	14	4100357-02	Forman	504	New well, well upgrades and transmission line replacement	2016	400	200,281	
107	11	4100357-03	Forman	504	WTP rehabilitation and new conrols	2016	500	200,781	
145	9	4100357-04	Forman	504	Watermain replacement	2016	500	201,281	
94	12	0900387-01	Gardner	74	Watermain replacement and looping	2016	400	201,681	
162	8	2800389-03	Garrison	1,453	Replacement of water intake structure	2016	2,000	203,681	
136	10	2800389-04	Garrison	1,453	WTP expansion, new intake and pumps	2016	5,000	208,681	
137	10	2800389-05	Garrison	1,453	Watermain Replacement	2016	4,500	213,181	

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
214	4	2801430-02	Garrison RWD	1,525	New reservoir and pump station	2017	2,536	215,717	
83	13	3000400-01	Glen Ullin	804	Watermain replacement	2016	242	215,959	
91	12	3800397-01	Glenburn	380	Watermain replacement and looping	2016	1,640	217,599	
121	11	3800397-02	Glenburn	380	Water tower rehabilitation	2016	2,350	219,949	
134	10	5000408-04	Grafton	4,913	Park River water intake improvements	2018	1,146	221,095	
52	15	5000408-05	Grafton	4,913	Pretreatment and advanced oxidation WTP improvements	2020	9,100	230,195	
25	19	1800410-03	Grand Forks	55,158	WTP, facility plan, and design	2016	137,000	367,195	
84	13	1800410-04	Grand Forks	55,158	Watermain looping	2019	4,784	371,979	
124	11	1801062-03	Grand Forks- Traill RWD	6,753	Upsizing transmission lines	2017	4,120	376,099	
116	11	2500415-02	Granville	241	Water main replacement	2016	306	376,405	
144	9	5300425-02	Grenora	300	Watermain replacement	2016	410	376,815	
65	14	3900443-03	Hankinson	919	Watermain looping	2016	575	377,390	
41	17	2000446-02	Hannaford	131	Water tower replacement	2016	1,200	378,590	
11	23	1500469-02	Hazelton	235	Well house improvements	2016	200	378,790	
176	7	2900470-02	Hazen	2,534	Watermain replacement	2016	409	379,199	
178	7	3000473-01	Hebron	747	Watermain replacement	2016	888	380,087	
182	7	0100476-01	Hettinger	1,226	Watermain replacement	2016	600	380,687	
104	12	4600487-02	Hope	303	Service to west side of railroad tracks	2016	185	380,872	
216	2	0900488-01	Horace	2,430	Gate valve and fire hydrant replacement, new watermain	2016	494	381,366	
185	7	0900488-02	Horace	3,400	Water tower rehabilitation	2016	150	381,516	
212	4	0900488-03	Horace	3,400	Water meter replacement	2016	546	382,062	
76	13	0900492-01	Hunter	401	Pump house upgrades, water tower replacement	2016	2,000	384,062	
101	12	0900492-02	Hunter	401	Watermain replacement	2016	3,000	387,062	
132	10	4700498-06	Jamestown	16,000	North east pressure zone improvements	2016	1,725	388,787	
96	12	4700498-07	Jamestown	16,000	Phase 3 - Transmission line	2017	3,695	392,482	
194	6	4700498-08	Jamestown	16,000	Water meter replacement	2017	2,550	395,032	
195	6	4700498-09	Jamestown	16,000	SCADA Improvements	2016	403	395,435	
157	8	4700498-10	Jamestown	16000	Filter bay renovations and media replacement	2016	800	396,235	
196	6	4700498-11	Jamestown	16,000	East end reservoir renovations	2016	495	396,730	
148	9	4700498-12	Jamestown	16,000	Watermain replacement (WTP to State Hospital)	2016	2,620	399,350	
197	6	4700498-13	Jamestown	16,000	Transmission main	2016	5,140	404,490	
198	6	4700498-14	Jamestown	16,000	Water tower rehabilitation	2016	490	404,980	
199	6	4700498-15	Jamestown	16,000	WTP filter rehabilitation	2016	800	405,780	
149	9	4700498-16	Jamestown	16,000	Watermain replacement	2016	1,675	407,455	
21	20	2300508-01	Jud	74	Watermain replacement and pump house updates	2016	300	407,755	
175	7	5100515-03	Kenmare	1,200	Watermain, gate valve & hydrant replacement	2016	575	408,330	
64	14	0900524-01	Kindred	692	Water tower and watermain replacement	2017	1,220	409,550	
37	17	2300535-02	Kulm	354	Water tower replacement	2016	1,200	410,750	

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
24	19	3200536-02	Lakota	672	Water treatment improvements or connection to rural water	2016	300	411,050	
78	13	2300537-01	LaMoure	889	Water tower replacement, reservoir upgrade and pumping upgrade	2016	1,200	412,250	
179	7	2300537-02	LaMoure	889	Chemical feed replacement	2016	400	412,650	
180	7	2300537-03	LaMoure	889	Watermain replacement	2016	500	413,150	
189	6	1000543-02	Langdon	1,878	Water main replacement	2016	700	413,850	
190	6	1000543-03	Langdon	1,878	Water tower rehabilitation	2016	450	414,300	
35	17	1000543-04	Langdon	1,878	Intake structure and raw water transmission line improvements	2016	3,200	417,500	
152	9	1000543-05	Langdon	1,878	WTP rehabilitation and equalization basin upgrade	2016	7,000	424,500	
19	20	1000543-06	Langdon	1,878	New well field	2016	6,000	430,500	
46	16	0300553-04	Leeds	427	Upgrade wells, transmission lines, pumps	2016	325	430,825	
39	17	0300553-05	Leeds	427	WTP improvements	2016	325	431,150	
47	16	0300553-06	Leeds	427	Watermain replacement and looping	2016	575	431,725	
6	26	2600556-01	Lehr	80	Well and watermain replacement	2016	400	432,125	20 yr
4	31	0901530-01	Leonard <sup>(2)</sup>	223	Consolidation of existing users to regional water system (arsenic)	2016	3,600	435,725	30 yr
51	15	3700574-08	Lisbon	2,154	Upgrade to well #1	2016	150	435,875	
50	15	3700574-09	Lisbon	2,154	WTP rehabilitation	2016	1,000	436,875	
119	11	3700574-10	Lisbon	2,154	New well field and raw water transmission main	2016	560	437,435	
120	11	3700574-11	Lisbon	2,154	Watermain replacement	2016	2,500	439,935	
67	14	5100593-01	Makoti	154	Well repair, new well and transmission line	2016	375	440,310	
16	21	5100593-02	Makoti	154	New reservoir	2016	1,400	441,710	
42	17	5100593-03	Makoti	154	Watermain replacement	2016	2,750	444,460	
143	9	3000596-06	Mandan	24,227	Transmission main replacement	2017	5,642	450,102	
106	11	3000596-07	Mandan	25,227	Pressure problem correction and water tower rehabilitation	2017	2,320	452,422	
158	8	3000596-08	Mandan	24,827	New raw water intake	2017	14,682	467,104	
155	8	3000596-09	Mandan	23,827	WTP expansion	2017	4,260	471,364	
187	6	3000596-10	Mandan	23,827	High service pump capacity upgrade	2017	3,236	474,600	
159	8	0900613-03	Mapleton	762	Watermain replacement	2017	750	475,350	
5	29	0500620-01	Maxbass	120	Connection to rural water	2016	266	475,616	30 yr
171	7	2800650-01	Mercer	120	Watermain replacement	2016	191	475,807	
160	8	3200653-01	Michigan	294	Water tower rehabilitation	2016	75	475,882	
63	14	5000691-01	Minto	604	Watermain replacement	2017	727	476,609	
186	7	5000691-02	Minto	604	Portion of new public works building that is directly related to the drinking water system	2017	326	476,935	
210	4	3800695-01	Mohall	812	New watermain	2016	403	477,338	
205	5	3800695-02	Mohall	812	Water tower replacement	2016	1,199	478,537	
127	10	3900703-01	Mooreton	197	Replace gate valves and add bladder tank	2017	244	478,781	
138	10	2400715-01	Napoleon	792	Extend water service to residents with wells	2017	900	479,681	

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
70	14	2100726-01	New England	600	Watermain replacement	2016	3,500	483,181	
86	13	2100726-02	New England	600	New water tower and transmission line	2016	2,000	485,181	
71	14	1400732-02	New Rockford	1,391	Watermain replacement	2016	5,400	490,581	
161	8	1400732-03	New Rockford	1,391	Water tower rehabilitation	2016	260	490,841	
123	11	1001380-01	NEWD	2,350	Water distribution expansion	2016	8,000	498,841	
15	21	1001380-02	NEWD	2,350	New water supply	2017	25,000	523,841	
81	13	2801487-04	NPRWD	4,110	Expansion of water distribution system	2018	2,600	526,441	
45	16	5101189-02	NPRWD	5,903	Water storage rehabilitation	2016	1,820	528,261	
154	9	5101189-03	NPRWD	5,903	Distribution, storage & pumping improvements	2016	4,820	533,081	
125	11	5101189-05	NPRWD	12,152	Rehabilitation of Anamoose water tower	2016	200	533,281	
89	13	1100758-04	Oakes	1,856	WTP expansion	2016	1,700	534,981	
90	13	1100758-05	Oakes	1,856	Well and well house replacement	2016	400	535,381	
105	12	1100758-06	Oakes	1,856	Water tower rehabilitation	2016	400	535,781	
141	10	1100758-07	Oakes	1,856	New reservoir, pump station and transmission main	2016	720	536,501	
40	17	0300762-01	Oberon	105	Distribution system replacement	2016	2,000	538,501	
102	12	0300762-02	Oberon	105	New well and pump house	2016	500	539,001	
108	11	0200763-01	Oriska	128	Pump house and reservoir replacement	2016	550	539,551	
126	10	1000768-01	Osnabrock	160	Watermain rehabilitation	2016	200	539,751	
115	11	0900769-03	Page	232	Watermain replacement	2016	2,550	542,301	
72	14	5000773-04	Park River	5,042	Watermain replacement	2018	2,067	544,368	
27	19	2900789-03	Pick City	123	100,000 Gallon Water Tank	2016	1,125	545,493	
13	22	2900789-04	Pick City	123	Watermain replacement	2016	1,500	546,993	
177	7	4900803-01	Portland	606	Water tower replacement	2016	1,300	548,293	
79	13	5300809-05	Ray	1600	New treated water storage reservoir, transmission main and watermain replacement	2016	4,501	552,794	
10	23	4500821-01	Richardton	548	Pump station rehabilitation	2017	875	553,669	
26	19	4500821-02	Richardton	548	Watermain replacement and looping	2017	687	554,356	
1	46	2200827-01	Robinson <sup>(2)</sup>	83	Improvements to wells, pumping facility, treatment, and storage	2016	200	554,556	20 yr
34	18	4000833-02	Rolette	594	Watermain replacement	2016	4,600	559,156	
88	13	4000834-01	Rolla	1,280	New well	2016	180	559,336	
2	34	3100838-02	Röss <sup>(2)</sup>	97	New water supply, storage and watermain replacement	2016	699	560,035	20 yr
93	12	3500842-01	Rugby	2,900	WTP rehabilitation	2018	1,700	561,735	
110	11	0200858-01	Sanborn	194	Watermain replacement	2016	500	562,235	
133	10	0200858-02	Sanborn	192	Water tower rehabilitation	2016	400	562,635	
172	7	5100868-03	Sawyer	367	Watermain replacement	2016	500	563,135	
209	4	5100868-04	Sawyer	367	Transmission line and well replacement	2016	560	563,695	
163	8	0801154-04	SCRWD	17,044	Water service distribution expansion	2016	7,416	571,111	
201	6	0801154-05	SCRWD	19,181	New water storage tank	2016	1,350	572,461	
114	11	3901068-11	SEWUD	16,672	Distribution system expansion	2016	7,200	579,661	
200	6	3901068-12	SEWUD	16,673	Water meter replacement	2016	1,100	580,761	

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
66	14	3700876-01	Sheldon	116	Pump and control replacement	2016	175	580,936	
203	5	3800877-02	Sherwood	242	Watermain replacement	2016	406	581,342	
188	6	3800877-03	Sherwood	256	Watermain looping	2016	608	581,950	
43	17	1400879-02	Sheyenne	204	Watermain replacement	2016	3,000	584,950	
29	18	4701303-05	SRWD	3,048	Treated water reservoir, booster station, watermain and WTP improvements	2016	16,600	601,550	
80	13	4701303-06	SRWD	5,000	Reservoir expansion, water tower, pipeline improvements	2016	5,881	607,431	
7	25	4000854-02	St. John	341	Well rehabilitation and transmission main replacement	2016	375	607,806	20 yr
20	20	1501310-02	State Line WC	386	Water tower replacement, system maintenance	2016	222	608,028	
32	18	4700922-01	Streeter	170	Watermain replacement	2016	500	608,528	
33	18	4700922-02	Streeter	170	WTP improvements	2016	500	609,028	
22	20	4700922-03	Streeter	170	New well	2016	500	609,528	
54	15	5200927-01	Sykeston	117	Watermain replacement	2016	2,400	611,928	
68	14	3201072-03	TCWD	2,475	WTP rehabilitation and expansion, Phase II	2016	1,399	613,327	
128	10	5300936-01	Tioga	1,600	Watermain replacement (Welo St, 3rd St, 6th St)	2016	2,061	615,388	
129	10	5300936-02	Tioga	1,600	Watermain replacement (Simons Addition)	2016	892	616,280	
130	10	5300936-03	Tioga	1,600	Watermain replacement (S Main St)	2016	398	616,678	
153	9	0900945-01	Tower City	253	Water tower rehabilitation	2016	250	616,928	
85	13	0900945-02	Tower City	253	Watermain replacement	2016	2,000	618,928	
207	5	4901071-02	Traill RWD	2,800	Mayville and Hillsboro treatment capacity	2016	1,650	620,578	
44	17	2800949-01	Turtle Lake	581	Water tower replacement	2016	3,025	623,603	
99	12	2300969-01	Verona	85	Watermain and water meter replacement	2016	515	624,118	
75	13	2300969-02	Verona	85	Water reservoir and pump house replacement	2016	300	624,418	
135	10	3900973-03	Wahpeton	7,766	Lime storage, slaker additions & misc WTP improvements	2017	1,373	625,791	
147	9	3900973-04	Wahpeton	7,766	Watermain replacement and looping	2017	440	626,231	
38	17	5001075-03	Walsh RWD	3,404	Distribution system upgrade	2016	2,543	628,774	
191	6	2700990-02	Watford City	2,566	Looping and transmission main project	2017	6,658	635,432	
211	4	2700990-03	Watford City	2,556	Fox Hills water tower	2017	2,587	638,019	
192	6	2700990-04	Watford City	2,566	New water tower (SE)	2017	4,003	642,022	
217	2	0900999-03	West Fargo	28,500	South side water tower	2016	2,334	644,356	
156	8	5101447-01	West River WD	625	Service line replacement (from water main to curb stop)	2016	468	644,824	
204	5	0501001-02	Westhope	429	Watermain replacement	2016	456	645,280	
183	7	3101775-01	White Earth	98	Distribution improvements (new system)	2016	2,500	647,780	
213	4	5301012-06	Williston	30,000	4 MG of storage on reservoirs	2017	6,500	654,280	
218	2	5301012-07	Williston	30,000	Distribution improvements (Hi-Land Heights)	2016	5,087	659,367	
219	1	5301012-09	Williston	30,000	Distribution improvements (Wegley)	2016	1,415	660,782	
95	12	0801031-01	Wilton	750	Watermain replacement	2016	818	661,600	
28	19	0801036-01	Wing	160	Water storage rehabilitation	2016	1,000	662,600	
215	3	5301079-02	WRWD	8,800	Transmission Main	2017	6,190	668,790	

Priority Ranking	Priority Points	Project No.	System Name	Present Population	Project Description	Construction Start Date	Cost (\$1000)		Est. Loan Term <sup>(3)</sup>
							Project	Cumulative	
58	15	3901043-01	Wyndmere	429	Watermain looping	2017	487	669,277	
73	14	2601055-01	Zeeland	141	Water meter replacement	2016	200	669,477	

(1) - It is unknown at this time if mandatory additional subsidization will apply to the 2016 DWSRF allotment. To address this potential requirement, a funding level of \$1,800,000 has been assumed for additional subsidization (as loan forgiveness). Adjustments will be made, as necessary, based on the actual requirements and capitalization grant amount.

(2) - These projects appear eligible for 75% loan forgiveness with a cap of \$1,250,000 of loan forgiveness. The actual loan forgiveness amount is dependant upon available funds. Loan forgiveness eligibility will be confirmed when the loan application is submitted.

(3) - Estimated length of the loan term only. The loan term will be set at the time of facility plan approval.

#### **Abbreviations**

SCADA = Supervisory Control and Data Acquisition

MG = Million Gallons

RWD = Rural Water District

WC = Water Company

WD = Water District

WTP = Water Treatment Plant

ASWUD = All Seasons Water User District

CRW = Cass Rural Water

NPRWD = North Prairie Rural Water District

SCRWD = South Central Regional Water District

SEWUD = Southeast Water Users District

SRWD = Stutsman Rural Water District

TCWD = Tri-County Water District

WRWD = Williams Rural Water District

NEWD = Northeast Regional Water District

Attachment 3

STATE OF NORTH DAKOTA

**PRIORITY RANKING SYSTEM FOR FINANCIAL ASSISTANCE THROUGH THE  
DRINKING WATER STATE REVOLVING LOAN FUND (DWSRF) PROGRAM**

**DWSRF PROGRAM  
DIVISION OF MUNICIPAL FACILITIES  
ENVIRONMENTAL HEALTH SECTION  
NORTH DAKOTA DEPARTMENT OF HEALTH**

**OCTOBER, 2015**

---

The following criteria and point system is utilized by the DWSRF Program to rank eligible projects for potential financial assistance through the DWSRF Program:

1. Water Quality (Maximum Points Limited to 35)
2. Water Quantity (Maximum Points = 20)
3. Affordability (Maximum Points = 15)
4. Infrastructure Adequacy (Maximum Points Limited to 15)
5. Consolidation or Regionalization of Water Supplies (Maximum Points = 10)
6. Operator Safety (Maximum Points = 5)

**Maximum Total Points = 100**

DWSRF funds may be used to buy or refinance existing local debt obligations (publicly-owned systems only) where the initial debt was incurred and the construction started after July 1, 1993. DWSRF assistance requests of this type, if eligible, will be ranked based on the original purpose and success of the constructed improvements.

Creation of New Systems - Eligible projects are those that, upon completion, will create a community water system (CWS) to address existing public health problems with serious risks caused by unsafe drinking water provided by individual wells or surface water sources. Eligible projects are also those that create a new regional CWS by consolidating existing systems that have technical, financial, or managerial difficulties. Projects to address existing public health problems associated with individual wells or surface water sources must be limited in scope to the specific geographic area affected by contamination. Projects that create new regional CWSs by consolidation existing systems must be limited in scope to the service area of the systems being consolidated. A project must be a cost-effective solution to addressing the problem. Applicants must ensure that sufficient public notice has been given to potentially affected parties and consider alternative solutions to addressing the problem. Capacity to serve future population growth cannot be a substantial portion of the project.

<u>CATEGORY</u>	<u>POINTS</u>
1. Water Quality - Select All That Apply (Maximum Points Limited to 35) <sup>1,3</sup>	
A. Documented waterborne disease outbreak(s) within last 2 years	20
B. Unresolved nitrate or nitrite maximum contaminant level (MCL) exceedance(s), OR acute microbiological MCL exceedance(s) within last 12 months	15
C. Exceedance(s) of EPA-established unreasonable risk to health (URTH) level(s) within last 4 years for regulated chemicals or radionuclides (excludes nitrate and nitrite)	10
D. Disinfection treatment inadequate to satisfy the Surface Water Treatment Rule (SWTR), the enhanced SWTR or ESWTR, or the groundwater disinfection rule (GWDR) once finalized, OR groundwater source(s) deemed by the DWP to be under the direct influence of surface water, OR multiple turbidity treatment technique requirement (TTR) violations within last 2 years ( <u>includes</u> at least one event where the maximum allowed turbidity was exceeded)	8
E. Multiple turbidity TTR violations within last 2 years ( <u>no</u> events where the maximum allowed turbidity was exceeded), OR 3 or more <u>non-acute</u> microbiological MCL violations within last 12 months	7
F. MCL or TTR exceedance(s) ( <u>no</u> URTH level exceedances) within last 4 years (excludes microbiological contaminants, nitrate, nitrite, and turbidity)	6
G. Potential MCL or TTR compliance problems based on most recent 4 year period (excludes microbiological contaminants and turbidity)	
75% to 100% of MCL or TTR	5
50% to 74% of MCL or TTR	4
H. General water quality problem (see page 7)	
significant general water quality problem	4
moderate general water quality problem	3
minor general water quality problem	2

2. Water Quantity - Select One If Applicable (Maximum Points = 20)<sup>2,3</sup>
- A. Correction of a critical water supply problem involving the loss or imminent loss of a water supply in the near future 20
  - B. Correction of an extreme water supply problem 10  
 Maximum water available <150 gallons per capita per day (gpcd) (community water systems only), OR continuous water shortages during all periods of operation (nonprofit noncommunity water systems only)
  - C. Correction of a serious water supply problem 7  
 Maximum water available <200 gpcd (community water systems only), OR daily water shortages, or inability to meet peak daily water demand, at a frequency of at least once per week during all periods of operation (nonprofit noncommunity water systems only)
  - D. Correction of a moderate water supply problem 4  
 Maximum water available <250 gpcd (community water systems only), OR occasional daily water shortages, or occasional inability to meet peak daily water demands, on a seasonal basis (nonprofit noncommunity water systems only)
  - E. Correction of a minor water supply problem 2  
 Maximum water available <300 gpcd (community water systems only), OR sporadic water shortages or occasional inability to meet peak water demands (nonprofit noncommunity water systems only)
3. Affordability - For the Applicable Sub-Category, Select One For Each Item (Maximum Points = 15)
- A. Community Water Systems
    - 1. Relative income index - ratio of local or service area annual median household income (AMHI) to the state nonmetropolitan AMHI (based on 2006-2010 ACS 5-Year Estimates)
      - < 60% 8
      - 61% to 70% 7
      - 71% to 80% 5
      - 81% to 90% 3
      - 91% to 100% 1

2. Relative future water cost index - ratio of expected average annual residential user charge for water service resulting from the project, including costs recovered through special assessments, to the local AMHI (based on 2006-2010 ACS 5-Year Estimates)	
>2.5%	7
2.0% to 2.5%	6
1.5% to 1.9%	5
1.0% to 1.4%	3
0.5% to 0.9%	1
B. Nonprofit Noncommunity Water Systems	
1. Relative income index - ratio of local or service area AMHI to the state nonmetropolitan AMHI (based on 2006-2010 ACS 5-Year Estimates)	
≤ 60%	8
61% to 70%	7
71% to 80%	5
81% to 90%	3
91% to 100%	1
2. Relative future water cost index - ratio of expected annual water service expenditures resulting from the project to total annual operating expenses	
>20%	7
15% to 20%	6
10% to 14%	5
5% to 9%	3
2% to 4%	1
4. Infrastructure Adequacy - Select All That Apply (Maximum Points Limited to 15)	
A. Correction of general disinfection treatment deficiencies - excludes improvements necessary to directly comply with the SWTR, the ESWTR, or the GWDR (once finalized)	3
B. Correction of well construction or operating deficiencies	3
C. Correction of distribution system pressure problems (dynamic pressure <20 psi)	3

- D. Replacement of deteriorated water mains 3
  - E. Replacement of deteriorated finished water storage structures 3
  - F. Replacement of distribution system piping/materials shown via DWP-approved testing to contribute unacceptable levels of lead or asbestos 3
  - G. Water treatment plant operating at or above design capacity 3
  - H. Water treatment plant operating at or beyond useful or design life 3
  - I. Correction of specific design or operating deficiencies associated with water treatment plant unit processes (excludes disinfection treatment) 2
  - J. Correction of specific design or operating deficiencies associated with surface water intake facilities 2
  - K. Correction of specific or design or operating deficiencies associated with finished water storage facilities 2
  - L. Correction of specific design or operating deficiencies associated with raw or finished water pumping facilities 2
  - M. Correction of specific design or operating deficiencies associated with raw or finished water distribution system piping 2
  - N. Correction of specific design or operating deficiencies associated with chemical feed installations (excludes disinfection) 2
  - O. For systems relying solely on their own groundwater supply, provision of a second well where only one functional well exists 2
  - P. Replacement of inoperative, obsolete, or inadequate instrumentation or controls 2
5. Consolidation or Regionalization of Water Supplies - Select All That Apply (Maximum Points = 10)
- A. Correction of Safe Drinking Water Act (SDWA) compliance problem(s), or extreme to critical water supply problem(s), for 1 or more PWS through consolidation with or regionalized service by another PWS 4

- B. Correction of contamination problems (regulated contaminants), or extreme water quantity problems (no water, imminent loss of water supply, or continuous/ frequent daily water shortages), for individual residences or businesses through consolidation with or regionalized service by a PWS 3
  - C. Correction of potential MCL or TTR compliance problems, general water quality problems, or moderate to serious water quantity problems for 1 or more PWSs through consolidation with or regionalized service by another PWS 2
  - D. Correction of general water quality problems, or moderate water quantity problems (occasional daily or seasonal water shortages), for individual residences or businesses through consolidation with or regionalized service by a PWS 1
6. Operator Safety - Select One If Applicable (Maximum Points = 5)<sup>2</sup>
- A. Correction of a problem that poses a critical and chronic safety hazard for operators 5
  - B. Correction of a problem that poses an intermittent safety hazard for operators 3
  - C. Correction of a potential significant safety hazard for operators 1

<sup>1</sup> Applies to community and nonprofit noncommunity public water systems only. Water quality problems must be ongoing and unresolved under the present system configuration. Analysis applies to finished water after all treatment (raw water if no treatment is provided).

<sup>2</sup> Applies to community and nonprofit noncommunity public water systems only. Projects intended mainly to increase water availability for or to improve fire protection are not eligible for DWSRF assistance. Fire protection features, in order to be eligible, must represent an ancillary project benefit or secondary project purpose.

<sup>3</sup> Projects intended to address multiple community and/or nonprofit noncommunity public water system water quality and/or quantity problems will be ranked based on the highest level problem to be solved.

## GENERAL WATER QUALITY

### DEFINITIONS

Significant General Water Quality Problem (4 points) = Score of 6 or greater

Moderate General Water Quality Problem (3 points) = Score of 4 or 5

Minor General Water Quality Problem (2 points) = Score of 3 or less

All values expressed in milligrams per liter

#### Total Dissolved Solids (TDS)

500 - 999            Score of 1

1,000 - 1,499       Score of 2

≥1,500              Score of 3

#### Total Hardness as Calcium Carbonate (TH)

200 - 424            Score of 1

425 - 649            Score of 2

≥650                 Score of 3

#### Iron (FE)

0.3 - 0.89           Score of 1

0.9 - 2.0            Score of 2

>2.0                 Score of 3

#### Manganese (MN)

0.05 - 0.25          Score of 1

0.26 - 1.00          Score of 2

>1.00                Score of 3

#### Sodium (NA)

200 - 424            Score of 1

425 - 649            Score of 2

≥650                 Score of 3

#### Sulfate (SO<sub>4</sub>)

250 - 499            Score of 1

500 - 750            Score of 2

>750                 Score of 3

**Attachment 4**  
**Nonproject Set-Aside and Fee Activity (1)**  
**North Dakota Drinking Water State Revolving Loan Fund Program**

Set-Aside	Set Aside Through 9/30/2015	Transferred To Loan Fund	Expended Through 9/30/2015	Balance Available as of 9/30/2015	Planned Set-Asides For 2016	Total Set-Aside Funds Available 2016	Reserved Through 2015	Reserved From 2016 Allotment	Total Reserved Through 2016
4% Administration	7,072,684	0	6,947,130	125,554	360,000	485,554	0	0	0
10% State Program Assistance									
PWSS Supervision	2,370,000	0	981,016	1,388,984	500,000	1,888,984	763,200	400,000	1,163,200
Source Water Protection									
Capacity Development									
Operator Certification									
2% Small System Technical Assistance	2,804,332	0	2,535,832	268,500	165,000	433,500	93,640	15,000	108,640
15% Local Assistance (2)									
Land Acquisition									
Capacity Development									
Wellhead Protection									
Source Water Petition Programs									
Source Water Protection (3)	1,255,880	820,612	435,268	0	NA	0	0	NA	0
<b>Totals</b>	<b>13,502,896</b>	<b>820,612</b>	<b>10,899,246</b>	<b>1,783,038</b>	<b>1,025,000</b>	<b>2,808,038</b>	<b>856,840</b>	<b>415,000</b>	<b>1,271,840</b>

Fee Type	Collected Through 9/30/15	Transferred to Loan Fund	Expended Through 09/30/15	Balance Available 09/30/15	Projected Funds 01/01/16 - 12/31/16	Total Funds Available Through 12/31/16	Total Funds Held Through 12/31/16
Loan Fee	8,083,967	0	1,516,192	6,567,775	885,849	8,969,816	7,453,624

(1) The set-aside amounts are based on percentages (4%, 2%, or 10%) of the respective federal DWSRF allotments. The FY 1997 through 2015 allotments have been awarded. The anticipated allotment for FY 2016 is \$9,000,000. The FY 2016 allotment will be applied for by July 1, 2016. The loan fee amounts reflect loans approved up to September 30, 2015. The amounts may increase based upon repayments due (if any) under loans approved after this date. (2) No more than 10% may be used for any one activity with a maximum of 15% for all activities combined. (3) Only the FY 1997 allotment may be used to complete the mandatory source water assessments. All funds not used by April 25, 2003, from this set aside were transferred to the Loan Fund.

**Attachment 5**

**Amounts Available to Transfer Between State Revolving Fund Programs  
North Dakota Drinking Water State Revolving Loan Fund Program**

<b>Year</b>	<b>Transaction Description</b>	<b>Banked Transfer Ceiling</b>	<b>Transferred from DWSRF to CWSRF</b>	<b>Transferred from CWSRF to DWSRF</b>	<b>DWSRF Funds Available for Transfer</b>	<b>CWSRF Funds Available for Transfer</b>
1998	DW Grant	4.1			4.1	4.1
1998	DW Grant	6.5			6.5	6.5
2000	DW Grant	9.0			9.0	9.0
2000	DW Grant	11.5			11.5	11.5
2001	DW Grant	14.1			14.1	14.1
2002	DW Grant	16.7			16.7	16.7
2002	Transfer	16.7	10.0	3.0	9.7	23.8
2003	DW Grant	19.4			12.4	26.4
2003	Transfer	19.4	0	5.9	18.3	20.5
2004	DW Grant	22.1			21.0	23.2
2004	Transfer	22.1	0	2.6	23.7	20.6
2005	DW Grant	24.9			26.4	23.3
2005	Transfer	24.9	0	0.1	26.5	23.2
2006	DW Grant	27.6			29.2	25.9
2006	Transfer	27.6	0	1.5	30.8	24.4
2007	DW Grant	30.3			33.5	27.1
2007	Transfer	30.3	0	4.9	38.3	22.2
2008	DW Grant	33.0			41.0	24.9
2008	Transfer	33.0	0	3.0	44.1	21.9
2009	DW Grant	35.7			46.8	24.6
ARRA	DW Grant	42.1			53.2	31.0
ARRA	Transfer	42.1	0	2.6	55.8	28.4
2009	Transfer	42.1	0	0.7	56.5	27.7
2010	DW Grant	46.6			61.0	32.2
2010	Transfer	46.6	0	0.8	61.8	31.4
2011	DW Grant	49.7			64.9	34.5
2012	DW Grant	52.7			67.8	37.5
2013	DW Grant	55.4			70.6	40.3
2014	DW Grant	58.3			73.5	43.2
2015	DW Grant	61.2			76.4	46.1
2015	Transfer	61.2	19.6	0	56.8	65.7
2016	DW Grant	64.2			59.8	68.6
2016	Transfer	64.2	1.0	0	58.8	69.6

**Attachment 6**  
**Sources and Uses Table**  
**North Dakota Drinking Water State Revolving Loan Fund Program**  
**Cumulative Amounts as of September 30, 2015**

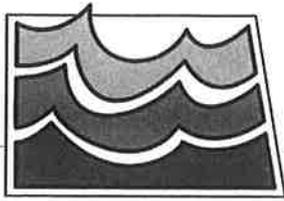
SOURCES	
Federal Capitalization Grants	179,870,761
State Match	46,432,137
Transfers from CWSRF	25,177,672
Net Leveraged Bonds	103,941,728
Investment Earnings	39,912,356
Interest Payments	40,835,558
Principal Repayments	120,988,172
<b>TOTAL SOURCES OF FUNDS</b>	<b><u>557,158,384</u></b>

USES	
4% Administration	7,072,684
2% SSTA	2,804,332
10% DW Program Set-Aside	2,370,000
15% Local Asst. Set-Aside	435,268
Transfers to CWSRF	29,593,299
Reserves	6,953,332
Bond Principal Repayments	39,576,698
Bond Interest Expense	38,476,573
Arbitrage	763,211
Closed Agreements	422,164,799
Loans Approved by Industrial Commission	3,549,000
<b>TOTAL USES OF FUNDS</b>	<b><u>553,759,196</u></b>

DWSRF Funds Available for Projects in 2016 \$3,399,188

ANNUAL SOURCES FOR 2016	
FY16 Capitalization Grant	9,000,000.00
Set-asides taken from FY16 Capitalization Grant	(1,025,000.00)
State Match (if applicable)	
Leveraged Bonds (if applicable)	
Transfers with CW +/- (if applicable)	(1,000,000.00)
<b>Total New 2016 Funds</b>	<b><u>\$6,975,000</u></b>
<b>TOTAL DWSRF FUNDS AVAILABLE FOR 2016</b>	<b><u><u>\$10,374,188</u></u></b>
<b>TOTAL DWSRF PROJECTS ON FUNDABLE LIST</b>	<b><u><u>\$10,374,188</u></u></b>
<b>AVAILABLE FUNDS</b>	<b><u><u>\$0</u></u></b>

December 11, 2015



# 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:**  Todd Sando, P.E., Chief Engineer - Secretary  
**SUBJECT:** SWPP Project Update  
**DATE:** November 24, 2015

### **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 250 miles of 8" -1½" PVC pipe serving 341 rural water customers. The contractor mobilized to the site during the week of April 27, 2015, to begin construction for the 2015 construction season, and as of end of October, has completed installation of approximately 186 miles of pipeline and 331 users. The contractor has turned over 332 users for service as of the date of this memo. Eleven change orders have been signed by all parties to date, which added 53 additional users and 31 more miles of pipeline to the contract. The substantial completion date including modifications through Change Order No. 11 is August 11, 2016.

Contract 7-9E is the west Center SA rural distribution system. This contract includes furnishing and installing approximately 267 miles of 6"-1 ½ " ASTM D2241 gasketed joint pipe; 251 services; road crossings; connections to existing pipelines and other related appurtenances. The SWC awarded this contract to Swanberg Construction, Valley City, North Dakota at its May 29, 2014 meeting. For the 2015 construction season, the contractor mobilized to the site on April 8, 2015 and has completed installation of approximately 187 miles of pipeline and 161 users. The contractor has turned over 119 users as of the date of this memo. The 54 users within the intermediate completion area were turned over to SWA on August 13, 2015. The contractor has requested a 27-day extension to the intermediate and substantial completion date to account for rain days and delays caused by extended load restrictions. Their request is under review. The contractor has also requested that 41 users be removed from the substantial completion date because of delays caused by easement acquisitions. Swanberg Construction is the Contractor on Contract 7-9G, Bid Schedule 1 and they were allowed to delay the start of construction of Contract 7-9G, Bid Schedule 1. Contract 7-9G, Bid Schedule 1 has an intermediate completion date of November 1, 2015 for installation of 37 miles of pipeline and 32 users. Contract 7-9G, Bid Schedule 1's intermediate completion will be removed, and that many users will be added to Contract 7-9E's substantial completion date. To date, eight change orders have been signed by all parties, which added 49 users and 23 miles of pipeline. The substantial completion date, including modifications through Change Order No. 8, is July 21, 2016.

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY

**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 171 services. The area is east of Halliday. Bid Schedule 1 has an Intermediate Completion Date of November 1, 2015 for a portion identified as "Intermediate Completion Area" on the drawings. This area includes approximately 37 miles of pipe and 32 services. The substantial completion date for Bid Schedule 1 is August 1, 2016.

Bid Schedule 2 consists of furnishing and installing approximately 160 miles of 6" – 1 ½ " ASTM D2241 PVC gasketed joint pipe and 224 services. The area is west of Halliday. The substantial completion date for Bid Schedule 2 is September 15, 2016.

The preconstruction conference for Bid Schedule 2 was held on June 17, 2015, and the contractor started construction on June 29, 2015. The contractor has completed installation of approximately 73 miles of pipeline and 130 users. To date, 8 change orders have been signed by all parties, which added 18 miles of pipeline and 31 additional users. The substantial completion date including modifications through Change Order No. 8 is November 28, 2016.

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

Contract 2-8E is the MTL from the OMND WTP to a combination reservoir and booster station north of Halliday (Dunn Center booster station). This contract was substantially complete on December 4, 2014.

Contract 2-8F is the MTL west of Halliday to west of Killdeer. This contract involves furnishing and installing approximately 40 miles of 16"-6" PVC pipe, connections to existing pipelines, 2 prefabricated steel meter vaults, road crossings and related appurtenances. This contract has two intermediate completion dates. The first intermediate completion date was August 15, 2014 for Bid Schedule 1, which is from north of Halliday to the Dunn Center Elevated tank. The second intermediate completion date was November 15, 2014 for Bid Schedule 2A which will provide connections to the Cities of Dunn Center and Killdeer. The Bid Schedule 2B and the entire project was to be substantially complete on or before August 1, 2015, which included 2 prefabricated below grade booster pump stations and will enable the Killdeer Mountain, Grassy Butte and a portion of the Fairfield service areas to be served from the OMND WTP.

The Commission awarded Contract 2-8F to Carstensen Contracting, Inc. during its February 27, 2014 conference call meeting. Pipeline installation is complete. Bid Schedule 1, Bid Schedule

2A and Schedule 2B were turned over for service on March 13, 2015, April 29, 2015 and September 15, 2015 respectively. The contractor has requested time extensions for both contract 2-8E and 2-8F. The time extensions were based on weather conditions. Additional documentation on how weather conditions affected the production was requested.

**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.

**Contract 8-3 Killdeer Mountain Elevated Reservoir:**

This contract includes furnishing and installing a 250,000-gallon elevated reservoir. This contract was bid on October 18, 2013. The SWC awarded this contract to Maguire Iron, Inc. of Sioux Falls, South Dakota at its December 13, 2013 meeting. The substantial completion date was October 1, 2014. The tank was considered substantially complete on November 23, 2014.

**OMND Water Treatment Plant (WTP) Phase II Expansion:**

The SWC awarded Contract 3-1H, OMND WTP Phase II expansion to Northern Plains Contracting, Inc., and Edling Electric, Inc. at its December 13, 2013 meeting. The preconstruction conference for Contract 3-1H was held on January 29, 2014. The substantial completion date on this contract was August 1, 2014. The contract was substantially complete on September 24, 2014. The completion was delayed because of the coordination involved with keeping the WTP operational.

**Contract 5-15A 1<sup>st</sup> Zap Potable Reservoir:**

The 1<sup>st</sup> Zap potable reservoir was considered substantially complete on October 31, 2011 and has been used since the OMND WTP became operational in May of 2012. A leak was observed in the underdrain discharge in October 2012. Because the tank could not be drained during peak water use season, the contractor performed a diving inspection in July 2013 and observed some cracks. The contractor was advised that the leak could be fixed as a warranty repair after the 2<sup>nd</sup> Zap reservoir came online. The 2<sup>nd</sup> Zap reservoir was substantially complete on October 25, 2014. On October 26, 2015, arrangements were made to drain the tank, and the contractor was onsite to begin repairs. The tank floor had settled by approximately 7 inches over a wide area generally on the south half of the tank. The contractor removed several of the floor panels the week of November 9, 2015 and placed additional gravel fill material in the areas of settlement. The floor panels were replaced, and a primer coat was applied to the damaged areas. The tank was rechlorinated on November 14, 2015. The contractor will return in Spring of 2016 to complete final coating repairs.

## **Other Contracts**

### **Contract 8-1A New Hradec Reservoir:**

This contract involves furnishing and installing a 296,000 gallon fusion powder coated bolted steel reservoir. 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. A partial pay estimate withholding \$207,750 was sent to the contractor. The contractor responded that he does not agree with the liquidated damages that are being assessed and will not sign the partial pay estimate. A pre-final inspection was conducted the week of September 8, 2014 and again on December 9, 2014, and a punch list of remaining items was forwarded to the contractor. The contractor has attempted to work on the punch list items, but the work has not been accepted. We are aware of a lawsuit between the contractor and the tank 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 FWSP 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. To date, we have granted 21-day extension and the contractor is working on providing more documentation for the delays.

The contractor is currently working on the tie-in to the 6 Million-Gallon reservoir, and the reservoir is expected to be back in service in early December.

### **Contract 1-2A Supplemental Raw Water Intake:**

The first section of the intake pipe was lowered on July 15, 2015. Through August 6, 2015 the tunnel drive had progressed approximately 955 feet. Since then the contractor encountered multiple issues with the shaft seal and intermediate jacking stations. Because of the issues, the tunnel has not progressed well. As of August 25, 2015 the total tunnel length was 982 feet. The tunneling operation resumed on October 5, 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 noise and noticed uncontrolled flow of sand and water entering the pipe from 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 sent a letter on November 2, 2015 informing the engineer about the situation and indicated that sand and water had flooded the shaft to a depth of about 15 feet with the bottom 12 feet being fairly dense sand. The water was initially rising at the rate of 3 feet/day and at the time of this writing is rising at approximately a foot/week.

The contractor mobilized a drilling crew and drilled 8 holes on November 6, 2015. On November 9, 2015 the contractor injected a cement – sand grout to fill the voids. The drill holes took approximately 60 cubic yards of grout. Since the calculated volume of material in the pipe

and the shaft exceeds the pumped in grout by several times, additional boreholes along the pipe alignment were suggested to the contractor. The contractor drilled additional 8 boreholes and pumped additional 50 cubic yards of grout.

A conference call was held with the contractor to discuss the possible options to move forward. The present location of the microtunnelling machine is beneath about 20' of water and about 67 feet of soil. Some of the options discussed for moving the project forward were horizontal directional drilling through the caisson shaft, tunneling with a new direction and at a higher elevation from the existing shaft, and installing a recovery shaft on the shoreline or near it to intercept the tunnel and then proceed in a new direction with another intake pipe. A meeting with the Army Corps of Engineers is currently being scheduled to discuss the options, as the project is located on USACE property.

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

We have received concurrence from Garrison Diversion Conservancy District to award Section 1, General Construction to John T. Jones Construction Co., and Section II, Mechanical Construction to Williams Plumbing and Heating. Because of the bid protest letter received regarding John T. Jones bid, the Notice of Awards for both contracts were issued on November 23, 2015 at the end of the 60 day period after Bid opening allowed by the Contract Documents.

**Project Update**

**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. Advertising for bids is anticipated before end of November 2015.

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

Work on the design of the raw water reservoirs has started.

**Raw Water Line Capacity Upgrade:**

We received the draft alignment memo for the parallel piping from the intake to zap reservoirs from Bartlett & West/AECOM, and it is currently under review.

TS:SSP:pdh/1736-99

December 11, 2015

**AMENDMENT #5 TO WATER SERVICE CONTRACT 1736-24  
BETWEEN THE CITY OF BELFIELD,  
SOUTHWEST WATER AUTHORITY  
AND THE STATE WATER COMMISSION**

The State of North Dakota, acting through the State Water Commission (Commission), the City of Belfield (City), and the Southwest Water Authority (Authority) amend Contract 1736-24, approved by the Commission on May 6, 1993, regarding water service for the City.

Replace **SECTION VI, PARAGRAPH 3** with:

C. Point of Delivery and Pressure.

1. Main Water Connection. The Main Water Connection for the City is at a point located at the north side of 6<sup>th</sup> Ave NE (Highway 10) in easement at the ditch and the alley of Block 6 O'Connor Addition.

2. Emergency Connection. The City will furnish an emergency connection at a point located at the intersection of 6<sup>th</sup> Ave E. and the alley of Block 2 O'Connor Addition. The connection must be metered, and City will pay the Municipal and Domestic water rates for such emergency connection as set forth in this Agreement. The Commission and Authority do not provide any guaranties or assurances relating to water capacity or pressure at the emergency connection, and all provisions of this Agreement limiting liability of the Commission or Authority remain in full force and effect regarding this emergency connection. Each use of this connection requires prior approval by Authority.

The Parties executed this Amendment on the date(s) specified below.

**ND STATE WATER COMMISSION**

By:

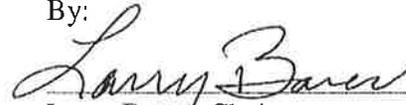


Todd Sando, Chief Engineer and Secretary

Date 12/15/15

**SOUTHWEST WATER AUTHORITY**

By:



Larry Barex, Chairman

Date 11-2-15

**CITY OF BELFIELD**

By:



Leo Schneider, Mayor, City Council

Date 10-14-15

**CITY OF BELFIELD**

By:



Natalie Muruato, City Auditor

Date 10/14/15

## SOUTHWEST PIPELINE PROJECT CONTRACT FOR TRANSFER OF SERVICE AREA

### I. PARTIES

This Agreement is between the Southwest Water Authority (the "Authority"), the North Dakota State Water Commission (the "Commission"), and the City of Killdeer (the "City").

### II. INTRODUCTION

1. The Commission is developing a water pipeline, water supply, and water distribution project known as the Southwest Pipeline Project (the "Project").
2. The Authority, created under North Dakota Century Code § 61-24.5, provides operation, maintenance, and management of the Project.
3. In 1995, the Commission entered into an agreement with the Authority assigning to the Authority the completed portions of the Project for operation, maintenance, and management (the "1995 Agreement").
4. Under North Dakota Century Code § 61-24.5-09, the Authority may enter into contracts for aiding and promoting the construction, maintenance, and operation of the Project and to promote the establishment, construction, development, or operation of the Project.
6. The Project provides water service to certain property identified on the map attached hereto as **Appendix A**. The "Service Area" consists of all lands lying outside the "Rural Water Boundary" depicted on Appendix A.
7. Pursuant to N.D.C.C. § 6-09.4-22, the Authority claims the exclusive right to provide water service to the Service Area. The City has the exclusive right to serve the lands within the Rural Water Boundary.
8. The City has experienced significant growth in recent years. As the City continues to grow, the City desires to provide water service to customers and areas within the Authority's Service Area.

### III. AGREEMENT

The Authority and the City are in agreement with the following terms and provisions regarding the Transfer Area:

#### 1. Compensation:

- A. Paid to the Authority

- a. For each Project customer within the Service Area who will be disconnected from the Project and served directly by the City, the City shall pay to the Authority the projected difference in revenue the Authority would receive over 10 years, with the future years' projected revenue indexed at 4%. The projected revenue is the difference between the revenue the Authority would receive if the Project provides water directly to the customer and the revenue if the Project sells water in bulk to the City. The current projected difference in revenue is \$2,224.47 per customer. The Authority shall adjust the projected difference in revenue for all existing direct customers annually based on the previous year's average usage for customers of the Project and based on the prevailing water rate at the time customers are disconnected from the Project, with future years' projected revenue indexed at 4%. Payment is due to the Authority within 6 months of the date upon which the customer is first served by the City.
  
- b. For future customers who tie in to City water infrastructure within the Service Area for which the Authority has capacity to serve, the City shall pay to the Authority the projected difference in revenue the Authority would receive over 5 years, with the future years' projected revenue indexed at 4%. The projected revenue is the difference between the revenue the Authority would receive if the Project provides water directly to the customer and the revenue if the Project sells water in bulk to the City. The current projected difference in revenue is \$1,003.53 per customer. The Authority shall adjust the projected difference in revenue annually based on the previous year's average usage for customers of the Project and based on the prevailing water rate at the time customers are served by the City, with future projected revenue indexed at 4%. Payment is due to the Authority within 6 months of the date upon which the customer is first served by the City.

The capacity of the Authority to serve the future customers shall be determined by agreement of the City and the Authority, on a case-by-case basis, at the time the City annexes or makes water service available to any portion of the Service Area. In order to have capacity to serve any disputed area, the Authority must have water infrastructure within or in close proximity to the disputed area and must be capable of providing water service to the disputed area within a reasonable time after a request for service occurs.

- c. In addition to the compensation described above, the City will reimburse the Authority for all costs incurred by the Authority as a result of transferring service from the Authority to the City, including construction costs for relocation or abandonment of the Project pipeline, facilities, or appurtenances (collectively, "Project works") and engineering and legal fees.

**B. Paid to the Commission**

- a. For each Project customer within the Service Area who were disconnected from the Project and are now served directly by the City, the City shall pay to the

Commission the difference in capital repayment rate between the rural customers and contract rate customers for a period of 5 years. The capital repayment rate for rural customers is included in the monthly minimum. For a contract customer like the City, the current capital repayment rate is based on actual usage. The Commission and the Authority set the capital repayment rate. The City shall pay to the Commission \$1,780.56 per customer within 6 months of execution of this Agreement. To date, 0 customers have been disconnected from the Project and are now served by the City.

- b. For each Project customer within the Service Area who will be disconnected from the Project and served directly by the City, the City shall pay to the Commission the difference in capital repayment rate between the rural customers and contract rate customers for a period of 5 years. The capital repayment rate that will be used for determining the compensation will be prevailing rate at the time the customers are disconnected from the Project. Payment is due to the Commission within 6 months of the date upon which the City first serves the customer.

## **2. Procedure:**

- a. For all instances in which the City intends on providing service to any of the Authority's current customers in the Transfer Area:
  - i. The City shall notify all Project customers who will be transferred to City water service in writing at least 14 days prior to the date of transfer of service.
  - ii. The City must provide a Notice of Transfer of Service, via certified mail, to the Authority at least 14 days prior to the date of transfer of service.
  - iii. The Notice of Transfer of Service must describe the Project's customer whom the City intends on serving and the date of transfer of service to the City. The transfer of service must take place on the date of transfer of service as provided in the Notice of Transfer of Service received by the Authority.
  - iv. From the date of transfer of service forward, the City shall be responsible to provide water service to the customer.

## **3. Construction requirements:**

- a. Upon written permission of the Authority and the Commission, the City may use abandoned Project works.
- b. Should removing abandoned Project works be necessary, the City shall use due caution in removing abandoned Project works, namely valves, curb stops, and meter pits, and shall return said works to the Authority.

- c. In accordance with N.D.C.C. § 61-24.3-20, crossing permits are required should the City be required to cross any of the Project's water lines.
- d. The City shall adequately protect the Project works, and the City shall cover Project works sufficiently to prevent them from freezing.
- e. All easements in favor of the Authority or the Commission shall remain in full force and effect (even for those easements for abandoned Project works) until the Authority or the Commission, as applicable, explicitly vacates any such easement in writing.

#### 4. **General Provisions:**

- a. Liability. The City will indemnify and hold harmless the Authority and the Commission against all claims, demands, or causes of action brought as a result of the Authority or the Commission waiving its right to provide water service or the result of entering into this Agreement. The Authority will indemnify and hold harmless the City from all claims arising from or relating to this Agreement caused by a negligent act or omission of the Authority and resulting in bodily injury, sickness, disease, or death, or damage to tangible property. A party's total liability for claims based on its negligence shall not exceed the percentage share that the party's negligence bears to the total negligence of all entities.
- b. Term. This Agreement shall remain in effect for 40 years after the date of execution of this Agreement.
- c. Notice. All notices required under this Agreement must be given in person, by mail at the address shown on the signature page of this Agreement, by electronic mail, or by facsimile. Notice provided under this provision does not meet the notice requirements for monetary claims against the Commission found at N.D.C.C § 32-12.2-04.
- d. Severability. Whenever possible, each provision of this Agreement shall be interpreted as effective and valid under applicable law. The determination by any court of competent jurisdiction that any provision of this Agreement is unenforceable shall not invalidate this Agreement, and the decision of such court shall limit to the extent possible the provisions of this Agreement that are deemed unenforceable. To the extent such determination has a material impact upon the economic expectations of the parties, the parties agree to make appropriate modifications to this Agreement to take such impact into account.
- e. Merger. This Agreement constitutes the entire agreement between the parties. There are no understandings, agreements, or representations, oral or written, not specified within this Agreement. This Agreement may not be modified,

supplemented, or amended in any manner except by written agreement signed by each party to this Agreement.

- f. Construction. Section headings contained in this Agreement are for convenient reference only and shall not affect the meaning or interpretation of this Agreement. The language used in the Agreement will be deemed the language chosen by the parties to express their mutual intent, and no rule of strict construction will be applied against any person.
- g. Remedy. The use of any remedy specified herein to enforce this Agreement is not exclusive and does not prohibit or limit the application of any other remedy available by law.
- h. Attorney Fees. In the event a lawsuit is initiated by the Authority or the Commission to obtain performance due under this Agreement and the Authority or the Commission is the prevailing party, the City shall pay the Authority's or the Commission's reasonable attorney fees and costs in connection with the lawsuit.
- i. Assignment. The City may not assign, transfer, or delegate any right or duty without the express written consent of the Commission and the Authority.
- j. Venue and Jurisdiction. This Agreement is governed by and construed in accordance with the laws of the state of North Dakota. Any action to enforce this Agreement must be brought in the District Court of Burleigh County, North Dakota. However, this paragraph shall not restrict the Authority from bringing any claim involving a federal question in federal court.

**STATE WATER COMMISSION**

900 East Boulevard Avenue  
Bismarck, ND 58505

By:



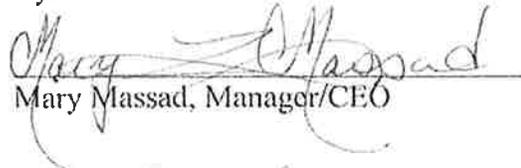
Todd Sando, Chief Engineer and Secretary

Date 12/15/15

**SOUTHWEST WATER AUTHORITY**

4665 2<sup>nd</sup> Street SW  
Dickinson, ND 58601-7231

By:

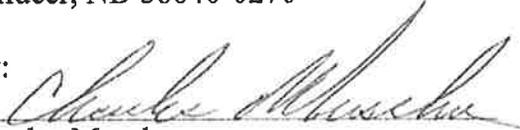


Mary Massad, Manager/CEO

Date November 16, 2015

**CITY OF KILLDEER**  
PO Box 270  
Killdeer, ND 58640-0270

By:

  
Charles Muscha  
President, Board of City Commissioners

Date 11-2-15

**CITY OF KILLDEER**

By:

  
Dawn Marquardt  
City Administrator

Date 11-2-15



# 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:** *TSD* Todd Sando, P.E., Chief Engineer-Secretary  
**SUBJECT:** NAWS – Project Update  
**DATE:** November 24, 2015

### 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

Upon completion of the SEIS and issuance of the Record of Decision, the Court will be notified of the completion of the NEPA process, and a briefing schedule will likely be requested at that time. Our legal counsel has been discussing the filing schedule with the litigation attorneys for the Department of Justice and the Department of the Interior.

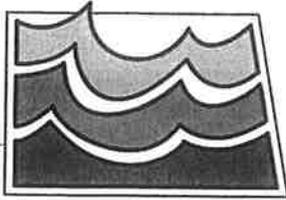
A joint status update was provided to the Federal Court on June 22, 2015 stating a Record of Decision was anticipated shortly. In the previous update in March, we provided notice to the Court that there will likely be some work performed at the High Service Pump Station to ensure and enhance the ability of the facility to meet its intended purpose. The court had previously been notified of maintenance activity necessary at the Minot Water Treatment Plant to ensure its continued operation focused primarily on the lime storage, handling, and softening facilities. Preliminary design work is nearing completion.

### NAWS High Service Pump Station

A pre-construction conference for Contract 4-2A-1 was held September 2, 2015. This contract will include furnishing and installing a 125 hp ‘Jockey’ pump to compliment the existing 350 hp pumps and maintenance work in the pump station.

TSS:TJF /237-04

December 11, 2015



# 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:** Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** Mouse River Enhanced Flood Control Project Status Report  
**DATE:** November 24, 2015

### Design of Urban Components

Phase I design is making good progress. There were some complications coordinating with the replacement of the Broadway viaduct, but those have been resolved. Phase I is a flood wall, and with it in place local drainage from the north would be blocked. The full plan includes a pump station to deal with this, but it was not included in the phase. The Souris River Joint Board is requesting funding to add design of this feature to Phase I. This will be discussed in a separate memo. There are no existing federal works in the Phase I zone, so this work will require no 408 permits.

Phase II and III design work is proceeding concurrently with work on the Environmental Impact Statement, all in close coordination with the Corps of Engineers. As expected, this is a complex process. For some discharges and conditions, downstream impacts have been identified, and means to address them are under way. Due to the difficulty in predicting what this work would entail, costs are being carefully monitored in case additional funding is necessary.

The target for beginning construction is still 2017, however, the uncertainties in the environmental and permitting process will make this challenging.

### Rural

The Souris River Joint Board has proposed a StARR (Structure Acquisition, Relocation or Ring Dike) program to help rural residents affected by flooding. This program is the focus of a Silver Jackets project to collect location, elevation, and other basic data on properties which may be involved. The St. Paul District Corps of Engineers had survey crews in the area last summer, and their surveys are complete. The Joint Board is awaiting their report. This program may be effective in addressing some of the impacts mentioned above. Other measures (including structural) may be required. This would require the Joint Board to revisit their proposed development plan, not necessarily to change its sequence but to add detail in addressing rural elements.

### Plan of Study Review Committee

The IJC Plan of Study has not yet received any action at the level of the federal governments. In the mean time, the International Souris River Board has been actively investigating, to the extent it can, what can be done to move forward. At the same time, the members of the Board, particularly North Dakota and Saskatchewan, have been moving forward with necessary work. In North Dakota studies in hydrology and hydraulics of the basin, mostly related to the Mouse

Mouse River Enhanced Flood Control Project Status Report Memo

Page 2

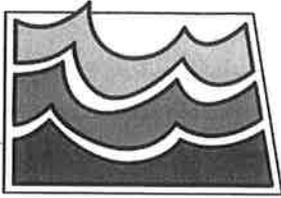
November 24, 2015

River Enhanced Flood Protection Project, have been completed. In Saskatchewan the work has been based on development of reservoir regulation manuals, which includes studies on hydrology of the reservoirs and extreme event hydrology.

Much of this work fills requirements of the Plan of Study. What has been missing so far is a group representing the ISRB which can accept, reject, or propose modifications to this work for use in the process. The ISRB has created a committee to address this need. It is directed to review the Plan of Study to identify which tasks are already completed and which remain needed; inventory the completed works; and accept, reject, or recommend modification to them.

This committee will meet by conference call in December, and in person in January.

TSS:JTF:pdh/1974



# 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:** *TSD* Todd Sando, P.E., Chief Engineer/Secretary  
**SUBJECT:** Devils Lake – Outlets and Hydrologic Update  
**DATE:** November 23, 2015

### Hydrologic Update

The current Devils Lake water surface elevation is at 1450.1 ft-msl. The lake is 1.5 feet lower than it was last year at this time. The total volume of the lake is 3.39 million ac-ft. and total area is 164,000 acres. Annual inflow will be estimated at the time of the meeting for 2015.

### Outlets

The west end outlet was started on April 23<sup>rd</sup> and, the east end outlet was started on May 14<sup>th</sup>. Both operated until November 9<sup>th</sup> when the pumps were shut off for the season. Both Outlets were shutdown from May 17<sup>th</sup> to May 26<sup>th</sup> due to high stream flows in the Sheyenne River. The east end discharges were reduced September thru November because of water quality constraints. Below is a summary of monthly and total volume pumped from the outlets for 2015.

Month in 2015	Volume - West End	Volume – East End	Volume - Combined
---	Acre-Feet	Acre-Feet	Acre-Feet
April	3,559	0	3,559
May	9,268	2,233	11,500
June	9,775	13,388	23,163
July	12,594	21,092	33,686
August	13,877	18,067	31,943
September	15,239	18,076	33,315
October	15,216	12,427	27,643
November	4,038	2,387	6,425
Totals	83,565	87,670	171,234

The total volume of 171,234 acre-feet corresponds to 12 inches of depth off the lake at its current elevation.

Winter maintenance and repairs are ongoing at the outlets. The west end standpipes have performed well and show no damage after the second season since being repaired. Some riprap is being added to the open canal at areas of erosion. East end work is continuing to repair damage to the rock filter structure and also the sheetpiling at the intake structure. One screen was damaged from the wind when wave action caused a tree to puncture a small hole; the screen has been removed and is being repaired to its original design.

JK:ph/416

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY



# 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:** *TSD* Todd Sando, P.E., Chief Engineer/Secretary  
**SUBJECT:** Missouri River Update  
**DATE:** November 20, 2015

### **System/Reservoir Status**

System volume on November 20 in the six mainstem reservoirs was 57.4 million acre-feet (MAF), 1.3 MAF above the base of flood control. This is 3.0 MAF above the average system volume for the end of November, and 6.3 MAF more than last year.

On November 20, Lake Sakakawea was at an elevation of 1840.8 feet msl, 3.3 feet above the base of flood control. This is 0.6 feet lower than a year ago and 5.7 feet above its average end of November elevation. The minimum end of November elevation was 1808.9 feet msl in 2006 and the maximum end of November elevation was 1846.7 feet msl in 1972.

On November 20, the elevation of Lake Oahe was 1609.0 feet msl, 1.5 feet above the base of flood control. This is 0.8 feet higher than last year and 10.1 feet higher than the average end of November elevation. The minimum end of November elevation was 1573.2 feet msl in 2006, and the maximum end of November elevation was 1612.4 feet msl in 1997.

On November 20, the elevation of Fort Peck was 2234.7 feet msl, 0.7 feet above the base of flood control. This is 1.7 feet higher than a year ago and 4.4 feet higher than the average end of November elevation. The minimum end of November elevation was 2199.9 feet msl in 2004, and the maximum end of November elevation was 2246.3 feet msl in 1978.

Releases from Garrison Dam are currently about 12,500 cfs. During freeze-in, it is normal for the river stage to increase, and releases may be decreased during this period to reduce the risk of ice induced flooding. December releases from Garrison Dam are forecasted to be 15,000 cfs, and then 17,000 cfs in January, followed by 18,000 cfs in February. The winter release rate from Gavins Point Dam will be at least 17,000 cfs.

### **El Nino Winter Outlook**

According to the National Weather Service, this year's El Nino is among the strongest on record. It is predicted that the general trend this winter will include above-normal temperatures in much of the Missouri River Basin region, especially across the northern part of the basin, and reduced snowpack in the northern Rockies and plains.

### **Annual Operating Plan**

The fall draft Annual Operating Plan public meeting in Bismarck was held at the Civic Center on October 28. The State Engineer provided comments, which are attached to this memo. The public comment period closed on November 20.

### **Missouri River Recovery Implementation Committee (MRRIC)**

In Section 5018 of the 2007 Water Resources Development Act (WRDA) Congress authorized the Missouri River Recovery Implementation Committee (MRRIC). The Committee is to make recommendations and provide guidance on activities resulting from the Missouri River Recovery Program (MRRP). The Committee was established in 2008. MRRIC has nearly 70 members representing local, state, tribal, and federal interests throughout the Missouri River Basin.

The Corps is currently engaged in the process of preparing the Missouri River Recovery Management Plan and Environmental Impact Statement (MRRMP and EIS). This process involves the development of a range of alternatives for the purposes of assisting the recovery of species on the Missouri River protected under the Endangered Species Act, specifically the threatened piping plover and endangered least tern and pallid sturgeon. One of the goals of the MRRMP and EIS is to incorporate Adaptive Management into the Corps' Missouri River Recovery Program. The Corps is developing the MRRMP and EIS in collaboration with the U.S. Fish and Wildlife Service and the MRRIC.

The MRRIC met in Rapid City, SD on November 17 to 19, where the Corps discussed the six alternatives to be evaluated in the draft EIS. Four of the six proposed alternatives include actions outside the constraints of the current Master Manual. Actions outside the Master Manual include fall or spring pulses for the creation of emergent sandbar habitat, low nesting season flows, and a couple variations of the pallid sturgeon spawning cue pulse. The draft EIS is scheduled to be released for public review in December 2016.



# 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>

---

## Missouri River AOP Meeting

**Craig Odenbach, Director, Water Development Division  
North Dakota State Water Commission**

**October 28, 2015, 6pm  
Bismarck Event Center**

Good evening, my name is Craig Odenbach. I am the Director of Water Development for the State Water Commission. On behalf of the State Water Commission, welcome to North Dakota.

The operating plan does not recognize the current flood stage at Bismarck. Open water and ice jam induced flooding are concerns on the Missouri River. Although ice-induced flooding can occur anywhere along the Missouri River in North Dakota, there is heightened concern 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 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. The Master Manual, however, was based on the flood stage at the Bismarck gage at 16 feet. Because the flood stage has been lowered 1.5 feet since the last update of the Master Manual, I recommend the operating plan be based on preventing the exceedance of a stage of 11.5 feet, rather than 13 feet. I 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.

The AOP mentions the efforts of the Corps, US Fish and Wildlife Service, and MRRIC in the development of a new recovery plan that would incorporate adaptive management for the recovery of the listed species. At the last MRRIC meeting, the committee was informed that adaptive management could leave the Master Manual open to future changes at any time. Our understanding has always been that the new recovery plan would meet the criteria of the current Master Manual. The Corps has authority to capture and store flood waters that are released according to the guidance of the Master Manual. The river's natural flows that are not stored for later use, continue to flow through the reservoirs for beneficial use and control by the States and Tribes in the basin. The Corps does not have new authority to capture and regulate more of the States' and Tribes' water than is currently within the Master Manual. Let me be clear in saying that I oppose a recovery plan that leaves the Master Manual open to changes at any time, indefinitely.

The AOP refers to the Corps' collaboration with other federal, state, and local agencies when monitoring basin conditions, in particular plains snowpack. The AOP also states that the proposed Missouri River basin monitoring network was authorized by WRRDA 2014; however, funding was not provided, and progress has been limited. This is discouraging because basin conditions drive operation of the dams, and better monitoring would improve forecasts. Given the current funding status, I still urge the Corps to continue improving the basin monitoring program to the extent possible.

Finally, it has come to my attention that the term “surplus runoff” is in the operating plan. A search of previous AOP’s reveals that this term was first added in the 2009-2010 AOP, which coincides with “surplus water” becoming an issue. In the past, surplus water was not considered an AOP issue; however, from use of this term it appears the Corps is making it an AOP issue. It is not clear what “surplus runoff” means. If it is being used to imply that all runoff is stored and would be subject to storage contracts, this is a huge overreach. The use of the term “surplus runoff” must be removed from the operating plan.

I remind the Corps that the State of North Dakota is adamantly opposed to any effort by the Corps to claim control and storage of all water that flows through the reservoir boundaries. The authorizing legislation for the Flood Control Act of 1944 provided guidance that the use and control of water would remain under State control. While this State does recognize operations of the reservoirs as a federal function, the operations are not the capture of all water. There will be no federal charge or interference with our use of water that rightfully belongs to the people of our state. 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.

LCA/1392

DRAFT FINAL

**MINUTES**

**North Dakota State Water Commission  
Bismarck, North Dakota**

**February 9, 2016**

The North Dakota State Water Commission held a meeting at the State Office Building, Bismarck, North Dakota, on February 9, 2016. Governor Jack Dalrymple, Chairman, called the meeting to order at 2:00 p.m., and requested Todd Sando, 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  
Doug Goehring, North Dakota Department of Agriculture, Bismarck  
Arne Berg (via telephone)  
Maurice Foley  
Larry Hanson (via telephone)  
George Nodland  
Harley Swenson (via telephone)  
Robert Thompson  
Douglas Vosper (via telephone)

**OTHERS PRESENT:**

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

The attendance register is on file with the official minutes.

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

**CONSIDERATION OF AGENDA**

The agenda for the February 9, 2016 State Water Commission meeting was presented; there were no modifications.

***It was moved by Commissioner Swenson, seconded by Commissioner Nodland, and unanimously carried, that the agenda be accepted as presented.***

**NORTHWEST AREA WATER  
SUPPLY (NAWS) PROJECT -  
AUTHORIZATION TO EXECUTE  
MEMORANDUM OF UNDERSTANDING  
WITH RESPECT TO DESIGN AND PRE-  
CONSTRUCTION OF BIOTA WATER  
TREATMENT PLANT  
(SWC Project No. 237-04)**

Construction of the Northwest Area Water Supply project is currently enjoined by a federal court order, which was originally issued in 2005 and modified on March 1, 2013. The litigation schedule has been finalized and accepted by the District Court of Columbia. Included in the filing schedule is a Motion to Modify Injunction

*pendente lite* to be filed March 1, 2016 by the State of North Dakota through the State Water Commission as defendant-intervenor. The purpose of the modification of the injunction is to allow design work and pre-construction activities to commence on the project's biota water treatment plant prior to the injunction being permanently lifted or the litigation being otherwise resolved due to the anticipated length of time required for the design of the facility. The project's consultant engineer estimates the design cost at \$5,000,000 with an estimated design timeframe of 86 weeks. The Bureau of Reclamation will be involved in the design due to the federal responsibility to ensure compliance with the Record of Decision and the Boundary Waters Treaty Act.

The legal counsel for the parties have indicated a Memorandum of Understanding (MOU) covering the intent of both the defendant and defendant-intervenor and their respective roles is necessary prior to the motion being filed with the court. The proposed draft Memorandum of Understanding between the State of North Dakota and the Bureau of Reclamation with respect to design and pre-construction of the Northwest Area Water Supply project biota water treatment plant was presented to the State Water Commission.

The objectives identified in the MOU were explained, and the discussion noted that if the court grants the state permission to undertake the design work for the biota water treatment plant, the state will expend only state and local funds and will assume all financial responsibility associated with this work until the injunction is lifted or the litigation is otherwise resolved.

The project was intended to be funded on a cost share basis with 65 percent federal funds authorized under the Dakota Water Resources Act of 2000 through the Municipal, Rural and Industrial Water Supply program, and 35 percent local funds. The city of Minot has committed, through a cost share agreement, to fund the local share through a 1 percent city sales tax. Because of the legal challenges facing the project and difficulties in the federal funding situations, the State Water Commission has continued to advance the project with state funds. Any design and pre-construction activity after the injunction is permanently lifted or the litigation is otherwise resolved would become eligible for federal cost share. The state expects the Bureau of Reclamation to resume its role as a cost share partner once the injunction is lifted or the litigation is otherwise resolved.

It was the recommendation of Secretary Sando that the State Water Commission authorize the Secretary to the Commission to execute the Memorandum of Understanding as presented.

***It was moved by Commissioner Foley and seconded by Commissioner Thompson that the State Water Commission authorize the Secretary to the State Water Commission to execute the Memorandum of Understanding Between the State of North Dakota and the Bureau of Reclamation with respect to design and pre-construction of the Northwest Area Water Supply project biota water treatment plant. SEE APPENDIX "A"***

***Commissioners Berg, Foley, Goehring, Hanson, Nodland, Swenson, Thompson, 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 February 9, 2016 meeting at 2:15 p.m.

***NORTH DAKOTA STATE WATER COMMISSION COST SHARE POLICY, PROCEDURE, AND GENERAL REQUIREMENTS (Effective February 9, 2016) (SWC Project No. 1753)***

Following adjournment of the State Water Commission meeting, the policy committee met to discuss changes to the North Dakota State Water Commission Cost Share Policy, Procedure, and General Requirements.

The policy changes that were adopted by the State Water Commission on February 9, 2016 are included in ***APPENDIX "B"***.



---

Jack Dalrymple, Governor  
Chairman, State Water Commission

---

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

**Memorandum of Understanding Between the  
State of North Dakota and the Bureau of Reclamation  
With respect to Design and Pre-Construction of the  
Northwest Area Water Supply (NAWS) Biota Water Treatment Plant**

The parties to this agreement are the State of North Dakota, represented by the Garrison Diversion Conservancy District and the North Dakota State Water Commission (State) and the Bureau of Reclamation (Reclamation). The Parties mutually agree that:

- In accordance with the Dakota Water Resources Act of 2000, Reclamation has responsibilities to meet the requirements of the Boundary Waters Treaty Act (Treaty) and for construction, operation, maintenance, and replacement of water treatment and related facilities attributable to meeting the requirements of the Treaty.
- Reclamation is also responsible for assuring compliance with the Record of Decision (dated August 21, 2015) and Final Supplemental EIS for the NAWS project.
- Design and pre-construction activities of systems and facilities within the NAWS Biota Water Treatment Plant (WTP) relating to Treaty and Record of Decision compliance will be subject to additional review and further participation by Reclamation beyond that required under Cooperative Agreement No. R12AC60014 for the Construction of the ND State MR&I Program.
- NAWS construction is currently enjoined by a federal court order originally issued in 2005 and modified most recently on March 1, 2013 (NAWS injunction). The State intends to seek permission from the court to undertake design work for the Biota WTP during the pendency of the NAWS injunction.
- Should the court grant the State permission to undertake design work for the Biota WTP, the State will use only State and Local funds and will assume all financial responsibility associated with this work until the NAWS injunction is lifted or the litigation is otherwise resolved.
- The State will not, at any time in the future, seek federal reimbursement for the cost of the design and preconstruction activities for the Biota WTP performed before the NAWS injunction is lifted or the litigation is otherwise resolved. The State expects Reclamation to resume its role as a cost share partner once the NAWS injunction is lifted or the litigation is otherwise resolved.
- Reclamation and the State will follow the review and approval process associated with Cooperative Agreement No. R12AC60014 for all of this work, including the additional reviews and studies listed below to assure that all design and pre-construction activities taking place after the injunction is lifted or litigation otherwise resolved would be allowable, allocable, and reasonable.
- The State will provide the scope of work, 30%, 60%, 90%, and final designs for Reclamation's review and approval. The State and Reclamation will participate in design meetings with the State's selected consulting firm(s) performing the designs.

- The State will participate with Reclamation to complete Value Studies and Design, Estimating, and Construction reviews as required by Reclamation policy prior to final design.
- The State and Reclamation intend to enter into cooperative agreement(s) that define the roles and responsibilities for the construction and operation and maintenance phases of the Biota WTP.

---

Duane DeKrey  
General Manager  
Garrison Diversion Conservancy District

---

Date

---

Todd Sando, P.E.  
Chief Engineer and Secretary  
North Dakota State Water Commission

---

Date

---

David Rosenkrance  
Dakotas Area Manager  
Bureau of Reclamation

---

Date

# 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 1-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 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.

- 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 \$40,000 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.



- 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.



# North Dakota State Water Commission

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

*Agenda A (and 2)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
North Dakota Water Commission Members  
**FROM:** *Todd* Todd Sando P.E., Chief Engineer-Secretary  
**SUBJECT:** Financial Updates  
**DATE:** February 26, 2016

### **1. Agency Program Budget Expenditures**

Attached is an expenditure spreadsheet for the biennium through January 31, 2016. With only two special line items, Administrative and Support Services and Water and Atmospheric Resources Expenditures, our legislatively approved budget does not contain specific amounts for Salaries, Operations, and Grants and Contracts. In order to manage the Division budgets, we have allocated dollar amounts to each of these categories, however, division managers have the ability to shift dollars from one category to another (see page 2.)

The Contract Fund spreadsheet summarize information on the committed and uncommitted funds from the Resources Trust Fund and the Water Development Trust Fund (see page 3.) A detailed breakdown of the individual projects follow on pages 4 through 8. The current Contract Fund spreadsheet shows approved projects totaling \$629,418,761 with expenditures of \$145,199,543. A balance of \$395,589,365 remains available to commit to projects in the 2015-2017 biennium.

### **2. 2015 – 2017 Resources Trust Fund and Water Development Trust Fund Revenues**

Oil extraction tax deposits into the Resources Trust Fund total \$87,398,118 through February 2016 and are currently \$55,079,239 above originally budgeted revenues. However, a revised forecast has been prepared that projects the oil extraction revenue for the biennium will be short by \$54,960,797 from the original projection of \$264,259,277.

No deposits have been received for the Water Development Trust Fund this biennium. The first planned deposit is for \$8.9 million in April of 2016.

- 1 -

**STATE WATER COMMISSION  
ALLOCATED PROGRAM EXPENDITURES  
FOR THE PERIOD ENDED JANUARY 31, 2016  
BIENNIUM COMPLETE: 29%**

PROGRAM	SALARIES/ BENEFITS	OPERATING EXPENSES	GRANTS & CONTRACTS	17-Feb-16 PROGRAM TOTALS
<b>ADMINISTRATION</b>				
Allocated	2,729,489	2,806,129		5,535,618
Expended	787,567	465,504		1,253,072
Percent	29%	17%		23%
			General Fund:	0
			Federal Fund:	22,108
			Special Fund:	1,230,963
<b>PLANNING AND EDUCATION</b>				
Allocated	1,472,573	352,990		1,825,563
Expended	426,205	61,581		487,786
Percent	29%	17%		27%
			General Fund:	0
			Federal Fund:	81,825
			Special Fund:	405,961
<b>WATER APPROPRIATION</b>				
Allocated	5,762,691	1,185,300	1,372,844	8,320,835
Expended	1,568,827	167,627	13,000	1,749,454
Percent	27%	14%	1%	21%
			General Fund:	0
			Federal Fund:	13,000
			Special Fund:	1,736,454
<b>WATER DEVELOPMENT</b>				
Allocated	4,713,717	10,742,500	1,562,500	17,018,717
Expended	1,249,583	3,204,102	272,287	4,725,972
Percent	27%	30%	17%	28%
			General Fund:	0
			Federal Fund:	79,113
			Special Fund:	4,646,859
<b>STATEWIDE WATER PROJECTS</b>				
Allocated			959,003,567	959,003,567
Expended			113,990,911	113,990,911
Percent			12%	12%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	113,990,911
<b>REGULATORY DIVISION</b>				
Allocated	2,828,565	2,947,500	15,000	5,791,065
Expended	579,681	262,674	0	842,356
Percent	20%	9%	0%	15%
			General Fund:	0
			Federal Fund:	340,041
			Special Fund:	502,315
<b>ATMOSPHERIC RESOURCE</b>				
Allocated	1,107,158	743,382	4,885,212	6,735,752
Expended	301,174	89,736	541,896	932,805
Percent	27%	12%	11%	14%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	932,805
<b>SOUTHWEST PIPELINE</b>				
Allocated	512,995	10,461,744	97,502,498	108,477,237
Expended	183,577	3,403,682	19,502,125	23,089,384
Percent	36%	33%	20%	21%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	23,089,384
<b>NORTHWEST AREA WATER SUPPLY</b>				
Allocated	705,632	13,910,277	31,611,573	46,227,482
Expended	171,037	887,565	322,714	1,381,315
Percent	24%	6%	1%	3%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	1,381,315
<b>PROGRAM TOTALS</b>				
Allocated	19,832,820	43,149,822	1,095,953,194	1,158,935,836
Expended	5,267,650	8,542,472	134,642,932	148,453,055
Percent	27%	20%	12%	13%

**STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 BIENNIUM**

*Jan-16*

	BUDGET	SWC/SE APPROVED	OBLIGATIONS EXPENDITURES	REMAINING UNOBLIGATED	REMAINING UNPAID
<b>FLOOD CONTROL</b>					
FARGO	228,506,200	159,506,200	24,868,110	69,000,000	134,638,090
GRAFTON	33,925,000	8,925,000	785,627	25,000,000	8,139,373
MOUSE RIVER FLOOD CONTROL	46,513,397	8,002,347	1,864,370	38,511,050	6,137,977
VALLEY CITY	32,208,354	14,208,354	3,752,029	18,000,000	10,456,325
LISBON	15,807,952	3,807,952	3,107,400	12,000,000	700,552
FORT RANSOM	225,000	225,000	0	0	225,000
WILLISTON	7,000,000			7,000,000	
RENWICK DAM	23,320	23,320	0	0	23,320
MISSOURI RIVER FLOOD CONTROL	4,000,000	4,000,000	4,000,000	0	0
<b>FLOODWAY PROPERTY ACQUISITIONS</b>					
MINOT	23,879,316	23,879,316	4,450,096	0	19,429,220
WARD COUNTY	6,046,590	6,046,590	31,243	0	6,015,347
VALLEY CITY	267,403	267,403	0	0	267,403
BURLEIGH COUNTY	232,649	232,649	0	0	232,649
SAWYER	184,260	184,260	0	0	184,260
LISBON	45,485	45,485	0	0	45,485
BURLINGTON	43,350	43,350	0	0	43,350
<b>STATE WATER SUPPLY</b>					
REGIONAL & LOCAL WATER SYSTEMS	122,097,566	122,097,566	25,976,834	0	96,120,731
FARGO WATER TREATMENT PLANT	22,768,775	22,768,775	6,750,001	0	16,018,774
GRAND FORKS WATER TREATMENT PLANT	30,000,000			30,000,000	
SOUTHWEST PIPELINE PROJECT	104,832,765	104,832,764	23,089,384	0	81,743,380
NORTHWEST AREA WATER SUPPLY	15,754,482	5,754,482	657,181	10,000,000	5,097,301
WESTERN AREA WATER SUPPLY AUTHORITY	82,201,384	82,201,384	25,632,896	0	56,568,488
RED RIVER VALLEY WATER SUPPLY	12,521,328	12,521,328	3,032,845	0	9,488,483
CENTRAL NORTH DAKOTA WATER SUPPLY	70,070,800	70,800	69,804	70,000,000	997
UNOBLIGATED STATE WATER SUPPLY	34,747,719			34,747,719	
<b>GENERAL WATER MANAGEMENT</b>					
OBLIGATED	27,469,438	27,469,438	9,325,481	0	18,143,957
UNOBLIGATED GENERAL WATER	45,456,568			45,456,568	
<b>DEVILS LAKE</b>					
OUTLET	870,802	870,802	0	0	870,802
OUTLET OPERATIONS	18,534,210	7,534,210	3,419,742	11,000,000	4,114,468
DL EAST END OUTLET	2,774,011	2,774,011	0	0	2,774,011
<b>REVOLVING LOAN FUND</b>					
GENERAL WATER PROJECTS	11,000,000	886,500	886,500	10,113,500	0
WATER SUPPLY	25,000,000	10,239,475	3,500,000	14,760,525	6,739,475
<b>TOTALS</b>	<b>1,025,008,125</b>	<b>629,418,761</b>	<b>145,199,543</b>	<b>395,589,365</b>	<b>484,219,218</b>

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 Biennium

PROGRAM OBLIGATION

Approved SWC By	No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Jan-16 Balance
<i>Flood Control:</i>								
SB 2020	1928-01	5000	City of Fargo	Fargo Flood Control Project	6/23/2009	99,506,200	11,595,442	87,910,758
SB 2020	1928-02	5000	City of Fargo	Interior Flood Control Project	12/11/2015	30,000,000	3,456,750	26,543,250
SB 2020	1928-03	5000	City of Fargo	Interior Disaster Relief Fund	12/11/2015	30,000,000	9,815,918	20,184,082
	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	785,627	964,373
	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 Meet Fed Guic	2/15/2013	809	0	809
	1974-09	5000	Souris River Joint WRD	4th Ave NE & Napa Valley/Forest Rd Flood Improvem	10/7/2013	4,890,512	1,864,370	3,026,142
	1974-13	5000	Souris River Joint WRD	Broadway Pump Station	12/11/2015	1,440,000	0	1,440,000
	1758	5000	Souris River Joint WRD-no agreemen	International Joint Commission Study Board	5/29/2014	302,500	0	302,500
	1974-11	5000	Souris River Joint WRD	Funding of 214 agreement between SRJB & USACE	12/5/2014	106,500	0	106,500
	1993-01	5000	City of Minot	Downtown Infrastructure Improvements	9/15/2014	1,256,426	0	1,256,426
	1344-01	5000	Valley City	Shyenne River Valley Flood Control Project	12/5/2015	157,296	156,993	303
	1344	5000	Valley City	Shyenne River Valley Flood Control Project PHII	5/20/2015	340,000	0	340,000
	1504-01	5000	Valley City	Permanent Flood Protection Project	12/5/2014	9,850,444	3,595,036	6,255,408
	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	Shyenne River Valley Flood Control Project	6/19/2013	92,810	88,227	4,583
	1991-01	5000	City of Lisbon	Permanent Flood Protection Project	5/29/2014	561,702	414,733	146,969
	1991-03	5000	City of Lisbon	Permanent Flood Protection - Levee C Project	3/11/2015	3,153,440	2,604,440	549,000
SB 2371	1344-03	5000	Fort Ransom	Shyenne River Valley Flood Control Project	6/19/2013	225,000	0	225,000
	849	5000	Pembina Co. WRD	Renwick Dam Rehabilitation	6/26/2014	23,320	0	23,320
	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
<i>Subtotal Flood Control</i>						<b>198,698,173</b>	<b>38,377,536</b>	<b>160,320,637</b>
<i>Floodway Property Acquisitions:</i>								
	1993-05	5000	City of Minot	Minot Phase 2 - Floodway Acquisitions	10/7/2013	23,879,316	4,450,096	19,429,220
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	7/23/2013	267,403	0	267,403
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	3/11/2015	45,485	0	45,485
	1987-05	5000	City of Burlington	Mouse River Enhanced Flood Plan Property Acquisitio	12/29/2015	43,350	0	43,350
<i>Subtotal Floodway Property Acquisitions</i>						<b>30,699,053</b>	<b>4,481,339</b>	<b>28,217,714</b>
<i>State Water Supply Grants:</i>								
	2373-35	5000	Grand Forks - Traill RWD	Grand Forks - Traill County WRD	6/13/2012	303,715	216,761	86,954
	2373-36	5000	Stutsman Rural RWD	Stutsman Rural Water System - Phase IIB, III	2/27/2013	4,443,172	3,816,364	626,808
	2373-38	5000	Stutsman Rural RWD	Kidder Co & Carrington Area Expansion	7/23/2013	991,361	294,679	696,683
	2373-39	5000	North Central Rural Water Consortium	Carpio Berthold Phase 2	5/29/2014	2,970,141	478,254	2,491,888
	2373-41	5000	North Central Rural Water Consortium	Granville-Deering Area	3/11/2015	5,594,102	1,801,537	3,792,565
	2050-01	5000	Missouri West Water System	South Mandan	3/17/2014	205,711	148,457	57,254
	2050-02	5000	Grand Forks Traill RWD	Improvements	3/11/2015	4,389,058	1,683,249	2,685,809
	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	806,962	52,379
	2050-05	5000	Northeast Regional WD	North Valley WD - ABM Pipeline Phase 1	3/11/2015	292,958	228,524	64,434
	2050-06	5000	Northeast Regional WD	North Valley WD - 93 Street	3/11/2015	937,870	641,403	296,467
	2050-07	5000	Northeast Regional WD	North Valley WD - Rural Expansion	5/29/2014	1,481,717	451,048	1,030,669
	2050-08	5000	Walsh RWD	Ground Storage	10/7/2013	322,656	169,977	152,679
	2050-09	5000	City of Park River	Water Tower	3/11/2015	633,778	567,420	66,358
	2050-10	5000	City of Surrey	Water Supply Improvements	10/7/2013	1,117,800	906,399	211,401
	2050-11	5000	Cass RWD	Phase 2 Plant Improvements	10/7/2013	3,951,363	950,723	3,000,641
	2050-12	5000	City of Mandan	New Raw Water Intake	10/7/2013	1,587,676	48,441	1,519,235
	2050-13	5000	City of Mandan	New Raw Water Intake	10/7/2013	267,521	225,616	41,905
	2050-14	5000	City of Mandan	Water Treatment Plant Improvements	10/7/2013	2,334,250	0	2,334,250
	2050-15	5000	City of Washburn	New Raw Water Intake	10/7/2013	845,000	0	845,000
	2050-16	5000	Tri-County RWD	Improvements	3/11/2015	6,512,862	2,992,026	3,520,836
	2050-17	5000	Barnes Rural RWD	Water Treatment Plant Phase 3	10/7/2013	3,381,148	590,587	2,790,561
	2050-18	5000	City of Grafton	Water Treatment Plant Improvements	10/7/2013	3,849,151	1,471,142	2,378,009
	2050-19	5000	City of Grand Forks	Capital Infrastructure	10/6/2015	9,803,461	2,509,557	7,293,904
	2050-20	5000	City of Dickinson	Capital Infrastructure	2/27/2014	1,897,040	1,055,708	841,332
	2050-21	5000	Watford City	Capital Infrastructure	2/27/2014	4,119,610	279,884	3,839,726
	2050-22	5000	City of Williston	Capital Infrastructure	3/17/2014	4,199,547	2,058,968	2,140,580
	2050-23	5000	Greater Ramsey WRD	SW Nelson County Expansion	9/15/2014	292,500	0	292,500
	2050-24	5000	All Seasons Water District	System 1 Well Field Expansion	7/29/2015	896,000	0	896,000
	2050-25	5000	All Seasons Water District	Bottineau County Extension, Phase I	7/29/2015	6,841,750	0	6,841,750
	2050-26	5000	City of Fargo	Fargo Water System Regionalization Improvements	7/29/2015	2,190,000	1,042,711	1,147,289
	2050-27	5000	City of Tioga	Tioga Water Supply Improvement Project	10/6/2015	2,290,175	0	2,290,175
	2050-28	5000	City of Mandan	Water Systems Improvement Project	10/6/2015	3,634,000	0	3,634,000
	2050-29	5000	City of Minot	Water Systems Improvement Project	10/6/2015	5,435,087	0	5,435,087
	2050-30	5000	Watford City	Water Systems Improvement Project	10/6/2015	3,428,210	0	3,428,210
	2050-31	5000	City of West Fargo	Water Systems Improvement Project	10/6/2015	10,890,472	0	10,890,472
	2050-32	5000	City of Williston	Water Systems Improvement Project	10/6/2015	4,170,100	0	4,170,100
	2050-33	5000	Stutsman RWD	Phase V Storage & Pipeline Expansion Project	10/6/2015	3,459,837	0	3,459,837
	2050-34	5000	North Prairie RWD	Storage and Water Main	10/6/2015	35,000	0	35,000
	2050-35	5000	Southeast Water Users Dist	System Wide Expansion Feasibility Study	10/6/2015	1,042,500	0	1,042,500
	2050-36	5000	City of Dickinson	Water Systems Improvement Project	12/11/2015	965,000	0	965,000
	2050-37	5000	City of Dickinson	Dickinson State Avenue South Water Main	12/11/2015	901,500	0	901,500
	2050-38	5000	Dakota Rural Water District	Reservoir C Expansion	12/11/2015	308,000	0	308,000
	2050-39	5000	Missouri West Water System	Crown Butte Service Area Expansion Phase II	12/11/2015	533,750	0	533,750
	2050-40	5000	Northeast Regional WD	City of Devils Lake Water Supply Project	12/11/2015	2,093,350	0	2,093,350
	2050-41	5000	Walsh RWD	Phase 1 & 2 System Expansion	12/11/2015	4,900,000	0	4,900,000
	2050-43	5000	All Seasons Water District	System 4 Connection to System 1	12/11/2015			
<i>Subtotal State Water Supply</i>						<b>122,097,566</b>	<b>25,978,834</b>	<b>96,120,731</b>
	1984-02	5000	City of Fargo	Fargo Water Treatment Plant	3/17/2014	22,768,775	6,750,001	16,018,774
	1736-05	8000	SWPP	Southwest Pipeline Project	7/1/2013	104,832,764	23,089,384	81,743,380
	2374	9000	NAWS	Northwest Area Water Supply	7/1/2013	5,754,482	657,181	5,097,301
	1973-02	5000	WAWSA	WAWSA - (GRANT)	10/6/2015	12,061,806	10,623,045	1,438,761
	1973-05	5000	WAWSA	WAWSA - (GRANT)	10/6/2015	60,000,000	4,870,273	55,129,727
	1973-03	5000	Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,139,578	10,139,578	0
	325-102	5000	RRWSP	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	3,000,000	9,359,000
	2051-101	5000	Central ND Water Supply	Black and Veatch Investigation	1/27/2015	70,800	69,804	997
<i>Subtotal State Water Supply</i>						<b>228,149,533</b>	<b>59,232,111</b>	<b>168,917,422</b>

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 Biennium

PROGRAM OBLIGATION

Approved SWC					Initial	Total	Total	Jan-16
By	No	Dept	Sponsor	Project	Approved Date	Approved	Payments	Balance
<i>General Water Management</i>								
<i>Hydrologic Investigations:</i>						1,125,267		
1395D	3000	U. S. Geological Survey		Eaton Irrigation Project on the Souris River	7/13/2012	15,300	0	15,300
<i>Hydrologic Investigations Obligations Subtotal</i>						15,300	0	15,300
<i>Remaining Hydrologic Investigations Authority</i>						1,109,967		
<i>Hydrologic Investigations Authority Less Payments</i>								
<i>General Projects Obligated</i>						22,677,574	5,960,325	16,717,249
<i>General Projects Completed</i>						3,666,597	3,365,156	301,441
<i>Subtotal General Water Management</i>						27,469,438	9,325,481	18,143,957
<i>Devils Lake Basin Development:</i>								
SWC	416-07	5000	Multiple	Devils Lake Outlet	7/1/2013	870,802	0	870,802
SWC	416-10	4700	Operations	Devils Lake Outlet Operations	7/1/2013	7,534,210	3,419,742	4,114,468
SWC	416-15	5000	Multiple	DL East End Outlet	7/1/2013	2,774,011	0	2,774,011
<i>Devils Lake Subtotal</i>						11,179,023	3,419,742	7,759,282
<i>Revolving Loan Fund:</i>								
1991-04	1050	City of Lisbon		Permanent Flood Protection - Levee C (LOAN)	3/11/2015	886,500	886,500	0
1973-04	1050	Bank of North Dakota		WAWSA - (LOAN)	10/6/2015	10,000,000	3,500,000	6,500,000
2050-40	1050	North Prairie Rural Water District		Storage & Water Mains	12/11/2015	239,475	0	239,475
<i>Revolving Loan Fund Subtotal</i>						11,125,975	4,386,500	6,739,475
<b>TOTAL</b>						<b>629,418,761</b>	<b>145,199,543</b>	<b>484,219,218</b>

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
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	Jan-16 Balance
SWC	240	5000	2011-13	Eddy County WRD	Warwick Dam Repair Project	12/7/2012	110,150	0	110,150
SWC	281	5000	2009-11	Three Affiliated Tribes	Three Affiliated Tribes/Fort Berthold Irrigation Study	10/26/2010	37,500	0	37,500
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	2011-13	Williams County WRD	Epping Dam Evaluation Project	2/27/2013	66,200	0	66,200
SE	346	5000	2013-15	Williams County WRD	Design Engineering for Epping Dam Safety Repair	3/30/2015	21,333	12,874	8,459
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	399	5000	2013-15	Barnes Co WRD	Kathryn Dam Feasibility Study	9/19/2014	21,250	0	21,250
SWC	568	5000	2013-15	Southeast Cass WRD	Sheyenne River Reaches Snagging & Clearing Projec	12/5/2014	94,238	0	94,238
SE	568	5000	2013-15	Barnes Co WRD	Sheyenne River Snagging & Clearing Project	4/17/2015	49,500	0	49,500
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches I, II, &	12/11/2015	294,000	0	294,000
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
SWC	645	5000	2009-11	City of Fargo	Hickson Dam Recreation Retrofit Project	10/26/2010	44,280	0	44,280
SWC	646	5000	2009-11	City of Fargo	Christine Dam Recreation Retrofit Project	10/26/2010	184,950	0	184,950
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	0	171,763
SWC	829	5000	2011-13	Rush River WRD	Rush River WRD Berlin's Township Improvement Dist	10/19/2011	101,317	0	101,317
SE	841	5000	2013-15	Maple River WRD	Garsteig Dam Repair Project	1/26/2015	40,163	0	40,163
SWC	841	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #5(Garsteig Dam)	12/11/2015	125,473	0	125,473
SWC	841	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #12(Absaraka Dam)	12/11/2015	109,032	0	109,032
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-1-A (Brummond-Lubke) Dam EAP	12/18/2015	20,000	0	20,000
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-7 (Neison) Dam EAP	12/18/2015	20,000	0	20,000
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Gate Repair	9/4/2015	53,700	34,528	19,172
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Emergency Action Plan	9/29/2015	63,680	0	63,680
SWC	980	5000	2015-17	Cass Co. Joint WRD	Rush River Watershed Detention Study	1/7/2016	154,000	0	154,000
SWC	980	5000	2013-15	Cass Co. Joint WRD	Swan Creek Watershed Detention Study PHII	3/11/2015	120,750	0	120,750
SWC	980	5000	2015-17	Cass Co. Joint WRD	Upper Maple River Watershed Detention Study	1/11/2016	154,000	0	154,000
SWC	1064	5000	2013-15	Rush River WRD	Cass County Drain No. 2 Channel Improvements Proj	3/11/2015	106,989	31,476	75,513
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
SWC	1135	5000	2011-13	Pembina Co. WRD	Drain #4 Reconstruction Project	6/19/2013	2,673	0	2,673
SE	1140	5000	2015-17	Pembina Co. WRD	Drain 11 Outlet Extension Cost Overrun Project	7/7/2015	5,088	0	5,088
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	0	13,543
SWC	1217	5000	2013-15	Tri-County WRD	Tri-County Drain Reconstruction Project	3/11/2015	911,881	0	911,881
SWC	1219	5000	2011-13	Sargent Co WRD	City of Forman Floodwater Outlet	9/21/2011	31,472	0	31,472
SE	1219	5000	2013-15	Sargent Co WRD	Drain No. 8 Channel Improvement Preliminary Engine	5/7/2015	6,650	0	6,650
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	0	16,100
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
SWC	1285	5000	2013-15	LaMoure County	LaMoure Co Memorial Park Streambank Restoration	9/15/2014	91,042	0	91,042
SE	1287	5000	2013-15	McHenry Co. WRD	Souris River Snagging & Clearing Project	2/3/2015	15,000	0	15,000
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
SE	1301	5000	2009-11	City of Lidgerwood	City of Lidgerwood Engineering & Feasibility Study for	2/4/2011	15,850	0	15,850
SE	1301	5000	2011-13	City of Wahpeton	City of Wahpeton Water Reuse Feasibility Study/Richl	9/8/2011	2,500	0	2,500
SE	1303	5000	2013-15	Sargent Co WRD	Gwinner Dam Improvement Feasibility Study Program	4/17/2015	42,844	0	42,844
SE	1303	5000	2013-15	Sargent Co WRD	Upper Wild Rice Watershed Study	6/24/2015	73,500	0	73,500
SE	1314	5000	2013-15	Wells Co. WRD	Hurdsfield Area Drain Preliminary Engineering Project	6/11/2015	35,000	0	35,000
SE	1314	5000	2015-17	Wells Co. WRD	Oak Creek Lateral E Reconstruction	12/29/2015	20,173	0	20,173
SE	1328	5000	2015-17	North Cass Co. WRD	Drain No. 23 Channel Improv Preliminary Engineering	9/30/2015	5,775	0	5,775
SWC	1389	5000	2013-15	Bank of ND	BND AgPace Program	12/13/2013	180,316	24,737	155,578
SE	1396-01	5000	2013-15	Trout, Raley, Montano, Witwe	Missouri River Recovery Program	11/17/2015	75,000	8,337	66,663
SWC	1401	5000	2015-17	Pembina Co. WRD	International Boundary Roadway Dike Pembina	12/11/2015	386,032	26,155	359,877
SE	1403	5000	2015-17	ND Water Resources Researc	(NDWRR) Student Fellowship Program	12/23/2015	18,850	0	18,850
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	3/11/2015	862,218	0	862,218
SWC	1438	5000	2011-13	Cavalier County WRD	Mulberry Creek Phase IV Reconstruction Project	6/19/2013	102,019	0	102,019
SWC	1486	5000	2015-17	Griggs Co. WRD	Thompson Bridge Outlet No. 4 Project	10/6/2015	621,661	0	621,661
SWC	1523	5000	2015-17	Ward Co. WRD	Robinwood Bank Stabilization Project	10/6/2015	256,449	0	256,449
SWC	1523	5000	2015-17	Ward Co	Flood Control County Road 18	5/29/2015	325,208	232,538	92,670
SWC	1554	5000	2013-15	McLean Co. WRD	City of Underwood Floodwater Outlet Project	12/13/2013	1,100,727	1,004,376	96,351
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
SWC	1625	5000	2013-15	Houston Engineering	(OHWM) Ordinary High Water Mark Delineations	8/20/2014	4,560	0	4,560
SWC	1638	5000	2009-11	Multiple	Red River Basin Non-NRCS Rural/Farmstead Ring Di	6/23/2009	177,864	0	177,864
SE	1640	5000	2013-15	U.S. Geological Survey	(USGS) Maintenance of gaging station on Missouri Ri	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	0	6,214
SE	1667	5000	2015-17	Trails Co. WRD	Goose River Snagging & Clearing	12/18/2015	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	0	60,000
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	1815	5000	2013-15	Ransom Co. WRD	Sheyenne River Snagging & Clearing - Fort Ransom f	6/11/2015	6,350	0	6,350
SE	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing	10/27/2015	57,000	0	57,000
SWC	1859	5000	2015-17	ND Dept of Health	NPS Pollution Project	7/29/2015	200,000	0	200,000
SE	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement Preliminary Engine	9/29/2015	17,500	0	17,500
SWC	1921	5000	2007-09	Morton Co. WRD	Square Butte Dam No. 6/(Harmon Lake) Recreation F	3/23/2009	731,002	0	731,002
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
SWC	1977	5000	2011-13	Dickey-Sargent Co WRD	Jackson Township Improvement Dist. #1	5/20/2015	1,601,325	148,246	1,453,079

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
2015-2017 Biennium  
Resources Trust Fund

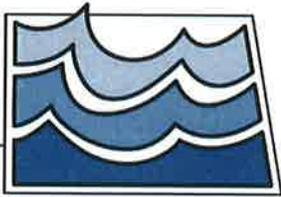
GENERAL PROJECT OBLIGATIONS

Approved SWC		Dept	Approved Biennium	Sponsor	Project	Initial	Total	Total	Jan-16	
By	No					Approved Date	Approved	Payments	Balance	
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	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	
SWC	1990	5000	2011-13	Mercer Co. WRD	Lake Shore Estates High Flow Diversion Project	3/7/2012	43,821	0	43,821	
SE	1991	5000	2011-13	City of Lisbon	Sheyenne River Snagging & Clearing Project	2/12/2013	5,000	0	5,000	
SWC	1991	5000	2013-15	City of Lisbon	Sheyenne Riverbank Stabilization Project	9/15/2014	163,720	114,152	49,568	
SWC	1992	5000	2011-13	Burleigh Co. WRD	Burnt Creek Flood Restoration Project	7/29/2015	179,890	0	179,890	
SE	1974	5000	2015-17	USGS	USGS Web-Based Mouse River Information Page	1/19/2016	24,700	0	24,700	
SWC	2008	5000	2013-15	City of Mapleton	Recertification of Flood Control Levee System Project	3/17/2014	101,100	0	101,100	
SWC	2019	5000	2011-13	Valley City	Sheyenne River Snagging & Clearing Project	12/7/2012	75,000	0	75,000	
SWC	2022	5000	2011-13	Pembina Co. WRD	Drain #73 Project	6/19/2013	350,400	0	350,400	
SWC	2042	5000	2013-15	Bottineau Co. WRD	Haas Coulee Drain Project	9/15/2014	500,000	181,269	318,731	
SWC	2043	5000	2013-15	Pembina Co. WRD	District's Drain 78 Outlet Extension Project	12/13/2013	287,778	270,149	17,629	
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	
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	Walsch Co. WRD	Forest River Watershed Study	10/6/2015	114,100	0	114,100	
SWC	2063	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #8(Embden Dam)	12/11/2015	113,500	0	113,500	
SWC	1878-02	5000	2011-13	Maple-Steele WRD	Upper Maple River Dam Construction Phase	12/13/2013	4,702,936	3,220,855	1,482,081	
SWC	AOC/ASS	5000	2015-17	Assiniboine River Basin	Assiniboine River Basin Initiative Funding	7/29/2015	100,000	25,000	75,000	
SWC	AOC/IRA	5000	2015-17	ND Irrigation Association (NDI	ND Irrigation Association	10/6/2015	100,000	25,000	75,000	
SWC	AOC/RRBC	5000	2015-17	Red River Basin Commission	Red River Basin Commission Contractor	5/20/2015	200,000	50,000	150,000	
SWC	AOC/WEF	5000	2015-17	ND Water Education Foundati	ND Water Magazine	5/20/2015	36,000	9,000	27,000	
SE	AOC/WUA	5000	2011-13	ND Water Users Association	Dave Koland Term as WUA President	3/23/2015	9,672	2,534	7,138	
SE	ASNDS	5000	2015-17	NDSU	Oaks Irrigation Research Site - New Linear Irrigation S	11/18/2015	25,636	0	25,636	
SB2020	ASNDS	5000	2015-17	NDSU	Fargo Moorhead Diversion Agricultural Impact (Study)	1/20/2016	80,000	0	80,000	
SE	CON/CAR	5000	2015-17	Garrison Diversion	Will and Carlson Consulting Services	1/12/2016	17,500	0	17,500	
SE	PSWRDBUR	5000	2015-17	Burleigh Co. WRD	Pebble Creek Golf Course - Hay Creek Bank Stabiliza	10/15/2015	22,782	0	22,782	
SWC	PSWRD/DEV	5000	2015-17	Devils Lake Joint WRB	DL Manager	5/20/2015	60,000	0	60,000	
SWC	PSWRD/ELM	5000	2013-15	Elm River Joint WRD	Dam #3 Safety Improvements Project	9/15/2014	7,297	1,625	5,672	
SWC	PSWRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board, (MRJWB) Start up	5/20/2015	20,000	0	20,000	
SWC	PSWRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board (MRRIC) T. FLECK	5/20/2015	45,000	9,528	35,472	
SWC	PSWRD/MRJ	5000	2013-15	Missouri River Joint WRB	Missouri River Coordinator	10/7/2013	37,094	14,327	22,767	
SWC	PSWRD/UPP	5000	2015-17	Upper Sheyenne River Joint V	Upper Sheyenne River WRB Administration (USRJWF	5/20/2015	12,000	1,003	10,997	
TOTAL								22,677,574	5,960,325	16,717,249

STATE WATER COMMISSION  
PROJECTS/GRANTS/CONTRACT FUND  
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	Jan-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
SE	274	5000	2013-15	City of Neche	FEMA Levee Certification Feasibility Study	10/17/2014	37,500	37,500	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
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	1224	5000	2013-15	Trall Co. WRD	Palace Drain Improvement District No. 80	5/20/2015	118,933	118,933	0
SE	1290	5000	2015-17	McLean Co. WRD	Painted Woods Lake Flood Mitigation Study	7/7/2015	24,500	24,500	0
SE	1311	5000	2013-15	Trall 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
SWC	1396	5000	2011-13	U.S. Geological Survey	(USGS) Missouri River Geomorphic Assessment	3/7/2012	10,000	10,000	0
SWC	1444	5000	2013-15	City of Pembina	2014 Flood Protection System Modification Project	5/29/2014	61,331	61,331	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
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	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing - Bridge Location Sites	2/3/2015	11,063	0	11,063
SWC	1932	5000	2005-07	Nelson Co. WRD	Michigan Spillway Rural Flood Assessment	8/15/2014	832,207	832,207	0
SE	1967	5000	2009-11	Grand Forks Co. WRD	Grand Forks County Legal Drain No. 55 2010 Contruction	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
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	Turtle 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 WRC	Wild Rice River Watershed Retention Plan	6/8/2015	45,905	45,905	0
SWC	2040	5000	2013-15	Walsh Co. WRD	Drain #74 Project	10/7/2013	197,604	197,604	0
SWC	2046	5000	2013-15	Walsch 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	1183/1613/160	5000	2013-15	Richland Co. WRD	Drain No. 15 Reconstruction Project	9/15/2014	60,300	49,055	11,245
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
SWC	CON/WIL/CAR	5000	2013-15	Garrison Diversion Conse	Will and Carlson Consulting Contract	12/13/2013	26,451	1,828	24,623
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							3,666,597	3,365,156	301,441



# 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>

*Agenda E1)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TJ* Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** City of Beulah Water Treatment System Improvement Project  
**DATE:** February 25, 2016

The city of Beulah is requesting grant and loan cost-share towards the Water Treatment System Improvement project which involves design and construction of a membrane system at the water treatment plant, additional lagoon capacity for waste handling, and well field improvements. The project is to expand the water system to meet the anticipated growth. The option for water service from the Southwest Pipeline is estimated to cost over \$15 million for construction of a transmission pipeline and upgrading water treatment plant capacity.

The project estimated cost is \$5,800,000 with the City planning to use surge funding of \$1,400,000 and the remaining \$4,400,000 to be considered for cost-share. Surge funding will be used towards pre-construction engineering costs and a portion of construction engineering and construction costs. The recommendation is the State Water Commission provide 80 percent of \$4,400,000, not to exceed \$3,520,000, with a \$2,640,000 grant and a \$880,000 loan with a term of 20 years and interest rate of 1.5 percent.

**I recommend the State Water Commission approve an amount not to exceed \$3,520,000 with construction engineering and construction costs funded at 60 percent grant, to the city of Beulah towards the Water Treatment System Improvement Project. The funding is in the form of a \$2,640,000 grant and a \$880,000 loan with a term of 20 years and interest rate of 1.5 percent towards eligible costs and contingent on available funding.**

TSS:JNM:pdh/2050-BEU



# City of Beulah

120 Central Ave N  
PO Box 910  
Beulah, ND 58523

Phone: (701) 873-4637  
Fax: (701) 873-5786  
www.beulahnd.org

April 17, 2015

Melissa Behm  
North Dakota State Water Commission  
Cost-Share Program  
900 E Boulevard Ave. Dept. 770  
Bismarck, ND 58505-0850

**RE: Project Information and Cost-Share Request Forms  
Beulah, ND**

Please find the enclosed Project Information and Cost-Share Request Form on behalf of the City of Beulah. The City respectfully requests the North Dakota State Water Commission to consider the Cost-Share Requests for their Water Supply and Treatment System Improvements project.

The City of Beulah's existing treatment system cannot accommodate the increased water demand, which is attributed to growth related to the oil and energy development in the area. The City is trying avoid a reactive type approach by acting preemptively and addressing the future water shortage, before it becomes a major problem.

Your help in securing funding for these projects is greatly appreciated.

If you should have any questions or concerns regarding the projects, please feel free to contact Kent Ritterman (Moore Engineering) at [kritterman@mooreengineeringinc.com](mailto:kritterman@mooreengineeringinc.com) or (701) 499-5818.

Sincerely,  
**CITY OF BEULAH**

Darrell Bjerke  
Mayor

873-5367 Home phone

City Coordinator  
Russal Dupong

APR 21 2015



# ND STATE WATER COMMISSION

## Project Information and Cost-Share Request Form



This form is to be filled out by the project or program sponsor, with SWC staff assistance as needed. Upon receipt of a request form, the information will be reviewed and added to the state's project/program database. This form will serve as the first step in obtaining cost-share assistance. Once a project has been fully developed, detailed cost and engineering information should then be submitted with a request for the project to be considered for SWC cost-share. For assistance, contact the SWC Water Development Division at (701) 328-4952.

Please answer the questions as completely as possible. Supporting documents such as maps and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

1. **Project, program, or study name:** Water Supply & Treatment System Improvements

2. **Sponsor(s):** City of Beulah

3. **Location (county, city, township, etc.):** Mercer, Beulah

4. **Description of request:**  New  Update (previously submitted)

5. **Specific needs addressed by the project, program, or study:**

a. **If study, what type:**

- Water Supply     Hydrologic     Floodplain Mgmt     Feasibility  
 Other

b. **If project/program:**

- Flood Control     Snagging & Clearing     Water Quality  
 Recreation     Bank Stabilization     Rural Flood Control  
 Channel Imp.     Irrigation     Other  
 Multi-Purpose     Water Supply

6. **Jurisdictions/Stakeholders involved:** City of Beulah

7. **Description of problem or need and how project addresses that problem or need:**

The City is proposing to upgrade and expand their existing water treatment plant and wells to accommodate planned growth. The existing water treatment facility consists of three plants, the oldest plant is approximately 50 years old while the other two are 40 and 30 years old. The project will include an upgrade to the groundwater source and major upgrades in the treatment facility to provide sufficient water quality and quantity meeting the increasing needs of the City.

8. **Has a feasibility study been completed?:**  Yes  No  Ongoing  Not Applicable

9. **Has engineering design been completed?:**  Yes  No  Ongoing  Not Applicable

10. **Have land or easements been acquired?:**  Yes  No  Ongoing  Not Applicable

11. Have you applied for any state permits?:  Yes  No  Not Applicable Note: Permits will be acquired during design  
 a. If yes, please explain:

12. Have you been approved for any state permits?:  Yes  No  Not Applicable  
 a. If yes, please explain:

13. Have you applied for any local permits?:  Yes  No  Not Applicable  
 a. If yes, please explain:

14. Have you been approved for any local permits?:  Yes  No  Not Applicable  
 a. If yes, please explain:

15. Briefly explain the level of review the project or program has undergone:  
 Proposed Project has been discussed at several meetings with recommendations approved by the council.

16. Do you expect any obstacles to implementation (i.e., problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?  
 No.

17. Estimated project or program total implementation costs: \$ 5,800,000

<i>Source</i>	<i>Cash</i>	<i>In-kind</i>
<b>Federal</b>	\$	\$
<b>State</b>	\$ 3,480,000	\$
<b>Local</b>	\$ 2,320,000	\$
<b>Total</b>	\$ 5,800,000	\$ 0

18. Funding timeline (carefully consider when SWC cost-share will be needed):

<b>Source</b>	<b>2011-2013</b> 7/1/11-6/30/13	<b>2013-2015</b> 7/1/13-6/30/15	<b>2015-2017</b> 7/1/15-6/30/17	<b>2017-2019</b> 7/1/17-6/30/19	<b>Beyond 6/30/19</b>
<b>Federal</b>	\$	\$	\$	\$	\$
<b>State</b>	\$	\$	\$ 3,480,000	\$	\$
<b>Local</b>	\$	\$	\$ 2,320,000	\$	\$
<b>Total</b>	\$ 0	\$ 0	\$ 5,800,000	\$ 0	\$ 0

19. Please explain implementation timelines, considering all phases and their current status: The project is proposed to go through the City/Public review process in the Spring/Summer of 2015 with the planning and design to be completed in late 2015. Construction will begin in Spring 2016 and will be completed in 2017.

20. Have assessment districts been formed?:  Yes  No  Ongoing  Not Applicable

*Submitted by: Kent Ritterman - Project Manager (Moore Engineering Inc.)*

*Date: 4/13/2015*

*Address and telephone: 925 10th Ave E West Fargo, ND 58078 (701) 282-4692*

*Mail to: ND State Water Commission, ATTN: Melissa Behm, 900 E Boulevard Ave. Dept. 770, Bismarck, ND 58505-0850*

**WATER SYSTEM IMPROVEMENTS - WATER TREATMENT PLANT UPGRADES  
BEULAH, NORTH DAKOTA**

**Table 1 - Engineer's Opinion of Probable Cost**

ITEM	Option C
<u><b>Ground Water Supply</b></u>	
1 Well Improvements	\$400,000.00
<u><b>Water Treatment Facility</b></u>	
<u>Raw Water Piping</u>	
2 Rehabilitate/replace inlet piping and valves	\$50,000.00
<u>Softening Basins (Solids Contact Basins)</u>	
3 Replace Plant #2 SCB equipment	\$100,000.00
<u>Process Piping</u>	
4 Replace process piping and valves	\$200,000.00
<u>Filters</u>	
5 Replace Plant #2 filter valves, piping, valves, media, and controls	\$225,000.00
<u>Existing Filter Backwash Tank/Sludge Pit</u>	
6 Upgrade filter backwash valves, piping	\$20,000.00
7 Replace existing sludge valves/piping	\$25,000.00
<u>Pump Stations</u>	
8 Pump Station Improvements	\$150,000.00
<u>Chemical Feed Systems</u>	
9 Replace chemical feed systems	\$100,000.00
10 Replace chlorine gas feed system	\$25,000.00
<u>Heating and Lighting</u>	
11 Replace heating and lighting	\$75,000.00
<u>Mechanical</u>	
12 Mechanical/plumbing	\$100,000.00
<u>Electrical &amp; Controls</u>	
13 Electrical upgrades, additions, and control system modifications	\$380,000.00
14 Add permanent emergency power backup generator and automatic transfer	\$150,000.00
<u>Structural</u>	
15 Repair brick, roof, windows, doors, and interior painting	\$150,000.00
<u>Membrane Treatment</u>	
16 Membrane treatment skid package	\$800,000.00
17 CIP Tank and Piping	\$75,000.00
18 Demolition of old equipment	\$60,000.00
	\$3,085,000.00
	Subtotals for Water Treatment Plant Improvements
	\$1,200,000.00
	Subtotals for Water Treatment Plant Waste Handling
19 Additional lagoon capacity/concentrate disposal	\$1,200,000.00
	\$4,285,000.00
	<b>Total Construction</b>
	\$4,285,000.00
	<b>Engineering - Preliminary/Proj Dev</b>
	\$50,000.00
	<b>Engineering - Funding/SWC &amp; DWSRF</b>
	\$20,000.00
	<b>Engineering - Basic Services for Design &amp; Bidding</b>
	-Design
	\$325,000.00
	-Bidding & Negotiating
	\$35,000.00
	<b>Engineering - Construction Services</b>
	-Construction Administration
	\$67,500.00
	-Post Construction
	\$22,500.00
	-Resident Project Representative
	\$260,000.00
	<b>Engineering - Construction Staking</b>
	\$7,500.00
	<b>Engineering - Technical Support &amp; Training</b>
	\$42,500.00
	<b>Legal Fees - Local Attorney</b>
	\$20,000.00
	<b>Bond Counsel Attorney</b>
	\$20,000.00
	<b>Interim Interest</b>
	\$90,000.00
	<b>Publishing &amp; Administration</b>
	\$10,000.00
	<b>Bond Discount</b>
	\$30,000.00
	<b>Contingencies</b>
	\$515,000.00
	<b>TOTAL PROJECT</b>
	<b>\$5,800,000.00</b>

**City of Beulah Water Treatment Plant**  
January 12, 2016

Current Capacity gpm = 1300

Additional Capacity gpm = 550

New Capacity gpm = 1850

Increase Capacity = 30%

	SWC Funding Options			
	Beulah WTP			SWPP
	1	2	3	4
Capacity increase	NA	30%	NA	NA
SWC Grant	0%	Pre-Const (35%) Const (60%)	Pre-Const (35%) Const (60%)	0%
SWC Loan	80%	Pre-Const (45%) Const (20%)	Pre-Const (45%) Const (20%)	100%

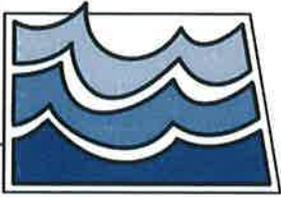
	Cost	Eligible Costs	Loan	Grant	Grant	Loan
WTP Construction	\$3,085,000	\$3,085,000	\$2,468,000	\$555,300	\$1,851,000	\$6,643,089
Lagoon Construction	\$1,200,000	\$1,200,000	\$960,000	\$216,000	\$720,000	\$0
Contingencies	\$515,000	\$515,000	\$358,000	\$92,700	\$309,000	\$2,156,000
Preliminary Engineering	\$50,000	\$50,000	\$40,000	\$5,250	\$17,500	\$0
Funding Engineering	\$20,000	\$0	\$0	\$0	\$0	\$0
Design Engineering	\$325,000	\$325,000	\$260,000	\$34,125	\$113,750	\$538,666
Bidding Engineering	\$35,000	\$35,000	\$28,000	\$3,675	\$12,250	\$0
Construction Engineering	\$357,500	\$357,500	\$286,000	\$64,350	\$214,500	\$1,077,334
Tech Support & Training Engineering	\$42,500	\$0	\$0	\$0	\$0	\$0
Legal	\$20,000	\$0	\$0	\$0	\$0	\$0
Bond Attorney	\$20,000	\$0	\$0	\$0	\$0	\$0
Interim Interest	\$90,000	\$0	\$0	\$0	\$0	\$0
Administration	\$10,000	\$0	\$0	\$0	\$0	\$0
Bond Discount	\$30,000	\$0	\$0	\$0	\$0	\$0
SWPP Associated Costs						\$4,668,300
<b>Total</b>	<b>\$5,800,000</b>	<b>\$5,567,500</b>				<b>\$15,083,389</b>

<b>SWC Grant =</b>	\$0	\$971,400	\$3,238,000	\$0
<b>SWC Loan =</b>	\$3,520,000	\$2,548,600	\$282,000	\$13,683,389
<b>SWC Total =</b>	<b>\$3,520,000</b>	<b>\$3,520,000</b>	<b>\$3,520,000</b>	<b>\$13,683,389</b>

<b>Surge Funding =</b>	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
<b>Local Loan =</b>	\$880,000	\$880,000	\$880,000	\$0
<b>Total =</b>	<b>\$5,800,000</b>	<b>\$5,800,000</b>	<b>\$5,800,000</b>	<b>\$15,083,389</b>

In-eligible costs covered by surge funds	\$232,500
eligible costs covered by surge funds	\$1,167,500
eligible costs for SWC funds	\$4,400,000

SWPP Rate (O&M,CR,REM)	\$4.15 / 1,000 gal
Cap Rep	\$1.15 / 1,000 gal
REM	\$0.65 / 1,000 gal



# 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>

*Agenda E2)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** City of Williston Water System Improvements 2015  
**DATE:** February 25, 2016

This memo is to clarify eligible costs for the Williston Water System Improvements 2015 projects approved on October 6, 2015. The cost-share grant was towards design and construction of water supply infrastructure improvements on the following eight projects to address the continued growth from oil exploration and production. The previous recommendation did not include that projects were already in varying stages of design and construction. The current State Water Commission policy is that project costs incurred prior to cost share approval, except for emergencies as determined by the chief engineer, are not eligible. Williston's October request included projects that are part of major infrastructure work which had to be finished in 2015, to ensure 2016 projects remain on schedule. The State Water Commission Senate Bill No. 2020 project funding designations has an effective date upon its filing with the Secretary of State as of May 13, 2015 and included municipal water projects. It is being recommended that an exception be made to allow costs incurred since May 13, 2015 eligible for cost-share.

- 11<sup>th</sup> Street Water Main between 32<sup>nd</sup> Avenue and 139<sup>th</sup> Avenue project.
- 16<sup>th</sup> Avenue Water Main between 50<sup>th</sup> Street and 58<sup>th</sup> Street project.
- High School Area Improvements Water Main along 26<sup>th</sup> Street and 44<sup>th</sup> Avenue project.
- Wegley Green Acres project.
- Williston Park Water Supply project.
- West Reservoirs project.
- 26<sup>th</sup> Street Water Main from 140<sup>th</sup> Avenue to west truck bypass project.
- Hi-Lands Water Supply project.

**I recommend the State Water Commission approve costs incurred after May 13, 2015 as eligible costs.**

TSS:JNM:pdh/2050-WLL

**SECTION 16. FUNDING DESIGNATION - REIMBURSEMENTS FOR 2013-15 BIENNIUM RURAL AND MUNICIPAL WATER SYSTEMS AFFECTED BY LOCAL COST-SHARE CHANGE.** Of the funds appropriated in the water and atmospheric resources line item in section 1 of this Act, the state water commission shall make available \$11,000,000 from funds available from the line of credit for reimbursing rural and municipal water systems affected by local cost-share changes during the 2013-15 biennium. Rural and municipal water systems must be reimbursed up to an amount, which makes the state share 65 percent in lieu of the 75 percent that was approved by the state water commission.

**SECTION 17. STATE WATER COMMISSION PROJECT FUNDING DESIGNATIONS.** 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 trust fund, and the line of credit available from the Bank of North Dakota, \$414,000,000 is designated as follows:

1. \$113,000,000 for flood control projects;
2. \$61,000,000 for general water projects:
  - a. \$50,000,000 is available for providing grants; and
  - b. \$11,000,000 from the infrastructure revolving loan fund is available for providing loans;
3. \$130,000,000 for rural water projects;
4. \$85,000,000 for municipal water projects; and
5. \$25,000,000 for providing loans from the infrastructure revolving loan fund for rural and municipal water projects.

**SECTION 18. FUNDING DESIGNATIONS - TRANSFERS - BUDGET SECTION APPROVAL.** The funding designated for the items in section 17 of this Act, is designated for the specific purposes identified; however, the state water commission may transfer funding among these items, upon notification to the water topics overview committee and subject to budget section approval.

**SECTION 19. CONTINGENT ALLOCATION - WATER AND ATMOSPHERIC RESOURCES - CENTRAL DAKOTA WATER SUPPLY STUDY.** Of the funds appropriated in the water and atmospheric resources line item in section 1 of this Act, \$70,000,000, is designated as follows, contingent on the state water commission entering into a written agreement that a fertilizer or chemical processing facility will be constructed in Stutsman County:

1. \$10,000,000 for a grant and \$40,000,000 for a loan for a water reuse facility; and
2. \$20,000,000 for the central Dakota water supply project.

The state water commission shall conduct a study on the feasibility and desirability of the central Dakota water supply project for the biennium beginning July 1, 2015, and ending June 30, 2017. The study must include a financial analysis as well as a detailed business plan for the project, including projected operational costs and projected water supply needs for the area to be served.

**SECTION 20. STUTSMAN COUNTY WATER REUSE FACILITY - EXEMPTION.** For purposes of a project for a water reuse facility, the Stutsman rural water district is granted an exemption from the aggregate total outstanding limit of \$50,000,000 of revenue bonds under section 61-35-15 and is instead limited to an aggregate total outstanding limit of \$100,000,000 of revenue bonds for purposes of section 61-35-15.

**SECTION 21. STUTSMAN COUNTY WATER REUSE FACILITY PROJECT - USER BONDING.** Any agreement entered into by the state water commission relating to the Stutsman County water reuse facility project must include requirements that the users of the water reuse facility have entered into contracts, which may include use contracts or credit support arrangements, with the Stutsman rural water district pursuant to which the expected revenues from these contracts over the term of the



# 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>

*Agenda E 3)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** Garrison Rural Water District System Expansion  
**DATE:** February 25, 2016

Garrison Rural Water District's cost-share request is for a grant towards system expansion to construct new storage facilities and pump stations that will increase the water supply capacity and provide adequate volume and pressure to all existing users as well as future users in the areas identified for growth. Total project cost is \$2,761,000 with pre-construction engineering of \$168,000, and construction costs of \$2,593,000. The recommendation is the State Water Commission provide cost-share of \$2,003,550 with 35 percent grant of pre-construction costs and 75 percent grant of construction costs.

**I recommend the State Water Commission approve an amount not to exceed \$2,003,550 with pre-construction engineering funded at 35 percent and construction engineering and construction costs funded at 75 percent, to Garrison Rural Water District towards the System Expansion Project. The funding is towards eligible costs, contingent on available funding, and subject to future revisions.**

TSS:JNM:jpt/2050-GAR



1907 17th Street Southeast  
Minot, ND 58701  
701.837.8737  
www.ackerman-estvold.com



January 18, 2016

Jeffery Mattern  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck, North Dakota 58505-0850

Re: Cost Share Application – Garrison Rural Water District

Dear Mr. Mattern:

Enclosed please find a request form for the State Water Commission's Cost-Share Program submitted on behalf of the Garrison Rural Water District (GRWD) for a water supply improvements project. The project will increase the distribution system's capacity to serve new users. Supporting documentation has also been provided including the following: Preliminary Engineer's Report, System Improvements Map, and Opinion of Cost.

GRWD had previously submitted project information and planning forms for four separate projects: Storage Facility and Booster Station, East Booster Station and Storage, Pump Station Improvements, and NW System Expansion. After closely analyzing the distribution system and service area demand (current and future), the GRWD developed an improvements and expansion plan to address system deficiencies and prepare for future growth.

As part of the plan the District completed the Pump Station Improvement project in 2014 to optimize the existing system. The next step in the improvements plan is to construct storage facilities and pump stations to increase the system's capacity. GRWD wishes to combine the Storage Facility and Booster Station and the East Booster Station and Storage projects into one large project. The project will address the increased demand in the system and allow the for rural water district to expand in order to serve new users.

GRWD also wishes to postpone further development of the NW System Expansion project so that efforts can be concentrated on serving the areas with higher demand that were identified in the expansion plan.

The project included in the cost-share request will create storage, increase pumping capacity, and increase distribution capacity in order to serve the current increased demand and also allow for new users to be served. The project will fulfill the goal of the previously submitted projects for planning; increase capacity to serve new rural water customers. It is expected the user base will continue to expand at its current rate of 5.5% annually, based upon number of users served averaged over the last three years. Water usage data for the system has increased at an average annual rate of 14.53% based upon the total usage averaged over the last three years.

Please feel free to contact me directly with any questions.

Regards,

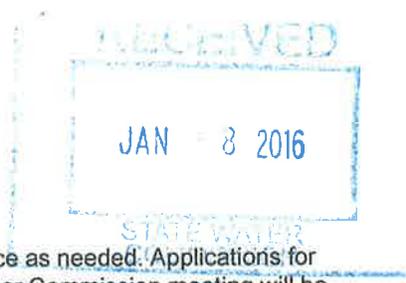


Aaron Fornshell, PE  
Civil Engineer  
Ackerman-Estvold

c: Renee Fetzer, Garrison Rural Water District



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

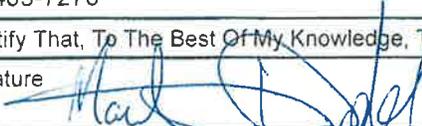


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Distribution System Improvements			
Sponsor(s) Garrison Rural Water District			
County McLean	City Garrison	Township/Range T148N R85W; T148N, R83W	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Increase potable water supply capacity to support growth.			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input checked="" type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Garrison Rural Water District			
Description Of Problem Or Need And How Project Addresses That Problem Or Need This project would increase the capacity of the rural water distribution system in order to serve new users. Garrison Rural Water District has been experiencing an average of 5.5% growth over the last three years, and this growth is expected to continue. Concentrated growth along Lake Sakakawea and Lake Audubon is likely with 236 platted lots available for development. The system currently lacks the capacity to serve additional users. Recent improvements optimized the distribution system's current infrastructure. Constructing new storage facilities and pump stations will increase the water supply capacity and provide adequate volume and pressure to all existing users as well as future users in the areas identified for growth. Several water main improvements have also been identified that will maximized the benefits of the improvements.			
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The project has undergone preliminary engineering which includes hydraulic modeling, growth and expansion analysis and mapping.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 1,926,702.19	\$ 1,926,702.19	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 834,304.06	\$ 834,304.06	\$	\$
Total	\$ 2,761,006.25	\$ 2,761,006.25	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied Drinking Water State Revolving Fund Loan				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Construction for the various portions of the project could begin in the summer of 2016 and be completed in early 2017.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Garrison Rural Water District - Martin Dahl, Director			Date February 2016	
Address 4031 ND Hwy 37		City Garrison	State ND	ZIP Code 58540
Telephone Number 701-463-7276				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 1/18/16	

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850



Engineer's Opinion of Probable Costs  
System Improvements  
Garrison Rural Water District

Item No.	Description	Quantity	Unit	Unit Price	Subtotal
<b>1</b>	<b>West Reservoir and Pump Station</b>				
	1 Mobilization, Bond, Insurance	1	LS	\$ 65,000.00	\$65,000.00
	2 126,000 Gal. Above Ground Reservoir	1	LS	\$ 181,000.00	\$181,000.00
	3 250 gpm Booster Station	1	LS	\$ 175,000.00	\$175,000.00
	4 Electrical and Controls	1	LS	\$ 35,000.00	\$35,000.00
	5 Underground Construction	1	LS	\$ 75,000.00	\$75,000.00
	6 Site Work	1	LS	\$ 50,000.00	\$50,000.00
	7 Land Acquisition	2	AC.	\$ 15,000.00	\$30,000.00
1a	8 4-inch PVC - CL 160	8,200	LF	\$ 8.00	\$65,600.00
	9 Restoration	8,200	LF	\$ 1.00	\$8,200.00
	10 Seeding	7	AC.	\$ 1,500.00	\$10,500.00
				<b>Subtotal</b>	<b>\$695,300.00</b>
<b>2</b>	<b>East Reservoir and Pump Station</b>				
	1 Mobilization, Bond, Insurance	1	LS	\$ 50,000.00	\$50,000.00
	2 81,000 Gal. Above Ground Reservoir	1	LS	\$ 157,000.00	\$157,000.00
	3 150 gpm Booster Station	1	LS	\$ 150,000.00	\$150,000.00
	4 Electrical and Controls	1	LS	\$ 35,000.00	\$35,000.00
	5 Underground Construction	1	LS	\$ 75,000.00	\$75,000.00
	6 Site Work	1	LS	\$ 50,000.00	\$50,000.00
	7 Land Acquisition	2	AC.	\$ 15,000.00	\$30,000.00
2a	8 4-inch PVC - CL 160	2,500	LF	\$ 8.00	\$20,000.00
	9 Restoration	2,500	LF	\$ 1.00	\$2,500.00
	10 Seeding	2	AC.	\$ 1,500.00	\$3,000.00
				<b>Subtotal</b>	<b>\$572,500.00</b>
<b>3</b>	<b>CR 15 Parallel Line (Garrison to Ft. Stevenson)</b>				
	1 Mobilization, Bond, Insurance	1	LS	\$ 30,000.00	\$30,000.00
	2 6-inch PVC - CL 160	19,000	LF	\$ 12.00	\$228,000.00
	3 6-inch Gate Valve	8	EA	\$ 1,800.00	\$14,400.00
	4 6-Inch Fittings	6	EA	\$ 1,000.00	\$6,000.00
	5 6-Inch Non-Cased Bore	5	EA	\$ 2,000.00	\$10,000.00
	6 Connect to Existing	4	EA	\$ 2,500.00	\$10,000.00
	7 Restoration	19,000	LF	\$ 1.00	\$19,000.00
	8 Seeding	15	AC.	\$ 1,500.00	\$22,500.00
				<b>Subtotal</b>	<b>\$339,900.00</b>



Engineer's Opinion of Probable Costs  
 System Improvements  
 Garrison Rural Water District

December 2015  
 Attachment 3  
 Page 2

Item No.	Description	Quantity	Unit	Unit Price	Subtotal
<b>4</b>	<b>Parallel Line (Ex. Booster to Garrison Creek Cabins)</b>				
1	Mobilization, Bond, Insurance	1	LS	\$ 15,000.00	\$15,000.00
2	4-inch PVC - CL 160	11,000	LF	\$ 8.00	\$88,000.00
3	4-inch Gate Valve	1	EA	\$ 1,500.00	\$1,500.00
4	4-inch Fittings	2	EA	\$ 800.00	\$1,600.00
5	4-inch Non-Cased Bore	7	EA	\$ 1,500.00	\$10,500.00
6	Connect to Existing	2	EA	\$ 2,500.00	\$5,000.00
7	Restoration	11,000	LF	\$ 1.00	\$11,000.00
8	Seeding	10	AC.	\$ 1,500.00	\$15,000.00
				<b>Subtotal</b>	<b>\$147,600.00</b>
<b>5</b>	<b>In-Line Booster (Camps, Sak. Estates, Highwater Bay)</b>				
1	Mobilization, Bond, Insurance	1	LS	\$ 15,000.00	\$15,000.00
3	50 gpm Booster Station	1	LS	\$ 45,000.00	\$45,000.00
4	Electrical and Controls	1	LS	\$ 15,000.00	\$15,000.00
5	Underground Construction	1	LS	\$ 25,000.00	\$25,000.00
6	Site Work	1	LS	\$ 12,000.00	\$12,000.00
7	Land Acquisition	1	AC.	\$ 15,000.00	\$15,000.00
				<b>Subtotal</b>	<b>\$127,000.00</b>
<b>6</b>	<b>Parallel Line (to Krueger Cabin Area)</b>				
1	Mobilization, Bond, Insurance	1	LS	\$ 5,000.00	\$5,000.00
2	4-inch PVC - CL 160	2,200	LF	\$ 8.00	\$17,600.00
3	4-inch Gate Valve	2	EA	\$ 1,500.00	\$3,000.00
4	4-inch Fittings	2	EA	\$ 1,500.00	\$3,000.00
5	4-inch Non-Cased Bore	2	EA	\$ 800.00	\$1,600.00
6	Connect to Existing	2	EA	\$ 1,500.00	\$3,000.00
7	Restoration	2,200	LF	\$ 1.00	\$2,200.00
8	Seeding	2	AC.	\$ 1,500.00	\$3,000.00
				<b>Subtotal</b>	<b>\$38,400.00</b>

Engineer's opinions of probable construction cost are made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer.

<b>Construction</b>	<b>\$1,920,700.00</b>
<b>Contingency</b>	<b>\$480,175.00</b>
<b>Engineering</b>	<b>\$360,131.25</b>
<b>TOTAL</b>	<b>\$2,761,006.25</b>

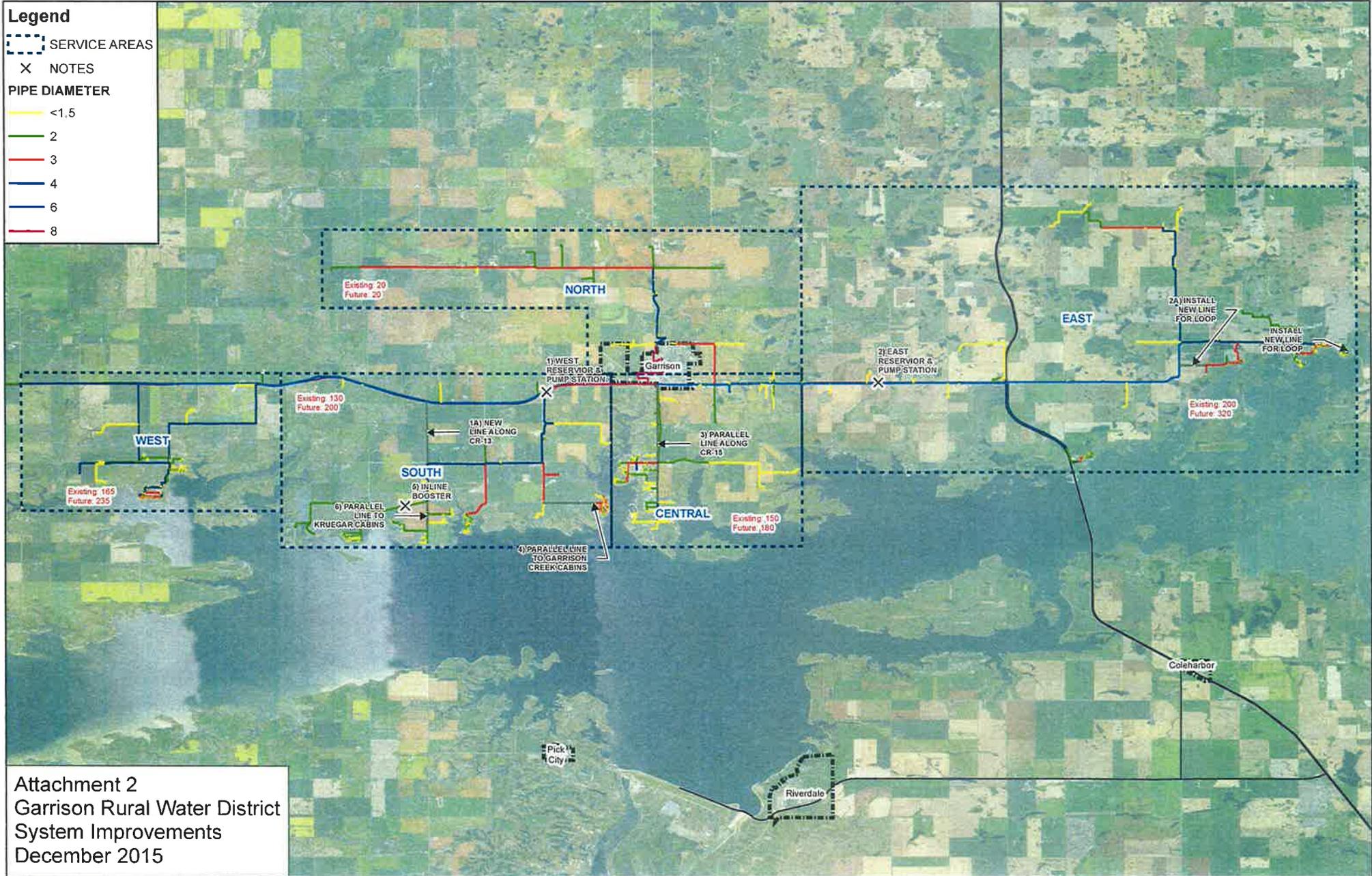
	Construction	Grant	Other
<b>Construction</b>	\$2,400,875.00	\$ 1,800,656.25	\$ 600,218.75
<b>Pre-Construction Engineering</b>	\$ 168,061.25	\$ 58,821.44	\$ 109,239.81
<b>Construction Engineering</b>	\$ 192,070.00	\$ 144,052.50	\$ 48,017.50
		\$ 2,003,530.19	\$ 757,476.06

**Legend**

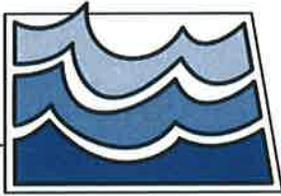
- SERVICE AREAS
- × NOTES

**PIPE DIAMETER**

- <1.5
- 2
- 3
- 4
- 6
- 8



Attachment 2  
 Garrison Rural Water District  
 System Improvements  
 December 2015



# 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>

*Langdon Est*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission

**FROM:** *TS* Todd Sando, P.E., Chief Engineer–Secretary

**SUBJECT:** Northeast Regional Water District City of Devils Lake Water Supply Project

**DATE:** February 25, 2016

The Northeast Regional Water District cost-share request is for a grant and loan toward the project to address a water supply for the Langdon Rural Water branch of Northeast Rural Water District and the city of Langdon during a drought similar to the 1930's. The project also provides system capacity for an additional project to add 150 new users in the Langdon Rural Water branch. The project involves a pipeline to bring treated water from the city of Devils Lake water treatment plant. The project cost includes a 20.7 percent buy-in of the City's non-grant cost of \$4,689,144 for providing 600 gallons per minute from the City's water supply system capacity of 2,900 gallons per minute.

Total estimated project cost is \$23,400,625 with pre-construction engineering of \$1,525,000 and construction costs of \$21,875,625. Eligible construction costs are \$20,013,333. On December 11, 2015, cost-share of \$533,750 was granted for 35 percent on pre-construction engineering costs. The recommendation is the State Water Commission provide cost-share of \$16,696,920 with a \$15,010,000 grant and a \$1,686,920 loan with a term of 20 years and interest rate of 1.5 percent. The construction cost-share grant is at 75 percent.

	Cost	Cost-Share			
		%	Grant \$	%	Loan \$
Pre-construction	\$ 1,525,000	35	\$ 0	45	\$ 686,250
Construction	\$20,013,333	75	\$15,010,000	5	\$1,000,666
Ineligible	\$ 1,862,292	75	\$ 0		\$ 0
Total	\$23,400,625		\$15,010,000		\$1,686,920

**I recommend the State Water Commission approve an amount not to exceed \$16,696,920 with construction engineering and construction costs funded at 75 percent grant, to the Northeast Regional Water District towards the City of Devils Lake Water Supply Project. The funding is in the form of a \$15,010,000 grant and a \$1,686,920 loan with a term of 20 years and interest rate of 1.5 percent towards eligible costs and contingent on available funding.**

TS:JM:JT:ph/2050-NOE

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (07/2015)

RECEIVED  
 FEB - 9 2016

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name NRWD: City of Devils Lake Water Supply			
Sponsor(s) Northeast Regional Water District (NRWD)			
County Cavalier	City	Township/Range	
Description Of Request <input type="checkbox"/> New <input checked="" type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Alternate Water Supply for NRWD to ensure an adequate water supply during a 1930's type drought.			
If Study, What Type <input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input checked="" type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Northeast Regional Water District and City of Langdon			
Description Of Problem Or Need And How Project Addresses That Problem Or Need The objective of the NRWD:City of Devils Lake Water Supply is to find a solution that can satisfy NRWD and the City of Langdon's water demand during a drought similar in severity to that experienced during the 1930's. This also will provide an improved water capacity to the Northwestern portions of NRWD. This is a local solution for this part of the 13-county Red River Valley Water Supply Project. This Project will also provide water capacity for 150 new users which are requesting service from NRWD. Without a new water source or paralleling existing transmission pipelines sufficient capacity for these users may not be present.  This problem will be addressed by regionalizing with the City of Devils Lake to provide a finished water supply to the Langdon Rural Water branch of NRWD and the City of Langdon. This request would be to complete the Construction and Post-Construction on the above referenced project.			
Has A Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Briefly Explain The Level Of Review The Project Or Program Has Undergone			
This project is currently in the preliminary engineering stage. NRWD and the City of Langdon are currently working with the City of Devils Lake towards a water supply agreement.			
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)? None at this time.			
Estimated Project or Program Total Implementation Costs			
Funding Sources	Cash	In-Kind	
Federal	\$	\$	
State	\$23,466,250.00	\$	
Local	\$0.00	\$	
<b>Total</b>	<b>\$23,466,250.00</b>	<b>\$0.00</b>	
Funding Timeline (carefully consider when SWC cost-share will be needed)			
Source	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$
State	\$5,000,000.00	\$18,466,250.00	\$
Local	\$0.00	\$0.00	\$
<b>Total</b>	<b>\$5,000,000.00</b>	<b>\$18,466,250.00</b>	<b>\$0.00</b>
Please Explain Implementation Timelines, Considering All Phases And Their Current Status			
Current request for SWC Grant and SWC Loan Dollars. See attachment A for project request breakdown.			
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Submitted By Gordon Johnson		Date 2/03/16	
Address 13532 Hwy 5 W	City Cavalier	State ND	ZIP Code 58220
Telephone Number 701-265-8503			

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

City of Devils Lake Water Supply  
TRANSMISSION LINE FROM CITY OF DEVILS LAKE TO NRWD/LANGDON  
Last updated: December 30,2015  
OPINION OF TOTAL PROBABLE PROJECT COSTS

ITEM DESCRIPTION	Cost	Eligible Cost	Grant	Loan	Cost-Share
City of Devils Lake Infrastructure Buy-In.			75%	5%	
Well Field, Transmission Pipeline and WTP (20.69%)	<b>\$2,832,475.00</b>	<b>\$970,183.89</b>	<b>\$727,637.92</b>	<b>\$48,509.19</b>	<b>\$776,147.11</b>
Facilities					
Booster Station Near Devils Lake	\$1,080,000.00	\$1,080,000.00			
Munich Pump Station Renovations	\$472,500.00	\$472,500.00			
500K Reservoir and Facility Near Nekoma	\$2,025,000.00	\$2,025,000.00			
Subtotal Facilities	<b>\$3,577,500.00</b>	<b>\$3,577,500.00</b>	<b>\$2,683,125.00</b>	<b>\$178,875.00</b>	<b>\$2,862,000.00</b>
Finished Water Transmission Pipeline					
Transmission Pipeline	<b>\$13,225,222.00</b>	<b>\$13,225,222.00</b>	<b>\$9,918,916.50</b>	<b>\$661,261.10</b>	<b>\$10,580,177.60</b>
Contingencies					
Contingencies	<b>\$1,219,177.44</b>	<b>\$1,219,177.44</b>	<b>\$914,383.08</b>	<b>\$60,962.20</b>	<b>\$975,345.28</b>
Total Project Cost (NRWD and Langdon Split 50/50)	<b>\$20,854,374.44</b>	<b>\$18,992,083.33</b>	<b>\$14,244,062.50</b>	<b>\$949,607.50</b>	<b>\$15,193,670.00</b>
City of Langdon Interior					
Pump Station and WTP Demolition	\$961,250.00	\$961,250.00	\$720,937.50	\$48,062.50	\$769,000.00
Contingencies	\$60,000.00	\$60,000.00	\$45,000.00	\$3,000.00	\$48,000.00
Total Project Cost (City of Langdon Only)	<b>\$1,021,250.00</b>	<b>\$1,021,250.00</b>	<b>\$765,937.50</b>	<b>\$51,062.50</b>	<b>\$817,000.00</b>
Total Project Construction Cost	<b>\$21,875,624.44</b>	<b>\$20,013,333.33</b>	<b>\$15,010,000.00</b>	<b>\$1,000,670.00</b>	<b>\$16,010,670.00</b>
Pre-Construction Engineering	<b>\$1,525,000.00</b>	<b>\$1,525,000.00</b>	<b>\$533,750.00</b>	<b>\$686,250.00</b>	<b>\$1,220,000.00</b>
Total Project Cost	<b>\$23,400,624.44</b>	<b>\$21,538,333.33</b>	<b>\$15,543,750.00</b>	<b>\$1,686,920.00</b>	<b>\$17,230,670.00</b>

Ineligible \$1,862,291.11 9-Mar-16 \$16,696,920.00

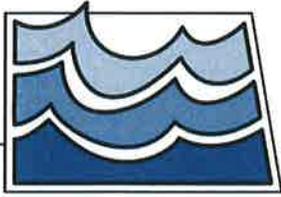
Attachment A

NRWD: City of Devils Lake Water Supply Project currently is in the preliminary/design/bidding phase. NRWD has been approved for 35% grant reimbursement on all eligible costs for the feasibility study, design and bidding for the above referenced project through ND SWC dollars. The anticipated cost of the feasibility study and design is estimated to be \$1,525,000.00, with a proposed \$533,750.00 and \$991,250 being reimbursed through state grant funds and loan funds, respectively. The total project cost to include pre-construction dollars is estimated to be \$24,000,000.

At this time NRWD is requesting the 75% grant reimbursement on all eligible costs for the construction and post-construction phase of the project. The estimated cost of the construction and post-construction phase of the project is estimated at \$22,475,000, with a proposed \$16,856,250 and \$5,618,750 being reimbursed through state grant funds and loan funds, respectively.

NRWD is also requesting SWC loan dollars for the above referenced project in the amount of \$6,610,000. See table below for funding breakdown.

	Previously Approved Grant Funds	Current Requested Grant	Current Requested Loan	Total State Funds Requested
Preconstruction Phase	\$533,750	\$0	\$991,250	\$1,525,000
Construction/Post Construction Phase	\$0	\$16,856,250	\$5,618,750	\$22,475,000
Total	\$533,750	\$16,856,250	\$6,610,000	\$24,000,000



# 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>

*Agenda ES)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** Southeast Water Users District System Wide Expansion  
**DATE:** February 25, 2016

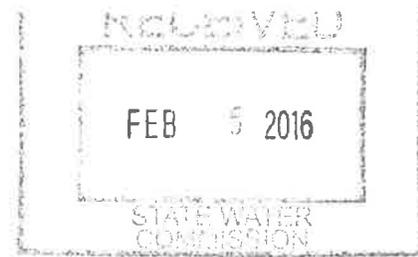
The Southeast Water Users District cost-share request is for a grant towards a System Wide Expansion Project for water service to 350 rural users throughout the currently un-served areas and capacity for service to Walcott. The updated project cost is \$16,500,000 with pre-construction engineering of \$1,372,500 and construction costs of \$15,127,500. On October 8, 2015, the Chief Engineer granted cost-share of \$35,000 for 35 percent on pre-construction engineering costs. The recommendation is the State Water Commission provide a grant of \$11,791,000 with pre-construction cost at 35 percent and construction costs at 75 percent.

**I recommend the State Water Commission approve additional cost-share not to exceed \$11,791,000 with pre-construction engineering funded at 35 percent, and construction engineering and construction costs funded at 75 percent, to Southeast Water Users District towards the System Wide Expansion Project. The funding is in the form of a grant towards eligible costs and contingent on available funding.**

TS:JM:ph/2050-SOE



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (07/2015)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name SEWUD System Wide Expansion				
Sponsor(s) Southeast Water Users District (SEWUD)				
County Richland	City Mantador	Township/Range		
Description Of Request <input type="checkbox"/> New <input checked="" type="checkbox"/> Updated (previously submitted)				
Specific Needs Addressed By The Project, Program, Or Study				
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other				
If Project/Program				
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP	
<input type="checkbox"/> Recreation	<input checked="" type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition	
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other	
Jurisdictions/Stakeholders Involved SEWUD and rural water users within the counties of Richland, Ransom, Sargent, LaMoure, Dickey, and Logan Counties				
Description Of Problem Or Need And How Project Addresses That Problem Or Need This project is intended to serve the potential new rural water user gained from conducting the sign-up campaign for the Southeast Water Users District (SEWUD) East, Central, and West. Currently, we have over 300 rural users and one community that would like to become a part of SEWUD system. These numbers are anticipated to increase even further. The water supply component includes extending the rural water distribution system to additional users who don't have access to a reliable and safe drinking water supply. The engineering design will consist of the rural water distribution system design, bidding, and construction. There are many potential users that have been concerned with arsenic and lead concentrations within their drinking water supply as well as other water quality concerns based on the recent local and national news on water. This project would supply a reliable, safe drinking water to these users.				
Has A Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Briefly Explain The Level Of Review The Project Or Program Has Undergone			
There has currently been limited review of the project, however, SEWUD has conducted five public informational meetings at areas throughout the district.			
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)? <b>Significant obstacles are not anticipated for this project.</b>			
Estimated Project or Program Total Implementation Costs			
Funding Sources	Cash	In-Kind	
Federal	\$	\$	
State	\$ 11,826,000.00	\$	
<del>Local</del> Loan - DWSRF	\$ 4,674,000.00	\$	
Total	\$ 16,500,000.00	\$ 0.00	
Funding Timeline (carefully consider when SWC cost-share will be needed)			
Source	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$
State	\$ 11,826,000.00	\$	\$
<del>Local</del> Loan - DWSRF	\$ 4,674,000.00	\$	\$
Total	\$ 16,500,000.00	\$ 0.00	\$ 0.00
Please Explain Implementation Timelines, Considering All Phases And Their Current Status			
The implementation timeline will involve 2 additional months to gather interest and for the completion of a feasibility study, approximately 1 year for design*, 2½ years for construction**, and 1 yr warranty***.			
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable			
Submitted By Brian R. Bergantine		Date 02/22/2016	
Address 3101 Frontage Road S	City Moorhead	State MN	ZIP Code 56560
Telephone Number 218-299-5610			

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

\*Multi-phase design will take a total of approximately one year to complete design.

The 1st phase would be designed in Spring 2016 and 2nd phase would be designed in Winter 2016 - Spring 2017.

\*\*Multi-phase construction would take place over 2½ years.

\*\*\*Warranty phase would extend beyond 7/1/19, if constructed in multiple phases.

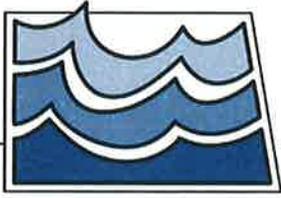
**Estimated Project Costs**  
**System Wide Expansion**  
**Southeast Water Users District**

February 19, 2016\*\*

Preconstruction Estimates	
Preliminary Design	\$275,000
Engineering Design	\$1,097,500
<b>Total Estimated Preconstruction Project Cost =</b>	<b>\$1,372,500</b>
Construction Estimates	
Construction Costs	\$13,068,000
Construction Bidding*	\$90,000
Engineering Construction & Post Construction	\$974,500
Crop Reimbursement	\$500,000
Contingencies	\$495,000
<b>Total Estimated Construction Project Cost =</b>	<b>\$15,127,500</b>
<b>Total Estimated Project Cost =</b>	<b>\$16,500,000</b>

\* Denotes 3 separate projects

\*\*Updated from February 4, 2016 per NDSWC request



# 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>

*Agenda E(6)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** Walsh Rural Water District Phase 1 & 2 System Expansion  
**DATE:** February 25, 2016

Walsh Rural Water District cost-share request is for a loan towards Phase 1 & 2 System Expansion to provide water to 17 additional users and upsizing of 17.5 miles of undersized pipelines due to increased demands in the system. Total project cost is \$2,929,800 with pre-construction engineering of \$260,000, and construction costs of \$2,669,800. On December 11, 2015, cost-share of \$2,093,350 was granted for 35 percent on pre-construction engineering costs and 75 percent on construction engineering and construction costs. The recommendation is the State Water Commission provide a total of 80 percent cost-share with the addition of a \$250,490 loan with a term of 20 years and interest rate of 1.5 percent.

**I recommend the State Water Commission approve a loan, not to exceed \$250,490, with a term of 20 years and interest rate of 1.5 percent to Walsh Rural Water District towards the Phase 1 & 2 System Expansion Project. The funding is towards eligible costs and contingent on available funding.**

TSS:JNM:jpt/2050-WAL



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (07/2015)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Phase 1 & 2 System Expansion			
Sponsor(s) Walsh Rural Water District			
County Walsh	City Grafton	Township/Range	
Description Of Request <input type="checkbox"/> New <input checked="" type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Addition of 15 new users and upsizing 30-miles of undersized pipelines.			
If Study, What Type <input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input checked="" type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input checked="" type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved			
Description Of Problem Or Need And How Project Addresses That Problem Or Need The objective of the Phase 1 & Phase 2 System Expansion Project will include the addition of 15 new users and upsizing nearly 30-miles of undersized pipelines. The pipeline expansion is required due to system expansion and increased demand over the past 10-15 years. The additional piping will ensure adequate pressure and water supply service to all current and new users.			
Has A Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Briefly Explain The Level Of Review The Project Or Program Has Undergone			
This project is currently in the report and design phase with pipelines and new users of concern identified.			
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)? None at this time.			
Estimated Project or Program Total Implementation Costs			
Funding Sources	Cash	In-Kind	
Federal	\$	\$	
State	\$836,450.00	\$	
Local	\$	\$	
<b>Total</b>	<b>\$836,450.00</b>	<b>\$0.00</b>	
Funding Timeline (carefully consider when SWC cost-share will be needed)			
Source	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$
State	\$836,450.00	\$	\$
Local	\$	\$	\$
<b>Total</b>	<b>\$836,450.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
Please Explain Implementation Timelines, Considering All Phases And Their Current Status			
CURRENT REQUEST FOR ND SWC LOAN PORTION OF THE PROJECT. SEE ATTACHED			
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Submitted By Brian Reilly		Date 08/24/15	
Address PO Box 309	City Grafton	State ND	ZIP Code 58237
Telephone Number 701-352-3915			

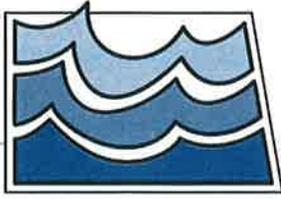
**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E. Boulevard Ave. • Bismarck, ND 58505-0850

Attachment A

WRWD: Phase 1 & 2 System Expansion currently is in the preliminary/design/bidding phase. WRWD has been approved for 35% grant reimbursement on all eligible costs for the feasibility study, design and bidding and 75% grant reimbursement on all eligible costs for the construction and post-construction phase for the above referenced project through NDS SWC dollars for a total grant amount not to exceed \$2,093,350.

**At this time WRWD is requesting the ND SWC loan share of the above mentioned project in the amount of \$836,450, for a total project cost of \$2,929,800.**



# 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>

*Agenda E7)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer-Secretary  
**SUBJECT:** USGS Stream Gage Joint Funding Agreement  
**DATE:** February 25, 2016

The State Water Commission has participated in a cooperative statewide hydrologic monitoring program with the US Geological Survey since the 1950s. The Joint Funding Arrangement for 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**. This data collection system consists of:

Surface Water gage sites (50 Total, of which SWC shares in the cost of 45)

- 15 Seasonal
- 28 Continuous
- 5 Lake
- 2 Miscellaneous

Groundwater Observation Wells

- 88 most measured monthly
- 23 Groundwater Observation Wells equipped with real-time monitoring

Water Quality monitoring

- 43 Surface water sites (semi-annually)
- 9 Chain of Lakes network (quarterly)
- About 1/3 of Groundwater network (25-30 wells, annually)

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 provided real-time stream stage 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

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY

NDSWC MEMORANDUM  
RE: USGS STREAM GAGE JOINT FUNDING AGREEMENT  
CONTINUED

---

resources. The data collection system include real-time monitoring capabilities to the continuous recorder wells.

The total cost of the monitoring program for FY2016 is \$1,014,240. The State Water Commission portion of this amount is \$529,075 or 52.1%. This represents a 4.6% increase in program funding over the previous fiscal year.

**I recommend that the State Water Commission approve the FY 2016 Joint Funding Arrangement with the USGS North Dakota Water Science Center not to exceed \$529,075 from the funds appropriated to the State Water Commission in the 2015-2017 biennium.**

TS:JCP;jk:(2041)



## United States Department of the Interior

U.S. GEOLOGICAL SURVEY  
North Dakota Water Science Center  
821 East Interstate Avenue  
Bismarck, North Dakota 58503

February 1, 2016

Jon Patch, Division Director  
Water Appropriation Division  
North Dakota State Water Commission  
900 East Boulevard Avenue  
Bismarck, ND 58505

Dear Jon,

The purpose of this letter is to provide you with the fiscal year (FY) 2016 cooperative monitoring program. First I wanted to mention some changes that will be occurring in the internal structure of the USGS.

Starting in FY 2016, there will be changes in the budgeting process of the USGS that will eliminate some of the USGS programs that are familiar to you. The USGS is aligning its budget structure with the USGS Water Science Strategy which was developed in 2013. The existing six science program areas will be consolidated into four science program areas. This means that established and well known data collection funding programs, such as the National Streamflow Information Program (NSIP) and the Cooperative Water Program (CWP) will be eliminated with the associated funding rolled into the following programs: (1) Groundwater and Streamflow Information Program (GWSIP); (2) National Water Quality Program (NWQP); (3) Water Availability and Use Science Program (WAUSP); (4) Water Resources Research Act (WRRA). This budget restructuring will have no impact on the USGS funding available for data collection activities in North Dakota. However, it will change the terminology that is used to describe the USGS funding sources. I plan on using the old NSIP and CWP terminology through the end of FY 2016 and transitioning to the new program terminology at the start of FY 2017.

The FY 2016 program as presented represents a continuation of the FY 2015 program. The cost for operation of the gaging station network was increased by 2.5%. The following table summarizes the total North Dakota State Water Commission (SWC) Cooperative program proposed costs for FY 2016. The overall increase to the SWC is 4.6 % above FY 2015 levels as a result of changes and additions mentioned below.

**Program Summary for FY 2016**

<u>Project</u>	<u>Direct</u>	<u>Repay</u>	<u>CWP</u>	<u>NSIP</u>	<u>Total</u>
ND-001		330,425	218,005		548,430
ND-001				82,600	82,600
ND-002		106,580	51,530		158,110
ND-002				7,560	7,560
ND-003	23,770	92,070	101,700		217,540
<b>Total:</b>	<b>23,770</b>	<b>529,075</b>	<b>371,235</b>	<b>90,160</b>	
<b>FY 2015</b>		<b>505,895</b>			
<b>FY 2016</b>		<b>529,075</b>			<b>1,014,240</b>

There is one change to the surface water program from FY 2015. The Missouri River below Mandan gage (06349070) has been added to the Cooperative Gaging Program as requested. For most gages the match rate of 58/42 used in 2015 will continue for the 2016 fiscal year. There are three gages (06332000, 06343000, 06348300) where the combined match rate is 56/44 as a result of CWP availability and discussions that took place when the gages were activated at the current funding levels. The total increase in the surface water program for FY 2016 from the FY 2015 funding level is 5.4%.

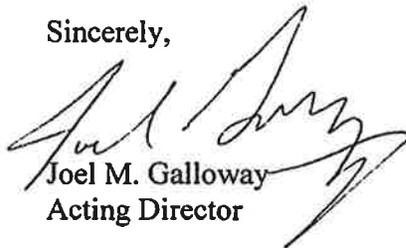
There was one significant change to the ground water program from FY 2015. As discussed in the previous year, the publication costs for wells measured by the SWC has been eliminated, with funding removed from both the USGS and the SWC. The overall match rate for the ground water program continues to be 64/36. The total increase in the ground water program for FY 2016 from the FY 2015 funding level is 0.4%.

There are two changes to the water-quality program for FY 2015. The CWP match rate for FY 16 has been changed to 52/48, up from the 51/49 match rate used in FY 15. An additional level 3 water quality sampling (4 samples per year) for the Deep Creek near Amidon (06335750) is being proposed as an addition to the sampling network. The water quality sampling has been funded by the NSIP program since the gage was reactivated in May of 2014. The Direct Service credit for the work completed by the SWC construction crew has been increased by 2.5%. The overall change in the water-quality program for FY 2016 is 6.6%.

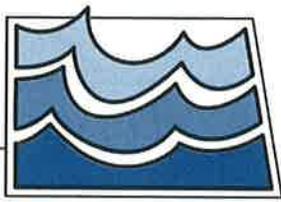
Please sign and return one of the copies of the enclosed JFA for our files. The other copy of the JFA is for your files. Work performed with funds under this agreement will be conducted on a fixed-price basis, and we will bill you on a quarterly basis. The results of all work under this agreement will be available for publication by the USGS.

Please call Steve Robinson at 701-250-7404 if you have any questions about the data collection program.

Sincerely,



Joel M. Galloway  
Acting Director



# 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>

*Agenda E8)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *ts* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Richland County Water Resource District  
Legal Drain #2 Reconstruction/Extension Project  
**DATE:** March 9, 2016

In their correspondence dated January 21, 2016, the Richland County Water Resource District requested cost share assistance for their Legal Drain #2 Reconstruction/Extension Project.

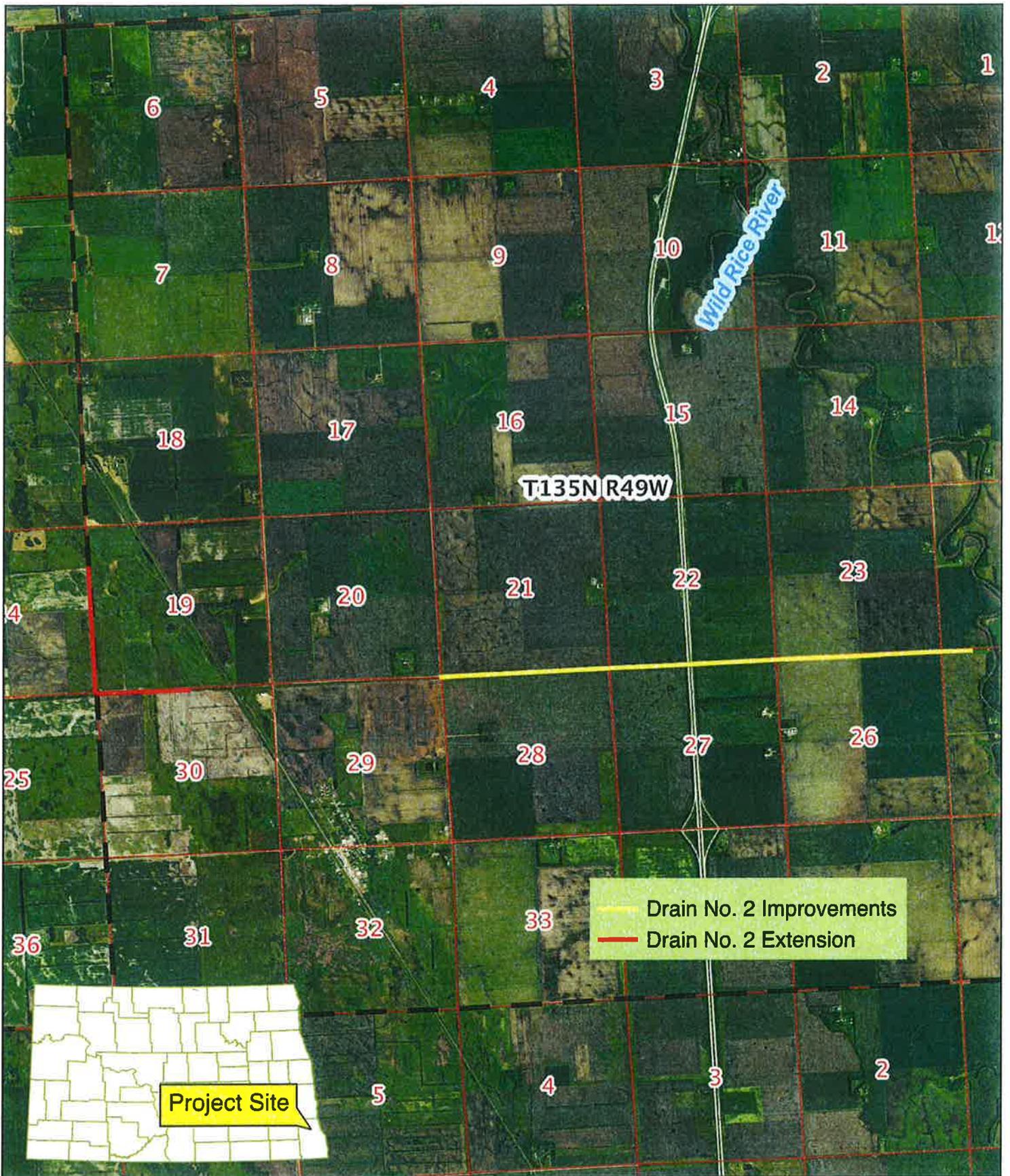
The project is located in Richland County near Colfax. Legal Drain #2 was constructed in the early 1900's with steep side slopes and a narrow channel. This project will widen the existing channel and flatten the side slopes to 4:1, which will stabilize the channel and increase its capacity to reduce flooding. Floodwaters from this area have caused issues for years including flooding I-29 at times. Bids will be advertised in March, and all construction will take place in 2016. A Corps 404 permit application has been filed. A drain permit application was received on December 17, 2015 and is pending.

This project consists of the reconstruction of 3.5 miles of the existing drain channel and the construction of a new extension of approximately  $\frac{3}{4}$  mile. The extension will be constructed in the location of an existing road and private drainage ditch. The drain flows east and discharges to the Wild Rice River in section 25 of Eagle South Township. The last easterly  $\frac{1}{2}$  mile of drain will not be reconstructed, as it was completed as a NRCS project in the past. There is also 1.5 miles of drain in the middle of the complex that will not be modified, as it was reconstructed in 2004-2007.

The estimated total cost of the Legal Drain #2 Reconstruction/Extension Project is \$1,675,000, of which \$1,190,000 is eligible for state cost-share assistance as a rural flood control project at 45 percent, for an amount not to exceed \$535,500 in state funds.

**I recommend the State Water Commission approve this request by the Richland County Water Resource District for state cost participation in the Legal Drain #2 Reconstruction/Extension Project at an amount not to exceed \$535,500. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1176



**Richland County Water Resource District  
Drain No. 2 Extension & Improvements**

Sections 25, 26, 27, 28, 30, T135N, R49W,  
Sections 24, 25, T135N, R50W, Richland County





January 15, 2016

Ms. Beth Nangare  
ND State Water Commission  
900 E Boulevard Avenue Dept. 770  
Bismarck, ND 58505-0850

RE: Legal Drain #2  
Reconstruction / Extension  
Richland County, ND  
W10-30

Dear Ms. Nangare:

On behalf of the Richland County Water Resource District Board enclosed please find a cost share request form, project location map, preliminary plans (99%), project narrative, and a detailed cost estimate for the referenced project. We are requesting that cost share be considered at the next SWC meeting so that we can keep this project on track. Please proceed with processing this request and let us know if you need additional information.

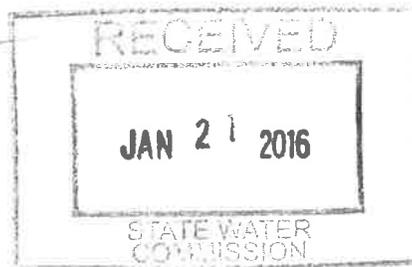
The State's cost share will be integral to completing this needed project as proposed. An "Application to Drain" permit was submitted to the State Engineers office for processing on December 1, 2015. We understand that the permit is needed to process a cost share request. However, since the next SWC meeting has not been announced yet we believe we will have the permit prior to the meeting time. A Corp of Engineers 404 permit was applied for in December of 2015 and we expect to have that permit soon also.

If you have any questions, please do not hesitate to contact me at any time. We look forward to hearing from you soon.

Sincerely,  
Interstate Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Mike Bassingthwaite'.

Mike Bassingthwaite, P.E.



MB/mb  
Attachments  
C: RCWRB

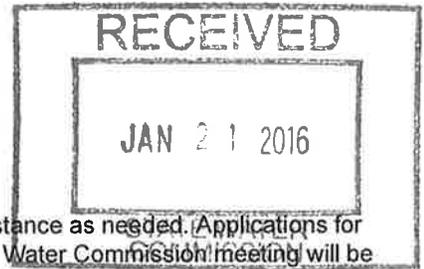
Professionals you need, people you trust.

P.O. Box 667 • 1999 4th Street N., Suite A • Wahpeton, ND 58074 • P: (701) 642-5521 • F: (701) 642-5215 • [www.interstateeng.com](http://www.interstateeng.com)

Offices in North Dakota • Montana • Minnesota • South Dakota



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

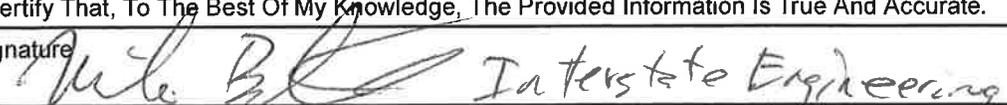


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Reconstruction / Extension Drain No. 2			
Sponsor(s) Richland County Water Resource District			
County Richland	City near Colfax	Township/Range 135/49, 135/50	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study see attached project narrative			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Richland County Drain 2 assessment district and downstream landowners (ag land)			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Drain 2 was constructed in the early 1900's with steep side slopes & a narrow channel. This project will widen the existing channel & flatten the side slopes to 4:1. This will stabilize the channel and increase its capacity to reduce flooding. A 3/4 mile extension is planned on the west end to capture flood waters and direct to the drain. Floodwaters from this area have caused issues for years including flooding I-29 at times.			
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable			
Has Engineering Design Been Completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain ND State Engineer Application to Drain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain applied for Dec. 1, 2015 (pending)				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain none required				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Utility Companies have been notified and will be sent final plans for the minor adjustments needed. Solicitation of View letters have been sent to various agencies. Corp 404 permit has been applied for.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? no				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 535,000.00	\$ 535,000.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 1,140,000.00	\$ 1,140,000.00	\$	\$
Total	\$ 1,675,000.00	\$ 1,675,000.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied none				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Excess levy vote of the assessment district passed in Feb. 2015 Bids will be let in March and all construction will take place in 2016.				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Richland County Water Resource District			Date 1/15/2016	
Address 418 2nd ave n		City Wahpeton	State ND	ZIP Code 58075
Telephone Number 701-642-7773 (701-642-5521 Interstate Engineering - Mike Bassingthwaite)				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 1/15/2016	

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**PRELIMINARY ENGINEER'S ESTIMATE**  
**DRAIN 2 RECONSTRUCTION / EXTENSION PARTS A, B, D**  
**RICHLAND COUNTY, NORTH DAKOTA**

1/16  
W10-30

PART A - EAST OF I-29				MATERIAL COSTS			
				UNIT PRICE L & M	EXTENDED AMOUNT L & M	UNIT PRICE Materials	EXTENDED AMOUNT Materials
ITEM No.	ITEM DESCRIPTION	UNIT	No. OF UNITS				
1	Excavation	CY	44,260	\$3.00	\$132,780.00	\$0.00	\$0.00
2	Spoil Spreading	Mile	1.50	\$12,000.00	\$18,000.00	\$0.00	\$0.00
*3	Aggregate Base/Surface Course	CY	100	\$25.00	\$2,500.00	\$0.00	\$0.00
4	Seeding and Mulching	Acre	28	\$1,000.00	\$28,000.00	\$0.00	\$0.00
5	Erosion Control Blanket	SY	200	\$5.00	\$1,000.00	\$0.00	\$0.00
6	Rock Riprap - D50 9 Inch	CY	50	\$72.00	\$3,600.00	\$0.00	\$0.00
*7	Rock Riprap - D50 9 Inch	CY	100	\$72.00	\$7,200.00	\$0.00	\$0.00
8	Install 18" CMP	LF	360	\$12.00	\$4,320.00	\$13.00	\$4,680.00
9	Install 18" CMP Flap Gate	Each	5	\$125.00	\$625.00	\$305.00	\$1,525.00
10	Install 30" CMP	LF	50	\$18.00	\$900.00	\$26.00	\$1,300.00
11	Install 30" CMP Flap Gate	Each	1	\$150.00	\$150.00	\$466.00	\$466.00
12	Install 36" CMP	LF	140	\$20.00	\$2,800.00	\$32.00	\$4,480.00
13	Install 36" CMP Flap Gate	Each	2	\$175.00	\$350.00	\$631.00	\$1,262.00
14	Remove & Salvage CMP	LF	390	\$8.00	\$3,120.00	\$0.00	\$0.00
*15	Removal of Timber Bridge	LS	1	\$10,000.00	\$10,000.00	\$0.00	\$0.00
16	Backhoe	Hr.	2	\$175.00	\$350.00	\$0.00	\$0.00
17	Truck	Hr.	2	\$115.00	\$230.00	\$0.00	\$0.00
18	Dozer	Hr.	2	\$120.00	\$240.00	\$0.00	\$0.00
19	Culvert Markers	Each	10	\$150.00	\$1,500.00	\$0.00	\$0.00
*20	Class 1 Excavation	LS	1	\$5,000.00	\$5,000.00	\$0.00	\$0.00
*21	Class 2 Excavation	LS	1	\$6,000.00	\$6,000.00	\$0.00	\$0.00
*22	Foundation Fill	CY	150	\$40.00	\$6,000.00	\$0.00	\$0.00
*23	Select Backfill	CY	300	\$28.00	\$8,400.00	\$0.00	\$0.00
*24	Foundation Preparation	LS	1	\$15,000.00	\$15,000.00	\$0.00	\$0.00
*25	16x8 Precast RCB Culvert	LF	42	\$1,600.00	\$67,200.00	\$0.00	\$0.00
*26	16x8 Precast RCB Culvert End Section	Each	2	\$22,000.00	\$44,000.00	\$0.00	\$0.00
<b>SUBTOTALS</b>					<b>\$369,265.00</b>	<b>\$13,713.00</b>	
<b>OPINION OF PROBABLE CONSTRUCTION COST PART A</b>					<b>\$383,000.00</b>		

PART B - WEST OF I-29 (EAST OF CTY #1)				MATERIAL COSTS			
				UNIT PRICE L & M	EXTENDED AMOUNT L & M	UNIT PRICE Materials	EXTENDED AMOUNT Materials
ITEM No.	ITEM DESCRIPTION	UNIT	No. OF UNITS				
1	Excavation	CY	50,200	\$3.00	\$150,600.00	\$0.00	\$0.00
2	Spoil Spreading	Mile	1.50	\$12,000.00	\$18,000.00	\$0.00	\$0.00
*3	Aggregate Base/Surface Course	CY	100	\$25.00	\$2,500.00	\$0.00	\$0.00
4	Seeding and Mulching	Acre	24	\$1,000.00	\$24,000.00	\$0.00	\$0.00
5	Erosion Control Blanket	SY	200	\$5.00	\$1,000.00	\$0.00	\$0.00
6	Rock Riprap - D50 9 Inch	CY	50	\$72.00	\$3,600.00	\$0.00	\$0.00
*7	Rock Riprap - D50 9 Inch	CY	100	\$72.00	\$7,200.00	\$0.00	\$0.00
8	Install 18" CMP	LF	304	\$12.00	\$3,648.00	\$13.00	\$3,952.00
9	Install 18" CMP Flap Gate	Each	5	\$125.00	\$625.00	\$305.00	\$1,525.00
10	Install 24" CMP	LF	106	\$15.00	\$1,590.00	\$17.00	\$901.00
11	Install 24" CMP Flap Gate	Each	2	\$132.00	\$264.00	\$0.00	\$0.00
12	Install 36" CMP	LF	50	\$18.00	\$900.00	\$0.00	\$0.00
13	Install 36" CMP Flap Gate	Each	1	\$150.00	\$150.00	\$0.00	\$0.00
14	Remove & Salvage CMP	LF	374	\$8.00	\$2,992.00	\$0.00	\$0.00
*15	Removal of Timber Bridge	LS	1	\$10,000.00	\$10,000.00	\$0.00	\$0.00
16	Backhoe	Hr.	2	\$175.00	\$350.00	\$0.00	\$0.00
17	Truck	Hr.	2	\$115.00	\$230.00	\$0.00	\$0.00
18	Dozer	Hr.	2	\$120.00	\$240.00	\$0.00	\$0.00
19	Culvert Markers	Each	8	\$150.00	\$1,200.00	\$0.00	\$0.00
*20	Class 1 Excavation	LS	1	\$5,000.00	\$5,000.00	\$0.00	\$0.00
*21	Class 2 Excavation	LS	1	\$6,000.00	\$6,000.00	\$0.00	\$0.00
*22	Foundation Fill	CY	150	\$40.00	\$6,000.00	\$0.00	\$0.00
*23	Select Backfill	CY	300	\$25.00	\$7,500.00	\$0.00	\$0.00
*24	Foundation Preparation	LS	1	\$15,000.00	\$15,000.00	\$0.00	\$0.00
*25	16x6 Precast RCB Culvert	LF	42	\$1,500.00	\$63,000.00	\$0.00	\$0.00
*26	16x6 Precast RCB Culvert End Section	Each	2	\$20,000.00	\$40,000.00	\$0.00	\$0.00
<b>SUBTOTALS</b>					<b>\$371,589.00</b>	<b>\$6,378.00</b>	
<b>OPINION OF PROBABLE CONSTRUCTION COST PART B</b>					<b>\$378,000.00</b>		

**PRELIMINARY ENGINEER'S ESTIMATE**  
**DRAIN 2 RECONSTRUCTION / EXTENSION PARTS A, B, D**  
**RICHLAND COUNTY, NORTH DAKOTA**

1/16  
W10-30

PART D - WEST OF RR				MATERIAL COSTS			
				UNIT PRICE L & M	EXTENDED AMOUNT L & M	UNIT PRICE Materials	EXTENDED AMOUNT Materials
ITEM No.	ITEM DESCRIPTION	UNIT	No. OF UNITS				
1	Excavation	CY	52,909	\$3.00	\$158,727.00	\$0.00	\$0.00
2	Spoil Spreading	Mile	1.50	\$5,000.00	\$7,500.00	\$0.00	\$0.00
3	Embankment	CY	37,500	\$1.50	\$56,250.00	\$0.00	\$0.00
4	Aggregate Base/Surface Course	CY	100	\$25.00	\$2,500.00	\$0.00	\$0.00
5	Seeding and Mulching	Acre	22	\$1,000.00	\$22,000.00	\$0.00	\$0.00
6	Erosion Control Blanket	SY	100	\$5.00	\$500.00	\$0.00	\$0.00
7	Rock Riprap - D50 9 Inch	CY	100	\$72.00	\$7,200.00	\$0.00	\$0.00
8	Install 18" CMP	LF	210	\$12.00	\$2,520.00	\$13.00	\$2,730.00
9	Install 18" CMP Flap Gate	Each	3	\$125.00	\$375.00	\$305.00	\$915.00
10	Install 24" CMP	LF	158	\$15.00	\$2,370.00	\$17.00	\$1,343.00
11	Install 24" CMP Flap Gate	Each	2	\$132.00	\$264.00	\$355.00	\$710.00
12	Install 42" CMP	LF	20	\$20.00	\$400.00	\$0.00	\$0.00
13	Install 60" CMP	LF	420	\$20.00	\$8,400.00	\$68.00	\$28,560.00
14	Remove & Salvage CMP	LF	492	\$8.00	\$3,936.00	\$0.00	\$0.00
15	Remove. Salvage. & Reinstall Rock Riprap	CY	150	\$50.00	\$7,500.00	\$0.00	\$0.00
16	Backhoe	Hr.	2	\$175.00	\$350.00	\$0.00	\$0.00
17	Truck	Hr.	2	\$115.00	\$230.00	\$0.00	\$0.00
18	Dozer	Hr.	2	\$120.00	\$240.00	\$0.00	\$0.00
19	Culvert Markers	Each	6	\$150.00	\$900.00	\$0.00	\$0.00
SUBTOTALS					\$282,162.00		\$34,258.00
OPINION OF PROBABLE CONSTRUCTION COST PART D					\$317,000.00		

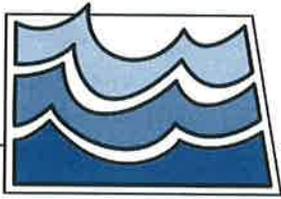
**PROJECT COST SUMMARY**

DESIGN ENGINEERING	\$92,000.00
*ESTIMATED CONSTRUCTION ENGINEERING	\$110,000.00
RIGHT-OF-WAY (Permanent and Temporary)	\$113,000.00
UTILITY RELOCATION (move one Cass Cty Elec. pole)	\$2,000.00
WETLAND MITIGATION (none anticipated)	?
LEGAL & ADMINISTRATION	\$30,000.00
BONDING COSTS & INTEREST	\$250,000.00

**OPINION OF TOTAL PROBABLE PROJECT COST** **\$1,675,000.00**

LESS SWC COST SHARING (45% of eligible items)	\$535,000.00
LESS RC HIGHWAY DEPT. SHARE (40% of bridge replacement items *)	\$80,000.00
LESS FUNDS ON HAND (maintenance fund)	\$150,000.00

**OPINION OF TOTAL PROBABLE LOCAL COST** **\$910,000.00**



# 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>

*Agenda E9)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Traill County Water Resource District  
Buxton Township Improvement District No. 68  
**DATE:** March 9, 2016

In their correspondence dated January 8, 2016, the Traill County Water Resource District requested state cost-share participation for their Buxton Township Improvement District No. 68 project.

On June 17, 2015, \$15,745 was approved by the Chief Engineer for the preliminary engineering costs for the Buxton Township Improvement District No. 68 Project. The Traill County Water Resource District (WRD) has completed the preliminary development of the Buxton Township Improvement District No. 68 project. This included the preliminary engineering design and an assessment vote that concluded on December 3<sup>rd</sup>. The assessment vote passed with a 69 percent approval. Traill County Water Resource District is requesting cost share for the final engineering design and construction phase of the Project. A drain permit is pending.

The project, located in Buxton Township in Traill County, North Dakota, will improve drainage of the existing township road ditches along 15<sup>th</sup> Street NE and 157<sup>th</sup> Avenue NE. The project would begin 1 mile south of the intersection of 15<sup>th</sup> Street NE and 157<sup>th</sup> Avenue NE in Section 19 of Buxton Township. The project would continue north to the referenced intersection and then turn east for 5 miles on the south side of 15<sup>th</sup> St NE to 162<sup>nd</sup> Ave. The project would continue under 162<sup>nd</sup> Ave where it would then outlet into an existing watercourse in Section 19 and flow through culverts going through Interstate 29. The proposed channel and culvert crossings are to be analyzed for a 5-yr rainfall event except where required to meet higher standards (ie. – county roads, railroads, interstates, etc.).

The estimated total cost of the Buxton Township Improvement District No. 68 Phase II Project is \$1,604,495, of which \$1,076,702 is eligible for cost share assistance as a rural flood control project at 45 percent (\$484,516), and \$78,784 is eligible for design engineering at 35 percent (\$27,574), for an amount not to exceed \$512,090 in state funds.

**I recommend that the State Water Commission approve this request by the Traill County Water Resource District for state cost participation in the District's Buxton Township Improvement District No. 68 project, at an amount not to exceed \$512,090. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and availability of funds.**

TS:bn/1311

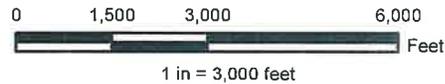
JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY



**BUXTON TWP DRAINAGE IMPROVEMENT  
BUXTON TOWNSHIP  
TRAIL COUNTY, NORTH DAKOTA**

Created By: CMG Date Created: 9/24/15 Date Saved: 12/30/15 Date Plotted: 04/17/15 Date Exported: 12/30/15  
 Plotted By: mathew.hildreth Parcel Date: N/A Aerial Image: 2014 County NAIP SIDS Elevation Data: IWI Lidar  
 Horizontal Datum: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet Vertical Datum: NAVD1988  
 T:\Projects\18400\18457\Project Location Map 1 - 18457.mxd



North Dakota state agencies and the ND GIS Hub

Trail County Water Resource District  
P.O. Box 10  
Hillsboro, ND 58045-0010

January 5, 2016

ND State Water Commission  
ATTN: Beth Nangare  
900 East Boulevard Avenue  
Bismarck ND 58505-0850

Dear Beth:

Re: Buxton Township Improvement District No. 68  
Buxton Township, Traill County, ND

The Traill County Water Resource District (WRD) has completed the preliminary stages of developing the Buxton Township Improvement District No. 68 project (the "Project"). This included preliminary engineering design and an assessment vote which concluded on December 3<sup>rd</sup>. The assessment vote passed with a 69% approval.

The Project is now moving forward to the final design and construction stages. The purpose of the Project is to improve drainage of the existing township road ditches along 15<sup>th</sup> St NE and 157<sup>th</sup> Ave NE. The project would begin 1 mile south of the intersection of 15<sup>th</sup> St NE and 157<sup>th</sup> Ave NE in Section 19 of Buxton Township. The project would continue north to the referenced intersection and then turn east for 5 miles on the south side of 15<sup>th</sup> St NE through Sections 20, 21, 22, 23, & 24 until 162<sup>nd</sup> Ave. The project would continue under 162<sup>nd</sup> Ave where it would then outlet into an existing watercourse in Section 19 until it meets the box culverts going through Interstate 29. The proposed channel and culvert crossings are to be analyzed for a 5-yr rainfall event except where required to meet higher standards (ie. – county roads, railroads, interstates, etc.).

The WRD respectfully requests that the State Water Commission cost share for the final engineering design and construction phases of the Project. These phases of the Project will include final engineering design, utility relocation, and construction. Enclosed with this letter is a project map, a copy of the cost-share application, a preliminary set of plans, and the Engineer's Opinion of Probable Cost.

If you have any questions, please feel free to contact me or our Project Engineer, Chris Gross, Moore Engineering, Inc., at 701-282-4692.

Sincerely,



Nettie Johnson  
Secretary-Treasurer

Enclosures:

Project Map  
SWC cost share application  
Preliminary Plan Set  
Engineer's Opinion of Probable Cost



Office: 701-636-5812 / Fax: 701-636-2308  
[www.co.trail.nd.us](http://www.co.trail.nd.us)



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

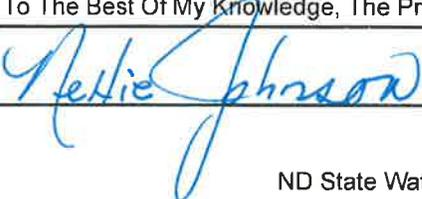


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

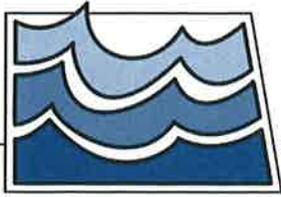
Project, Program, Or Study Name Buxton Township Improvement District No. 68			
Sponsor(s) Traill County Water Resource District			
County Traill	City N/A	Township/Range 148N 51W & 148N 50W	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Traill County WRD & Local Landowners			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Inadequate drainage within the watershed. Buxton Township Improvement District No. 68 Project will improve the capacity of the existing road ditches and will allow agricultural drainage to enter the channel with greater efficiency. The project will provide a deeper channel with an adequate gradient and side slopes. The project will eliminate standing water currently present in existing road ditches that over time are saturating the road bed causing stability issues.			
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable			
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain Application for Surface Drain submitted January 5, 2016.				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The proposed project has gone through the assessment voting process and passed with 69% in favor of the project.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? The WRD is unaware of any obstacles at this time.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 511,588.85	\$ 511,588.85	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 1,092,906.15	\$ 1,092,906.15	\$	\$
Total	\$ 1,604,495.00	\$ 1,604,495.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied Traill County has the statutory requirement to pay for a portion of section line road crossings. No other cost share sources have been applied to this project.				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status The preliminary engineering and assessment vote has already taken place. After funding for the next phase has been acquired, the WRD will proceed with the final engineering design and right of way acquisition in March 2016. The project will then be bid and constructed in the summer of 2016.				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Nettie Johnson			Date 1/5/16	
Address PO Box 10		City Hillsboro	State ND	ZIP Code 58045
Telephone Number 701-636-5812				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 1/5/16	

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850





# 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>

*Agenda E10*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, PE, Chief Engineer - Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Cass County Joint Water Resource District  
Lake Bertha Flood Control Project No. 75  
**DATE:** March 9, 2016

In their correspondence dated January 21, 2016, the Cass County Joint Water Resource District requested state cost-share participation for their Lake Bertha Flood Control Project No. 75.

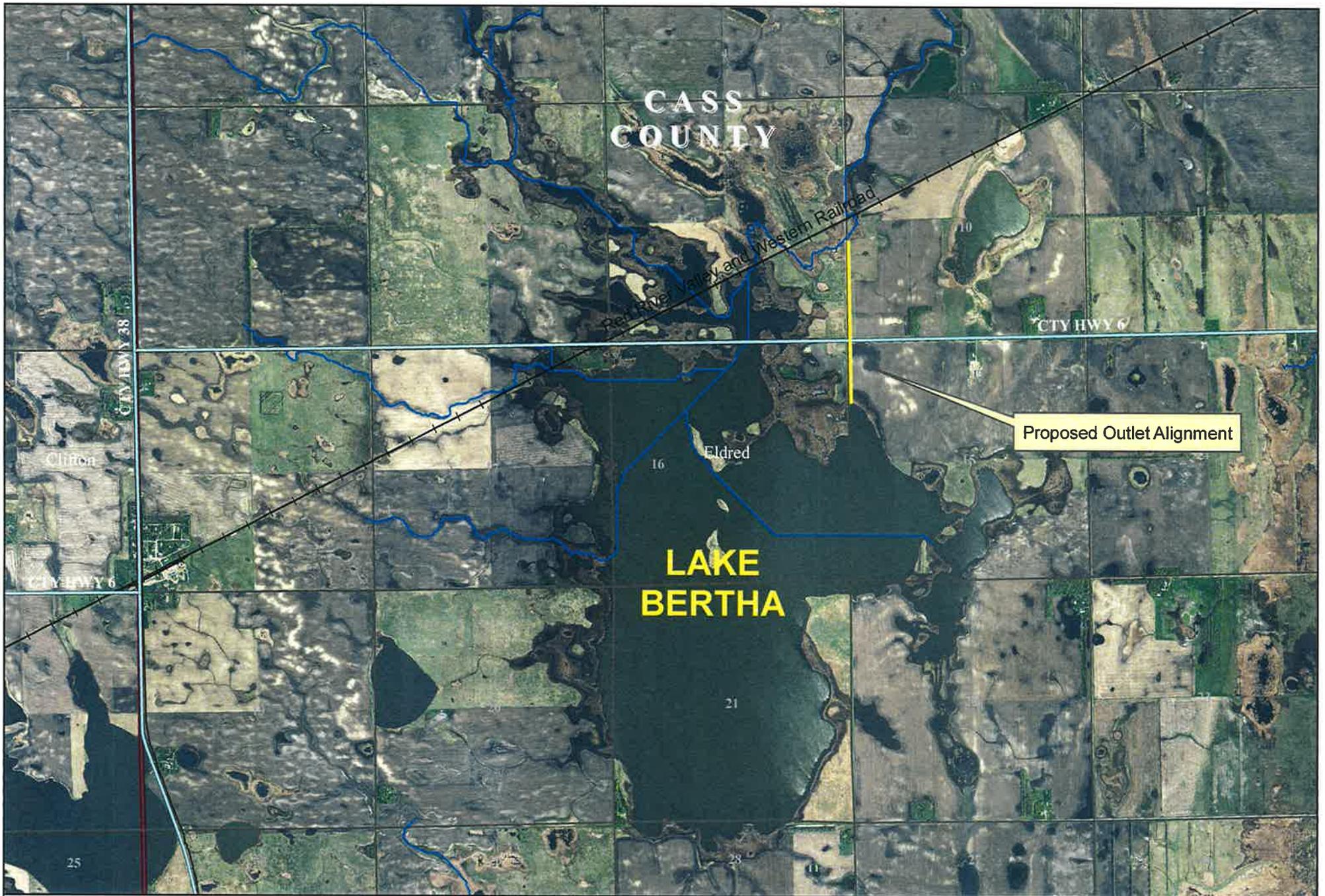
The project, located in the Lake Bertha basin near Alice, North Dakota, will include a controlled outlet which will enable the Cass County Joint Water Resource District (CCJWRD) to mitigate the damages caused by excess water levels in recent years and provide an opportunity to utilize the existing storage capacity within the basin for future floodwater detention benefits. Initial estimates indicate that more than 3,000 acre-feet of storage could be provided if the project is constructed. The CCJWRD has conducted public input meetings and met with impacted landowners to develop the proposed project. The CCJWRD has also coordinated the project with the Natural Resources Conservation Service and the United States Fish and Wildlife Service.

The Lake Bertha basin is situated in Eldred Township of Cass County, about 2 miles east of Alice, and is bisected by Cass County Highway 6. Within the past few years, this highway has been inundated by high water levels in the basin and numerous other township roadways have also been impacted with some currently remaining underwater. The basin naturally overflows to the north into an existing drainage channel that discharges into Buffalo Creek, a tributary of the Maple River, and contributes to flooding downstream. The proposed project involves a control structure with stop logs that would provide an opportunity to draw water levels down to elevation 1,086.0 feet and allow the water levels in the basin to be managed for floodwater detention benefits. The basin currently contributes to downstream flooding when water levels are high, and the project includes buried pipe that would convey water to the north, to an existing drainage channel. A portion of the existing channel will be modified to accommodate the depth and size of the new outlet.

Since this project provides both retention and rural flood control benefits, the cost share percent recommended is an average of 45 percent and 60 percent, which is 52.5 percent. The estimated total cost of the Lake Bertha Flood Control Project No. 75 is \$541,780, of which \$363,858 is eligible for cost share assistance as a water retention and rural flood control project at 52.5 percent (\$191,025), and \$29,500 is eligible for design engineering at 35 percent (\$10,325), for an amount not to exceed \$201,350 in state funds.

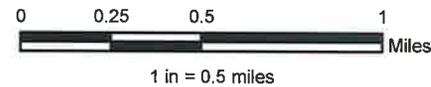
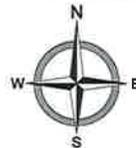
**I recommend that the State Water Commission approve this request by the Cass County Joint Water Resource District for state cost participation in the District's Lake Bertha Flood Control Project No. 75, at an amount not to exceed \$201,350. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and availability of funds.**

TS:bn/2065



**LAKE BERTHA OUTLET  
ELDRED TOWNSHIP, CASS COUNTY**

Created By: HSM/GZ Date Created: 7/1/14 Date Saved: 12/18/15 Date Plotted: 07/18/14 Date Exported: 12/18/15  
 Plotted By: gary.zimmer Aerial Image: 2012 County NAIP SIDS Elevation Data: IWI Lidar  
 Horizontal Datum: NAD83 UTM zone 14N Vertical Datum: NAVD1988  
 T:\Projects\1600016074\16074\_LocationMap.mxd





January 21, 2016



Cass County  
Joint Water  
Resource  
District

Todd Sando, P.E.  
Office of the State Engineer  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck, ND 58505-0850

Mark Brodshaug  
Chairman  
Fargo, North Dakota

Rodger Olson  
Manager  
Leonard, North Dakota

Dan Jacobson  
Manager  
West Fargo, North Dakota

Ken Lougheed  
Manager  
Gardner, North Dakota

Jacob Gust  
Manager  
Fargo, North Dakota

Carol Harbeke Lewis  
Secretary-Treasurer

1201 Main Avenue West  
West Fargo, ND 58078-1301

701-298-2381  
FAX 701-298-2397  
[wrld@casscountynod.gov](mailto:wrld@casscountynod.gov)  
[casscountynod.gov](http://casscountynod.gov)

Dear Todd:

RE: Lake Bertha Flood Control Project No. 75  
Eldred Township, Cass County, North Dakota

The Cass County Joint Water Resource District (CCJWRD) is proposing to construct a controlled outlet for the Lake Bertha basin near Alice, North Dakota. The outlet would enable the CCJWRD to mitigate the damages caused by excess water levels in recent years and provide an opportunity to utilize the existing storage capacity within the basin for future floodwater detention benefits. Initial estimates indicate that more than 3,000 acre-feet of storage could be provided if the project is constructed.

The Lake Bertha basin is situated in Eldred Township of Cass County, about 2 miles east of Alice, and is bisected by Cass County Highway 6. Within the past few years, this highway has been inundated by high water levels in the basin and numerous other township roadways have also been impacted; some currently remaining underwater. The basin naturally overflows to the north into an existing drainage channel that discharges into Buffalo Creek, a tributary of the Maple River, and contributes to flooding downstream.

The proposed project involves a control structure with stop logs that would provide an opportunity to draw water levels down to elevation 1086.0 feet and allow the water levels in the basin to be managed for floodwater detention benefits. The basin currently contributes to downstream flooding when water levels are high and the project will allow these discharges to be controlled in the future. The project includes buried pipe that would convey water to the north, to an existing drainage channel. A portion of the existing channel will be modified to accommodate the depth and size of the new outlet.

The CCJWRD has conducted public input meetings and met with impacted landowners to develop the proposed project. The CCJWRD has also coordinated the project with the Natural Resources Conservation Service and the United States Fish and Wildlife Service.

Todd Sando  
Page 2  
January 21, 2016

The CCJWRD respectfully requests State Water Commission cost-share assistance in the amount of \$215,478 (60% of eligible costs) for the above referenced project. The remaining cost will be funded by the Red River Joint Water Resource District, Cass County, CCJWRD and a proposed assessment district.

Enclosed is the cost-share request form, a preliminary cost estimate and a location map for the proposed project. If you have any questions, please feel free to contact us or the CCJWRD Engineer, Mike Opat, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

CASS COUNTY JOINT WATER RESOURCE DISTRICT



Carol Harbeke Lewis  
Secretary-Treasurer

Enclosures



**COST-SHARE REQUEST FORM**  
NORTH DAKOTA STATE WATER COMMISSION  
DEVELOPMENT DIVISION  
SFN 60439 (07/2015)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Lake Bertha Outlet		
Sponsor(s) Cass County Joint Water Resource District		
County Cass	City Eldred Township	Township/Range T138N, R54W
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Flood risk reduction and floodwater detention.		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program <input checked="" type="checkbox"/> Flood Control <input type="checkbox"/> Multi-Purpose <input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Dam Safety/EAP <input type="checkbox"/> Recreation <input type="checkbox"/> Water Supply <input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition <input type="checkbox"/> Irrigation <input checked="" type="checkbox"/> Water Retention <input type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other		
Jurisdictions/Stakeholders Involved Red River Joint WRD, Cass County Joint WRD, Cass County, land owners.		
Description Of Problem Or Need And How Project Addresses That Problem Or Need The Lake Bertha Outlet project would enable the WRD to mitigate the damages caused by excess water levels in recent years and provide an opportunity to utilize the existing storage capacity within the basin for future floodwater detention benefits.		
Has A Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Briefly Explain The Level Of Review The Project Or Program Has Undergone Meetings have been conducted with the public, USFWS and NRCS.			
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)? The WRD is not aware of any obstacles to the project.			
Estimated Project or Program Total Implementation Costs			
Funding Sources	Cash	In-Kind	
Federal	\$ 0.00	\$ 0.00	
State	\$ 215,478.00	\$ 0.00	
Local	\$ 326,302.00	\$ 0.00	
Total	\$ 541,780.00	\$ 0.00	
Funding Timeline (carefully consider when SWC cost-share will be needed)			
Source	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 0.00	\$	\$
State	\$ 215,478.00	\$	\$
Local	\$ 326,302.00	\$	\$
Total	\$ 541,780.00	\$ 0.00	\$ 0.00
Please Explain Implementation Timelines, Considering All Phases And Their Current Status The project will begin once funding is secured and is expected to be completed by fall of 2016.			
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Submitted By Carol Harbeke Lewis, Sec.-Treasurer; Cass Co. Joint WRD			Date
Address 1201 Main Avenue West	City West Fargo	State North Dakota	ZIP Code 58078
Telephone Number (701) 298-2381			

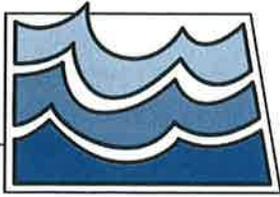
**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**Lake Bertha Outlet Concept Plan, Eldred Township**  
**Cass County Joint Water Resource District**  
**Cass County, North Dakota**  
**Pipe/Channel Option**  
*Engineer's Opinion of Probable Cost*

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES				
					NDSWC (60%)	RRJWRD (65%)	CASS COUNTY (50%)	LOCAL	
<b>Section Line Crossings</b>									
1. CSP - 30"	L.F.	100	\$45.00	\$4,500.00	\$2,700.00	\$1,170.00	\$315.00	\$315.00	
2. Asphalt - Cut Out and Remove	S.Y.	70	\$10.00	\$700.00	\$420.00	\$182.00	\$49.00	\$49.00	
3. Geotextile Fabric	S.Y.	70	\$5.00	\$350.00	\$210.00	\$91.00	\$24.50	\$24.50	
4. Aggregate Base - 12'	C.Y.	25	\$40.00	\$1,000.00	\$600.00	\$260.00	\$70.00	\$70.00	
5. Asphalt - 3" Base Course	S.Y.	70	\$60.00	\$4,200.00	\$2,520.00	\$1,092.00	\$294.00	\$294.00	
6. Asphalt - 2" Wear Course	S.Y.	70	\$45.00	\$3,150.00	\$1,890.00	\$819.00	\$220.50	\$220.50	
				\$13,900.00	\$8,340.00	\$3,614.00	\$973.00	\$973.00	
<b>Remaining Construction</b>									
7. Mobilization	L.S.	1	\$6,000.00	\$6,000.00	\$3,600.00	\$1,560.00	\$420.00	\$420.00	
8. Clearing & Grubbing	L.S.	1	\$2,500.00	\$2,500.00	\$1,500.00	\$650.00	\$175.00	\$175.00	
9. Excavation - Channel	C.Y.	12,700	\$2.25	\$28,575.00	\$17,145.00	\$7,429.50	\$2,000.25	\$2,000.25	
10. Spoil Bank Leveling	Mile	0.3	\$6,000.00	\$1,800.00	\$1,080.00	\$468.00	\$126.00	\$126.00	
11. CSP - 30"	L.F.	3,450	\$45.00	\$155,250.00	\$93,150.00	\$40,365.00	\$10,867.50	\$10,867.50	
12. Flared End Section - 30" CSP	Each	1	\$375.00	\$375.00	\$225.00	\$97.50	\$26.25	\$26.25	
13. Riser - 30"	Each	5	\$3,000.00	\$15,000.00	\$9,000.00	\$3,900.00	\$1,050.00	\$1,050.00	
14. Stop Log Structure	L.S.	1	\$40,000.00	\$40,000.00	\$24,000.00	\$10,400.00	\$2,800.00	\$2,800.00	
15. Riprap - All Sizes	C.Y.	60	\$80.00	\$4,800.00	\$2,880.00	\$1,248.00	\$336.00	\$336.00	
16. Riprap Filter Blanket	S.Y.	90	\$2.00	\$180.00	\$108.00	\$46.80	\$12.60	\$12.60	
17. Rock Check - Temporary	Each	3	\$1,500.00	\$4,500.00	\$2,700.00	\$1,170.00	\$315.00	\$315.00	
18. Material Testing	Invoice	Allowance	\$2,500.00	\$2,500.00	\$1,500.00	\$650.00	\$175.00	\$175.00	
19. Storm Water Management	L.S.	1	\$4,000.00	\$4,000.00	\$2,400.00	\$1,040.00	\$280.00	\$280.00	
20. Dewatering	L.S.	1	\$2,000.00	\$2,000.00	\$1,200.00	\$520.00	\$140.00	\$140.00	
21. Seeding	Acre	12	\$1,200.00	\$14,400.00	\$8,640.00	\$3,744.00	\$1,008.00	\$1,008.00	
				\$281,880.00	\$169,128.00	\$73,288.80	\$19,731.60	\$19,731.60	
<b>Total Construction</b>				<b>\$295,780.00</b>	<b>\$177,468.00</b>	<b>\$76,902.80</b>	<b>\$20,704.60</b>	<b>\$20,704.60</b>	
Preliminary Engineering				\$40,000.00	\$0.00	\$26,000.00	\$7,000.00	\$7,000.00	
Engineering - Design				\$29,500.00	\$10,325.00	\$12,463.75	\$3,355.63	\$3,355.63	
Engineering - Construction				\$23,500.00	\$14,100.00	\$6,110.00	\$1,645.00	\$1,645.00	
Contingencies				\$59,000.00	\$3,835.00	\$35,857.25	\$9,653.88	\$9,653.88	
Legal Fees				\$10,000.00	\$0.00	\$6,500.00	\$1,750.00	\$1,750.00	
Administrative Fees				\$10,000.00	\$0.00	\$6,500.00	\$1,750.00	\$1,750.00	
Right-of-Way - Land Acquisition				\$28,000.00	\$0.00	\$18,200.00	\$4,900.00	\$4,900.00	
Right-of-Way Administration				\$10,000.00	\$0.00	\$6,500.00	\$1,750.00	\$1,750.00	
Easements & Monuments				\$15,000.00	\$0.00	\$9,750.00	\$2,625.00	\$2,625.00	
Utility Company Relocations				\$15,000.00	\$9,750.00	\$3,412.50	\$918.75	\$918.75	
Utility Relocation Administration				\$1,000.00	\$0.00	\$650.00	\$175.00	\$175.00	
Fiscal				\$5,000.00	\$0.00	\$3,250.00	\$875.00	\$875.00	
<b>TOTAL PROJECT COST</b>				<b>\$541,780.00</b>	<b>\$215,478.00</b>	<b>\$212,096.30</b>	<b>\$57,102.85</b>	<b>\$57,102.85</b>	





# 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>

*Agenda E 11)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Richland County Water Resource District  
Legal Drain #31 Improvements Project  
**DATE:** March 9, 2016

In their correspondence dated January 22, 2016, the Richland County Water Resource District requested cost share assistance for their Legal Drain #31 Improvement Project.

The project is located in Richland County near Fairmount, North Dakota. FEMA will provide funding assistance as part of the 2013 disaster declaration. The channel bottom will be widened to 8 feet with 4:1 side slopes. Drop structures will also be added to address erosion issues. The side slopes of the drain will be flattened at all three locations.

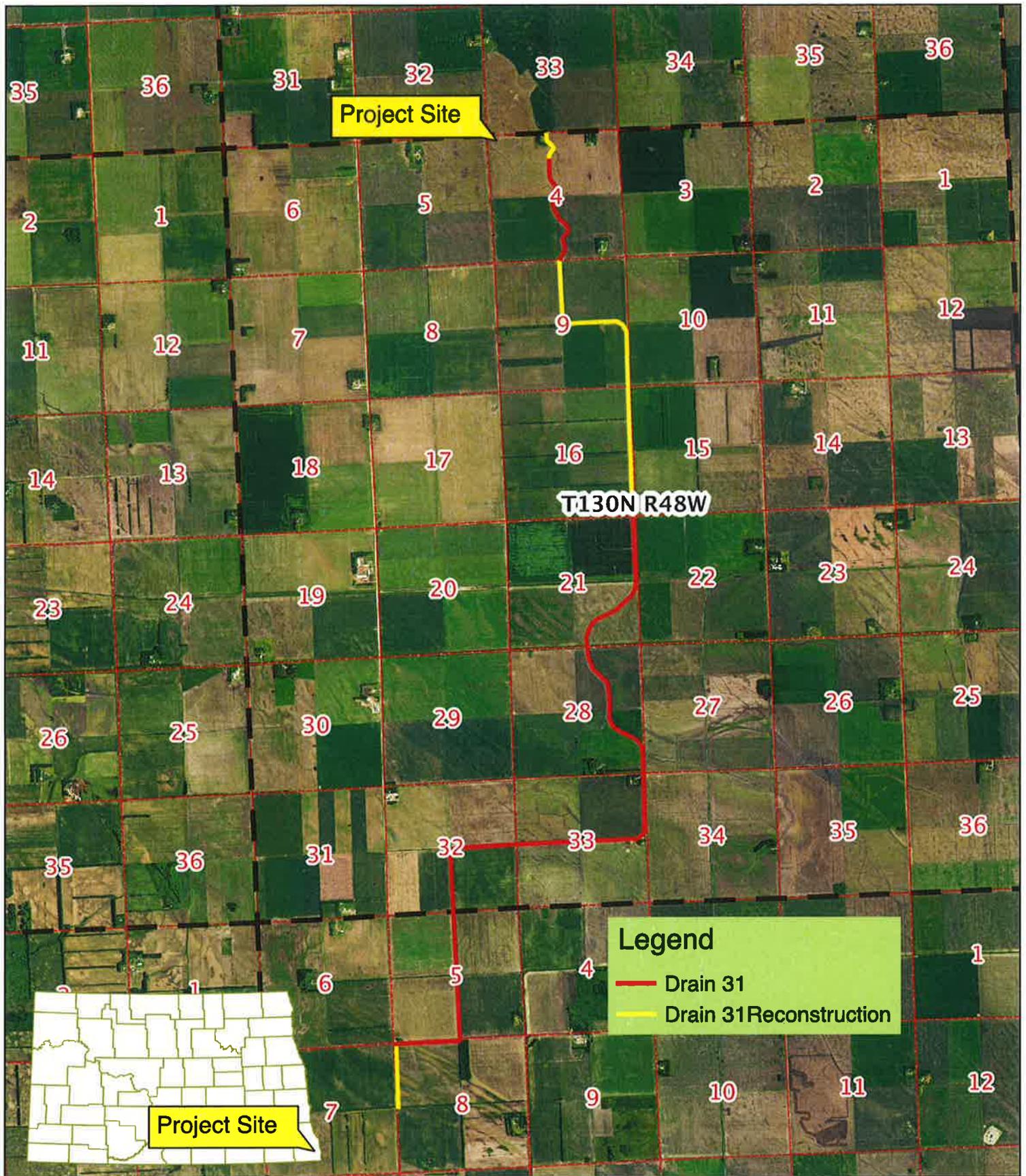
Local funding will be obtained from the drain 31 maintenance assessment district as well as participation from the Richland County Highway Department for bridge replacement costs. A bid date is anticipated in March 2016. Land acquisition will begin in February 2016. A meeting has already been held with the affected landowners who concurred with the project at that time. All construction would be completed no later than December 1, 2016. An application for a drain permit was received on December 29, 2015 and is pending.

This project consists of the reconstruction of three sites on the existing drain for a total of approximately 2.1 miles of channel reconstruction. The drain flows northerly and discharges to the Wild Rice River northeast of Great Bend, North Dakota.

The estimated total cost of the Legal Drain #31 Improvements Project is \$580,000, of which \$359,670 is eligible for state cost-share assistance as a rural flood control project at 45 percent for an amount not to exceed \$161,852 in state funds.

**I recommend the State Water Commission approve this request by the Richland County Water Resource District for state cost participation in the Legal Drain #31 Improvements Project at an amount not to exceed \$161,852. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1174



## Reconstruction of Drain 31 Richland County Water Resource District

N 1/2 Section 4, and E 1/2 Sections 9, 16, 21, 28, and  
E1/2&S1/2 Section 32, and SE1/4 Section 31, T130N, R48W  
and E1/2 Section 5, NW 1/4 Section 8, T148N, R50W



Date: 2/13/2016  
Prepared by: DEC



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

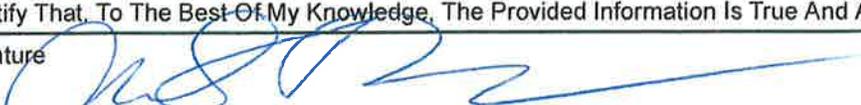


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Drain 31 Improvements		
Sponsor(s) Richland County Water Resource District		
County Richland	City near Fairmount	Township/Range 129/48, 130/48
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study see attached project narrative		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control
		<input type="checkbox"/> Dam Safety/EAP
		<input type="checkbox"/> Property Acquisition
		<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Richland County Drain 31 assessment district and downstream landowners (ag land)		
Description Of Problem Or Need And How Project Addresses That Problem Or Need Three sites on Drain 31 sustained flood damage in 2013. The proposed repair by FEMA has not been very successful on past projects in Richland County. Instead of expending funds on potentially short term repairs the Board has decided to complete partial reconstruction of these 3 sites.		
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain ND State Engineer Application to Drain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain applied for Dec. 15, 2015 (pending)				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain none required				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Utility Companies have been notified and will be sent final plans for the minor adjustments needed. Corp 404 permit has been applied for.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? no				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 166,365.00	\$ 166,365.00	\$	\$
State Water Commission	\$ 161,850.00	\$ 161,850.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 251,785.00	\$ 251,785.00	\$	\$
<b>Total</b>	<b>\$ 580,000.00</b>	<b>\$ 580,000.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied none				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Bids will be let in March and all construction will take place in 2016.				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Richland County Water Resource District			Date 1/15/2016	
Address 418 2nd ave n		City Wahpeton	State ND	ZIP Code 58075
Telephone Number 701-642-7773      (701-642-5521 Interstate Engineering - Mike Bassingthwaite)				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 1/15/2016 1-22-16	

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850



January 22, 2016

Ms. Beth Nangare  
ND State Water Commission  
900 E Boulevard Avenue Dept. 770  
Bismarck, ND 58505-0850

RE: Legal Drain #31  
Improvements  
Richland County, ND  
W13-3-39.19

Dear Ms. Nangare:

On behalf of the Richland County Water Resource District Board enclosed please find a cost share request form, project location map, preliminary plans (99%), project narrative, and a detailed cost estimate for the referenced project. We are requesting that cost share be considered at the next SWC meeting so that we can keep this project on track. Please proceed with processing this request and let us know if you need additional information.

The State's cost share will be integral to completing this needed project as proposed. An "Application to Drain" permit was submitted to the State Engineers office for processing on December 15, 2015. We understand that the permit is needed to process a cost share request. However, since the next SWC meeting has not been announced yet we believe we will have the permit prior to the meeting time. A Corp of Engineers 404 permit was applied for in January 2016 and we expect to have that permit soon also.

If you have any questions, please do not hesitate to contact me at any time. We look forward to hearing from you soon.

Sincerely,  
Interstate Engineering, Inc.

A handwritten signature in blue ink, appearing to read 'Mike Bassingthwaite', written over a light blue line.

Mike Bassingthwaite, P.E.

MB/mb  
Attachments  
C: RCWRB



Professionals you need, people you trust.

P.O. Box 667 • 1999 4th Street N., Suite A • Wahpeton, ND 58074 • P: (701) 642-5521 • F: (701) 642-5215 • [www.interstareng.com](http://www.interstareng.com)

Offices in North Dakota • Montana • Minnesota • South Dakota

**PRELIMINARY ENGINEER'S ESTIMATE  
DRAIN 31 RECONSTRUCTION SITES 1, 2, 3  
RICHLAND COUNTY, NORTH DAKOTA**

1/15  
W13-3-39.19

<b>SITE 3 - NW 1/4 SECTION 4 DEVILLO</b>				<b>MATERIAL COSTS</b>			
ITEM No.	ITEM DESCRIPTION	UNIT	No. OF UNITS	UNIT PRICE	EXTENDED AMOUNT	UNIT PRICE	EXTENDED AMOUNT
				L & M	L & M	Materials	Materials
1	Excavation	CY	2,043	\$4.00	\$8,172.00	\$0.00	\$0.00
2	Spoil Spreading	Mile	0.10	\$15,000.00	\$1,500.00	\$0.00	\$0.00
3	Embankment	CY	1,380	\$5.00	\$6,900.00	\$0.00	\$0.00
4	Aggregate Base/Surface Course	CY	25	\$25.00	\$625.00	\$0.00	\$0.00
5	Seeding and Mulching	Acre	1.5	\$1,500.00	\$2,250.00	\$0.00	\$0.00
6	Fiber Rolls 20"	LF	50	\$10.00	\$500.00	\$0.00	\$0.00
7	Rock Riprap - D50 9 Inch	CY	100	\$75.00	\$7,500.00	\$0.00	\$0.00
8	Install 18" CMP	LF	10	\$50.00	\$500.00	\$20.00	\$200.00
9	Install 18" CMP Flap Gate	Each	1	\$250.00	\$250.00	\$0.00	\$0.00
10	Backhoe	Hr.	2	\$175.00	\$350.00	\$0.00	\$0.00
11	Truck	Hr.	1	\$115.00	\$115.00	\$0.00	\$0.00
12	Dozer	Hr.	1	\$150.00	\$150.00	\$0.00	\$0.00
13	Culvert Markers	Each	1	\$150.00	\$150.00	\$0.00	\$0.00
<b>SUBTOTALS</b>					<b>\$28,962.00</b>		<b>\$200.00</b>
<b>CONTINGENCIES</b>					<b>\$838.00</b>		
<b>OPINION OF PROBABLE CONSTRUCTION COST SITE 3</b>					<b>\$30,000.00</b>		

**PROJECT COST SUMMARY**

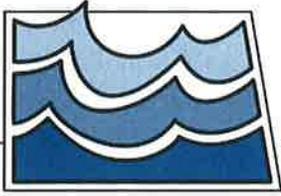
ESTIMATED DESIGN ENGINEERING	\$35,000.00
ESTIMATED CONSTRUCTION ENGINEERING	\$52,000.00
RIGHT-OF-WAY (Permanent and Temporary)	\$30,000.00 <i>NE</i>
WETLAND MITIGATION (none anticipated)	?
UTILITY RELOCATION (SITE 1 - 10 power poles)	\$10,000.00
LEGAL & ADMINISTRATION	<u>\$5,000.00</u> <i>NE</i>

**OPINION OF TOTAL PROBABLE PROJECT COST** **\$580,000.00**

LESS FEMA CAPPED CONSTRUCTION (Site 1-\$28,201.64; Site 2-\$107,918.25; Site 3-\$4,494.38)	\$140,615.00
LESS FEMA CAPPED DESIGN ENGINEERING (Site 2)	\$16,035.00
LESS FEMA CAPPED CONSTRUCTION ENGINEERING (Site 2)	\$9,715.00
LESS SWC COST SHARING (45% of eligible items after Fed. share)	\$161,850.00
LESS RC HIGHWAY DEPT. SHARE (site 2 - no Fed. Share on these items) (40% of bridge replacement items after SWC share)	\$12,910.00

**OPINION OF TOTAL PROBABLE LOCAL COST** **\$238,875.00**

\* - Denotes Items Cost Shared By Hwy Dept.



# 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>

*Agenda E(12)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TS* Todd Sando, PE, Chief Engineer - Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Sargent County Water Resource District  
Shortfoot Creek Watershed Planning Program  
**DATE:** March 9, 2016

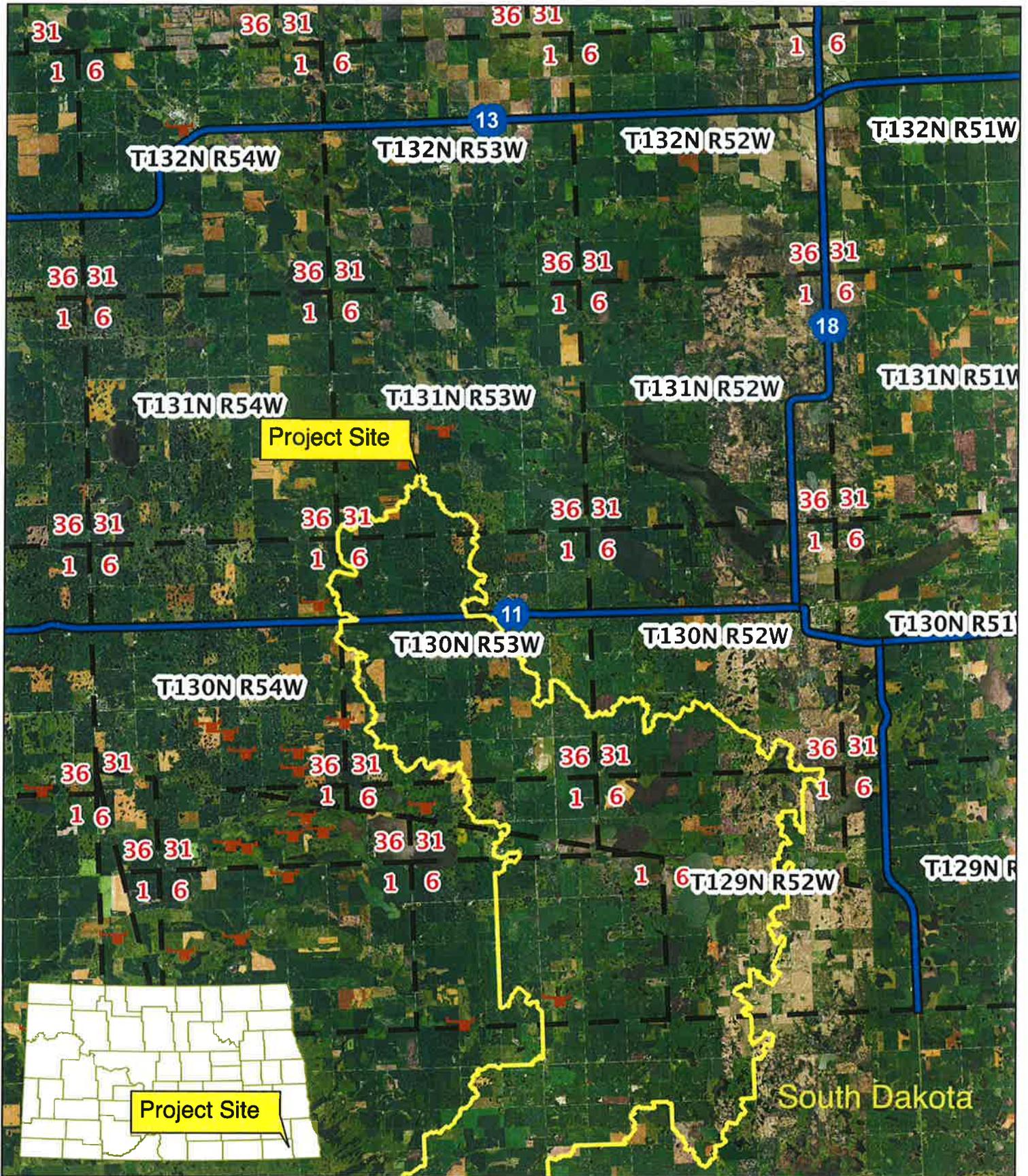
In their correspondence dated February 4, 2016, the Sargent County Water Resource District requested state cost-share participation for their Shortfoot Creek Watershed Planning Program.

Rural areas along the Shortfoot Creek have experienced significant flooding damages, particularly as a result of spring snowmelt events. The project, located in Sargent County, will follow the Natural Resource Conservation Service (NRCS) small watershed planning process to find solutions to the flooding problems in this watershed. The proposed planning process will have 6 milestone reporting points with the NRCS. The approach will involve the creation of project development teams tasked with identifying the local problems facing the watershed and sorting through practical alternatives for addressing those problems. Multiple alternatives will be identified by the team and preliminary designs, geotechnical investigations and cost estimates will be completed for these multiple alternatives. Then a comprehensive Benefit-Cost analysis will be performed for these alternatives. The team's findings will be presented to the Sargent County Water Resource District and local stakeholders for consideration for further advancement of the project. NRCS will also approve the final watershed plan and Environmental Assessment (EA) as well as provide \$500,000 of the funding for the project.

The estimated total cost of the Shortfoot Creek Watershed Planning Program is \$940,000, of which \$440,000 is eligible for cost share assistance as a study project at 35 percent, for an amount not to exceed \$154,000 in state funds.

**I recommend that the State Water Commission approve this request by the Sargent County Water Resource District for state cost participation in the District's Shortfoot Creek Watershed Planning Program, at an amount not to exceed \$154,000. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and availability of funds.**

TS:bn/1303



**Shortfoot Creek Watershed Planning Program  
Sargent County Water Resource District**

Parts of Townships; T131N, R53W; T130N, R53W; T130N, R52W; T129NR53W  
T129NR52W; LTL130NR53W; LTL129NR53W;





## Sargent County Water Resource District

355 Main Street S, Suite 1  
Forman ND 58032-0177  
Phone: (701) 724-6241 Ext 101  
FAX: (701) 724-6244

Lucas Siemieniewski, Geneseo  
Richard Engst, DeLamere  
Korey Martinson, Milnor  
Jim Bosse, Cogswell  
Roger Zetocha, Stirum

February 4, 2016

Mr. Todd Sando, PE  
State Engineer  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck ND 58505-0850



Dear Mr. Sando:

Re: Shortfoot Creek Watershed Planning Program  
Sargent County, ND

The Sargent County Water Resource District (SCWRD) is respectfully submitting an application for cost-share for the NRCS-RCPP Watershed Planning Process for the Shortfoot Creek watershed, located in Sargent County, North Dakota.

For this planning study, the approach will involve the creation of project development teams tasked with identifying the local problems facing the watershed and sorting through the practical alternatives for addressing those problems. Multiple alternatives will be identified by the team and preliminary designs, geotechnical investigations and cost estimates will be completed for these multiple alternatives. Then a comprehensive Benefit-Cost analysis will be performed for these alternatives. The project team then will select their preferred alternative. The team's findings will be presented to the Sargent County Water Resource District and local stakeholders for consideration for further advancement of the project. NRCS will also approve the final watershed plan and EA.

The Sargent County Water Resource District respectfully requests North Dakota State Water Commission (SWC) participation in a cost-share agreement in the amount of \$154,000, equal to 35% of the eligible costs.

Please note this scope of work starts from Task 1 and goes forward and does not include any activities already completed. This new watershed planning effort with the NRCS partnership expands many aspects of the engineering design detail needed for multiple alternatives and also included is the benefit/cost economic analysis for the reasonable alternatives. The planning statement of work requires 6 work product submittals and review points with the NRCS for their approval. The watershed planning project will follow the NRCS-National Watershed Program Handbook and their planning process and steps.

Enclosed are the cost-share request form and a copy of the engineering proposal for the Shortfoot Creek watershed plan. If you have any questions, please feel free to contact me or our project engineer, Chris Gross, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

**SARGENT COUNTY WATER RESOURCE DISTRICT**

A handwritten signature in black ink, appearing to read 'L. Siemieniowski', is written over a horizontal line.

LUCAS SIEMIENIEWSKI, CHAIRMAN

Enclosures



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (07/2015)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Shortfoot Creek Watershed Plan		
Sponsor(s) Sargent County Water Resource District		
County Sargent	City Forman	Township/Range Eastern Sargent Co.
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Frequent flooding with ag land erosion, crop damages, road & bridge damages and other damages.		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input checked="" type="checkbox"/> Feasibility <input checked="" type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing
<input type="checkbox"/> Irrigation	<input checked="" type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control
<input type="checkbox"/> Dam Safety/EAP	<input type="checkbox"/> Property Acquisition	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Sargent County Water Resource District - Sargent County, ND		
Description Of Problem Or Need And How Project Addresses That Problem Or Need Rural areas along the Shortfoot Creek have experienced significant flooding and damages, particularly as a result of spring snowmelt events. The Sargent County WRD is seeking funding to follow the NRCS small watershed planning process to find solutions to the flooding problems in this watershed. The proposed planning process will have 6 milestone reporting points with the NRCS. Review Point #1: Planning structure, Plan of work, Public participation plan, Feasibility, Letters of agency cooperation. Review Point #2: Purpose and need for action & scope of EA. Review Point #3: Affected environment documentation. Review Point #4: Alternatives and supporting technical materials. Review Point #5: Environmental consequences section & preliminary documentation of the watershed plan. Review Point #6: Draft watershed plan & EA documentation. This process will include preliminary engineering, geotech work, cost estimates, a mitigation plan and benefit-cost analysis for multiple alternatives.		
Has A Feasibility Study Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable			
If Yes, Please Explain			
Briefly Explain The Level Of Review The Project Or Program Has Undergone			
We are in the beginning stages of this watershed planning			
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)? <b>We are not aware of any obstacles at this time</b>			
Estimated Project or Program Total Implementation Costs			
Funding Sources	Cash	In-Kind	
Federal	\$ 500,000.00	\$	
State	\$ 154,000.00	\$	
Local	\$ 286,000.00	\$	
<b>Total</b>	<b>\$ 940,000.00</b>	<b>\$ 0.00</b>	
Funding Timeline (carefully consider when SWC cost-share will be needed)			
Source	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 400,000.00	\$ 100,000.00	\$
State	\$ 60,000.00	\$ 94,000.00	\$
Local	\$ 90,000.00	\$ 196,000.00	\$
<b>Total</b>	<b>\$ 550,000.00</b>	<b>\$ 390,000.00</b>	<b>\$ 0.00</b>
Please Explain Implementation Timelines, Considering All Phases And Their Current Status			
Implementation Phases will follow 6 reporting periods outlined by the NRCS-RCPP watershed planning process. (noted above) The planning will begin when all funding has been approved.			
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Submitted By SCWRD - Luke Siemieniewski <i>L. Siemieniewski</i>		Date <i>2-4-16</i>	
Address 355 Main St. S - Suite 1	City Forman	State ND	ZIP Code 58032
Telephone Number 701-724-6241 ext 115			

**MAIL TO:**

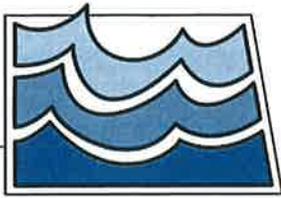
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**ANTICIPATED SCHEDULE / COST**

<b>NRCS Review</b>	<b>Anticipated Submittal Date</b>	<b>Anticipated Cost</b>
Task 1	July 2016	\$20,300
Task 2	December 2016	\$84,100
Task 3	August 2017	\$264,400
Task 4	February 2018	\$209,850
Task 5	October 2018	\$206,850
Task 6	February 2019	\$154,500
<b>TOTAL =</b>		<b>\$940,000</b>

**COST BREAKDOWN**

<b>MEI</b>	<b>Barr Engineering</b>	<b>Rooney &amp; Assoc.</b>
\$18,500	\$1,800	\$0
\$53,100	\$18,400	\$12,600
\$136,400	\$90,500	\$37,500
\$86,250	\$109,000	\$14,600
\$86,250	\$109,000	\$11,600
\$85,015	\$62,485	\$7,000
<b>\$465,515</b>	<b>\$391,185</b>	<b>\$83,300</b>



# 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>

*Agenda E (13)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *T. Sando* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – City of Lisbon  
Sheyenne River Permanent Flood Protection Phase I – Levee E Construction  
**DATE:** March 9, 2016

In their correspondence dated February 9, 2016, the City of Lisbon requested cost share assistance for their Sheyenne River Permanent Flood Protection Phase I – Levee E Construction project.

This project is for the third levee in the City's Sheyenne River Permanent Flood Protection – Levee E Project. The project will be constructed in the northern part of the City. This levee will help to protect many homes as well as important City infrastructure.

In 2014, the City began construction of Phase I – Levee A. In 2015, the City began construction of Phase I – Levee C. Levee E includes 1,100 feet of flood protection on the east side of the Sheyenne River between ND State Hwy 27 and 8<sup>th</sup> Avenue South. The proposed project will all be earthen levee.

In order to collect surface drainage on the dry side of the levee, the City is planning to install a storm sewer along the east side of the proposed levee. This storm sewer will come to a common collection point on 6<sup>th</sup> Avenue. During normal river stages the runoff will gravity flow out of the storm sewer into the Sheyenne River. During a river flooding event the gates will be closed on the outlet and a large storm water lift station will discharge the runoff into the Sheyenne River preventing a flood caused by interior drainage.

Along with the flood protection and storm sewer work, the City will also be removing portions of streets, and relocating sanitary sewer and water mains to facilitate construction of the levee. Clay for the proposed levee will come from a borrow pit on the north side of the City. The City anticipates starting construction in early spring with a completion date in the beginning of October.

The estimated total cost of the Sheyenne River Permanent Flood Protection Phase I – Levee E Construction is \$2,625,000, of which \$2,622,500 is eligible for state cost-share assistance as a flood control project at 60 percent. However, just as with the City's Phase I – Levee A and Phase I – Levee C projects, due to the increased flood risk from the operation of the Devils Lake Outlets, the city is requesting a deviation from policy and that an additional 20 percent be granted for a total cost share of 80 percent of construction costs. In addition, the City is requesting a 30-year loan at 1.5% interest for the remaining costs, not to exceed \$527,000. The amount recommended for cost share grant is not to exceed \$2,098,000 in state funds.

**I recommend the State Water Commission approve this request by the City of Lisbon for state cost participation in the Sheyenne River Permanent Flood Protection Phase I – Levee E Construction, at an amount not to exceed \$2,098,000 in state funds. This cost share participation is based on the policy of 60% cost share for flood control, plus 20% to mitigate the additional flood risk from the Devils Lake Outlets. In addition, the City is eligible for a 30-year loan from the State Water Commission to cover the remaining cost of the project at 1.5% interest, not to exceed \$527,000. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1991-06



**City of Lisbon**  
**Phase 1 - Sheyenne River Flood Protection Project - Levee E**

NE 1/4 NE 1/4 Section 11, T134N, R56W



Date: 2/23/2016  
Prepared by: DEC

# *The City of Lisbon*

423 MAIN STREET • PO BOX 1079  
LISBON, NORTH DAKOTA 58054

February 8, 2016

Todd Sando, P.E.  
State Engineer  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck, North Dakota 58105-0850

Copy via email: Original US Mail

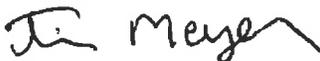
Subject: City of Lisbon Request for  
Sheyenne River Flood Protection  
Phase 1 - Levee E

The City of Lisbon is requesting State Water Commission funding for 1,100 linear feet of permanent flood protection construction for the City of Lisbon's Phase 1 Sheyenne River Flood Protection Project. It is our intent to bid and construct Phase 1 – Levee E of our flood protection project, as shown in the attached preliminary plans and specifications.

Our City Engineer has provided a detailed opinion of cost for Levee E, see attached documents. We would like to advertise the project for bids and would like to request funds for \$2,625,000 in order to construct Phase 1-Levee E. We are requesting funding on this project for eligible Construction Costs including Construction Engineering to be 60% cost share from the State Water Commission's policy on flood control, plus 20% cost share from Devils Lake Mitigation funding, with the remaining 20% Local Share funded with a 30 year loan from the State Water Commission at 1.5% interest.

Thank you for your help with our project and funding requests. If additional information is needed please feel free to contact me at (701) 680-0384.

Sincerely,



Tim Meyer  
Mayor, City of Lisbon

**Sheyenne River Flood Protection  
Levee E  
Lisbon, North Dakota**

*Engineer's Opinion of Probable Cost*

<i>BID ITEM NO. &amp; DESCRIPTION</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT PRICE</i>	<i>TOTAL</i>
<b><u>Base Bid</u></b>				
1. Clearing & Grubbing	LS	1	\$50,000.00	\$50,000.00
2. Topsoil - Stripping & Spreading	SY	13,000	\$3.50	\$45,500.00
3. Granular Surface - Remove	SY	800	\$6.00	\$4,800.00
4. Asphalt - Remove	SY	2,000	\$10.00	\$20,000.00
5. Unclassified Excavation	CY	400	\$10.00	\$4,000.00
6. Concrete - Remove	SY	600	\$15.00	\$9,000.00
7. Curb & Gutter - Remove	LF	850	\$8.00	\$6,800.00
8. Valley Gutter - Remove	SY	100	\$10.00	\$1,000.00
9. Storm Sewer Manhole - Remove	EA	12	\$2,000.00	\$24,000.00
10. Storm Sewer - Remove	LF	950	\$25.00	\$23,750.00
11. Storm Sewer Gate Valve - Remove	EA	2	\$500.00	\$1,000.00
12. Water Main - Remove	LF	100	\$25.00	\$2,500.00
13. Water Service - Remove	LF	250	\$22.00	\$5,500.00
14. Disconnect Water Service at Main	EA	4	\$2,000.00	\$8,000.00
15. Gate Valve - Remove	EA	2	\$500.00	\$1,000.00
16. Hydrant - Remove	EA	1	\$1,000.00	\$1,000.00
17. Sanitary Sewer Manhole - Remove	EA	2	\$2,000.00	\$4,000.00
18. Sanitary Sewer Main - Remove	LF	175	\$32.00	\$5,600.00
19. Sanitary Sewer Service - Remove	LF	250	\$25.00	\$6,250.00
20. Disconnect Sanitary Service at Main	EA	4	\$2,000.00	\$8,000.00
21. Power Pole - Remove	EA	8	\$1,000.00	\$8,000.00
22. Utility Pedestal - Remove	EA	2	\$500.00	\$1,000.00
23. Exploration Trench	LF	1,050	\$15.00	\$15,750.00
24. Buried Concrete - Remove	CY	200	\$25.00	\$5,000.00
25. Exploration Trench - Excess Material - Remove	CY	2,000	\$8.00	\$16,000.00
26. Exploration Trench - CDF Fill	CY	200	\$150.00	\$30,000.00
27. Excavation	CY	2,000	\$8.00	\$16,000.00
28. Subgrade Preparation	SY	10,000	\$3.00	\$30,000.00
29. Exploration Trench - Import	CY	2,000	\$15.00	\$30,000.00
30. Embankment - Import	CY	15,000	\$15.00	\$225,000.00
31. Embankment	CY	2,000	\$10.00	\$20,000.00
32. Topsoil - Import - 6"	SY	5,000	\$9.00	\$45,000.00
33. Water Main - Connect to Existing	EA	3	\$1,500.00	\$4,500.00
34. Water Main - 6" PVC	LF	150	\$50.00	\$7,500.00

35.	Hydrant Lead - 6" PVC	LF	50	\$50.00	\$2,500.00
36.	Hydrant - 6"	EA	2	\$4,200.00	\$8,400.00
37.	Gate Valve & Box - 6"	EA	2	\$1,750.00	\$3,500.00
38.	Gate Valve & Box - 8"	EA	2	\$2,000.00	\$4,000.00
39.	Gate Valve & Box - Adjust Existing	EA	2	\$500.00	\$1,000.00
40.	Sanitary Sewer Main - 8"	LF	175	\$55.00	\$9,625.00
41.	Sanitary Sewer Manhole	EA	2	\$4,000.00	\$8,000.00
42.	Televising	LF	1,500	\$2.25	\$3,375.00
43.	Reinforcement Fabric	SY	2,200	\$2.50	\$5,500.00
44.	Gravel - NDDOT Class 5 - 6"	SY	500	\$8.00	\$4,000.00
45.	Gravel - NDDOT Class 5 - 9"	SY	1,500	\$10.00	\$15,000.00
46.	Curb & Gutter	LF	750	\$40.00	\$30,000.00
47.	Asphalt Base Course - 3"	SY	1,800	\$25.00	\$45,000.00
48.	Asphalt Wear Course - 2"	SY	1,800	\$20.00	\$36,000.00
49.	Bituminous Material for Tack Coat	GAL	90	\$5.00	\$450.00
50.	Asphalt Highway Patch - Full Depth	SY	250	\$85.00	\$21,250.00
51.	Sidewalk - Concrete - 4"	SY	400	\$55.00	\$22,000.00
52.	Driveway - Concrete - 6"	SY	100	\$65.00	\$6,500.00
53.	Detectable Warning Panels	SF	128	\$45.00	\$5,760.00
54.	Concrete Valley Gutter	SY	100	\$75.00	\$7,500.00
55.	Storm Sewer - 24" HDPE	LF	800	\$55.00	\$44,000.00
56.	Storm Sewer - 27" HDPE	LF	350	\$60.00	\$21,000.00
57.	Storm Sewer - 15" RCP	LF	225	\$55.00	\$12,375.00
58.	Storm Sewer - 18" RCP	LF	150	\$60.00	\$9,000.00
59.	Storm Sewer - 24" RCP	LF	30	\$80.00	\$2,400.00
60.	Storm Sewer - 36" RCP	LF	150	\$100.00	\$15,000.00
61.	Flared End Section - 42" RCP	EA	1	\$2,500.00	\$2,500.00
62.	Riprap	CY	100	\$85.00	\$8,500.00
63.	Storm Sewer Manhole	EA	18	\$3,000.00	\$54,000.00
64.	Storm Sewer Lift Station	EA	1	\$650,000.00	\$650,000.00
65.	Lift Station Electrical & Controls	EA	1	\$100,000.00	\$100,000.00
66.	Temporary Levee Opening	EA	2	\$2,500.00	\$5,000.00
67.	Seeding - Straw Mulch	AC	3.50	\$2,000.00	\$7,000.00
68.	Seeding - Straw Mulch - Borrow Pit	AC	2.00	\$2,000.00	\$4,000.00
69.	Construction Site Entrance	EA	2	\$2,500.00	\$5,000.00
70.	Sediment Control Wattle	LF	1,000	\$5.00	\$5,000.00
71.	Inlet Protection Device	EA	15	\$250.00	\$3,750.00
72.	Stormwater Management	LS	1	\$5,000.00	\$5,000.00
73.	Testing Allowance	LS	1	\$20,000.00	\$20,000.00
74.	Traffic Control	LS	1	\$5,000.00	\$5,000.00

Total Base Bid \$1,903,335.00

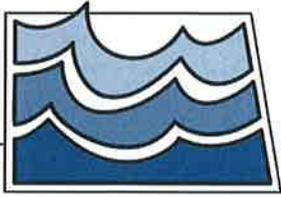
**Valley Road Reconstruct**

1. Topsoil - Stripping & Spreading	SY	2,225	\$4.00	\$8,900.00
2. Bituminous Pavement Reclamation	SY	5,450	\$4.00	\$21,800.00
3. Unclassified Excavation	CY	900	\$9.00	\$8,100.00
4. Subgrade Preparation	SY	5,650	\$2.00	\$11,300.00
5. Reinforcement Fabric	SY	5,650	\$2.00	\$11,300.00
6. Gravel - 9" Blended Base	SY	5,650	\$6.50	\$36,725.00
7. Asphalt Base Course - 4"	SY	5,450	\$30.00	\$163,500.00
8. Asphalt Wear Course - 2"	SY	5,350	\$15.00	\$80,250.00
9. Bituminous Material for Tack Coat	GAL	815	\$5.00	\$4,075.00
10. Seeding - Straw Mulch	AC	0.50	\$2,000.00	\$1,000.00
11. Testing Allowance	LS	1	\$5,000.00	\$5,000.00
12. Traffic Control	LS	1	\$5,000.00	\$5,000.00

Total Valley Road Reconstruct      \$356,950.00

<b>Total Construction</b>	\$2,260,285.00
<b>Contingencies</b>	\$232,215.00
<b>Resident Project Representation</b>	\$45,000.00
<b>Construction Surveys &amp; Staking</b>	\$15,000.00
<b>Construction Engineering</b>	\$55,000.00
<b>Post-Construction</b>	\$15,000.00
<b>Advertising &amp; Publishing</b>	\$2,500.00
<b>TOTAL PROJECT COST</b>	\$2,625,000.00

NE



# 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>

Agenda E 14)

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TS* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Williams County Water Resource District  
Epping Dam Spillway Reconstruction  
**DATE:** March 9, 2016

In their correspondence dated February 9, 2016, the Williams County Water Resource District requested cost share assistance for their Epping Dam Spillway Reconstruction Project.

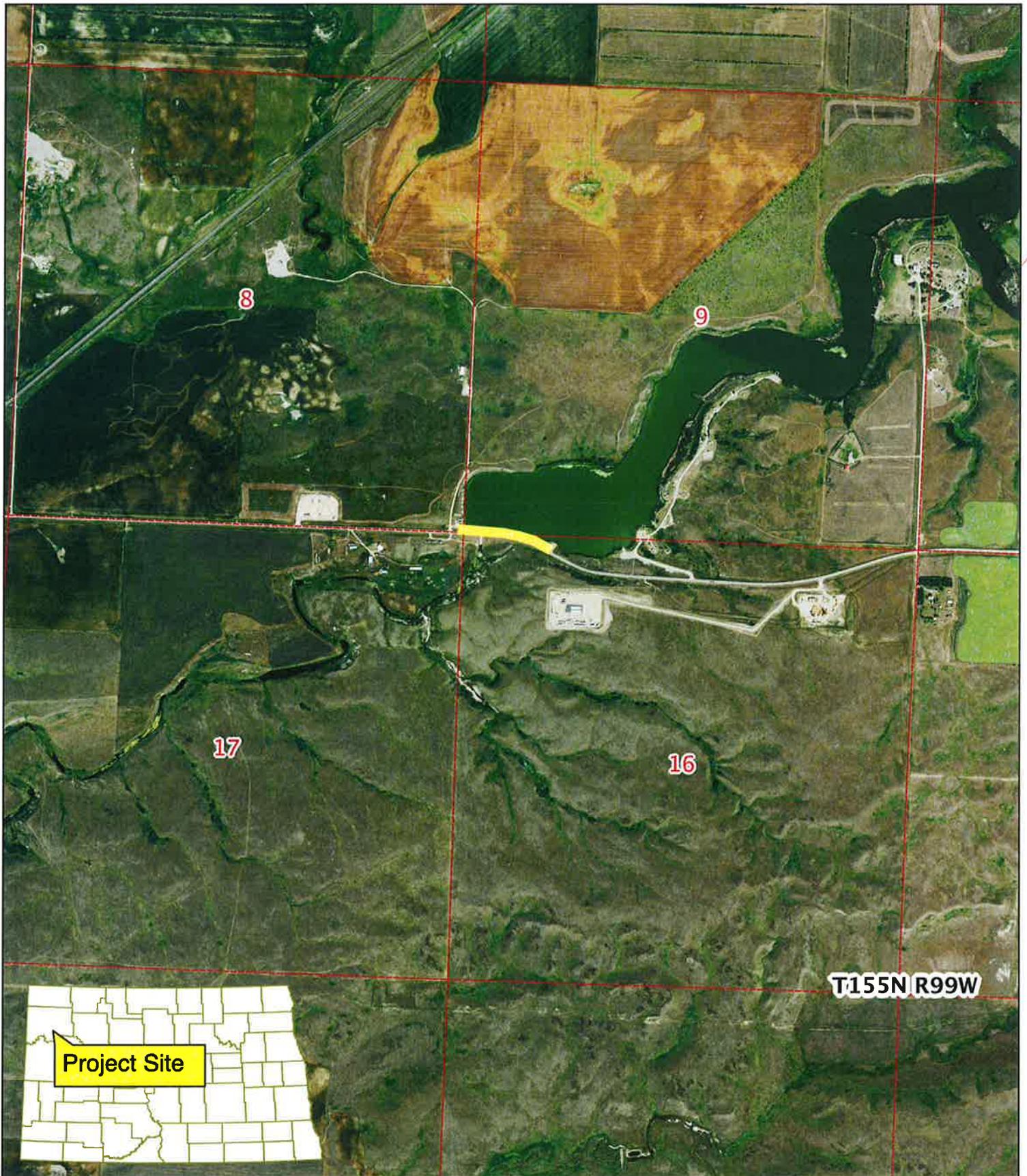
Epping Dam is a high hazard dam located near Springbrook in Williams County, North Dakota. The concrete chute spillway constructed in 1980 has significantly deteriorated with a number of structural items noted as being deficient and in need of replacement or repair for dam safety purposes. The structure was evaluated, and it was determined these items required immediate corrective action to prevent additional future damages and increased risk of failure. A December 2013 Engineering Report documented these conditions and provided recommendations relative to the required repairs. This evaluation and design was completed in consultation with the North Dakota State Water Commission and received previous cost share funding. The restoration work requires a significant lowering of the reservoir levels, which has been coordinated with the ND Game and Fish Department.

The final restoration/repair design plans and specifications are to be completed in early 2016. The advertisement for bids will occur in May/June with a proposed construction start in mid-July. The project is expected to be complete by October 31, 2016.

The estimated total cost of the Epping Dam Spillway Reconstruction Project is \$965,726, of which \$958,726 is eligible for state cost-share assistance as a dam safety project at 75 percent, for an amount not to exceed \$719,045 in state funds.

**I recommend the State Water Commission approve this request by the Williams County Water Resource District for state cost participation in the Epping Dam Spillway Reconstruction at an amount not to exceed \$719,045. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/346



## Reconstruction & Rehabilitation Epping Dam Williams County Water Resource District

NW 1/4 Section 16, and SW 1/4 Section 9, T155N, R99W



Date: 2/10/2016  
Prepared by: DEC



February 9, 2016

Todd Sando, PE  
North Dakota State Engineer  
North Dakota State Water Commission  
900 East Boulevard  
Bismarck, ND 58503

**RE: Epping Dam Safety Repair Project – Construction Cost Share Request**

Dear Mr. Sando:

In February 2015 the North Dakota State Water Commission approved cost share assistance to complete plans and specifications for dam safety repairs to the Epping Dam, a high hazard dam located in Williams County. These plans are now nearing completion and an opinion of probable construction costs has been determined for the chute spillway reconstruction and rehabilitation project. Based on the projected costs the Williams County Water Resource District is requesting 75% of the \$965,726 in eligible costs or a total of \$724,294.50.

Enclosed is a completed cost share request form containing related project information. Also enclosed is a 90% plan set illustrating the work to be completed. It is our intent to complete the plans and advertise for bids in May/June after the SWC cost share agreement is secured. We will also hold a public meeting and conduct an Emergency Management Plan exercise as part of the construction process. First, we believe it is very important for the public to be informed regarding the significant lowering of the reservoir pool required for reconstruction. Second, emergency management personnel need to be prepared in the event of a high runoff situation during construction, given the risks to the structure and embankment. These costs are included in our request as we believe they are a critical project component, though we understand these items may be deemed ineligible. If this is the case we desire a response for our records, so if necessary we can revise our request accordingly.

If you have questions regarding the project you may contact Beth Innis at (701) 577-4500, or if you have technical or design questions regarding project development please direct those inquiries to Michael Gunsch with Houston Engineering at (701) 323-0200.

Sincerely,

Corey Paryzek, Chairman  
Williams County Water Resource District

Enclosures

C: Craig Odenbach, NDSWC  
Beth Nangare, Cost Share Program Administrator  
Michael Gunsch, Neil Isaak, Travis Johnson, Houston Engineering, Inc.  
Beth Innis, Secretary/Treasurer WCWRD

P.O. Box 2047  
Williston, ND 58802-2047  
701-577-4500  
701-577-4510 (fax)



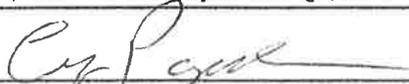
**COST-SHARE REQUEST FORM**  
**NORTH DAKOTA STATE WATER COMMISSION**  
**DEVELOPMENT DIVISION**  
 SFN 60439 (10/2015)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

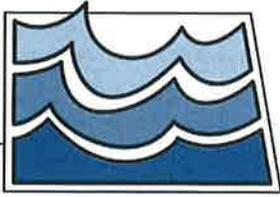
Project, Program, Or Study Name Epping Dam Spillway Reconstruction		
Sponsor(s) Williams County Water Resource District		
County Williams	City Springbrook (Downstream)	Township/Range Section 9 and 16 T155N R99W
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Restoration and repair of the concrete chute spillway for dam safety purposes		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization <input checked="" type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Williams County Water Resource District - Owner North Dakota State Game and Fish - stocks the fishery Public Meeting and Williams County Emergency Management		
Description Of Problem Or Need And How Project Addresses That Problem Or Need  The concrete chute spillway constructed in 1980 has significantly deteriorated with a number of structural items noted as being deficient and in need of replacement or repair for dam safety. The structure was evaluated and it was determined these items required immediate corrective action to prevent future damages and subsequent risks. A December 2013 Engineering Report documented these conditions and provided recommendations relative to the required repairs. This evaluation and now design was completed in consultation with the North Dakota State Water Commission and has received previous cost share funding. The restoration work requires a significant lowering of the reservoir levels, which has been communicated to the ND Game and Fish for comment.		
Has Feasibility Study Been Completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain Communications with the ND State Engineer have determined that as a reconstruction/repair no permits are required				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Houston Engineering (HEI) completed the Emergency Action Plan in November 2013. The Epping Dam Engineering Evaluation was completed by HEI in December 2013, which included a dam safety review, hydrology/hydraulic study and geotechnical evaluation. HEI was then retained to complete the restoration plan designs in 2015, focused on construction in 2016.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? None are expected or known at this time				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 0.00	\$ 0.00	\$	\$
State Water Commission	\$ 724,294.50	\$ 724,294.50	\$	\$
Other State	\$ 0.00	\$ 0.00	\$	\$
Local	\$ 241,431.50	\$ 241,431.50	\$	\$
Total	\$ 965,726.00	\$ 965,726.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied NA				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status  The final restoration/repair design plans and specifications are to be completed in early 2016, with the advertisement for bids to occur in May/June with a proposed construction start in mid-July with completion by October 31, 2016				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Williams County WRD, Corey Paryzek, Chairman			Date February 9, 2013	
Address PO Box 2047		City Williston	State ND	ZIP Code 58802
Telephone Number 701-570-8337				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature X 			Date February 9, 2016	

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850





# 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>

Agenda E (15)

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** ~~Todd Sando~~ Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Richland County Water Resource District  
Legal Drain #5 (Lateral 27) Reconstruction  
**DATE:** March 9, 2016

In their correspondence dated February 4, 2016, the Richland County Water Resource District requested cost share assistance for their Legal Drain #5 (Lateral 27) Reconstruction Project.

The project is located in Richland County near Walcott, North Dakota. Legal Drain #5 (L27) was constructed in the 1920's. The project consists of the reconstruction of 2.75 miles of the existing drain channel. The main drain #5 flows northerly and discharges to the Wild Rice River in Cass County. Several laterals feed the main drain, and flows from Walcott area and flood overflows from the Sheyenne River overwhelm these areas many springs. This project would reconstruct the lateral 27 to increase its capacity to take some of this flood flow directly east to the Wild Rice River northwest of Christine, North Dakota. This alternate outlet was proposed to provide relief to the main drain in the early 1900's but was never built.

The outlet reconstruction will consist of two concrete drop structures into the river due to the 20 feet of drop in the last 1,000 feet of channel. The longitudinal grade would be approximately 0.5 percent. The design channel bottom width is 8-12 feet and the side slopes are 4:1. The existing township road along the north side of the drain would be maintained, thus the drain channel centerline would be moved south. A drain permit was filed on January 28, 2016 and is currently pending. A bid date is anticipated in March 2016. All construction would be completed no later than December 1, 2016.

The estimated total cost of the Legal Drain #5 (L27) Reconstruction is \$1,315,000, of which \$1,180,000 is eligible for state cost-share assistance as a rural flood control project at 45 percent, for an amount not to exceed \$531,000 in state funds.

**I recommend the State Water Commission approve this request by the Richland County Water Resource District for state cost participation in the Legal Drain #5 (L27) Reconstruction at an amount not to exceed \$531,000. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1179



### Richland County Water Resource District Drain #5 (L27) Reconstruction

N 1/2 Sections 19, 20, 21, T136N, R49W





February 4, 2016

Ms. Beth Nangare  
ND State Water Commission  
900 E Boulevard Avenue Dept. 770  
Bismarck, ND 58505-0850

RE: Legal Drain #5(27)  
Reconstruction  
Richland County, ND  
W14-106

Dear Ms. Nangare:

On behalf of the Richland County Water Resource District Board enclosed please find a cost share request form, project location map, preliminary plans, project narrative, and a detailed cost estimate for the referenced project. We are requesting that cost share be considered at the next SWC meeting so that we can keep this project on track. Please proceed with processing this request and let us know if you need additional information.

The State's cost share will be integral to completing this needed project as proposed. An "Application to Drain" permit was submitted to the State Engineers office for processing in January 2016. We understand that the permit is needed to process a cost share request. However, we believe we will have the permit prior to the meeting time. A Corp of Engineers 404 permit was applied for in January of 2016 and we expect to have that permit soon also.

If you have any questions, please do not hesitate to contact me at any time. We look forward to hearing from you soon.

Sincerely,  
Interstate Engineering, Inc.

A handwritten signature in blue ink, appearing to read 'Mike Bassingthwaite', written over a light blue horizontal line.

Mike Bassingthwaite, P.E.

MB/mb  
Attachments  
C: RCWRB



Professionals you need, people you trust.

P.O. Box 667 • 1999 4th Street N., Suite A • Wahpeton, ND 58074 • P: (701) 642-5521 • F: (701) 642-5215 • [www.interstateeng.com](http://www.interstateeng.com)

Offices in North Dakota • Montana • Minnesota • South Dakota



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

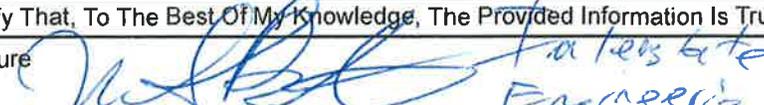


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Reconstruction Drain 5(27)		
Sponsor(s) Richland County Water Resource District		
County Richland	City near Walcott	Township/Range 135/49
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study see attached project narrative		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Richland County Drain 5 assessment district and downstream landowners (ag land)		
Description Of Problem Or Need And How Project Addresses That Problem Or Need The Drain 5(27) lateral to drain 5 was constructed in the 1920's. Drain 5 itself flows north discharging into the Wild Rice River in Cass County and collects runoff from a large watershed in NE Richland County. Several laterals feed drain 5 from the Walcott area and overflows from the Sheyenne River reach drain 5 during larger floods. Drain 5(27) currently splits flow to drain 5 and directly to the Wild Rice River. At the time drain 5 was constructed several laterals to take overflow directly to the Wild Rice River were proposed but only 5(27) was constructed.  The reconstruction of drain 5(27) serves 2 purposes. The 1st is to provide relieve to the frequently overloaded drain 5 by conveying drain 5 water directly to the Wild Rice River. The second would be to improve the channel itself and stabilize the outlet to the Wild Rice River that is currently eroding and eroding further.		
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing	<input checked="" type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing	<input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain ND State Engineer Application to Drain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain applied for January 2016 (pending)				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain none required				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Utility Companies have been notified and will be sent final plans for the minor adjustments needed.  Corp 404 permit has been applied for.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? no				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 550,000.00	\$ 550,000.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 765,000.00	\$ 765,000.00	\$	\$
<b>Total</b>	<b>\$ 1,315,000.00</b>	<b>\$ 1,315,000.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied none				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Existing maintenance assessment district will be used for local cost Bids will be let in March and all construction will take place in 2016.				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Richland County Water Resource District			Date 2/4/2016	
Address 418 2nd ave n		City Wahpeton	State ND	ZIP Code 58075
Telephone Number 701-642-7773 (701-642-5521 Interstate Engineering - Mike Bassingthwaite)				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 2/4/2016	

**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**PRELIMINARY ENGINEER'S ESTIMATE  
DRAIN 5(27) RECONSTRUCTION  
RICHLAND COUNTY, NORTH DAKOTA**

1/16  
W14-106

ITEM No.	ITEM DESCRIPTION	UNIT	No. OF UNITS	UNIT PRICE L & M	EXTENDED AMOUNT L & M	MATERIAL COSTS	
						UNIT PRICE Materials	EXTENDED AMOUNT Materials
1	Excavation	CY	198,331	\$2.75	\$545,410.25	\$0.00	\$0.00
2	Spoil Spreading	Mile	2.80	\$15,000.00	\$42,000.00	\$0.00	\$0.00
3	Embankment	CY	24,103	\$3.50	\$84,360.50	\$0.00	\$0.00
3	Aggregate Base/Surface Course	CY	350	\$25.00	\$8,750.00	\$0.00	\$0.00
4	Seeding and Mulching	Acre	38	\$1,000.00	\$38,000.00	\$0.00	\$0.00
5	Erosion Control Blanket	SY	250	\$5.00	\$1,250.00	\$0.00	\$0.00
6	Fiber Rolls 20"	LF	250	\$10.00	\$2,500.00	\$0.00	\$0.00
6	Rock Riprap - D50 9 Inch	CY	625	\$70.00	\$43,750.00	\$0.00	\$0.00
8	Install 18" CMP	LF	740	\$12.00	\$8,880.00	\$13.00	\$9,620.00
9	Install 18" CMP Flap Gate	Each	12	\$125.00	\$1,500.00	\$305.00	\$3,660.00
10	Install 24" CMP	LF	130	\$18.00	\$2,340.00	\$17.00	\$2,210.00
11	Install 24" CMP Flap Gate	Each	2	\$150.00	\$300.00	\$355.00	\$710.00
12	Install 36" CMP	LF	60	\$20.00	\$1,200.00	\$32.00	\$1,920.00
13	Install 36" CMP Flap Gate	Each	1	\$175.00	\$175.00	\$631.00	\$631.00
14	Install 54" CMP	LF	72	\$28.00	\$2,016.00	\$62.00	\$4,464.00
14	Install 60" CMP	LF	424	\$25.00	\$10,600.00	\$68.00	\$28,832.00
18	Clearing & Grubbing	LS	1	\$3,000.00	\$3,000.00	\$0.00	\$0.00
15	Remove & Salvage CMP	LF	778	\$8.00	\$6,224.00	\$0.00	\$0.00
15	Remove, Salvage, & Reinstall Rock Riprap	CY	25	\$42.00	\$1,050.00	\$0.00	\$0.00
16	Backhoe	Hr.	5	\$200.00	\$1,000.00	\$0.00	\$0.00
17	Truck	Hr.	5	\$100.00	\$500.00	\$0.00	\$0.00
18	Dozer	Hr.	4	\$125.00	\$500.00	\$0.00	\$0.00
19	Culvert Markers	Each	15	\$150.00	\$2,250.00	\$0.00	\$0.00
19	Concrete Drop Structure	Each	2	\$75,000.00	\$150,000.00	\$0.00	\$0.00
SUBTOTALS					\$957,555.75		\$52,047.00
CONTINGENCIES					\$40,397.25		
OPINION OF PROBABLE CONSTRUCTION COST					<b>\$1,050,000.00</b>		

**PROJECT COST SUMMARY**

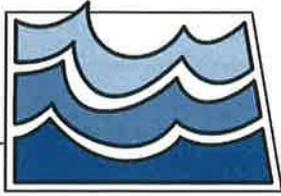
*DESIGN ENGINEERING	\$50,000.00
ESTIMATED CONSTRUCTION ENGINEERING	\$110,000.00
RIGHT-OF-WAY (Permanent and Temporary)	\$80,000.00
UTILITY RELOCATION (1 mile of power poles)	\$20,000.00
WETLAND MITIGATION (none anticipated)	?
LEGAL & ADMINISTRATION	\$5,000.00

**OPINION OF TOTAL PROBABLE PROJECT COST** **\$1,315,000.00**

LESS SWC COST SHARING (45% of eligible items + 35% design engineering) \$550,000.00

**OPINION OF TOTAL PROBABLE LOCAL COST** **\$765,000.00**

\*-SWC approved a cost participation of \$17,431 in December of 2014



# 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>

*Agenda E 16)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Nelson County Water Resource District  
Michigan Spillway Flood Control Cost Overrun  
**DATE:** March 9, 2016

In their correspondence dated February 4, 2016, the Nelson County Water Resource District requested cost share assistance for their Michigan Spillway Flood Control Project.

The Michigan Spillway is located in Sections 18, 19, and 20 of Township 154 North, Range 58 West (Sarnia Township) and sections 13, 14, 23, 26, 34, and 35 of Township 154 North, Range 59 West (Enterprise Township) in Nelson County, North Dakota. The construction has been completed, except for a few items that will be finalized this spring. Various items were changed for permitting purposes and pump controls. The downstream controls are installed. This spring the controls will be set to balance elevation stages with the Matecjek Dam and County Road 35. The pumps operated for approximately one month during October of 2015. During this time, pump operation, gate opening and closing were tested.

In 2013 the Preliminary Cost Estimate from Olson Engineering was \$4,041,086. Due to extra costs to satisfy COE permits and price increases, the project cost has increased. The estimated total cost of the Michigan Spillway Flood Control is now \$4,628,853, which is \$587,767 higher than the previously estimated cost of \$4,041,086. The District is requesting a continued 65 percent cost share; this request would be for an additional \$382,049 and all costs have been considered eligible in previous approvals.

Previously, there have been several approved cost share requests for this project including \$311,696 on August 30, 2005, \$738,304 on June 1, 2010, \$1,076,705 on December 13, 2013, and \$500,000 in legislative earmarks. The total amount of State funds that have been approved so far for the Michigan Spillway is \$2,626,705. With this current request, an additional \$382,049 is requested, which would bring the total funds approved to \$3,008,754.

**I recommend the State Water Commission approve this request by the Nelson County Water Resource District for state cost participation in the Michigan Spillway Flood Control Cost Overrun at an amount not to exceed \$382,049. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1932

# Nelson County Water Resource District

104 East B Avenue  
P.O. Box 446  
Lakota, ND 58344-0446

Phone 701 247-2682  
Fax 701 247-2692  
e-mail: charlenevarnson@gmail.com

February 4, 2016

Mr. Todd Sando, State Engineer  
ND State Water Commission  
900 East Boulevard Ave.  
Bismarck, ND 58505

RE: Request for Cost Share Increase for the Michigan Spillway Flood Control

Dear Mr. Sando:

The Michigan Spillway Flood Control Project construction has been completed. There are a few items that will be finalized this spring when weather permits. Various items were changed for permitting purposes and pump controls. Plans of the project have been provided to your staff. The downstream controls are installed. This spring they will be set to balance elevation stages with the Matejcek Dam and County Road 35.

The pumps operated for approximately 1 month during October of 2015. During this time, pump operation, gate opening and closing was tested. Those in charge of operation have been working with Starnet and are getting familiar with the controls.

The project has been very time consuming and challenging. In 2013 the Preliminary Cost Estimate from Olson Engineering was \$4,041,086.00. Because of extra costs to satisfy COE permits and price increases, the project costs, along with estimated final costs for legal and engineering fees, is \$4,628,853.34. This is an increase of \$587,767.34. The total costs are as follows:

Contractors	1,397,045.50
Culverts	710,998.79
Culvert installation	253,259.50
3 phase electric power ins. (Nodak)	83,715.07
Gates (Fontain w/electric controllers & cement structure)	75,452.50
Asphalt replacement	48,960.00
Pump house structure w/ related items	583,397.11
Pumps and related equipment	655,720.24
Land acquisition, easement, appraisal	225,752.40
Legal fees	52,376.96
Engineering	395,000.00
Administration (bond exp, etc.)	<u>147,175.27</u>
	4,628,853.34

The project has taken several loans and is assessing the landowners however, the extra cost is more than the local landowners can handle. Therefore, the Nelson County Water Resource District respectfully requests a continued 65% cost share from the State Water Commission on the additional costs that amount to \$587,767.34.

The board sincerely appreciates the help and participation from the State Water Commission and looks forward to finalizing this very worthwhile effort.

Thank you.

Sincerely,

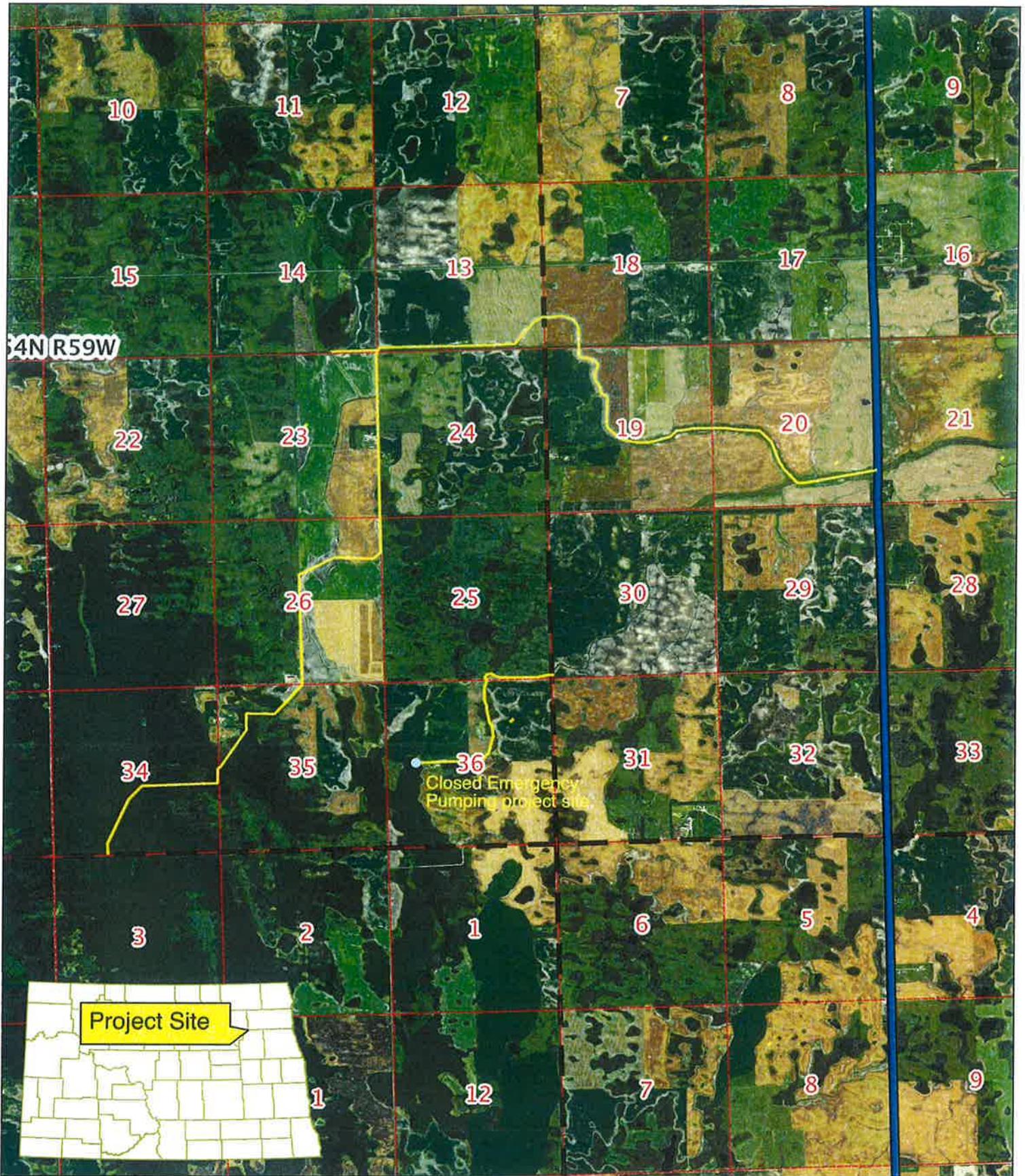


Ben Varnson, Chairman

Board Members

Ben Varnson   Gene Gehrke   Michael Donohue   David Sateren, Aft.   Charlene Varnson – Secretary-Treasurer

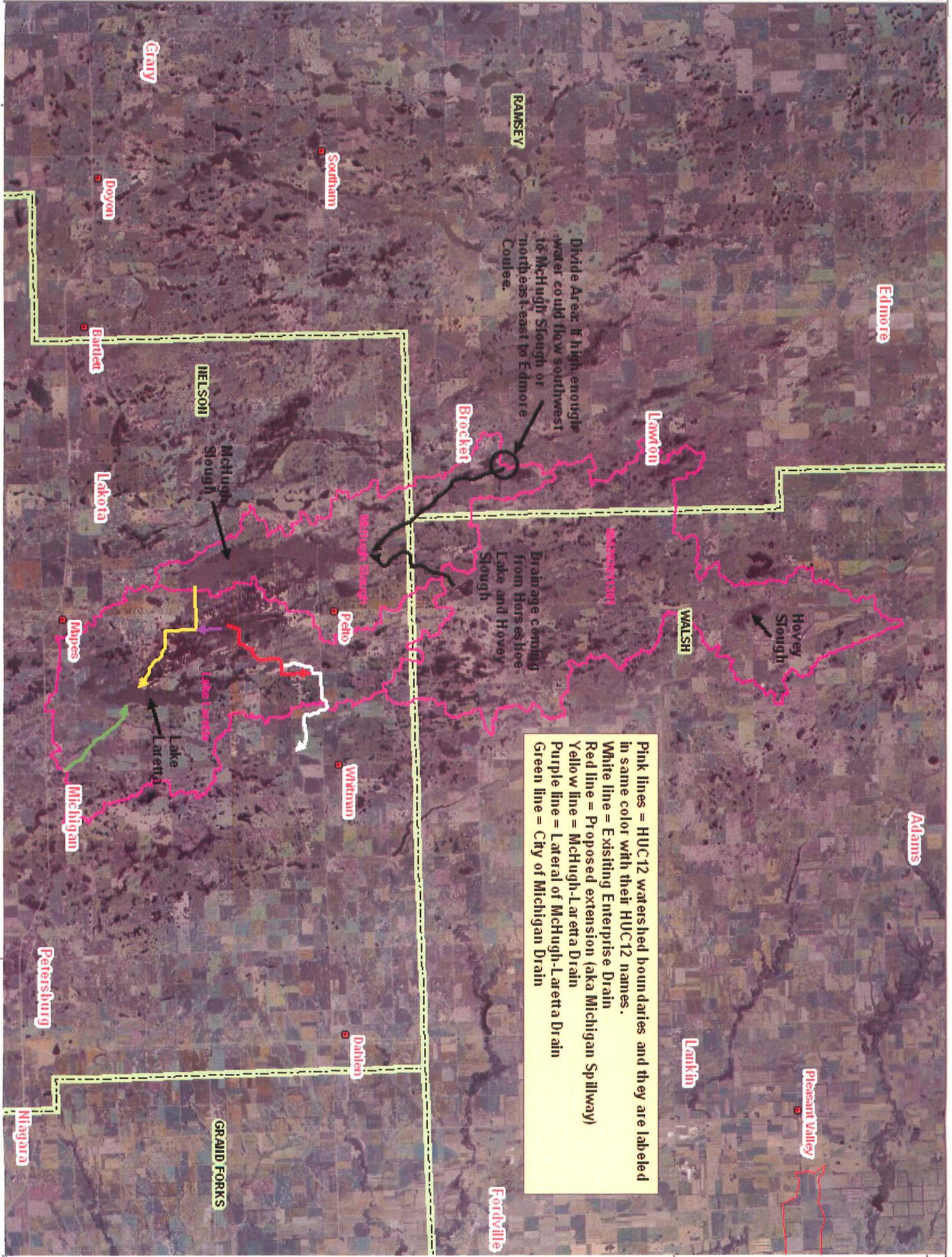




**Fund Increase Request Michigan Spillway Flood Control  
Nelson County Water Resource District**

Parts of Sections 18, 19, 20, T154N, R58W and  
Parts of Sections 13, 14, 23, 26, 34, 35, T154N, R59W





Divide Area: If high enough water could flow southwest to McHugh Slough or northeast to Edmore Coulee.

Drainage coming from Horseshoe Lake and Hovey Slough

Pink lines = HUC12 watershed boundaries and they are labeled in same color with their HUC12 names.  
 White line = Existing Enterprise Drain  
 Red line = Proposed extension (aka Michigan Spillway)  
 Yellow line = McHugh-Lareta Drain  
 Purple line = Lateral of McHugh-Lareta Drain  
 Green line = City of Michigan Drain

Edmore

Adams

Pleasant Valley

Rankin

Fordville

Southam

Craty

Doyon

Bartlett

Lakota

Mhpes

Michigan

Petersburg

Niagara

HELSON

McHugh Slough

McHugh Slough

Peto

Whitman

Dahlen

GRAID FORKS

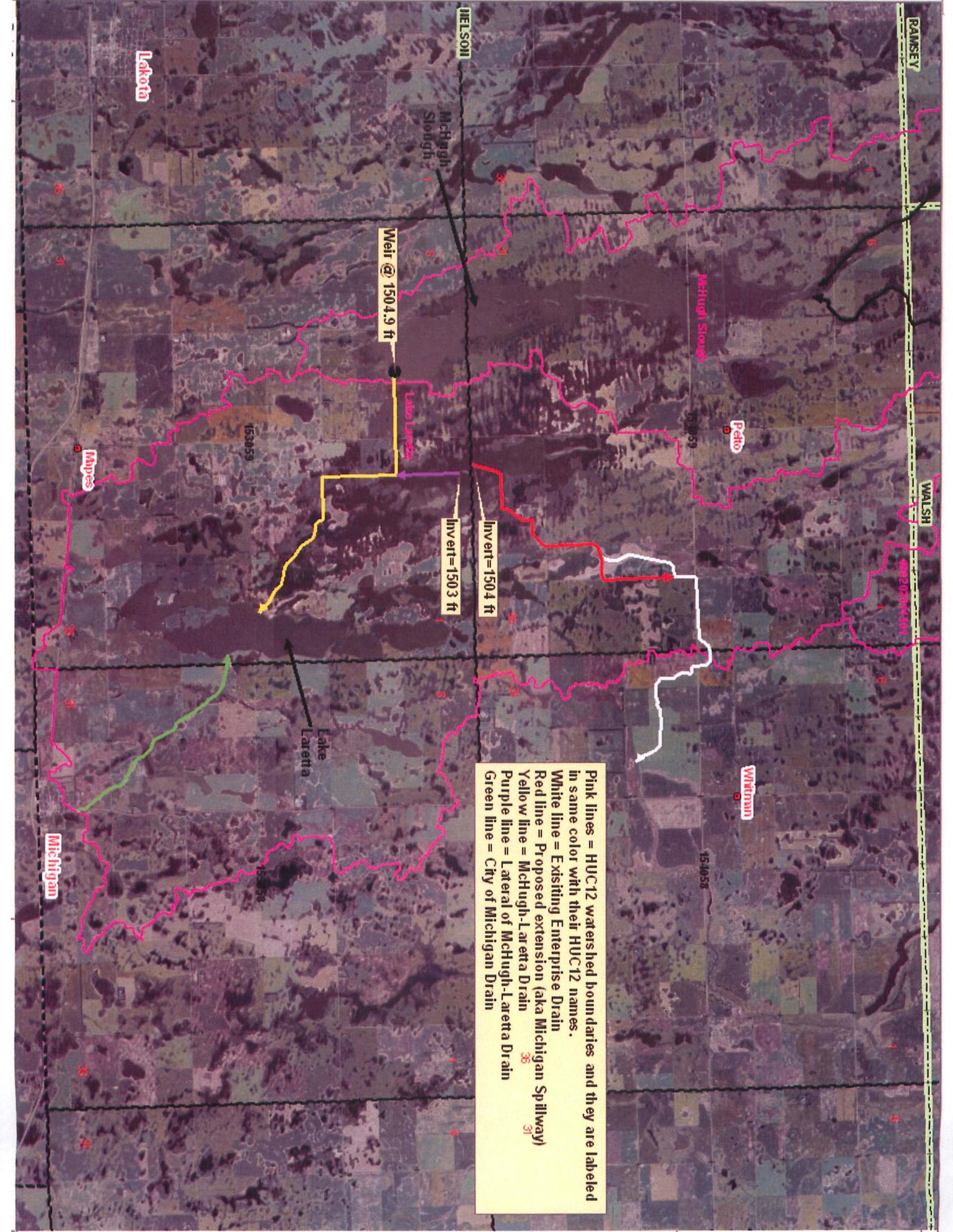
Lawton

Hovey Slough

WALSH

Lake Lareta

Lake Lareta



Pink lines = HUC12 watershed boundaries and they are labeled in same color with their HUC12 names.  
 White line = Existing Enterprise Drain  
 Red line = Proposed extension (aka Michigan Spillway)  
 Yellow line = Mchugh-Laretta Drain  
 Purple line = Lateral of Mchugh-Laretta Drain  
 Green line = City of Michigan Drain

RAMSEY

WALSH

680 2021064-1001

Pato

Wirtman

Mchugh Slough

MELSON

Mchugh Slough

Weir @ 1504.9 ft

Invert=1503 ft

Invert=1504 ft

Lake Laretta

Lakota

Mapes

Michigan

153059

154059

154058

153058

36

31

35

31

36

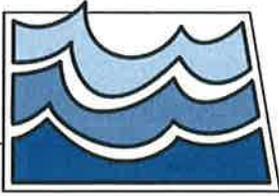
31

1

6

1

6



# 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>

*Agenda E (17)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *T. Sando* Todd Sando, PE, Chief Engineer - Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Pembina Water Resource District  
Tongue River NRCS Watershed Plan  
**DATE:** March 9, 2016

In their correspondence dated February 5, 2016, the Pembina County Water Resource District requested state cost-share participation for their Tongue River NRCS Watershed Plan.

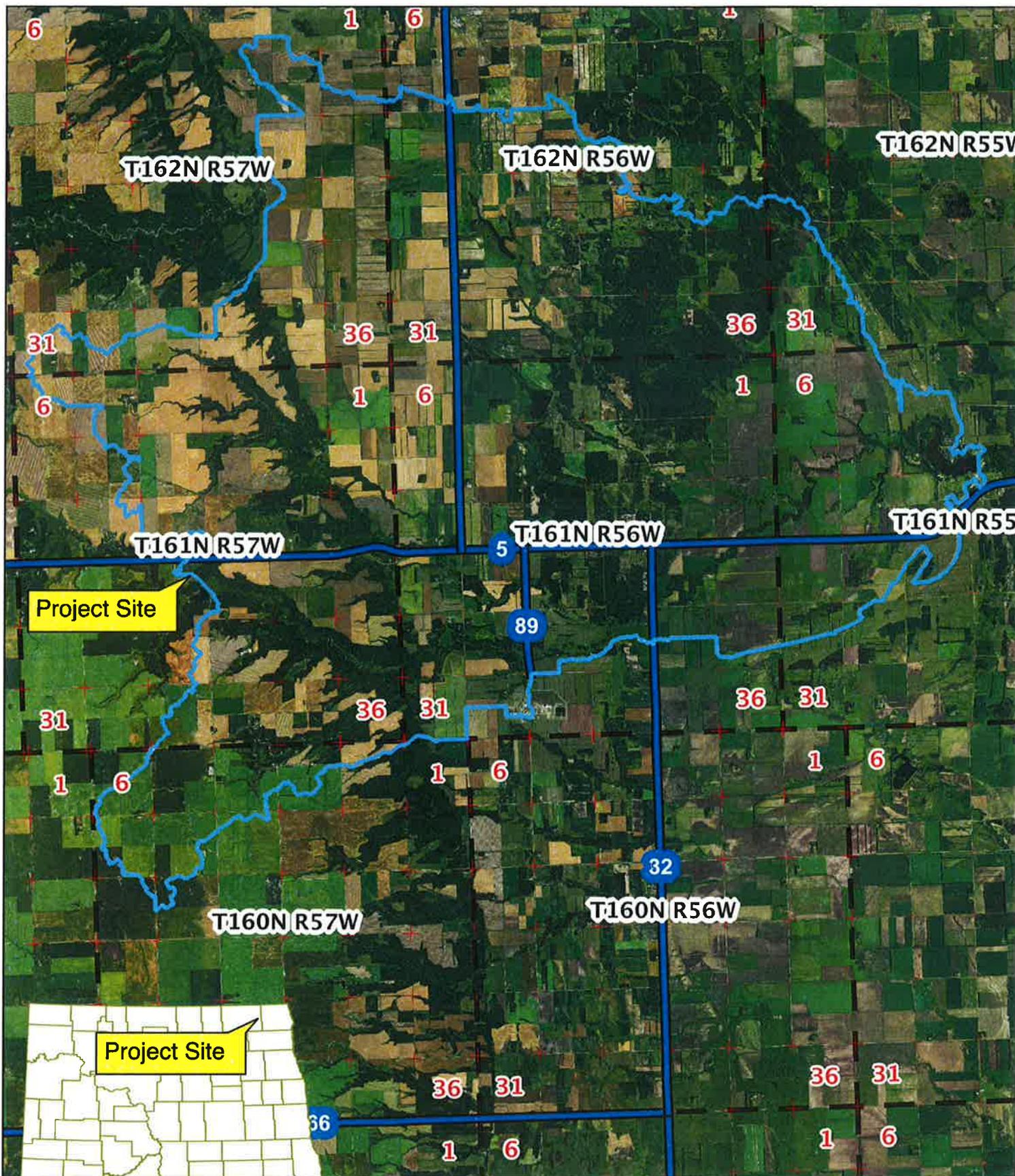
The proposed study is an accepted proposal by the Red River Retention Authority for Natural Resource Conservation Service (NRCS) Regional Conservation Partnership Program (RCPP) funding. The proposed study would assess the benefits that retention could provide to the Forest River. Potential storage sites are anticipated to be sites identified through the Tongue River Watershed Comprehensive Detention Study. The proposed Study would follow procedures required by the NRCS RCPP funding.

The study will evaluate benefits of retention in the Tongue River Watershed between the existing Senator Young Dam and Renwick Dam. Through this reach of the Tongue River, flood flows often leave the channel and cause flood damages to agricultural and infrastructure in the region. The study will engage the general public and federal, state, and local agencies to clearly define the purpose and need, scope of potential resource impacts, evaluate alternatives, and determine a preferred alternative. All planning is partially funded by NRCS, up to \$500,000, and will follow required planning procedures as defined by Public Law 83-566.

The estimated total cost of the Tongue River NRCS Watershed Plan is \$799,151, of which \$299,151 is eligible for cost share assistance as a study project at 35 percent, for an amount not to exceed \$104,703 in state funds.

**I recommend that the State Water Commission approve this request by the Pembina County Water Resource District for state cost participation in the District's Tongue River NRCS Watershed Plan, at an amount not to exceed \$104,703. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and availability of funds.**

TS:bn/1296



**Tongue River NRCS Watershed Plan  
Pembina County Water Resource District**

Pembina and Cavalier Counties.



PEMBINA COUNTY  
WATER RESOURCE DISTRICT

308 Courthouse Drive #5  
Cavalier, North Dakota 58220

Phone: 701-265-4511

Fax: 701-265-4165

February 5, 2016

ND State Water Commission  
900 E Boulevard Ave. Dept. 770  
Bismarck, ND 58505-0850



**Subject: Tongue River NRCS Watershed Plan  
Proposal for RRJWRD Cost Share**

Dear Board,

The Pembina County Water Resource District (PCWRD) is requesting cost share from the RRJWRD for the Tongue River NRCS Watershed Study. The proposed Study is an accepted proposal by the Red River Retention Authority for NRCS RCPP funding. The proposed Study would assess the benefits that retention could provide to the Forest River. Potential storage sites are anticipated to be sites identified through the Tongue River Watershed Comprehensive Detention Study. The proposed Study would follow procedures required by the NRCS RCPP funding.

We have worked with our Engineer to determine an estimated cost to complete the proposed Study. Total costs for the Study are \$799,151.00, of which the NRCS will contribute \$500,000. The remaining non-federal costs we are requesting 35% through the ND State Water Commission, or **\$104,702.85**. The remaining would be paid locally by the Pembina County Water Resource District and the Red River Joint Water Resource District.

If you have any questions, please do not hesitate to contact our office at (701) 265-4511.

Sincerely,

  
Pembina County Water Resource District

*Board Members:*

*Randall Emanueksen, Charles Thacker, Joshua Heuchert, Richard Kendall, & Gerald Fuhl*



**COST-SHARE REQUEST FORM**  
**NORTH DAKOTA STATE WATER COMMISSION**  
**DEVELOPMENT DIVISION**  
 SFN 60439 (10/2015)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Tongue River NRCS Watershed Plan		
Sponsor(s) Pembina County Water Resource District		
County Pembina	City Cavalier, ND	Township/Range Varies, see map
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study Flood Damage Reduction		
If Study, What Type <input type="checkbox"/> Water Supply <input checked="" type="checkbox"/> Hydrologic <input checked="" type="checkbox"/> Floodplain Mgmt. <input checked="" type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing
<input type="checkbox"/> Irrigation	<input checked="" type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control
<input type="checkbox"/> Dam Safety/EAP	<input type="checkbox"/> Property Acquisition	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Pembina County Water Resource District Watershed Stakeholders and Interagency Team will be established at the start of planning effort to provide input on local interests, and provide feedback on potential resource concerns.		
Description Of Problem Or Need And How Project Addresses That Problem Or Need  The proposed study will evaluate benefits of retention in the Tongue River Watershed between the existing Senator Young Dam and Renwick Dam. Through this reach of the Tongue River, flood flows often leave the channel and cause flood damages to agricultural and infrastructure in the region. The proposed study will engage the general public and federal, state, and local agencies to clearly define the Purpose and Need, scope of potential resource impacts, evaluate alternatives, and determine a preferred alternative. All planning is partially funded by NRCS, and will follow required planning procedures as defined by Public Law 83-566.		
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits?  Yes  No  Not Applicable

If Yes, Please Explain  
Study will help to determine permit requirements for construction.

Have You Been Approved For Any State Permits?  Yes  No  Not Applicable

If Yes, Please Explain  
Study will help to determine permit requirements for construction.

Have You Applied For Any Local Permits?  Yes  No  Not Applicable

If Yes, Please Explain  
Study will help to determine permit requirements for construction.

Have You Been Approved For Any Local Permits?  Yes  No  Not Applicable

If Yes, Please Explain  
Study will help to determine permit requirements for construction.

Briefly Explain The Level Of Review The Project Or Program Has Undergone  
The proposed project has been accepted for funding by the Red River Retention Authority, and is working through developing the Cooperative Agreement with NRCS. The project will be reviewed for funding by the Red River Joint Water Resource District at their next regular board meeting.

Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? Study will help determine obstacles to implementation.

Funding Timeline (carefully consider when SWC cost-share will be needed)

Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 500,000.00	\$ 203,886.52	\$ 296,113.48	\$
State Water Commission	\$ 104,702.85	\$ 30,582.98	\$ 74,119.87	\$
Other State	\$	\$	\$	\$
Local	\$ 194,448.15	\$ 56,796.96	\$ 137,651.19	\$
Total	\$ 799,151.00	\$ 291,266.46	\$ 507,884.54	\$ 0.00

List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied  
No other state sources

Please Explain Implementation Timelines, Considering All Phases And Their Current Status  
Summer 2019 - Complete NRCS Watershed Plan  
Fall 2019 through Fall 2020 - Finalize Plans, R/W Acquisition, and Permitting  
Fall 2020 - Fall 2021 - Construction

Have Assessment Districts Been Formed?  Yes  No  Ongoing  Not Applicable

Submitted By  
Pembina County Water Resource District

Date  
2/5/2016

Address  
300 Court House Drive No. 5

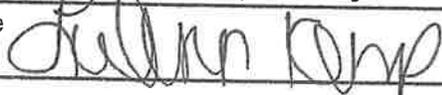
City  
Cavalier

State  
North Dakota

ZIP Code  
58220

Telephone Number  
701.265.4511

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

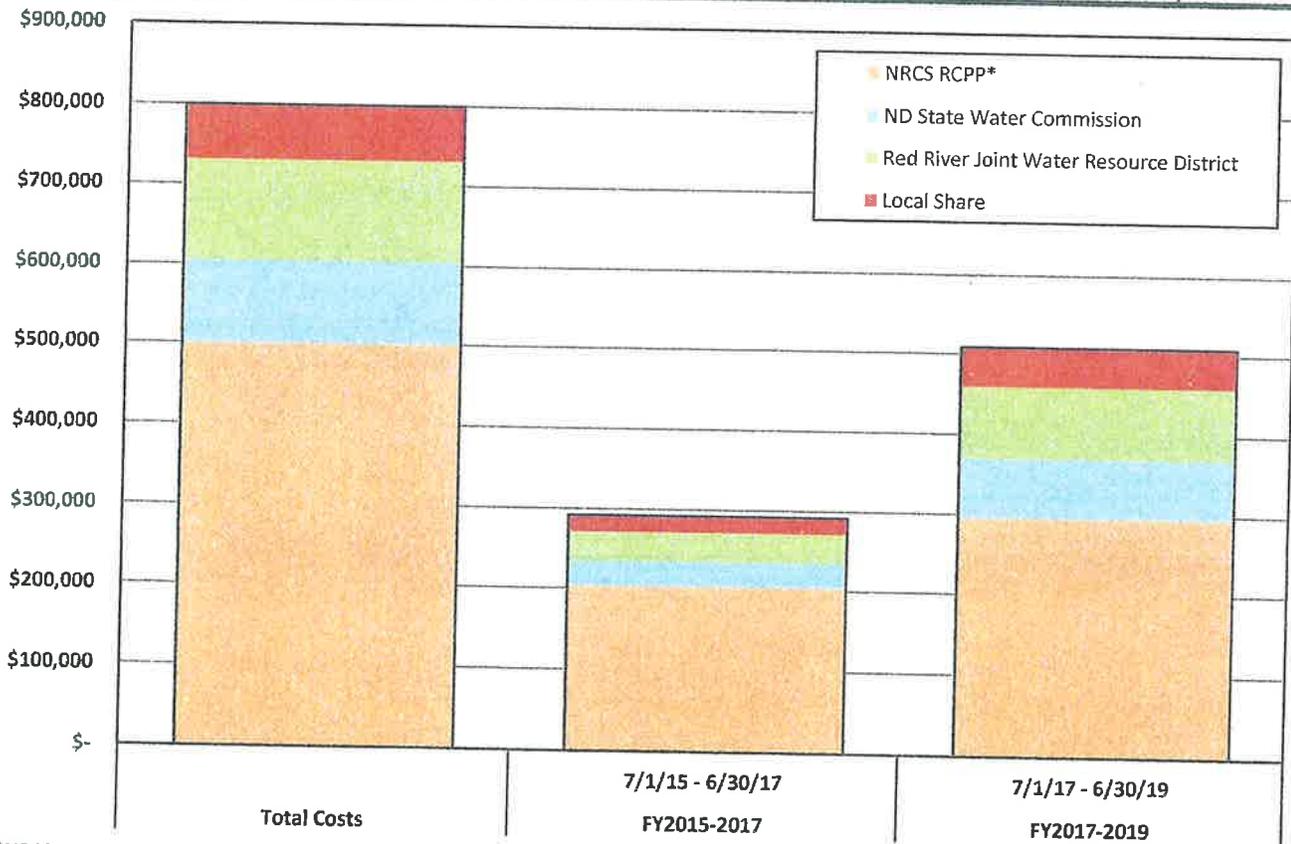
Signature  Date  
1/5/16

MAIL TO:  
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

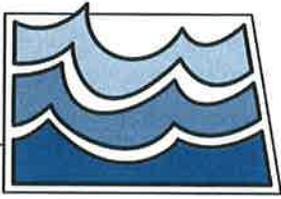
**TONGUE RIVER WATERSHED  
NRCS SMALL WATERSHED PLAN  
PEMBINA RIVER WATER RESOURCE DISTRICT  
BUDGET SUMMARY**



Task	Estimated Start Date	Estimated Completion	Total Costs	FY2015-2017 7/1/15 - 6/30/17	FY2017-2019 7/1/17 - 6/30/19
Problems and Opportunities	9/1/2016	1/1/2017	\$ 16,621.00	\$ 16,621.00	\$ -
Scope of Environmental Assessment	9/1/2016	1/1/2017	\$ 9,892.00	\$ 9,892.00	\$ -
Inventory Resources	9/1/2016	6/1/2017	\$ 119,265.00	\$ 119,265.00	\$ -
Forecast Future With-Project Conditions	1/1/2017	3/1/2017	\$ 51,176.00	\$ 51,176.00	\$ -
Formulate Alternatives	12/1/2016	3/1/2018	\$ 479,037.00	\$ 94,312.46	\$ 384,724.54
Evaluate Effects of Alternatives	8/15/2018	9/1/2018	\$ 85,572.00	\$ -	\$ 85,572.00
Determine Preferred Alternative	9/1/2018	11/1/2018	\$ 9,904.00	\$ -	\$ 9,904.00
Prepare Watershed Plan-EA	11/1/2018	6/1/2019	\$ 27,684.00	\$ -	\$ 27,684.00
<b>Total</b>			<b>\$ 799,151.00</b>	<b>\$ 291,266.46</b>	<b>\$ 507,884.54</b>
<i>NRCS RCPP*</i>		62.6%	\$ 500,000.00	\$ 203,886.52	\$ 296,113.48
<i>ND State Water Commission</i>		13.1%	\$ 104,702.85	\$ 30,582.98	\$ 74,119.87
<i>Red River Joint Water Resource District</i>		15.8%	\$ 126,391.30	\$ 36,918.02	\$ 89,473.27
<b>Local Share</b>		<b>8.5%</b>	<b>\$ 68,056.85</b>	<b>\$ 19,878.94</b>	<b>\$ 48,177.92</b>



\*NRCS RCPP annualized financing based on 70% compensation until \$500,000 is expired.



# 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>

*Agenda E (18)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TS* Todd Sando, PE, Chief Engineer - Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Richland County Water Resource District  
North Branch Antelope Creek NRCS Small Watershed Planning Program  
**DATE:** March 9, 2016

In their correspondence dated February 5, 2016, the Richland County Water Resource District requested state cost-share participation for their North Branch Antelope Creek NRCS Small Watershed Planning Program.

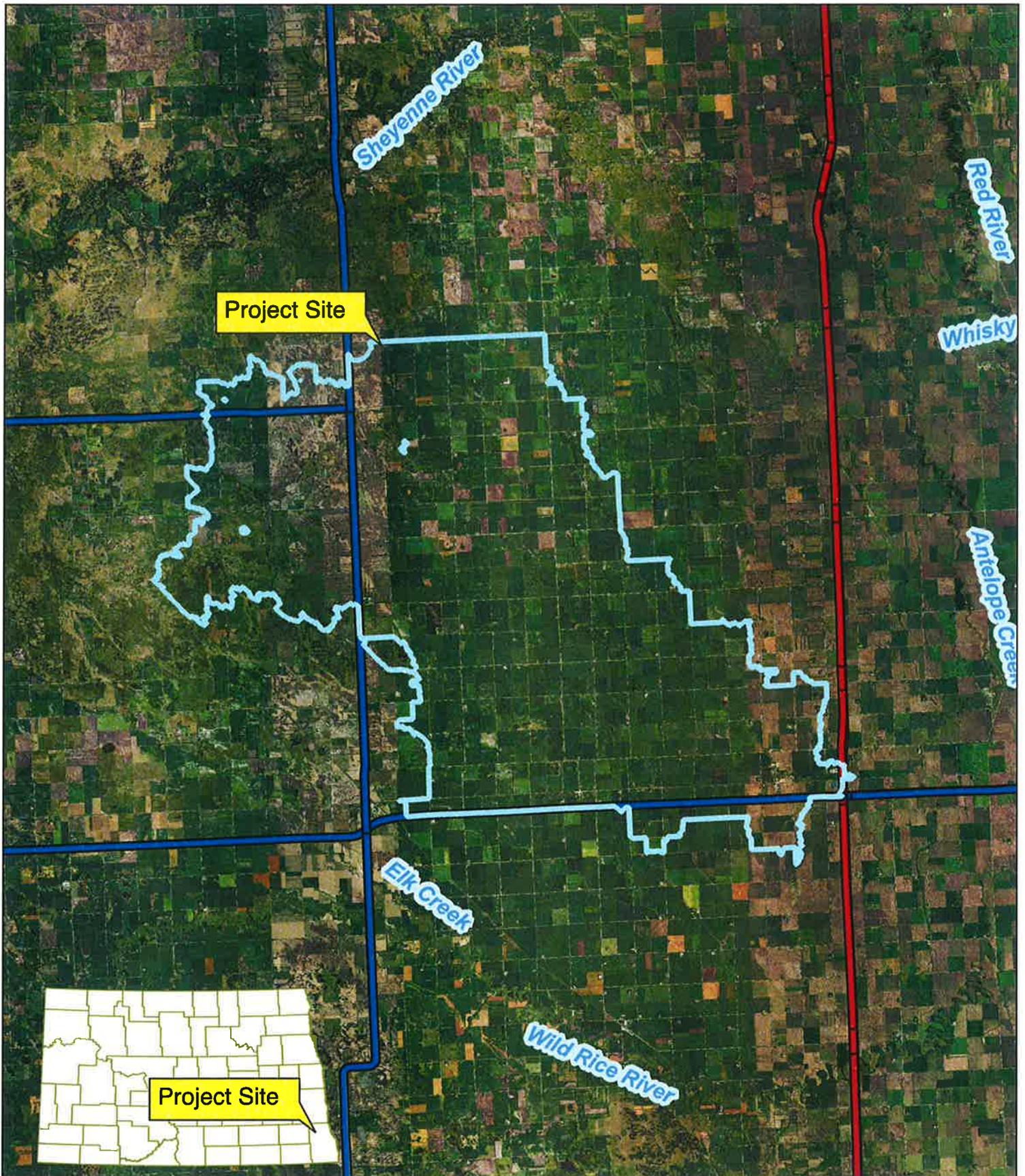
The proposed study is one of the 20 accepted proposals by the Red River Retention Authority for Natural Resource Conservation Service (NRCS) Regional Conservation Partnership Program (RCPP) funding. A cooperative agreement between the NRCS and Richland County Water Resource Board provides \$500,000 of federal funding to complete a Watershed Plan and Environmental Assessment or Environmental Impact Statement.

Flooding of small cities, rural farmsteads and agricultural land has been a problem along the North Branch of Antelope Creek located in Richland County. The study is intended to identify potential sites, complete partial designs, and permit retention of floodwaters in the watershed. Other issues, such as erosion, will also be addressed. The study is expected to be complete by September of 2018.

The estimated total cost of the North Branch Antelope Creek NRCS Small Watershed Planning Program is \$824,000, of which \$324,000 of local responsibility is eligible for cost share assistance as a study project at 35 percent, for an amount not to exceed \$113,400 in state funds.

**I recommend that the State Water Commission approve this request by the Richland County Water Resource District for state cost participation in the District's North Branch Antelope Creek NRCS Small Watershed Planning Program, at an amount not to exceed \$113,400. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and availability of funds.**

TS:bn/1301



**North Branch Antelope Creek NRCS Watershed Study  
Richland County Water Resource District**

All or Parts of T135N, R52W; T134N, R52W; T133N, R52W;  
T134N, R51W; T133N, R51W; T132N, R51W; T134N, R50W;  
T133N, R50W; T132N, R50W; T133N, R49W; T132N, R49W



Date: 2/9/2016  
Prepared by: DEC



February 3, 2016

Ms. Beth Nangare  
ND State Water Commission  
900 E Boulevard Avenue Dept. 770  
Bismarck, ND 58505-0850

RE: North Branch Antelope Creek NRCS  
Small Watershed Study  
SWC Cost Share Request  
Richland County, ND  
W13-3-39.27

Dear Ms. Nangare:

On behalf of the Richland County Water Resource District Board enclosed please find a cost share request form, project location map, NRCS Statement of Work, and an engineering cost breakdown for the referenced project. We are requesting that cost share be considered at the next SWC meeting. Please proceed with processing this request and let us know if you need additional information.

The proposed study is one of the 20 accepted proposals by the Red River Retention Authority for NRCS RCPP funding. Seven studies are proposed on the ND side of the Red River of which the SWC has agreed to cost share on several of them already. A cooperative agreement between the NRCS and the RCWRB is in process and is the basis for this cost share request. A signed copy of the final agreement can be provided if needed likely before the next meeting. A 35% cost share request is being made of the non-federal portion of the project for a total of \$113,400.

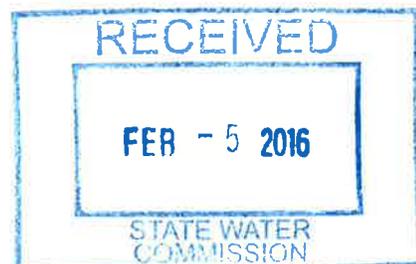
If you have any questions, please do not hesitate to contact me at any time. We look forward to hearing from you soon.

Sincerely,  
Interstate Engineering, Inc.

A handwritten signature in blue ink, appearing to read "Mike Bassingthwaite".

Mike Bassingthwaite, P.E.

MB/mb  
Attachments  
C: RCWRB



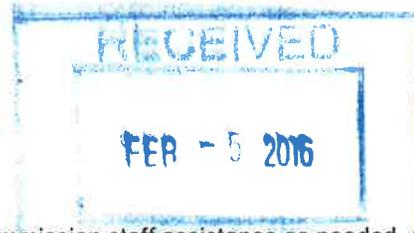
Professionals you need, people you trust.

P.O. Box 667 • 1999 4th Street N., Suite A • Wahpeton, ND 58074 • P: (701) 642-5521 • F: (701) 642-5215 • [www.interstateeng.com](http://www.interstateeng.com)

Offices in North Dakota • Montana • Minnesota • South Dakota



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

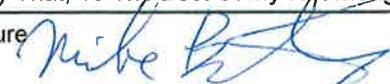


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name North Branch of Antelope Creek NRCS Small Watershed Study			
Sponsor(s) Richland County Water Resource District			
County Richland	City near Mooreton	Township/Range multiple	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Water management and flood protection - local and contributing to the overall retention goals in the Red River Basin			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input checked="" type="checkbox"/> Other			
If Project/Program			
<input checked="" type="checkbox"/> Flood Control	<input checked="" type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input checked="" type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved The primary stakeholders will be the small cities along Antelope Creek and the downstream areas of the Wild Rice River as well as the rural farmsteads and ag land that deal with flooding issues from this watershed. The jurisdiction is Richland County			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Flooding of small cities, rural farmsteads, and ag land are the primary problem. Secondary issues such as erosion will also be addressed by the NRCS process.  The study is intended to identify, complete a partial design, and permit retention of floodwaters in the watershed. At the conclusion of the study it is anticipated that floodwater retention sites will be close to ready for construction.  Numerous previous studies have identified the Antelope Creek in Richland County as one of the larger contributors to downstream flooding in the upper Red River basin due to the timing of the runoff. This watershed has significant potential to control runoff to provide the most effective detention of floodwaters in the upper region. These projects could provide the most benefit to local and downstream interests in controlling flood damage of any conceived in the county.			
Has Feasibility Study Been Completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable			
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable			

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone				
Project has been approved by the Red River Retention Authority for participation in the NRCS RCPP program. The cooperative agreement between the NRCS and the RCWRD is expected to be approved by March 1, 2016 so that the study can get underway.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? no				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 500,000.00	\$ 330,500.00	\$ 169,500.00	\$
State Water Commission	\$ 113,400.00	\$ 75,000.00	\$ 38,400.00	\$
Other State	\$	\$	\$	\$
Local	\$ 210,600.00	\$ 139,200.00	\$ 71,400.00	\$
<b>Total</b>	<b>\$ 824,000.00</b>	<b>\$ 544,700.00</b>	<b>\$ 279,300.00</b>	<b>\$ 0.00</b>
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied				
none				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status				
The study is expected to be complete by September of 2018. 30% plans for construction of retention sites is expected to be part of this completion to allow the District to proceed toward implementation.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Richland County Water Resource District			Date 2/2/2016	
Address 418 2nd ave n		City Wahpeton	State ND	ZIP Code 58075
Telephone Number 701-642-7773      (701-642-5521 Interstate Engineering - Mike Bassingthwaite)				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature  Interstate Engineering			Date 2/2/2016	

**MAIL TO:**

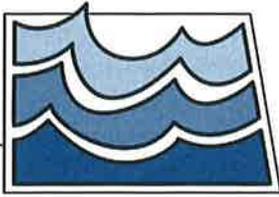
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

NORTH BRANCH ANTELOPE CREEK NRCS SMALL WATERSHED STUDY  
 RICHLAND COUNTY WATER RESOURCE DISTRICT  
 PREPARED BY: INTERSTATE ENGINEERING, INC.

<b>PHASE I - DEVELOP NRCS WATERSHED PLAN</b>	<b>Planning Steps and Actions</b>	<b>TOTAL COST</b>
	<b>PROBLEMS AND OPPORTUNITIES</b>	
	A. Publicize Planning B. Identify Need for Proposed Action C. Gather and Review Existing Data D. Assemble Interdisciplinary Team E. Develop Public Participation Plan F. Conduct Public Meeting to Obtain Local Input G. Document Sponsor Objectives H. Write Purpose and Need Statement I. Conduct Interdisciplinary Team Meeting - Formally Adopt Purpose and Need J. Write Draft <i>Purpose and Need for Action</i> Section (NWPM 501.34/NWPH 604.34) K. Summarize and Incorporate into the Reviewable Record	
	<i>Subtotal Cost</i>	<b>\$15,412</b>
	<b>SCOPE OF ENVIRONMENTAL ASSESSMENT</b>	
A. Conduct Interdisciplinary Team Meeting - Discuss NWPM Concerns from 501.24 B. Conduct Interdisciplinary Team Meeting - Field Review C. Develop Scoping Materials Consistent with NWPM 501.24/NWPH 601.24 D. Write Draft <i>Scope of Environmental Assessment Section</i> (NWPM 501.35/NWPH 601.35) E. Solicit Comment and Incorporate as it Relates to the Proposed Action F. Summarize and Incorporate into the Reviewable Record		
<i>Subtotal Cost</i>	<b>\$12,208</b>	
<b>INVENTORY RESOURCES</b>		
A. Compile Inventory Data B. Field Review/Reconnaissance of Watershed C. Conduct Watershed Transects D. Hydrology and Hydraulics E. Water Quality ( <i>RUSLE GIS Application</i> ) F. Economic and Social Effects G. Air Quality H. Recreation I. Support Maps Formatted for Suitable Use in Final Plan Appendix J. Conduct Interdisciplinary Team Meeting K. Write Draft Applicable Portions <i>Affected Environmental</i> Section (NWPM 501.36/NWPH 601.36) L. Summarize and Incorporate into the Reviewable Record		
<i>Subtotal Cost</i>	<b>\$94,140</b>	
<b>FORECAST WITHOUT-PROJECT CONDITIONS</b>		
A. Project Applicable Inventory Data B. Hydrology and Hydraulics C. Water Quality - Literary Review / Consultation with NDDOH D. Economic and Social Effects E. Air Quality F. Recreation G. Conduct Interdisciplinary Team Meeting H. Summarize and Incorporate into the Reviewable Record		
<i>Subtotal Cost</i>	<b>\$14,816</b>	

NORTH BRANCH ANTELOPE CREEK NRCS SMALL WATERSHED STUDY  
 RICHLAND COUNTY WATER RESOURCE DISTRICT  
 PREPARED BY: INTERSTATE ENGINEERING, INC.

<b>Planning Steps and Actions</b>		<b>TOTAL COST</b>
<b>PHASE I - DEVELOP NRCS WATERSHED PLAN</b>	<b>FORMULATE ALTERNATIVES</b>	
	A. Develop Range of Strategies	
	B. Evaluate Strategy Potential	
	C. Develop Initially Selected Alternatives from Preferred Strategies	
	D. Proposed Conditions Hydrology and Hydraulics	
	E. Develop Impacted Lands and Resources Summary	
	F. Conduct Interdisciplinary Team Meeting	
	G. Preliminary Off-Site Geologic Investigation ( <i>Assume 6 Locations</i> )	
	H. Public Outreach ( <i>Assume 8 Meetings</i> )	
	I. Revisions to Alternatives ( <i>Geometrics</i> )	
J. Identify Potential Cultural Resources Issues ( <i>Assume 6 Locations</i> )		
K. Update Impacted Land and Resources Summary		
L. Conduct Interdisciplinary Team Meeting		
M. Determine Acceptable Alternatives for Further Analysis ( <i>Assume 3 Locations Selected</i> )		
N. Additional Field Survey as Needed to Aid in Design		
O. Sediment Estimate ( <i>Aided Using the RUSLE GIS Application</i> )		
P. Hydrologic and Hydraulic Dam Design ( <i>TR-60 Requirements</i> )		
Q. Update Hydrology and Hydraulics to Determine Benefit to the Problem Area		
R. Preliminary Structural Spillway Design		
S. Geologic Investigation ( <i>Assume Borings and Lab Work for 3 Locations</i> )		
T. Engineering Design and Cost Estimate (Approx. 30% Plans - Assume 3 Locations)		
U. Develop List of Further Considerations for Identified Alternatives		
V. Document Rationale for Formulating Alternatives		
W. Complete Draft Technical Documentation Suitable for Use as Appendices in the Final Plan		
X. Write Draft Applicable Portions <i>Alternatives</i> Section (NWPM 501.37/NWPH 601.37)		
Y. Summarize and Incorporate in the the Reviewable Record		
<i>Subtotal Cost</i>	\$493,660	
<b>EVALUATE EFFECTS OF ALTERNATIVES</b> ( <i>Assume 3 Alternatives</i> )		
A. Field Review to Address Further Considerations ( <i>Assume 3 Locations</i> )		
B. Culture Resource Review ( <i>If Needed, Assume 3 Locations</i> )		
C. Determine Unavoidable Adverse Impacts		
D. Develop Mitigation Strategy for Adverse Impacts		
E. Incorporate Mitigation Strategy into Cost Estimate		
F. Water Quality Effects ( <i>Use Previously Developed RUSLE GIS Application</i> )		
G. Water Quality Effects ( <i>Previously Quantified While Formulating Alternatives</i> )		
H. Fisheries Affects		
I. Wildlife Habitat Effects ( <i>Using NRCS Methodology</i> )		
J. Recreational Effects		
K. Air Quality Effects		
L. Economic and Social Effects		
M. Conduct Interdisciplinary Team Meeting		
N. Conduct Public Meeting to Obtain Local Input		
O. Write Draft Applicable Portions <i>Alternatives</i> Section (NWPM 501.37/NWPH 601.37)		
P. Write Draft Applicable Portions <i>Environmental Consequences</i> Section (NWPM 501.38/NWPH 601.38)		
Q. Summarize and Incorporate into the Reviewable Record		
<i>Subtotal Cost</i>	\$110,900	
<b>DETERMINE PREFERRED ALTERNATIVE</b>		
A. Conduct Interdisciplinary Team Meeting		
B. Meeting with Project Sponsors		
C. Identify the Preferred Alternatives		
D. Document Rationale for Selecting Preferred Alternatives		
E. Determine Level of NEPA Documentation Required ( <i>Assume EA Plan</i> )		
F. Write Draft Applicable Portions <i>The Preferred Alternative</i> Section (NWPM 501.40/NWPH 601.40)		
G. Summarize and Incorporate into the Reviewable Record		
<i>Subtotal Cost</i>	\$18,890	
<b>PREPARE WATERSHED PLAN-EA</b>		
A. Prepare Draft Plan for Review		
B. Conduct Interdisciplinary Team Meeting		
C. Address Interdisciplinary Team Comments		
D. Solicit and Address Public/Agency Comments		
E. Finalize Watershed Plan-EA		
<i>Subtotal Cost</i>	\$43,688	
<i>Total Cost</i>	\$803,714	
<i>Contingency &amp; Expenses</i>	\$20,286	
<b>Phase 1 Total Estimated Cost</b>	<b>\$824,000</b>	



# 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>

*Agenda E 19)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *T. Sando* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – North Cass Water Resource District  
Drain #23 Channel Improvements  
**DATE:** March 9, 2016

In their correspondence dated February 8, 2016, the North Cass Water Resource District requested cost share assistance for their Drain #23 Channel Improvement Project.

The project is the reconstruction of 1 mile of channel located approximately 1 mile south of Gardner, North Dakota. Improvements will address inadequate drainage within Section 12 along existing Cass County Drain #23 in Gardner Township and will improve the capacity of the existing drain and reduce damages to adjacent agricultural lands and roads.

The project will move the centerline away from the adjacent township road and flatten the channel side slopes to improve capacity and prevent sloughing. Additionally, erosion protection will be added upstream of the downstream crossing to prevent head cutting. The proposed channel bottom width is 10 feet. The side slopes on the field side are 4:1. The side slopes on the road side of the drain will vary between 4:1 and 5:1. A drain permit is pending.

The estimated total cost of the Cass County Drain #23 is \$365,000, of which \$290,270 is eligible for state cost-share assistance as a rural flood control project at 45 percent (\$130,622), and \$18,740 is eligible for design engineering at 35 percent (\$6,559), for an amount not to exceed \$137,181 in state funds.

**I recommend the State Water Commission approve this request by the North Cass Water Resource District for state cost participation in the Drain #23 Channel Improvements at an amount not to exceed \$137,181. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1179



**Cass County Drain No. 23 Channel Improvements  
North Cass Water Resource District**

N1/2 Section 12, T142N, R50W





February 8, 2016

North Cass  
Water Resource  
District

Wesley Ecker  
Chairman  
Grandin, North Dakota

Robert Thompson  
Manager  
Page, North Dakota

Ken Lougheed  
Manager  
Grandin, North Dakota

Beth Nangare  
Cost Share Administrator  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck ND 58505-0850

Dear Beth:

RE: Cass County Drain #23 Channel Improvements  
Section 12, Gardner Township, Cass County, North Dakota

The North Cass Water Resource District (WRD) has completed preliminary engineering for the Cass County Drain #23 Channel Improvements Project.

The project is the reconstruction of 1 mile of channel located approximately 1 mile south of Gardner, North Dakota. More specifically, the improvements will begin upstream of the existing culvert in the northeast corner of Section 12 and continue upstream to immediately downstream of the culverts at the northwest corner of Section 12 in Gardner Township.

The project will move the centerline away from the township road and flatten the channel side slopes to improve capacity and prevent sloughing. Additionally, erosion protection will be added upstream of the downstream crossing to prevent head cutting. The proposed channel bottom width is 10 feet. The side slopes on the field side are 4:1; side slopes on the road side of the drain will vary between 4:1 and 5:1.

The WRD respectfully requests State Water Commission cost-share for the final engineering design and construction phases of the project. Enclosed please find the cost-share request form, a location map, a preliminary set of plans and a preliminary cost estimate for the project.

If you have any questions, please feel free to contact us or our Project Engineer, Kurt Lysne, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

Carol Harbeke Lewis  
Secretary-Treasurer

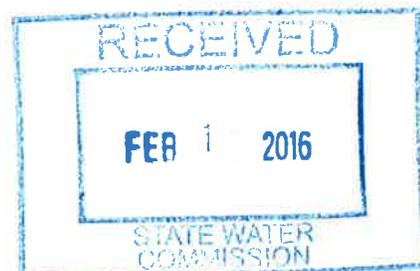
1201 Main Avenue West  
West Fargo, ND 58078-1301

701-298-2381  
FAX 701-298-2397  
[wrld@casscountynnd.gov](mailto:wrld@casscountynnd.gov)  
[www.casscountynnd.gov](http://www.casscountynnd.gov)

NORTH CASS WATER RESOURCE DISTRICT

Carol Harbeke Lewis  
Secretary-Treasurer

Enclosures





**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Cass County Drain No. 23 Channel Improvements			
Sponsor(s) North Cass Water Resource District			
County Cass	City near Gardner	Township/Range T-142N, R-50W	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study The project will address inadequate drainage in the existing legal drain through channel improvements.			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved North Cass WRD & Local Landowners			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Improvements will address inadequate drainage within Section 12 of existing Cass County Drain No. 23 in Gardner Township. Project will improve the capacity of the existing drain and reduce damages to adjacent agricultural lands and roads. The project will include adequate gradient and side slopes.			
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain An Application for Surface Drain has been submitted to the NDSWC				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone The proposed improvement project has been discussed at WRD meetings and with landowners.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No obstacles are expected at this time.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 137,180.50	\$ 137,180.50	\$	\$
Other State	\$ 5,771.50	\$ 5,771.50	\$	\$
Local	\$ 222,048.00	\$ 222,048.00	\$	\$
Total	\$ 365,000.00	\$ 365,000.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied State Water Commission - Preliminary Engineering Cost-Share				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Spring 2016 - Complete final design and award construction contract Summer/Fall 2016 - Substantial completion Fall 2016/Spring 2017 - Final completion and project closeout				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Carol Harbeke Lewis, Secretary/Treasurer			Date 2-8-16	
Address 1201 Main Ave W		City West Fargo	State ND	ZIP Code 58078
Telephone Number (701) 298-2381				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 2-8-16	

**MAIL TO:**

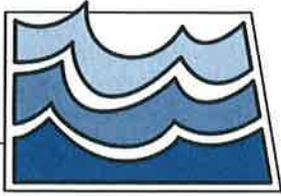
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

**Cass County Drain No. 23 Channel Improvements  
North Cass Water Resource District  
Cass County, North Dakota**

Engineer's Opinion of Probable Cost - Section 12

	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
						NDSWC - 45%	NDSWC - 35%	LOCAL
1.	Mobilization	LS	1	\$15,000.00	\$15,000.00	\$6,750.00	\$0.00	\$8,250.00
2.	Excavation - Channel	CY	32,000	\$2.00	\$64,000.00	\$28,800.00	\$0.00	\$35,200.00
3.	Spoil Bank Leveling	MILE	2	\$10,000.00	\$20,000.00	\$9,000.00	\$0.00	\$11,000.00
4.	Culvert - Remove (All Types & Sizes)	LF	316	\$7.00	\$2,212.00	\$995.40	\$0.00	\$1,216.60
5.	CSP - 24"	LF	160	\$40.00	\$6,400.00	\$2,880.00	\$0.00	\$3,520.00
6.	CSP - 30"	LF	122	\$45.00	\$5,490.00	\$2,470.50	\$0.00	\$3,019.50
7.	CSP - 36"	LF	34	\$50.00	\$1,700.00	\$765.00	\$0.00	\$935.00
8.	Flared End Section - 24" CSP	EA	3	\$250.00	\$750.00	\$337.50	\$0.00	\$412.50
9.	Flared End Section - 30" CSP	EA	2	\$395.00	\$790.00	\$355.50	\$0.00	\$434.50
10.	Flared End Section - 36" CSP	EA	1	\$575.00	\$575.00	\$258.75	\$0.00	\$316.25
11.	Adjustable Flap Gate - 24" Steel	EA	3	\$500.00	\$1,500.00	\$675.00	\$0.00	\$825.00
12.	Adjustable Flap Gate - 30" Steel	EA	2	\$700.00	\$1,400.00	\$630.00	\$0.00	\$770.00
13.	Adjustable Flap Gate - 36" Steel	EA	1	\$875.00	\$875.00	\$393.75	\$0.00	\$481.25
14.	Riprap - Class III	CY	200	\$75.00	\$15,000.00	\$6,750.00	\$0.00	\$8,250.00
15.	Riprap - Class IV	CY	195	\$75.00	\$14,625.00	\$6,581.25	\$0.00	\$8,043.75
16.	Riprap - Remove & Relay	CY	50	\$30.00	\$1,500.00	\$675.00	\$0.00	\$825.00
17.	Riprap Filter Blanket	SY	455	\$3.00	\$1,365.00	\$614.25	\$0.00	\$750.75
18.	Storm Water Management	LS	1	\$5,000.00	\$5,000.00	\$2,250.00	\$0.00	\$2,750.00
19.	Material Testing	INVOICE	Allowance	\$2,500.00	\$2,500.00	\$1,125.00	\$0.00	\$1,375.00
20.	Seeding	AC	15	\$1,000.00	\$15,000.00	\$6,750.00	\$0.00	\$8,250.00
Total Construction					\$175,682.00	\$79,056.90	\$0.00	\$96,625.10
Engineering - Preliminary					\$16,490.00	\$0.00	\$5,771.50	\$10,718.50
Engineering - Design					\$18,740.00	\$0.00	\$6,559.00	\$12,181.00
Engineering - Construction					\$17,205.00	\$7,742.25	\$0.00	\$9,462.75
Contingencies (10%)					\$17,383.00	\$7,822.35	\$0.00	\$9,560.65
Legal Fees					\$5,000.00	\$0.00	\$0.00	\$5,000.00
Administration Fees					\$5,000.00	\$0.00	\$0.00	\$5,000.00
Right-of-Way Land Acquisition					\$16,500.00	\$0.00	\$0.00	\$16,500.00
Right-of-Way Administration					\$3,000.00	\$0.00	\$0.00	\$3,000.00
Easements & Monuments					\$3,000.00	\$0.00	\$0.00	\$3,000.00
Utility Company Relocations					\$80,000.00	\$36,000.00	\$0.00	\$44,000.00
Utility Relocation Administration					\$2,000.00	\$0.00	\$0.00	\$2,000.00
Fiscal					\$5,000.00	\$0.00	\$0.00	\$5,000.00
<b>TOTAL PROJECT COST</b>					<b>\$365,000.00</b>	<b>\$130,621.50</b>	<b>\$12,330.50</b>	<b>\$222,048.00</b>

Cost-share previously approved for Preliminary Engineering



# 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>

*Agenda E 20)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *Todd* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – McLean County Water Resource District  
City of Underwood Floodwater Outlet Project Cost Overrun  
**DATE:** March 9, 2016

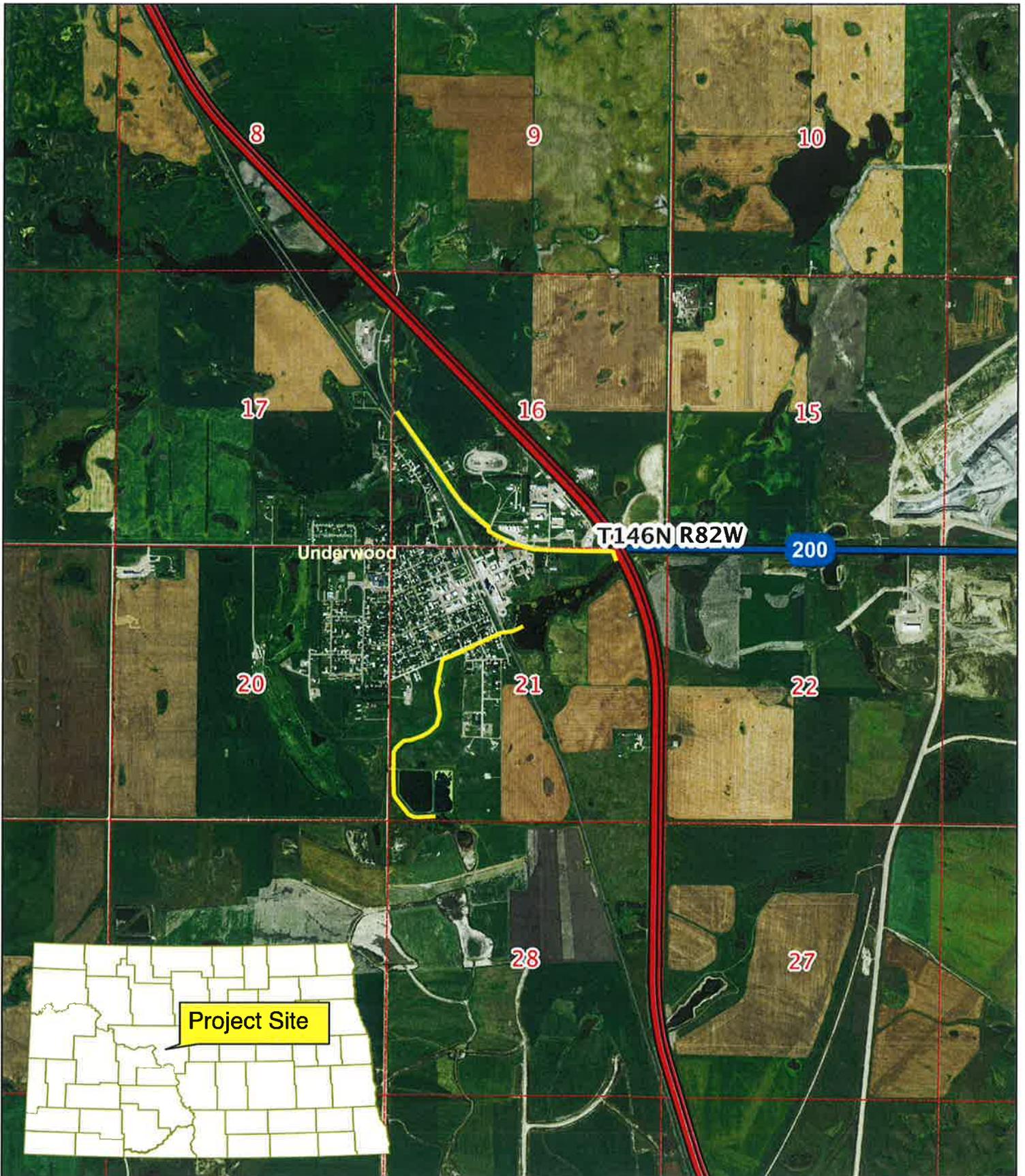
In their correspondence dated February 8, 2016, the McLean Water Resource District requested additional cost share assistance for their City of Underwood Floodwater Outlet Project.

On December 13, 2013, the Commission approved \$1,100,727 for the City of Underwood Floodwater Outlet Project. The lowest bid for Phase I was higher than anticipated due to higher unit prices, which amounted to \$3,009,205, equaling \$1,073,105 over the original estimate. Additional changes were required, including additional excavated material for the ditching portion of the project, mostly due to realignment of the channel due to unforeseen utility conflicts. The project also required sanitary sewer and water main relocation along Borchardt Avenue to allow for the large diameter storm sewer pipe to be installed to connect the north side of the project to the south ditch, which cost more than was estimated. The cost for these utility relocation additions was \$305,059. These items were not identified when the project was originally submitted to the SWC, however these items were necessary to complete the project.

The estimated total cost of the City of Underwood Floodwater Outlet Project is \$2,684,223, of which \$2,602,225 is eligible for state cost-share assistance as a rural flood control project at 57 percent (\$1,483,268). 57 percent (95 percent of 60) was calculated in the December 2013 SWC memo since it was determined that 5 percent of the watershed area of the two sloughs was within city limits. With \$1,100,727 already approved for this project, an additional \$382,541 is recommended.

**I recommend the State Water Commission approve this request by the McLean County Water Resource District for state cost participation in the City of Underwood Outlet Project Cost Overrun at an amount not to exceed \$382,541. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1554



## Floodwater Outlet Project City of Underwood

Parts of Sections 16, 17, 20 & 21, T146N, R82W



Date: 2/19/2016  
Prepared by: DEC

February 11, 2016

Todd Sando, P.E., State Engineer  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 700  
Bismarck, ND 58505-0850

Subject: City of Underwood Floodwater Outlet Project  
SWC Project No. 2046  
Cost Overrun Request  
Underwood, ND

Dear Mr. Sando:

Pursuant to the Agreement for Cost Participation between the State Water Commission and the McLean County Water Resource Board, entered into in April of 2014, we are submitting a request for cost overrun for eligible Construction costs for the above referenced project. Per the current agreement for SWC Project No. 2046, the project is eligible for 57% of eligible construction costs to a maximum of \$1,100,727.00. The total potential eligible project costs to date is currently at \$2,463,780.15, with approximately \$138,444.50 yet to be completed. This would make the total potential eligible project costs \$2,602,224.65.

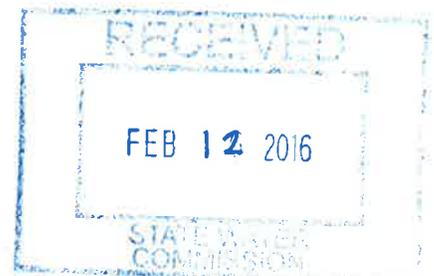
The McLean County Water Resource Board would like to request additional SWC contribution for the cost overrun for the City of Underwood Floodwater Outlet project in the amount of \$382,541.00. This would potentially increase the total grant to \$1,483,268.00, with a local share of \$1,200,954.65. See attached Memorandum and Contractor's Application for Payment No. 10 with additional projected cost breakdowns for further information.

If additional information is needed please feel free to contact me.

Sincerely,



Lynn Oberg  
Chairman, McLean County Water Resource Board



## MEMORANDUM

To: Governor Jack Dalrymple  
Members of the State Water Commission  
From: McLean County Water Resource Board  
Subject: City of Underwood Floodwater Outlet Project  
Date: February 11, 2016

### Project Summary

The McLean County Water Resource Board is requesting a cost overrun for the State Water Commission Project No. 2046, City of Underwood Floodwater Outlet Project. The project included multiple phases of which only Phase I qualified for the SWC Cost-Share Program. Phase I of the project included, intercepting drainage from north and east of the City and conveying it by improved ditching and new storm sewer pipe along the northern R.O.W. of Old 83 and discharging to Pryor's Slough which is located in the south-easterly part of the City. Part of the work required construction of a 60" diameter culvert pipe crossing the Canadian Pacific Railroad near the southeastern part of the City to outlet the flows received by Pryor's Slough. A portion of the work was constructed by bore and jack method under the railway. From this point water is conveyed from the slough by a gravity pipe to an improved ditch on the south side of the City. Flows from that point drain southerly along the ditch to the outlet point at the south end of the City.

Our Engineer has provided a detailed Contractor's Application for Payment No. 10. The project is 95% complete to date, with the following items yet to be completed: 6.15 Acres Seeding & Mulch, 1,000 Square Yards Seeding – Hydromulch, 1 Lump Sum Erosion Control Mat, .5 Lump Sum Traffic Control, and .5 Lump Sum Storm Water Management.

### Project Background

The City of Underwood is surrounded by several ponds and sloughs that collect excess water during periods of high runoff, from which most comes from areas outside the City. Several flood events have occurred in recent years, with the most significant in 2011, nearly flooding several residences. Significant impacts from the event included a nearly inundated sanitary lift station, temporary pumping into the city storm sewer and streets, infiltration and inflow issues in the sanitary sewer, and water in residents basements.

A Flood Mitigation Study, with the preferred option, was approved by the City of Underwood and Local Sponsor, McLean County Water Resource Board, in 2013. The project goal was to improve the conveyance of storm water runoff from the north of the City to the south side of the City and to improve internal City drainage by construction new piping systems near the conveyance system and in other areas that were deemed the easiest, impactful, and most feasible. (Internal drainage within the City is Phase II of the project which is not eligible for SWC funding.)

### Justification for Cost Overrun Request

The project when originally approved by the SWC had eligible cost of \$1,936,100.00 for total construction, of which the SWC Cost-Share, at 57 percent of eligible cost, would cover a maximum of \$1,100,727.00 and the local share, through agreement, would be paid by the City of Underwood

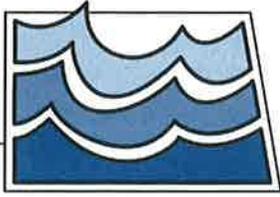
in the amount of \$835,373.00. Additional work was added to the project for City of Underwood specific items. The project was split into 2 phases, for which Phase I covered the original SWC submittal; Phase II covered the specific City of Underwood items, which would be paid in full by the City of Underwood.

The lowest bid for Phase I was higher than anticipated due to higher unit prices, which amounted to \$3,009,205.00 equaling \$1,073,105.00 over the original estimate. Further additional changes were required, including additional excavated material for the ditching portion of the project, of which most was due to realignment of the channel due to unforeseen utility conflicts. The project also required sanitary sewer and water main relocation along Borchardt Ave to allow for the large diameter storm sewer pipe to be installed to connect the north side of the project to the south ditch, which cost more than what was estimated. The cost for these utility relocation additions was \$305,059.00. These items were not identified when the project was originally submitted to the SWC, however these items were necessary to complete the project. There were a few very minor adjustments to contract items as well.

As a note in cost saving measures, the total construction cost of the project was initially reduced from the \$3,009,205.00, via change order, by realigning the RCP pipe and therefore reducing costs. The RCP pipe quantity was also reduced by increasing the amount of open channel flow (increasing the ditching along the Old Highway 83 segment of the project), as well as utilizing polypropylene pipe, in the areas outside of roadways. This allowed the construction cost of Phase I to be reduced by \$818,966.90, which lowered the construction cost of Phase I to \$2,190,238.10.

Currently, the project is 95 percent complete with only erosion control and turf establishment items left to be completed, as stated previously. Phase I is the only phase of the project that was eligible for SWC Cost-Share Program, of which the total project cost for Phase I is currently at \$2,545,778.15 with an anticipated final completion cost of \$2,684,222.65. The City of Underwood decided to replace some cast iron water main along Borchardt Ave, of which the cost for that work (\$81,998.00) would not be eligible for Cost-Share. Therefore \$81,998.00 was excluded making the total potential construction costs eligible for SWC Cost-Share Program equal to \$2,602,224.65, which at 57 percent would be \$1,483,268.05. The total potential amount eligible is \$382,541.05 above the \$1,100,727.00 cap, per the agreement between the Mclean Water Resource Board and the SWC.

With the total project cost for Phase I higher than anticipated, the City of Underwood and the McLean Water Resource Board would respectfully request the SWC consider the request for additional SWC contribution for the cost overrun of the City of Underwood Floodwater Outlet Project in the amount of \$382,541.00.



# 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>

Agenda E 21)

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** <sup>Sando</sup> Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Maple River Water Resource District  
Cass County Drain #15 Channel Improvements  
**DATE:** March 9, 2016

In their correspondence dated February 8, 2016, the Maple River Water Resource District requested cost share assistance for their Cass County Drain #15 Channel Improvement Project.

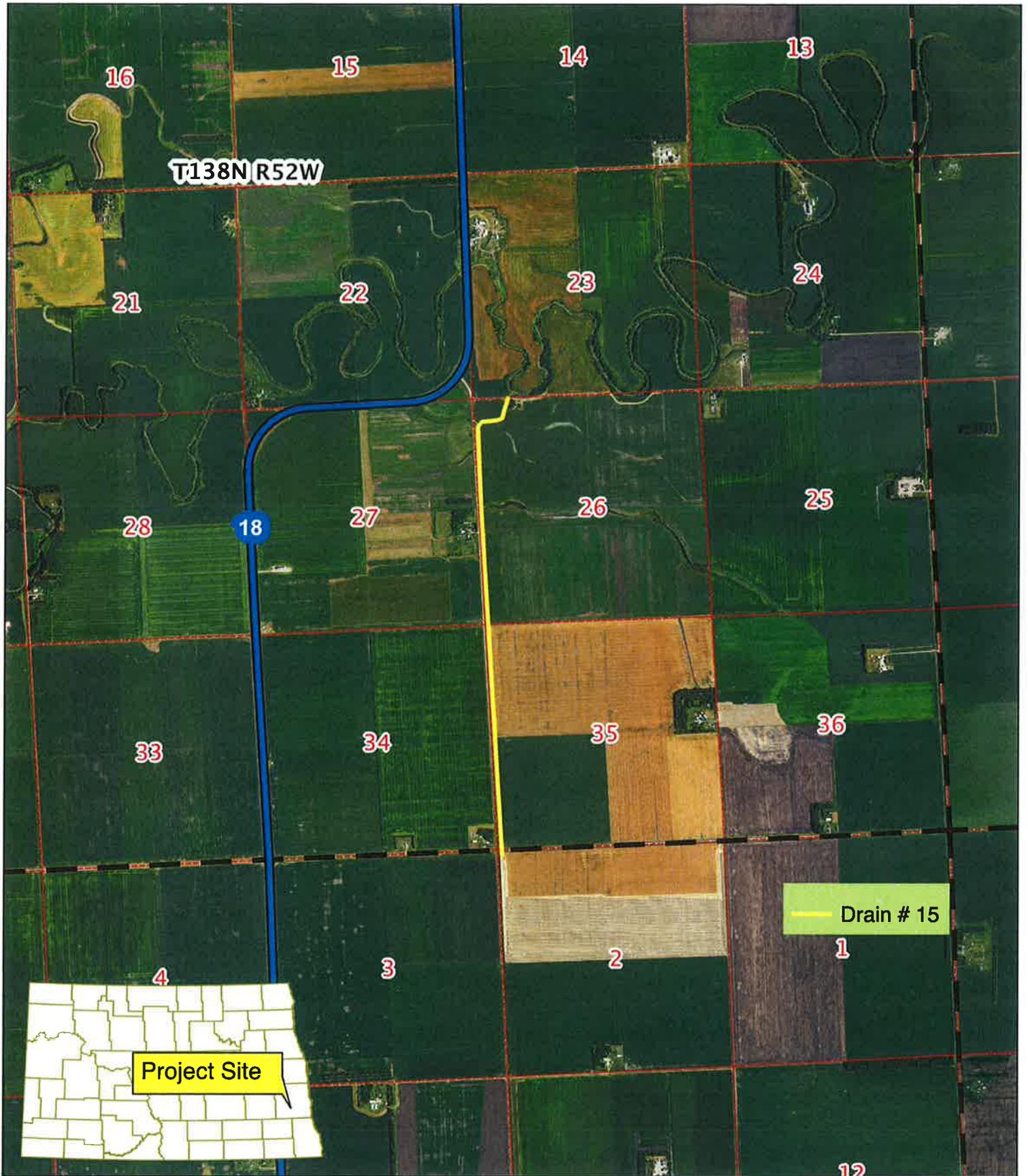
The project is located north of the City of Leonard within Maple River Township of Cass County, North Dakota. The drainage channel begins at Cass County Highway 16 in the SW ¼ of Section 35 and continues downstream (north) to the outlet in the SW ¼ of Section 23.

Cass County Drain #15 has experienced significant channel bottom erosion and side slope failure. The drain will be reconstructed with a stable 10-foot channel bottom profile, 4:1 side slopes, and a flatter channel profile. In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain #15 with two box culverts. The District expects to begin project design and right of way acquisition in spring 2016 and to complete construction by the end of 2016.

The estimated total cost of the Cass County Drain #15 is \$732,500, of which \$611,386 is eligible for state cost-share assistance as a rural flood control project at 45 percent (\$275,124), and \$61,250 is eligible for preliminary and design engineering at 35 percent (\$21,438), for an amount not to exceed \$296,562 in state funds.

**I recommend the State Water Commission approve this request by the Maple River Water Resource District for state cost participation in the Cass County Drain #15 Channel Improvements at an amount not to exceed \$296,562. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/1071



**Cass County Drain # 15 Improvements  
Maple River Water Resource District**

W 1/2 Sections 26 and 35, T138N, R52W





**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Cass County Drain 15 Improvements			
Sponsor(s) Maple River Water Resource District			
County Cass	City	Township/Range T-138/R-52	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Maple River WRD and landowners			
Description Of Problem Or Need And How Project Addresses That Problem Or Need			
Cass County Drain No. 15 is an existing legal drain with NRCS plans dated 1980. That design included an 8 foot channel bottom with 4H:1V side slopes and a 0.11% slope. Since then, the channel has had issues with sloughing. The drain will be reconstructed with a wider bottom and flatter channel slopes.			
In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain 15 with two box culverts.			
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Water Resource District meetings				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$	\$ 300,200.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$	\$ 432,300.00	\$	\$
<b>Total</b>	<b>\$ 0.00</b>	<b>\$ 732,500.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied None				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Preliminary Design - Spring 2016 Final Design & Construction - Summer 2016				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Maple River Water Resource District, Carol Harbeke Lewis, Secretary-Treasurer			Date 2-8-16	
Address 1201 Main Ave W		City West Fargo	State ND	ZIP Code 58078
Telephone Number (701) 298-2381				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature <i>Carol Harbeke Lewis, Sec.-Treas.</i>			Date 2-8-16	

**MAIL TO:**

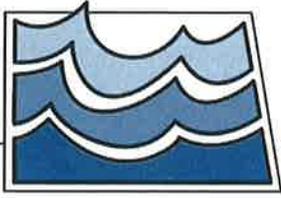
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

Project # 19082  
 Created: February 8, 2016  
 Revised:

**Cass County Drain No. 15 Channel Improvements  
 Maple River Water Resource District  
 Cass County, North Dakota**

Engineer's Opinion of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES			
					NDSWC - 45%	County	LOCAL	
<b>Section Line Crossings</b>								
1. Culvert - Remove (All Types & Sizes)	LF	51	\$15.00	\$765.00	\$344.25	\$168.30	\$252.45	
2. Bridge - Remove Existing	EA	1	\$8,000.00	\$8,000.00	\$3,600.00	\$1,760.00	\$2,640.00	
3. Box Culvert Crossing	LS	1	\$240,000.00	\$240,000.00	\$108,000.00	\$52,800.00	\$79,200.00	
4. CSPA - 142" x 91"	LF	55	\$400.00	\$22,000.00	\$9,900.00	\$4,840.00	\$7,260.00	
5. Select Backfill	CY	90	\$30.00	\$2,700.00	\$1,215.00	\$594.00	\$891.00	
6. Riprap - Class IV	CY	390	\$75.00	\$29,250.00	\$13,162.50	\$6,435.00	\$9,652.50	
7. Riprap Filter Blanket	SY	580	\$3.00	\$1,740.00	\$783.00	\$382.80	\$574.20	
8. Gravel - Class 13	CY	25	\$25.00	\$625.00	\$281.25	\$137.50	\$206.25	
9. Geotextile Fabric	SY	150	\$3.00	\$450.00	\$202.50	\$99.00	\$148.50	
<b>Remaining Construction</b>								
10. Mobilization	LS	1	\$10,000.00	\$10,000.00	\$4,500.00	\$0.00	\$5,500.00	
11. Culvert - Remove (All Types & Sizes)	LF	250	\$10.00	\$2,500.00	\$1,125.00	\$0.00	\$1,375.00	
12. Excavation - Channel	CY	40,000	\$1.75	\$70,000.00	\$31,500.00	\$0.00	\$38,500.00	
13. Spoil Bank Leveling	MILE	2.1	\$5,000.00	\$10,500.00	\$4,725.00	\$0.00	\$5,775.00	
14. CSPA - 142" x 91"	LF	55	\$400.00	\$22,000.00	\$9,900.00	\$1.00	\$12,099.00	
15. Select Backfill	CY	90	\$30.00	\$2,700.00	\$1,215.00	\$2.00	\$1,483.00	
16. Gravel - Class 13	CY	25	\$25.00	\$625.00	\$281.25	\$3.00	\$340.75	
17. Geotextile Fabric	SY	140	\$3.00	\$420.00	\$189.00	\$4.00	\$227.00	
18. CSP - 18"	LF	400	\$30.00	\$12,000.00	\$5,400.00	\$0.00	\$6,600.00	
19. CSP - 24"	LF	200	\$35.00	\$7,000.00	\$3,150.00	\$0.00	\$3,850.00	
20. CSP - 30"	LF	100	\$55.00	\$5,500.00	\$2,475.00	\$0.00	\$3,025.00	
21. CSP - 36"	LF	100	\$65.00	\$6,500.00	\$2,925.00	\$0.00	\$3,575.00	
22. Flared End Section - 18" CSP	EA	4	\$150.00	\$600.00	\$270.00	\$0.00	\$330.00	
23. Flared End Section - 24" CSP	EA	2	\$200.00	\$400.00	\$180.00	\$0.00	\$220.00	
24. Flared End Section - 30" CSP	EA	1	\$350.00	\$350.00	\$157.50	\$0.00	\$192.50	
25. Flared End Section - 36" CSP	EA	1	\$450.00	\$450.00	\$202.50	\$0.00	\$247.50	
26. Adjustable Flap Gate - 18" Steel	EA	4	\$450.00	\$1,800.00	\$810.00	\$0.00	\$990.00	
27. Adjustable Flap Gate - 24" Steel	EA	2	\$550.00	\$1,100.00	\$495.00	\$0.00	\$605.00	
28. Adjustable Flap Gate - 30" Steel	EA	1	\$700.00	\$700.00	\$315.00	\$0.00	\$385.00	
29. Adjustable Flap Gate - 36" Steel	EA	1	\$950.00	\$950.00	\$427.50	\$0.00	\$522.50	
30. Riprap - Class III	CY	335	\$75.00	\$25,125.00	\$11,306.25	\$0.00	\$13,818.75	
31. Riprap Filter Blanket	SY	670	\$3.00	\$2,010.00	\$904.50	\$0.00	\$1,105.50	
32. Rock Check - Temporary	EA	1	\$1,000.00	\$1,000.00	\$450.00	\$0.00	\$550.00	
33. Storm Water Management	LS	1	\$2,500.00	\$2,500.00	\$1,125.00	\$0.00	\$1,375.00	
34. Material Testing	Invoice	ALLOWANCE	\$2,000.00	\$2,000.00	\$0.00	\$0.00	\$2,000.00	
35. Seeding	AC	26	\$750.00	\$19,500.00	\$8,775.00	\$0.00	\$10,725.00	
<b>Total Construction</b>					<b>\$513,760.00</b>	<b>\$230,292.00</b>	<b>\$67,226.60</b>	<b>\$216,241.40</b>
Preliminary Engineering					\$15,000.00	\$5,250.00	\$1,962.78	\$7,787.22
Engineering - Design & Construction					\$92,500.00	\$41,625.00	\$12,103.82	\$38,771.18
Contingencies (20%)					\$103,240.00	\$23,029.20	\$13,509.16	\$66,701.62
Legal Fees					\$500.00	\$0.00	\$0.00	\$500.00
Administrative Fees					\$2,500.00	\$0.00	\$0.00	\$2,500.00
Right-of-Way - Land Acquisition					\$2,500.00	\$0.00	\$0.00	\$2,500.00
Right-of-Way Administration					\$0.00	\$0.00	\$0.00	\$0.00
Easements & Monuments					\$2,500.00	\$0.00	\$0.00	\$2,500.00
Utility Company Relocations					\$0.00	\$0.00	\$0.00	\$0.00
Utility Relocation Administration					\$0.00	\$0.00	\$0.00	\$0.00
Fiscal					\$0.00	\$0.00	\$0.00	\$0.00
<b>TOTAL PROJECT COST</b>					<b>\$732,500.00</b>	<b>\$300,196.20</b>	<b>\$94,802.38</b>	<b>\$337,501.42</b>



# 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>

*Agenda E 22)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Maple River Water Resource District  
Cass County Drain #37 Channel Improvements  
**DATE:** March 9, 2016

In their correspondence dated February 8, 2016, the Maple River Water Resource District requested cost share assistance for their Cass County Drain #37 Channel Improvement Project.

The project is located west of the City of Davenport within Addison Township of Cass County, North Dakota. The drainage channel begins at Cass County Highway 16 in the SE ¼ of Section 33 and continues downstream (north) to the section line at the NE ¼ of Section 33.

Cass County Drain #37 has experienced significant channel bottom erosion and side slope failure. The drain will be reconstructed with a stable 10-foot channel bottom profile, 4:1 side slopes, and a flatter channel profile. In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain #37 with two box culverts. The District expects to begin project design and right of way acquisition in spring 2016 and to complete construction by the end of 2016.

The estimated total cost of the Cass County Drain #37 is \$571,000, of which \$472,362 is eligible for state cost-share assistance as a rural flood control project at 45 percent (\$212,563), and \$50,750 is eligible for preliminary and design engineering at 35 percent (\$17,763), for an amount not to exceed \$230,326 in state funds.

**I recommend the State Water Commission approve this request by the Maple River Water Resource District for state cost participation in the Cass County Drain #37 Channel Improvements at an amount not to exceed \$230,326. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

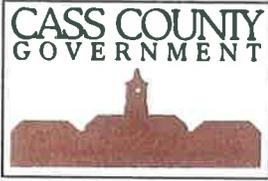
TS:bn/1088



### Cass County Drain # 37 Improvements Maple River Water Resource District

E 1/2 Section 33, T138N, R51W





February 8, 2016

Maple River  
Water Resource  
District

Rodger Olson  
Chairman  
Leonard, North Dakota

Jurgen Suhr  
Manager  
Page, North Dakota

Gerald Melvin  
Manager  
Buffalo, North Dakota

Beth Nangare  
Cost Share Administrator  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck ND 58505-0850

Dear Beth:

RE: Cass County Drain #37 Channel Improvements  
Maple River Township, Cass County, North Dakota

The Drain #37 Channel Improvements Project is the reconstruction of approximately 1 mile of an existing legal assessment drain located west of the City of Davenport within Addison Township of Cass County, North Dakota. More specifically, the drainage channel begins at Cass County Highway 16 in the SE 1/4 of Section 33 and continues downstream (north) to the section line at the NE 1/4 of Section 33.

The Maple River Water Resource District (District) has decided to improve existing legal assessment Drain #37, which has experienced significant channel bottom erosion and sliding on the side slopes. The drain will be reconstructed with a stable 10' channel bottom profile, 4:1 side slopes, and a flatter channel profile. In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain #37 with two box culverts. The District expects to begin project design and right of way acquisition in spring 2016 and to complete construction by the end of 2016.

With this letter and submission of supporting data, the District respectfully requests cost-share from the State Water Commission at 45% of the eligible costs for an amount of \$232,900 under the Rural Flood Control section of the Cost-Share Policy.

Enclosed is the cost-share request form, an *Engineer's Opinion of Probable Cost* and a set of preliminary construction plans. If you have any questions, please feel free to contact us or our project engineer, Mike Opat, Moore Engineering, Inc., at 701-282-4692.

Carol Harbeke Lewis  
Secretary-Treasurer

1201 Main Avenue West  
West Fargo, ND 58078-1301

701-298-2381  
FAX 701-298-2397  
[wrд@casscountynd.gov](mailto:wrд@casscountynd.gov)  
[www.casscountynd.gov](http://www.casscountynd.gov)

Sincerely,

MAPLE RIVER WATER RESOURCE DISTRICT

Carol Harbeke Lewis  
Secretary-Treasurer

Enclosures





**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Cass County Drain 37 Improvements		
Sponsor(s) Maple River Water Resource District		
County Cass	City	Township/Range T-138/R-51
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control
<input type="checkbox"/> Dam Safety/EAP	<input type="checkbox"/> Property Acquisition	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Maple River WRD and landowners		
Description Of Problem Or Need And How Project Addresses That Problem Or Need		
Cass County Drain No. 37 is an existing legal drain with NRCS plans dated 1972. Since then, the channel has had issues with erosion and sloughing. The drain will be reconstructed with flatter channel slopes.		
In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain 37 with two box culverts.		
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Water Resource District meetings				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$	\$ 232,900.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$	\$ 338,100.00	\$	\$
Total	\$ 0.00	\$ 571,000.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied None				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Preliminary Design - Spring 2016 Final Design & Construction - Summer 2016				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Maple River Water Resource District, Carol Harbeke Lewis, Secretary-Treasurer			Date 2-8-16	
Address 1201 Main Ave W		City West Fargo	State ND	ZIP Code 58078
Telephone Number (701) 298-2381				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature <i>Carol Harbeke Lewis, Sec.-Treas.</i>			Date 2-8-16	

**MAIL TO:**

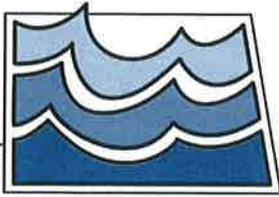
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

Project # 19093  
 Created: February 8, 2016  
 Revised:

**Cass County Drain No. 37 Channel Improvements  
 Maple River Water Resource District  
 Cass County, North Dakota**

Engineer's Opinion of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
					NDSWC - 45%	County	LOCAL
<b>Section Line Crossings</b>							
1. Culvert - Remove (All Types & Sizes)	LF	55	\$15.00	\$825.00	\$371.25	\$181.50	\$272.25
2. Bridge - Remove Existing	EA	1	\$8,000.00	\$8,000.00	\$3,600.00	\$1,760.00	\$2,640.00
3. Box Culvert Crossing	LS	1	\$250,000.00	\$250,000.00	\$112,500.00	\$55,000.00	\$82,500.00
4. SPPA - 180" x 106"	LF	55	\$480.00	\$26,400.00	\$11,880.00	\$5,808.00	\$8,712.00
5. Select Backfill	CY	130	\$30.00	\$3,900.00	\$1,755.00	\$858.00	\$1,287.00
6. Riprap - Class IV	CY	225	\$75.00	\$16,875.00	\$7,593.75	\$3,712.50	\$5,568.75
7. Riprap Filler Blanket	SY	340	\$3.00	\$1,020.00	\$459.00	\$224.40	\$336.60
8. Gravel - Class 13	CY	25	\$25.00	\$625.00	\$281.25	\$137.50	\$206.25
9. Geotextile Fabric	SY	140	\$3.00	\$420.00	\$189.00	\$92.40	\$138.60
<b>Remaining Construction</b>							
10. Mobilization	LS	1	\$10,000.00	\$10,000.00	\$4,500.00	\$0.00	\$5,500.00
11. Culvert - Remove (All Types & Sizes)	LF	200	\$10.00	\$2,000.00	\$900.00	\$0.00	\$1,100.00
12. Excavation - Channel	CY	12,000	\$1.75	\$21,000.00	\$9,450.00	\$0.00	\$11,550.00
13. Spoil Bank Leveling	MILE	1.0	\$5,000.00	\$5,000.00	\$2,250.00	\$0.00	\$2,750.00
14. CSP - 18"	LF	200	\$30.00	\$6,000.00	\$2,700.00	\$0.00	\$3,300.00
15. CSP - 24"	LF	100	\$35.00	\$3,500.00	\$1,575.00	\$0.00	\$1,925.00
16. CSP - 30"	LF	50	\$55.00	\$2,750.00	\$1,237.50	\$0.00	\$1,512.50
17. CSP - 36"	LF	50	\$65.00	\$3,250.00	\$1,462.50	\$0.00	\$1,787.50
18. Flared End Section - 18" CSP	EA	4	\$150.00	\$600.00	\$270.00	\$0.00	\$330.00
19. Flared End Section - 24" CSP	EA	2	\$200.00	\$400.00	\$180.00	\$0.00	\$220.00
20. Flared End Section - 30" CSP	EA	1	\$350.00	\$350.00	\$157.50	\$0.00	\$192.50
21. Flared End Section - 36" CSP	EA	1	\$450.00	\$450.00	\$202.50	\$0.00	\$247.50
22. Adjustable Flap Gate - 18" Steel	EA	4	\$450.00	\$1,800.00	\$810.00	\$0.00	\$990.00
23. Adjustable Flap Gate - 24" Steel	EA	2	\$550.00	\$1,100.00	\$495.00	\$0.00	\$605.00
24. Adjustable Flap Gate - 30" Steel	EA	1	\$700.00	\$700.00	\$315.00	\$0.00	\$385.00
25. Adjustable Flap Gate - 36" Steel	EA	1	\$950.00	\$950.00	\$427.50	\$0.00	\$522.50
26. Riprap - Class III	CY	170	\$75.00	\$12,750.00	\$5,737.50	\$0.00	\$7,012.50
27. Riprap Filler Blanket	SY	335	\$3.00	\$1,005.00	\$452.25	\$0.00	\$552.75
28. Rock Check - Temporary	EA	1	\$1,000.00	\$1,000.00	\$450.00	\$0.00	\$550.00
29. Storm Water Management	LS	1	\$2,500.00	\$2,500.00	\$1,125.00	\$0.00	\$1,375.00
30. Material Testing	Invoice	ALLOWANCE	\$2,000.00	\$2,000.00	\$0.00	\$0.00	\$2,000.00
31. Seeding	AC	13	\$750.00	\$9,750.00	\$4,387.50	\$0.00	\$5,362.50
<b>Total Construction</b>				<b>\$396,920.00</b>	<b>\$177,714.00</b>	<b>\$67,774.30</b>	<b>\$151,431.70</b>
Preliminary Engineering				\$15,000.00	\$5,250.00	\$2,561.26	\$7,188.74
Engineering - Design & Construction				\$71,500.00	\$32,175.00	\$12,208.66	\$27,116.34
Contingencies (20%)				\$79,580.00	\$17,771.40	\$13,588.33	\$48,220.27
Legal Fees				\$500.00	\$0.00	\$0.00	\$500.00
Administrative Fees				\$2,500.00	\$0.00	\$0.00	\$2,500.00
Right-of-Way - Land Acquisition				\$2,500.00	\$0.00	\$0.00	\$2,500.00
Right-of-Way Administration				\$0.00	\$0.00	\$0.00	\$0.00
Easements & Monuments				\$2,500.00	\$0.00	\$0.00	\$2,500.00
Utility Company Relocations				\$0.00	\$0.00	\$0.00	\$0.00
Utility Relocation Administration				\$0.00	\$0.00	\$0.00	\$0.00
Fiscal				\$0.00	\$0.00	\$0.00	\$0.00
<b>TOTAL PROJECT COST</b>				<b>\$571,000.00</b>	<b>\$232,910.40</b>	<b>\$96,132.55</b>	<b>\$241,957.05</b>



# 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>

*Agenda E 23)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *Sando* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Maple River Water Resource District  
Cass County Drain #39 Channel Improvements  
**DATE:** March 9, 2016

In their correspondence dated February 8, 2016, the Maple River Water Resource District requested cost share assistance for their Cass County Drain #39 Channel Improvement Project.

The project is located west of the City of Davenport within Maple River Township of Cass County, North Dakota. The drainage channel begins at Cass County Highway 16 in the SE ¼ of Section 36 and continues downstream (north) to the section line at the NE ¼ of Section 36.

Cass County Drain #39 has experienced significant channel bottom erosion and slope failure on the side slopes. The drain will be reconstructed with a stable 12-foot channel bottom profile, 4:1 side slopes on the field side, 3:1 side slopes on the road side, and a flatter channel profile. In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain #39 with two box culverts. The District expects to begin project design and right of way acquisition in spring 2016 and to complete construction by the end of 2016.

The estimated total cost of the Cass County Drain #37 is \$550,500, of which \$454,546 is eligible for state cost-share assistance as a rural flood control project at 45 percent (\$204,546), and \$49,500 is eligible for design engineering at 35 percent (\$17,325), for an amount not to exceed \$221,871 in state funds.

**I recommend the State Water Commission approve this request by the Maple River Water Resource District for state cost participation in the Cass County Drain #37 Channel Improvements at an amount not to exceed \$221,871. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

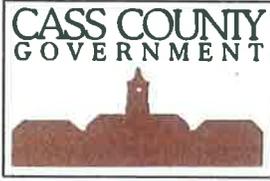
TS:bn/1089



### Cass County Drain # 39 Improvements Maple River Water Resource District

E 1/2 Section 36, T138N, R52W





February 8, 2016

Maple River  
Water Resource  
District

Rodger Olson  
Chairman  
Leonard, North Dakota

Jurgen Suhr  
Manager  
Page, North Dakota

Gerald Melvin  
Manager  
Buffalo, North Dakota

Beth Nangare  
Cost Share Administrator  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck ND 58505-0850

Dear Beth:

RE: Cass County Drain #39 Channel Improvements  
Maple River Township, Cass County, North Dakota

The Drain #39 Channel Improvements project is the reconstruction of approximately 1 mile of an existing legal assessment drain located west of the City of Davenport within Maple River Township of Cass County, North Dakota. More specifically, the drainage channel begins at Cass County Highway 16 in the SE 1/4 of Section 36 and continues downstream (north) to the NE 1/4 of Section 36.

The Maple River Water Resource District (District) has decided to improve existing legal assessment Drain #39, which has experienced significant channel bottom erosion and sliding on the side slopes. The drain will be reconstructed with a stable 12' channel bottom profile, 4:1 side slopes, and a flatter channel profile. In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain #39 with a box culvert. The District expects to begin project design and right of way acquisition in spring 2016 and to complete construction by the end of 2016.

With this letter and submission of supporting data, the District respectfully requests cost-share from the State Water Commission at 45% of the eligible costs, for an amount of \$224,300 under the Rural Flood Control section of the Cost-Share Policy.

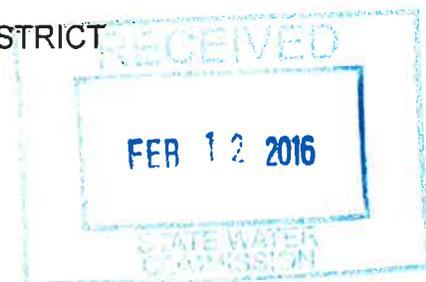
Enclosed is the cost-share request form, an *Engineer's Opinion of Probable Cost* and a set of preliminary construction plans. If you have any questions, please feel free to contact us or our project engineer, Mike Opat, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

MAPLE RIVER WATER RESOURCE DISTRICT

Carol Harbeke Lewis  
Secretary-Treasurer

Enclosures



Carol Harbeke Lewis  
Secretary-Treasurer  
  
1201 Main Avenue West  
West Fargo, ND 58078-1301

701-298-2381  
FAX 701-298-2397  
[wrд@casscountynd.gov](mailto:wrд@casscountynd.gov)  
[www.casscountynd.gov](http://www.casscountynd.gov)



**COST-SHARE REQUEST FORM**  
**NORTH DAKOTA STATE WATER COMMISSION**  
**DEVELOPMENT DIVISION**  
 SFN 60439 (10/2015)



This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Cass County Drain 39 Improvements		
Sponsor(s) Maple River Water Resource District		
County Cass	City	Township/Range T-138/R-52
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)		
Specific Needs Addressed By The Project, Program, Or Study		
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other		
If Project/Program		
<input type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization <input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing <input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control <input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Maple River WRD and landowners		
Description Of Problem Or Need And How Project Addresses That Problem Or Need		
Cass County Drain No. 39 is an existing legal drain with NRCS plans dated 1980. That design included an 8 foot channel bottom with 4H:1V side slopes on the field side and 3H:1V side slopes on the road side. Since then, the channel has had issues with sloughing. The drain will be reconstructed with a wider bottom and flatter side slopes.		
In conjunction with this, the Cass County Highway Department is planning to improve Cass County Highway 16 from State Highway 18 to Davenport. This will include replacing the bridge crossing at Drain 39 with a box culvert.		
Has Feasibility Study Been Completed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable		
Has Engineering Design Been Completed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		
Have Land Or Easements Been Acquired? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable		

Have You Applied For Any State Permits?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain				
Have You Been Approved For Any State Permits?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain				
Have You Applied For Any Local Permits?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain				
Have You Been Approved For Any Local Permits?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Applicable
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Water Resource District meetings				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No.				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$	\$ 224,300.00	\$	\$
Other State	\$	\$	\$	\$
Local	\$	\$ 326,200.00	\$	\$
Total	\$ 0.00	\$ 550,500.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied None				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Preliminary Design - Spring 2016 Final Design & Construction - Summer 2016				
Have Assessment Districts Been Formed?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Submitted By Maple River Water Resource District, Carol Harbeke Lewis, Secretary-Treasurer			Date 2-8-16	
Address 1201 Main Ave W		City West Fargo	State ND	ZIP Code 58078
Telephone Number (701) 298-2381				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature <i>Carol Harbeke Lewis, Sec.-Treas.</i>			Date 2-8-16	

**MAIL TO:**

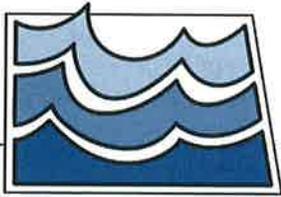
ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

Project # 19094  
 Created: February 8, 2016  
 Revised:

**Cass County Drain No. 39 Channel Improvements  
 Maple River Water Resource District  
 Cass County, North Dakota**

*Engineer's Opinion of Probable Cost*

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
					NDSWC - 45%	County	LOCAL
<b>Section Line Crossings</b>							
1. Bridge - Remove Existing	EA	1	\$8,000.00	\$8,000.00	\$3,600.00	\$1,760.00	\$2,640.00
2. Box Culvert Crossing	LS	1	\$240,000.00	\$240,000.00	\$108,000.00	\$52,800.00	\$79,200.00
<b>Remaining Construction</b>							
3. Mobilization	LS	1	\$10,000.00	\$10,000.00	\$4,500.00	\$0.00	\$5,500.00
4. Culvert - Remove (All Types & Sizes)	LF	350	\$10.00	\$3,500.00	\$1,575.00	\$0.00	\$1,925.00
5. Excavation - Channel	CY	10,000	\$1.75	\$17,500.00	\$7,875.00	\$0.00	\$9,625.00
6. Spoil Bank Leveling	MILE	1.0	\$5,000.00	\$5,000.00	\$2,250.00	\$0.00	\$2,750.00
7. CSPA - 202" x 114"	LF	48	\$500.00	\$24,000.00	\$10,800.00	\$1.00	\$13,199.00
8. Select Backfill	CY	120	\$30.00	\$3,600.00	\$1,620.00	\$2.00	\$1,978.00
9. Riprap - Class IV	CY	240	\$75.00	\$18,000.00	\$8,100.00	\$3.00	\$9,897.00
10. Riprap Filter Blanket	SY	360	\$3.00	\$1,080.00	\$486.00	\$4.00	\$590.00
11. Gravel - Class 13	CY	25	\$25.00	\$625.00	\$281.25	\$3.00	\$340.75
12. Geotextile Fabric	SY	150	\$3.00	\$450.00	\$202.50	\$4.00	\$243.50
13. CSP - 18"	LF	200	\$30.00	\$6,000.00	\$2,700.00	\$0.00	\$3,300.00
14. CSP - 24"	LF	100	\$35.00	\$3,500.00	\$1,575.00	\$0.00	\$1,925.00
15. CSP - 30"	LF	50	\$55.00	\$2,750.00	\$1,237.50	\$0.00	\$1,512.50
16. CSP - 36"	LF	50	\$65.00	\$3,250.00	\$1,462.50	\$0.00	\$1,787.50
17. Flared End Section - 18" CSP	EA	4	\$150.00	\$600.00	\$270.00	\$0.00	\$330.00
18. Flared End Section - 24" CSP	EA	2	\$200.00	\$400.00	\$180.00	\$0.00	\$220.00
19. Flared End Section - 30" CSP	EA	1	\$350.00	\$350.00	\$157.50	\$0.00	\$192.50
20. Flared End Section - 36" CSP	EA	1	\$450.00	\$450.00	\$202.50	\$0.00	\$247.50
21. Adjustable Flap Gate - 18" Steel	EA	4	\$450.00	\$1,800.00	\$810.00	\$0.00	\$990.00
22. Adjustable Flap Gate - 24" Steel	EA	2	\$550.00	\$1,100.00	\$495.00	\$0.00	\$605.00
23. Adjustable Flap Gate - 30" Steel	EA	1	\$700.00	\$700.00	\$315.00	\$0.00	\$385.00
24. Adjustable Flap Gate - 36" Steel	EA	1	\$950.00	\$950.00	\$427.50	\$0.00	\$522.50
25. Riprap - Class III	CY	170	\$75.00	\$12,750.00	\$5,737.50	\$0.00	\$7,012.50
26. Riprap Filter Blanket	SY	335	\$3.00	\$1,005.00	\$452.25	\$0.00	\$552.75
27. Rock Check - Temporary	EA	1	\$1,000.00	\$1,000.00	\$450.00	\$0.00	\$550.00
28. Storm Water Management	LS	1	\$2,500.00	\$2,500.00	\$1,125.00	\$0.00	\$1,375.00
29. Material Testing	Invoice	ALLOWANCE	\$2,000.00	\$2,000.00	\$0.00	\$0.00	\$2,000.00
30. Seeding	AC	12	\$750.00	\$9,000.00	\$4,050.00	\$0.00	\$4,950.00
<b>Total Construction</b>				<b>\$381,860.00</b>	<b>\$170,937.00</b>	<b>\$54,577.00</b>	<b>\$156,346.00</b>
Preliminary Engineering				\$15,000.00	\$5,250.00	\$2,143.86	\$7,606.14
Engineering - Design & Construction				\$69,000.00	\$31,050.00	\$9,861.76	\$28,088.24
Contingencies (20%)				\$76,640.00	\$17,093.70	\$10,953.70	\$48,592.60
Legal Fees				\$500.00	\$0.00	\$0.00	\$500.00
Administrative Fees				\$2,500.00	\$0.00	\$0.00	\$2,500.00
Right-of-Way - Land Acquisition				\$2,500.00	\$0.00	\$0.00	\$2,500.00
Right-of-Way Administration				\$0.00	\$0.00	\$0.00	\$0.00
Easements & Monuments				\$2,500.00	\$0.00	\$0.00	\$2,500.00
Utility Company Relocations				\$0.00	\$0.00	\$0.00	\$0.00
Utility Relocation Administration				\$0.00	\$0.00	\$0.00	\$0.00
Fiscal				\$0.00	\$0.00	\$0.00	\$0.00
<b>TOTAL PROJECT COST</b>				<b>\$550,500.00</b>	<b>\$224,330.70</b>	<b>\$77,536.33</b>	<b>\$248,632.97</b>



# 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>

*Agenda East*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, PE, Chief Engineer/Secretary  
**SUBJECT:** NDSWC Cost-Share Request – Southeast Cass Water Resource District  
Sheyenne-Maple Flood Control District #1 Mitigation Improvements  
**DATE:** March 9, 2016

In their correspondence dated February 8, 2016, the Southeast Cass Water Resource District requested cost share assistance for their Sheyenne-Maple Flood Control District #1 Mitigation Improvements.

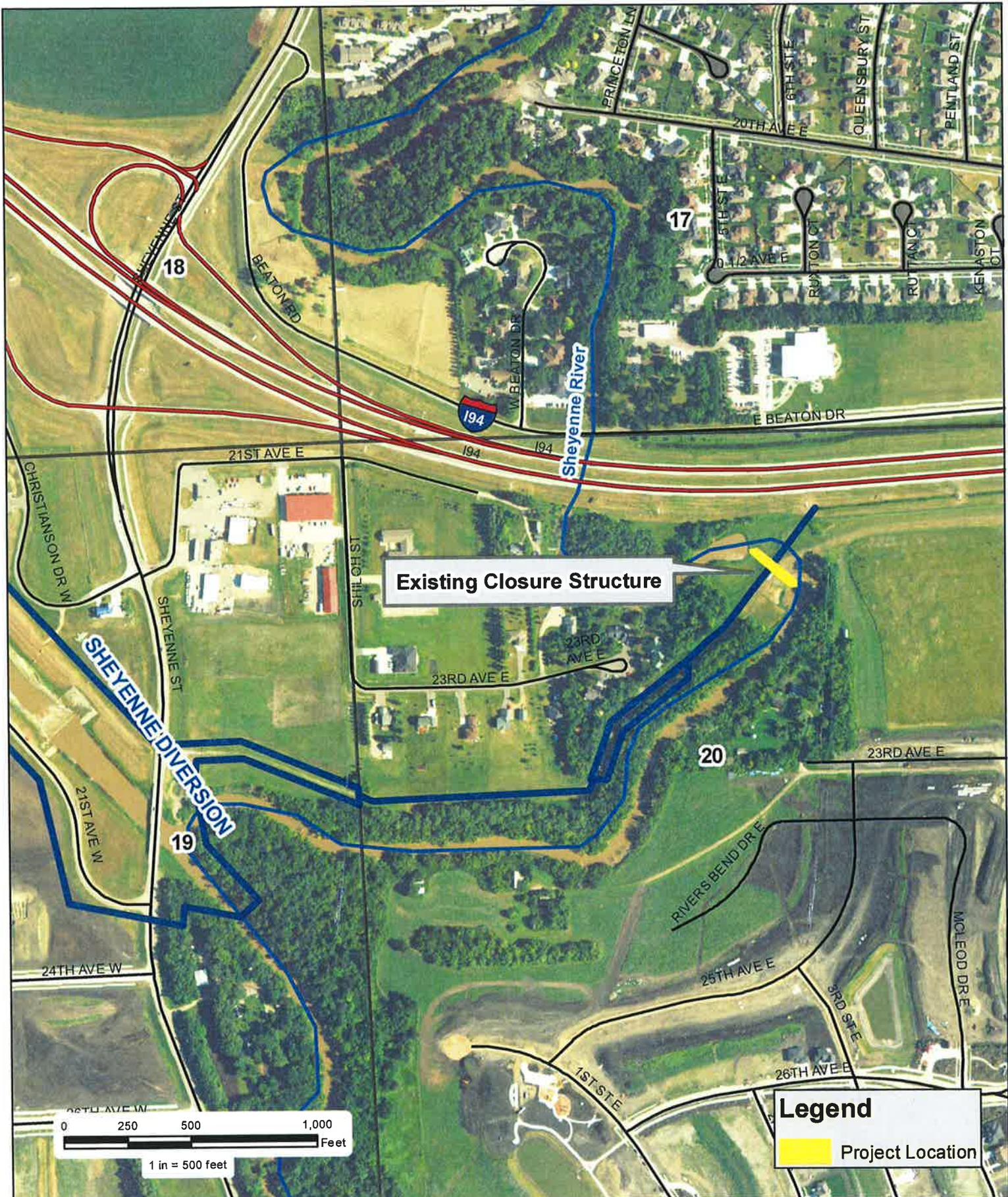
The project is located in West Fargo, in Cass County, North Dakota. In recent years, high flows in the Sheyenne River have resulted in the West Fargo Diversion being operated for long periods during the summer. During these periods, the river channel between the closure gates becomes stagnant, which develops significant algae growth resulting in water quality concerns for habitat and visual/odor impacts to residents.

The project will bypass the existing diversion closure structure through a pipe system running parallel to the structure. From the upstream end of the project, 36 feet of 24 inch PVC pipe will be tied into the existing upstream east wing wall of the closure structure. The pipe will connect to a manhole structure at its downstream end, where the flow will then be directed through 69 feet of 24 inch Reinforced Concrete Pressure Pipe (RCPP). The downstream end of the 69 feet of 24 inch RCPP will connect to a structure that will contain two plug valves. The flow will then exit via 117 feet of 25 inch RCPP, where it will then enter the most downstream manhole structure. The flow will then outlet through 34 feet of 24 inch PVC pipe that will be tied into the existing downstream east wing wall of the structure.

The estimated total cost of the Sheyenne-Maple Flood Control District #1 Improvements is \$365,000, of which \$316,094 is eligible for state cost-share assistance as a flood control project at 60 percent (\$189,656), and \$23,906 is eligible for design engineering at 35 percent (\$8,367), for an amount not to exceed \$198,023 in state funds.

**I recommend the State Water Commission approve this request by the Southeast Cass Water Resource District for state cost participation in the Sheyenne-Maple Flood Control District #1 Mitigation Improvements at an amount not to exceed \$198,023. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.**

TS:bn/2066



**SHEYENNE-MAPLE FLOOD CONTROL DISTRICT #1 (WEST FARGO DIVERSION)  
 WATER QUALITY MITIGATION IMPROVEMENT PROJECT  
 SOUTHEAST CASS WATER RESOURCE DISTRICT  
 WEST FARGO, NORTH DAKOTA**

Created By: BPK    Data Created: 1/20/15    Date Saved: 01/20/16    Date Plotted: 07/03/13    Date Exported: 02/05/16  
 Plotted By: benjamin.kugler    Parcel Date: NA    Aerial Image: 2014 County NAIP SIDS    Elevation Data: IWI Lidar  
 Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet    Vertical Datum: NAVD1988  
 T:\Project\17400\17421\17421\_PermitSubmittalMap.mxd



**moore**  
 engineering, inc.



February 8, 2016

**Southeast Cass  
Water Resource  
District**

Mark Brodshaug  
Chairman  
Fargo, North Dakota

Dan Jacobson  
Manager  
West Fargo, North Dakota

Lance Yohe  
Manager  
Fargo, North Dakota

Carol Harbeke Lewis  
Secretary-Treasurer

1201 Main Avenue West  
West Fargo, ND 58078-1301

701-298-2381  
FAX 701-298-2397  
[wrld@casscountynd.gov](mailto:wrld@casscountynd.gov)  
[www.casscountynd.gov](http://www.casscountynd.gov)

Beth Nangare  
Cost Share Administrator  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck ND 58505-0850



Dear Beth:

**RE: Sheyenne-Maple Flood Control District #1  
Water Quality Mitigation Improvements  
West Fargo, Cass County, North Dakota**

The Southeast Cass Water Resource District (WRD) has completed the preliminary stages of developing the Sheyenne-Maple Flood Control District #1 (West Fargo Diversion) Water Quality Mitigation Improvement Project.

The project is now in the process of moving forward to the permitting and construction stages. The purpose of the project is to improve water quality within the protected area of the West Fargo Diversion when the diversion is in operation.

In recent years, Sheyenne River flooding and base flow from the Devil's Lake Outlet has resulted in the West Fargo Diversion being operated for long periods during the summer. At times, water within the Sheyenne River channel between the closure gates becomes stagnant, which results in natural resource concerns and odor issues that impact residents of West Fargo.

The project will bypass the existing diversion closure structure through a pipe system running parallel to said structure. From the upstream end of the project, 36' of 24" PVC pipe will be tied into the existing upstream east wing wall of the closure structure. The pipe will connect to a manhole structure at its downstream end, where the flow will then be directed through 69' of 24" RCPP. The downstream end of the 69' of 24" RCPP will connect to a structure that will contain two plug valves. The flow will then exit via 117' of 25" RCPP, where it will then enter the most downstream manhole structure. The flow will then outlet through 34' of 24" PVC pipe that will be tied into the existing downstream east wing wall of the closure structure.

Beth Nangare  
Page 2  
February 8, 2016

The WRD respectfully requests State Water Commission cost-share for the final engineering design and construction phases of the project. Enclosed please find the cost-share request form, a project map, a preliminary set of plans and a preliminary cost estimate for the project.

If you have any questions, please feel free to contact us or our Project Engineer, Kurt Lysne, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

SOUTHEAST CASS WATER RESOURCE DISTRICT



Carol Harbeke Lewis  
Secretary-Treasurer

Enclosures



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

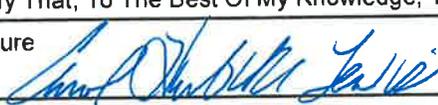


This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Sheyenne-Maple Flood Control District #1 Mitigation Improvements			
Sponsor(s) Southeast Cass Water Resource District			
County Cass	City West Fargo	Township/Range T139N R49W	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Water quality mitigation improvements to improve Sheyenne-Maple Flood Control District #1 (West Fargo Diversion)			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input type="checkbox"/> Other			
If Project/Program			
<input checked="" type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved Southeast Cass WRD, City of West Fargo, Residents of West Fargo			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Water in the Sheyenne River channel within the reach closed off by the Sheyenne diversion may stagnate while the Sheyenne diversion is in operation. During these periods, the river channel develops significant algae growth resulting in water quality concerns for habitat and visual/odor impacts to residents. The Project will allow water to bypass the upstream diversion closure gate into the river channel to be evacuated by the project's lift stations, which will improve water quality within the protected area of the Sheyenne diversion.			
Has Feasibility Study Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain Application to Construct or Modify a water resources facility, Application to Construct Within Navigable Waters (Both submitted in February)				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone Preliminary engineering is complete. Southeast Cass WRD is working with the U.S. Army Corps of Engineers to address comments.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? The Water Resource District is unaware of any obstacles at this time				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$	\$	\$	\$
State Water Commission	\$ 198,023.44	\$ 198,023.44	\$	\$
Other State	\$	\$	\$	\$
Local	\$ 166,976.56	\$ 166,976.56	\$	\$
Total	\$ 365,000.00	\$ 365,000.00	\$ 0.00	\$ 0.00
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied No other State of North Dakota Funding Sources				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status Winter 2016: Initial and Final Engineering Complete Spring through Fall 2016: Construction				
Have Assessment Districts Been Formed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable				
Submitted By Carol Harbeke-Lewis			Date February 5, 2016	
Address 1201 Main Avenue West		City West Fargo	State North Dakota	ZIP Code 58078
Telephone Number 701-298-2381				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature 			Date 2-8-16	

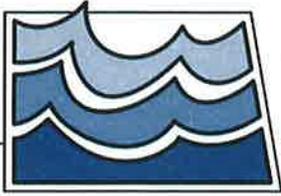
**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850

Southeast Cass Water Resource District  
 Sheyenne Diversion River Flow Improvements  
 January 15, 2016

Engineer's Opinion of Probable Cost

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES		
					NDSWC - 60%	NDSWC - 35%	LOCAL
Remove Fence	LF	65	\$10.00	\$650.00	\$390.00	\$0.00	\$260.00
Storm Sewer - 24" PVC	LF	60	\$75.00	\$4,500.00	\$2,700.00	\$0.00	\$1,800.00
Storm Sewer - 24" RCPP	LF	186	\$100.00	\$18,600.00	\$11,160.00	\$0.00	\$7,440.00
RCPP-DIP Adapter	Each	2	\$5,000.00	\$10,000.00	\$6,000.00	\$0.00	\$4,000.00
Connect to Wingwall	Each	2	\$1,500.00	\$3,000.00	\$1,800.00	\$0.00	\$1,200.00
Storm Sewer Manhole - 48"	Each	1	\$6,000.00	\$6,000.00	\$3,600.00	\$0.00	\$2,400.00
Sluice Gate Structure	Each	1	\$40,000.00	\$40,000.00	\$24,000.00	\$0.00	\$16,000.00
Gatewell Structure	Each	1	\$150,000.00	\$165,000.00	\$99,000.00	\$0.00	\$66,000.00
Trash Guard	Each	1	\$1,500.00	\$1,500.00	\$900.00	\$0.00	\$600.00
Strip and Replace Topsoil	CY	190	\$4.00	\$760.00	\$456.00	\$0.00	\$304.00
Seeding - Type II	SY	1,125	\$1.28	\$1,440.00	\$864.00	\$0.00	\$576.00
E.C. Blanket Type 3	SY	1,130	\$2.00	\$2,260.00	\$1,356.00	\$0.00	\$904.00
Stabilized Construction Entrance	Each	1	\$1,000.00	\$1,000.00	\$600.00	\$0.00	\$400.00
Floating Silt Curtain	LF	90	\$5.00	\$450.00	\$270.00	\$0.00	\$180.00
Remove and Replace Crushed Concrete	SY	95	\$15.00	\$1,425.00	\$855.00	\$0.00	\$570.00
Separation Fabric	SY	95	\$2.00	\$190.00	\$114.00	\$0.00	\$76.00
Temporary Pumping	LSum	1	\$2,000.00	\$2,000.00	\$1,200.00	\$0.00	\$800.00
Temporary Cofferdam	LSum	1	\$5,000.00	\$5,000.00	\$3,000.00	\$0.00	\$2,000.00
Storm Water Management	LSum	1	\$2,500.00	\$2,500.00	\$1,500.00	\$0.00	\$1,000.00
			Total Construction	\$265,625.00	\$159,375.00	\$0.00	\$106,250.00
			Project Development & Permitting	\$25,000.00	\$0.00	\$0.00	\$25,000.00
			Engineering - Design (9%)	\$23,906.25	\$0.00	\$8,367.19	\$15,539.06
			Engineering - Construction (9%)	\$23,906.25	\$14,343.75	\$0.00	\$9,562.50
			Contingencies (10%)	\$26,562.50	\$15,937.50	\$0.00	\$10,625.00
			<b>TOTAL PROJECT COST</b>	<b>\$365,000.00</b>	<b>\$189,656.25</b>	<b>\$8,367.19</b>	<b>\$166,976.56</b>



# 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>

*Agenda F1-9*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer–Secretary  
**SUBJECT:** 2016 Federal MR&I Water Supply Funding  
**DATE:** February 25, 2016

The following table shows the proposed allocation of the FY2016 Federal Municipal, Rural, and Industrial Water Supply (MR&I) funding from Garrison Diversion Unit budget of \$15,560,000. There was \$4,148,500 previously approved for Gladstone, Glenburn, Makoti, Mohall, and Sherwood.

Project	Project Cost	Eligible Cost	MR&I Funding	
			%	Grant
Burlington Water Tower	\$2,593,333	\$2,593,333	60	\$1,556,000
Cass Rural Water Leonard Service Area	\$3,167,000	\$3,160,000	75	\$2,370,000
Carrington Water Tower	\$3,185,000	\$3,166,667	60	\$1,900,000
Casselton Water Tower	\$2,110,000	\$2,080,000	60	\$1,248,000
New England Water Tower	\$2,799,872	\$2,654,167	60	\$1,592,500
Rugby Water Treatment Plant Improvements	\$763,000	\$763,000	60	\$458,000
Wahpeton Water Treatment Plant Improvements	\$1,600,000	\$1,600,000	60	\$960,000
Westhope Water System Improvements	\$425,000	\$425,000	60	\$255,000
Southwest Pipeline Project	\$1,000,000	\$1,000,000		\$1,000,000
State Administration	\$96,000	\$96,000	75	\$72,000
Recommended Total	\$17,739,205	\$17,538,167		\$11,411,500
Previously Approved Total	\$6,483,400	\$5,531,400		\$4,148,500
Total	\$24,222,605	\$23,069,567		\$15,560,000

### Projects for Funding Approval

**City of Burlington** - The funding request is for construction of a 300,000-gallon water tower and new water main to address current and future demands of the system. Burlington serves 1,060 people. The City purchases its water from Northwest Area Water Supply. The estimated cost is \$2,593,333, and a 60% grant is \$1,556,000.

**Cass Rural Water Users District Leonard Service Area** - The funding request is for installation of 25 miles of distribution pipeline to serve 35 rural water users and 60 individual service connections in the city of Leonard to address water quality issues with arsenic. The estimated cost is \$3,167,000 with eligible costs of \$3,160,000, and a 75% grant is \$2,370,000.

**City of Carrington** - The funding request is for construction of a new 500,000-gallon elevated water storage tank and installation of new high service pump building to address current and future demands of the system. Carrington serves 2,075 people, service areas of Stutsman Rural Water District, and service areas of Greater Ramsey Water District. The water supply is from ground water wells. The estimate cost is \$3,185,000 with eligible costs of \$3,166,667, and a 60% grant is \$1,900,000.

**City of Casselton** - The funding request is for construction of a 500,000-gallon water tower to address current and future demands of the system. Casselton serves 2,491 people and purchases water from Cass Rural Water Users District. The estimated cost is \$2,110,000 with eligible costs of \$2,080,000, and a 60% grant is \$1,248,000.

**City of New England** - The funding request is for construction of a new 200,000-gallon water storage tank and installation of new water main to address current and future demand of the system. New England serves 632 people and the water supply is from the Southwest Pipeline Project. The estimated cost is \$2,799,872 with eligible costs of \$2,654,167, and a 60% grant is \$1,592,500.

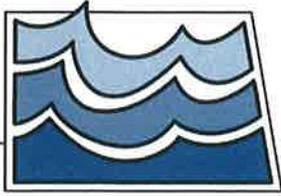
**City of Rugby** - The funding request is for improvements to the water treatment plant to increase efficiency of booster pump station, lime handling system, and electric upgrades. Rugby serves 2,900 people and All Seasons Water Users District. The estimated cost is \$763,000, and a 60% grant is \$458,000.

**City of Wahpeton** - The funding request is for improvements to the water treatment plant to increase efficiency and capacity in lime handling system and electric upgrades. Wahpeton serves 7,853 people. The water supply is from ground water wells. The estimated cost is \$1,600,000, and a 60% grant is \$960,000.

**City of Westhope** - The funding request is for installation of new water main to address current and future demand of the system. Westhope serves 427 people. The water supply is from ground water wells. The estimated cost is \$425,000, and a 60% grant is \$255,000.

**Southwest Pipeline Project** - The major projects being constructed are the supplemental raw water intake estimated at \$18.9 million and the Dickinson water treatment plant estimated at \$31.7 million. The request is for an MR&I grant of \$1,000,000.

**I recommend the State Water Commission approve the new projects listed in the above table for total of \$11,411,500 Federal MR&I funding. The funding is in the form of a grant towards eligible costs, contingent on available funding, and the projects following the Federal MR&I program requirements.**



# 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>

*Agenda #1*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TJK* Todd Sando, P.E., Chief Engineer - Secretary  
**SUBJECT:** SWPP Project Update  
**DATE:** February 22, 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 contractor has completed installation of approximately 231 miles of pipeline and 355 users. Twelve change orders have been signed by all parties to date, which added 63 additional users and 21 more miles of pipeline to the contract. The substantial completion date including modifications through Change Order No. 12 is August 27, 2016.

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. The contractor has completed installation of approximately 266 miles of pipeline and 248 users. The 54 users within the intermediate completion area were turned over to SWA on August 13, 2015. The contractor has requested a 27-day extension to the intermediate and substantial completion date to account for rain days and delays caused by extended load restrictions. Their request is under review. The contractor has also requested that 41 users be removed from the substantial completion date because of delays caused by easement acquisitions.

Swanberg Construction is the Contractor on Contract 7-9G, Bid Schedule 1 and they were allowed to delay the start of construction of Contract 7-9G, Bid Schedule 1 because of the pending work on Contract 7-9E and easement issues in the Contract 7-9G Bid Schedule 1 area. The intermediate completion date for Contract 7-9G Bid Schedule 1 was removed, and the 32 users removed were added to Contract 7-9E's substantial completion date. To date, eleven change orders for Contract 7-9E have been signed by all parties, which added 50 users and 19 miles of pipeline. The substantial completion date, including modifications through Change Order No. 11, is July 1, 2016.

### **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, and the current substantial completion date for Bid Schedule 1 is November 20, 2016 for 173 users.

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.

The preconstruction conference for Bid Schedule 2 was held on June 17, 2015, and the contractor started construction on June 29, 2015. The contractor has completed installation of approximately 137 miles of pipeline and 171 users. The contractor has also turned over 122 users for service. To date, 16 change orders have been signed by all parties, which added 30 miles of pipeline and 80 additional users. The substantial completion date including modifications through Change Order No. 16 is May 12, 2017.

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

Contract 2-8E is the MTL from the OMND WTP to a combination reservoir and booster station north of Halliday (Dunn Center booster station). This contract was substantially complete on December 4, 2014.

Contract 2-8F is the MTL west of Halliday to west of Killdeer. This contract involves furnishing and installing approximately 40 miles of 16"-6" PVC pipe, connections to existing pipelines, 2 prefabricated steel meter vaults, road crossings and related appurtenances. This contract has two intermediate completion dates. The first intermediate completion date was August 15, 2014 for Bid Schedule 1, which is from north of Halliday to the Dunn Center Elevated tank. The second intermediate completion date was November 15, 2014 for Bid Schedule 2A which will provide connections to the Cities of Dunn Center and Killdeer. The Bid Schedule 2B and the entire project was to be substantially complete on or before August 1, 2015, which included 2 prefabricated below grade booster pump stations and will enable the Killdeer Mountain, Grassy Butte and a portion of the Fairfield service areas to be served from the OMND WTP.

The Commission awarded Contract 2-8F to Carstensen Contracting, Inc. during its February 27, 2014 conference call meeting. Pipeline installation is complete. Bid Schedule 1, Bid Schedule 2A and Schedule 2B were turned over for service on March 13, 2015, April 29, 2015 and September 15, 2015 respectively. The contractor requested time extensions for both contract

2-8E and 2-8F. The time extensions requested were because of delays caused by weather, wet conditions and additional rock excavation. Based on the documentation provided and review of actual field conditions, a 67-day extension was provided for Contract 2-8E, and liquidated damages for 89 days delay was deducted from the contract price. For Contract 2-8F, 134-day extension was provided, and liquidated damages for 123 days will be deducted from the contract price.

**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. Pre-final inspection of the tank is complete, and the contractor was provided a punch list of items to remedy.

**Contract 8-3 Killdeer Mountain Elevated Reservoir:**

This contract includes furnishing and installing a 250,000-gallon elevated reservoir. This contract was bid on October 18, 2013. The SWC awarded this contract to Maguire Iron, Inc. of Sioux Falls, South Dakota at its December 13, 2013 meeting. The substantial completion date was October 1, 2014. The tank was considered substantially complete on November 23, 2014. The contract was provided 30-day extension, and the 24 days of liquidated damages were deducted from the contract price.

**OMND Water Treatment Plant (WTP) Phase II Expansion:**

The SWC awarded Contract 3-1H, OMND WTP Phase II expansion to Northern Plains Contracting, Inc., and Edling Electric, Inc. at its December 13, 2013 meeting. The preconstruction conference for Contract 3-1H was held on January 29, 2014. The substantial completion date on this contract was August 1, 2014. The contract was substantially complete on September 24, 2014. The completion was delayed because of the coordination involved with keeping the WTP operational. Administrative items remain before the contract can be closed out.

**Contract 5-15A 1<sup>st</sup> Zap Potable Reservoir:**

The contractor repaired the settlement damage to the floor by replacing the floor panels. The tank was rechlorinated on November 14, 2015. The contractor will return in Spring of 2016 to complete final coating repairs.

**Other Contracts**

**Contract 8-1A New Hradec Reservoir:**

This contract involves furnishing and installing a 296,000-gallon fusion powder coated bolted steel reservoir. 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. A partial pay estimate withholding \$207,750 was sent to the contractor. The contractor responded that he does not agree with the liquidated damages that are being assessed and will not sign the partial pay estimate. A pre-final inspection was conducted the week of September 8, 2014 and again on December 9, 2014, and a punch list of remaining items was forwarded to the contractor. The

contractor attempted to work on the punch list items, but the work has not been accepted. An updated punch list was again sent to the contractor on July 29, 2015 and some of them were completed by mid-September. An updated closeout letter and punch list was sent to the contractor on September 16, 2015 requesting all remaining items be completed by September 30, 2015. On December 21, 2015 a meeting was held to discuss the liquidated damages withheld on the contract. There is no justification for any reduction in the liquidated damages and that was relayed to the contractor. We are aware of a lawsuit between the contractor and the tank 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 FWSP 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. Liquidated damages for 16-day delay will be deducted from the contract price. The contractor is working on punch list items and changes added through change orders.

**Contract 1-2A Supplemental Raw Water Intake:**

The first section of the intake pipe was lowered on July 15, 2015. Through August 6, 2015 the tunnel drive had progressed approximately 955 feet. After that, the contractor encountered multiple issues with the shaft seal and intermediate jacking stations. 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 noise 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 sent a letter on November 2, 2015 informing the engineer about the situation and indicated that sand and water had flooded the shaft to a depth of about 15 feet with the bottom 12 feet being fairly dense sand. The water was initially rising at the rate of 3 feet/day and is continuing to rise.

The contractor mobilized a drilling crew and drilled 8 holes on November 6, 2015. On November 9, 2015 the contractor injected a cement – sand grout to fill the voids. The drill holes took approximately 60 cubic yards of grout. Since the calculated volume of material in the pipe and the shaft exceeds the pumped in grout by several times, additional boreholes along the pipe alignment were suggested to the contractor. The contractor drilled additional 8 boreholes and pumped additional 50 cubic yards of grout.

A conference call was held with the contractor to discuss the possible options to move forward. The present location of the microtunnelling machine is beneath about 20' of water and about 67 feet of soil. Some of the options discussed for moving the project forward were horizontal directional drilling through the caisson shaft, tunneling with a new direction and at a higher elevation from the existing shaft, and installing a recovery shaft on the shoreline or near it to intercept the tunnel and then proceed in a new direction with another intake pipe.

A meeting was held on February 19, 2016 with the contractor to discuss the schedule and plan for completing the project. The contractor indicated that their plan is to seal the damaged intake pipe from the inflow of water by jet grouting, removing the sand and water inside the caisson and constructing a new floor at the bottom of the caisson. Then a new MTBM will be launched and a new intake pipe will be installed approximately 12' higher than the existing intake pipe's centerline. They originally planned to follow the existing intake pipe's alignment for the new intake. They were informed following a different alignment would be preferable. The contractor has also requested extension through November 30, 2017 for completion of this contract.

**Contract 3-2D Six (6) MGD Water Treatment Plant 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. John T. Jones mobilized to the site the week of January 4, 2016 and is currently working on earthwork excavation.

Bids for Contract 3-2D Electrical Contract were opened on January 28, 2016 and the bid results are discussed in detail in a separate memo.

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

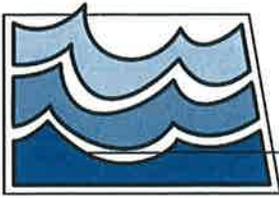
The scope of this contract includes relocating the existing 1000 kW generator at the Dodge pump station to the Dickinson Finished Water Pump Station and installing a new standby engine generator at the Dodge pump station. This contract also includes relocating the existing 1,500 kW generator at the Richardton 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 bid results are discussed in detail in a separate memo.

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

Work on the design of the raw water reservoirs is progressing.

**Raw Water Line Capacity Upgrade:**

We received the draft alignment memo for the parallel piping from the intake to zap reservoirs from Bartlett & West/AECOM. Permission for survey along the alignment was obtained from the landowners and topographical survey needed for the design work is currently being performed.



# 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>

*Agenda H2)*

## MEMORANDUM

TO: Governor Jack Dalrymple  
Members of the State Water Commission  
FROM: *TSD* Todd S. Sando, P.E., Chief Engineer - Secretary  
SUBJECT: SWPP Contract 3-2D Dickinson 6 MGD Water Treatment Plant – Electrical  
Contract Award  
DATE: February 16, 2016

Southwest Pipeline Project (SWPP) Contract 3-2D, is for the construction of the 6 million gallons per day (MGD) water treatment plant that is designed to serve the growing needs of the SWPP.

The contract was divided into three sections Section I - General Construction Contract, Section II – Mechanical Construction Contract and Section III – Electrical Construction Contract.

Bids for this contract were opened on September 24, 2015. The commission, at its October 10, 2015 meeting, awarded Section I – General Construction Contract to John T. Jones Construction, Inc. and Section II – Mechanical Construction Contract to Williams Plumbing and Heating, Inc. Section III – Electrical Construction Contract was not awarded because the single bid received was more than 100 percent over the Engineer's estimate.

The scope of the Section III – Electrical Construction Contract includes switchgear, panelboards, VFDs, motor starters and conduit and wiring of power for the facility. The contract also includes the following: furnishing and installing all power, lighting, electrical distribution, emergency power panels, MCC's and associated equipment; furnishing and installing all wiring and field connections to and for electrical items supplied under the General and Mechanical contracts and Owner purchased equipment; furnish and install 1000 KW diesel powered standby engine generator with support slab and ATS; installation of Owner-purchased instrumentation and control equipment; furnish and install lightning protection system; fire alarm; perform short circuit and protective device coordination study and arc flash hazard analysis; and perform field testing. Two Bid Alternates were included in the Bid Form, Bid Alternate 1 for the walk-in enclosure for the standby generator and Bid Alternate 2 for reducing the use of rigid metallic electrical conduit.

Bids for Section III - Electrical Construction Contract of Contract 3-2D were opened on January 28, 2016. Three bid packages were received, and all three bids were opened.

SWPP Contract 3-2D Electrical Contract Award Memo

Page 2

February 16, 2016

Tabulations of the bid results are shown below.

Section III– Electrical Construction Contract		
Bidder	Base Bid Amount	Amount Higher than Low Bidder
Edling Electric, Inc.	\$2,984,500.00	\$0.00
Denny’s Electric & Motor Repair	\$3,383,000.00	+\$398,500.00 +13.4%
Muth Electric, Inc.	\$3,781,159.00	+\$796,659.00 +26.7%
Engineer’s Estimate	\$3,811,000.00	+\$826,500.00 +27.7%

Bid Alternates			
Item	Edling Electric, Inc.	Denny’s Electric & Motor Repair	Muth Electric, Inc.
Alternate Bid Item 1	+\$14,500.00	+\$15,000.00	+\$16,750.00
Alternate Bid Item 2	-\$85,000.00	-\$160,000.00	-\$200,000.00

The low bid received from Edling Electric, Inc. is a responsive bid in accordance with the Invitation for Construction Bid and Bid documents. Edling Electric, Inc. was the Electrical Contractor for OMND Water Treatment Plant Phase I and Phase II construction. Bartlett & West/AECOM has reviewed the low bid received from Edling Electric and recommended award of Contract 3-2D Section III Electrical Construction Contract for the Base Bid plus Bid Alternate 2, in the amount of \$2,899,500 to Edling Electric, Inc. Bartlett & West/AECOM’s recommendation letter and the bid tab is attached to this memo.

**I recommend the State Water Commission authorize the Chief Engineer and Secretary to award SWPP Contract 3-2D – Section III Electrical Contract to Edling Electric, Inc., in the amount of \$2,899,500 based on Base Bid plus Bid Alternate 2. The award of SWPP Contract 3-2D Electrical Contract will be dependent upon legal review of the contract documents and concurrence from the Garrison Diversion Conservancy District.**

TSS:SSP:pdh/1736-99  
Attachment



February 5, 2016

North Dakota State Water Commission  
Attn: Ms. Sindhuja S.Pillai-Grinolds, P.E., Project Manager  
900 E. Boulevard Ave.  
Bismarck, ND 58505

**SUBJECT: SWPP Contract 3-2D  
Dickinson Water Treatment Plant  
Review of Bids Received  
W.O. 3033.998**

Sindhu:

On Thursday, January 28 2016, bids were opened for the Southwest Pipeline Project (SWPP) Contract 3-2D. This is a rebid of the Electrical Construction Contract after the single bid received for Section III at the September 24, 2015 bid opening was rejected by action of the commission at its meeting.

The scope of Work generally consists of the construction of a 110 ft. by 210 ft. reinforced concrete and pre-cast concrete building and the installation of pumping, piping, water treatment processing equipment, mechanical, electrical and instrumentation systems for the new Dickinson Water Treatment Plant as required by the Contract Documents and General Requirements.

The Electrical Construction Contract (Section III) includes switchgear, panelboards, VFDs, motor starters, and conduit and wiring of power for the facility. The project also includes the following: furnishing and installing all power, lighting, electrical distribution and emergency power panels, MCC's, and associated equipment; furnishing and installing all wiring and field connections to and for electrical items supplied under the General and Mechanical contracts and Owner purchased equipment; furnish and install 1000 KW diesel powered standby engine generator with support slab and ATS; installation of Owner-purchased instrumentation and control equipment; furnish and install lightning protection system; fire alarm; perform short circuit and protective device coordination study and arc flash hazard analysis; and perform field testing.

The project is located at 735 West Broadway adjacent to the existing water treatment plant at 811 West Broadway in the City of Dickinson, North Dakota. Bid Sections and Scopes of Work were provided under this Project for the General, Mechanical, and Electrical Contracts. The General Contract (Section I) and the Mechanical Contract (Section II) were not accepted as these Contracts were previously opened on September 24, 2015 and awarded by the commission at its meeting on October 6, 2015. The Bid Alternates included with Section III were for a walk-in enclosure for the standby generator, and reducing the use of rigid metallic electrical conduit.

Three bid packages were received for Section III-Electrical Construction Contract of Contract 3-2D. A tabulation of the bid results and bidders on this contract is attached. A copy of the bid tab has been provided to all bidders and other interested parties. One bid anomaly was noted on the bid received from Edling Electric, Inc. The mobilization line item exceeded the 5% maximum of the base bid and will be redistributed. A summary of the bids received for Section III of Contract 3-2D is shown in the following table:

Section III - Electrical Construction Contract		
Bidder	Base Bid Amount	Amount Higher than Low Bidder
Edling Electric, Inc.	\$2,984,500.00	\$0.00
Denny's Electric & Motor Repair	\$3,383,000.00	+ \$398,500.00 +13.4%
Muth Electric, Inc.	\$3,781,159.00	+ \$796,659.00 +26.7%
Engineer's Estimate	\$3,811,000.00	+ \$826,500.00 +27.7%

Based upon a comparison of the bids received, the prices received for Bid Section III – Electrical Construction Contract range from 11.4-14.1% the sum of the bids received for Electrical bid sections and the awarded General and Mechanical bid section. This compares to 19.7% that was received at the September 24, 2015 bid opening in the amount of \$5,633,022.00.

As noted, two bid alternates were included in the Bidding Documents for Section III. Summaries of the bid alternate prices and are shown in the following table.

Bid Alternates - Schedule III			
Item	Edling Electric, Inc.	Denny's Electric & Motor Repair	Muth Electric, Inc.
<b>Alternate Bid Item 1</b> – Furnish and Install 1000 KVA 480/277V Standby Engine Generator, With Walk-In Enclosure, and Including Support Slab in Lieu of Bid Item 11 in Bid Form Section III Above (state the amount the base bid will vary)	+ \$14,500.00	+ \$15,000.00	+ \$16,750.00
<b>Alternate Item 2</b> –Furnish and Install Conduit Material in Section 260534 Part 3, Paragraph A.3.a, as Rigid Steel Conduit Below Ten (10) Feet Above Finished Floor and Electrical Metal Tubing Above Ten (10) Feet Above Finished Floor; in Part 3, Paragraph A.6.a, Furnish and Install Rigid Nonmetallic Conduit (PVC). (state the amount the base bid will vary)	- \$85,000.00	- \$160,000.00	- \$200,000.00

Two Bid Alternates were received from all three bidders. Bid Alternate 1 is the additional amount to provide a Walk-in Enclosure in lieu of the standard weathertight enclosure. It is understood that this Bid Alternate will be discussed between the SWC and SWA. Bid Alternate 2 is the amount the base bid price varies as a result of changing the type conduit in the interior exposed areas from rigid steel conduit everywhere to rigid conduit below 10 feet and EMT above 10 feet. Bid Alternate 2 also includes changing the conduit embedded in concrete from Rigid Steel to PVC. This Bid Alternate 2 is believed to be of good value to the commission.

February 5, 2016

SWPP Contract 3-2D, Review of Bids Received

Page 3

Based on our review the bid received from Edling Electric, Inc. for Bid Section III – Electrical Construction Contract appears to be in accordance with the Advertisement for Construction Bids and the Bid Documents. It is thus considered to be a responsive bid. Edling Electric, Inc. was the Electrical Contractor for SWPP Contract 3-1D OMND WTP Electrical Installation Contract and SWPP Contract 3-1H OMND WTP Expansion. Subject to approval by your legal counsel that the bid documents are in order from a legal standpoint, we recommend that the North Dakota State Water Commission award SWPP Contract 3-2D – Electrical Construction, based on Bid Section III – Electrical Construction Contract for the Base Bid plus Bid Alternate 2, in the amount of \$2,899,500 to Edling Electric, Inc.

The contract documents require that the SWC award the contract, if awarded, within 60 calendar days after the bid opening as stipulated in the Invitation for Construction Bids and on the Bid Form. That date would be March 28, 2016. We understand that 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. Thus the award of the contract requires concurrence from the Garrison Diversion Conservancy District. A copy of this letter and the three bids are being forwarded to the Garrison Diversion Conservancy District and the Bureau of Reclamation, Dakotas Area Office for their consideration.

The award of the contract and the Notice to Proceed are dependent on the satisfactory completion and submission of the Contract Documents by the contractors and your legal counsel's review.

If you have any questions or comments, please contact us.

Sincerely,

**BARTLETT & WEST/AECOM**



James Lennington, P.E.  
Project Manager

Copy: SWA – Mary Massad  
Garrison Diversion Conservancy District – Duane DeKrey  
Bureau of Reclamation – Tom Thompson

File: SWPP Contract 3-2D (Elec): 9.0



3456 East Century Avenue  
P.O. Box 1077  
BISMARCK, ND 58501

### BID TABULATION

CCI = 10,092.00  
W.O. 3033.998  
PROJECT: SWPP DICKINSON WTP  
Contract 3-2D (Electrical Rebid)  
DATE: January 28, 2016  
LOCATION: ND State Water Commission

Item No.	DESCRIPTION	UNIT	ENGINEER'S ESTIMATE	EDLING ELECTRIC, INC.	DENNY'S ELECTRIC & MOTOR REPAIR, INC.	MUTH ELECTRIC, INC.
<i>SECTION III- ELECTRICAL CONSTRUCTION CONTRACT</i>						
1	Mobilization, De-mobilization, Bonding, Insurance, and Permits	L.S.	\$175,000.00	\$210,000.00	\$45,000.00	\$42,337.00
2	Furnish and Install all Power, Lighting, Electrical Distribution Panels, Emergency Power Panels, MCC's, VFD's and Associated Equipment	L.S.	\$1,600,000.00	\$1,413,500.00	\$1,800,000.00	\$1,695,500.00
3	Furnish and Install all Wiring and Field Connections to and for Electrical Items Supplied Under the General and Mechanical Contracts for a Complete Functioning System.	L.S.	\$350,000.00	\$330,000.00	\$326,000.00	\$608,793.00
4	Furnish and Install Fire Alarm System	L.S.	\$90,000.00	\$85,000.00	\$52,000.00	\$68,051.00
5	Installation of Owner Furnished Instrumentation and Control Equipment; Furnish and Install All Control Wiring and Field Connections for Owner Purchased Instrumentation and Control Equipment and Panels.	L.S.	\$750,000.00	\$520,000.00	\$590,000.00	\$806,723.00
6	Furnish and Install Lightning Protection System	L.S.	\$60,000.00	\$25,000.00	\$36,000.00	\$40,746.00
7	Furnish and Install Grounding System.	L.S.	\$20,000.00	\$26,000.00	\$12,000.00	\$8,720.00
8	Furnish and Install Telephone and Data Outlets Including Conduit and Wiring	L.S.	\$36,000.00	\$32,000.00	\$57,500.00	\$29,782.00
9	Perform Short Circuit, Protective Device Coordination Study and Arc Flash Hazard Analysis	L.S.	\$30,000.00	\$10,000.00	\$9,500.00	\$19,718.00
10	Perform Electrical Field Testing	L.S.	\$100,000.00	\$43,000.00	\$30,000.00	\$33,309.00
11	Furnish and Install 1000 KVA 480/277V Standby Engine Generator, Including Support Slab.	L.S.	\$600,000.00	\$290,000.00	\$425,000.00	\$427,480.00
<b>SUBTOTAL BID OF ELECTRICAL CONSTRUCTION CONTRACT</b>			<b>\$3,811,000.00</b>	<b>\$2,984,500.00</b>	<b>\$3,383,000.00</b>	<b>\$3,781,159.00</b>
BID ADJUSTMENT (ADDITION OR DEDUCTION)				\$0.00	\$0.00	\$0.00
<b>TOTAL BASE BID OF ELECTRICAL CONSTRUCTION CONTRACT</b>			<b>\$3,811,000.00</b>	<b>\$2,984,500.00</b>	<b>\$3,383,000.00</b>	<b>\$3,781,159.00</b>
1	Alternate Bid Item 1 Furnish and Install 1000 KVA 480/277V Standby Engine Generator, With Walk-In Enclosure, and Including Support Slab in Lieu of Bid Item 11 in Bid Form Section III AboveAbove (state the amount the base bid will vary)	L.S.		\$14,500.00	\$15,000.00	\$16,750.00
2	260534 Part 3, Paragraph A.3.a, as Rigid Steel Conduit Below Ten (10) Feet Above Finished Floor and Electrical Metal Tubing Above Ten (10) Feet Above Finished Floor; in Part 3, Paragraph A.6.a, Furnish and Install Rigid Nonmetallic Conduit (PVC). (state the amount the base bid will vary)	L.S.		-\$85,000.00	-\$160,000.00	-\$200,000.00
<b>SUBCONTRACTORS</b>						
<b>SUPPLIERS</b>						
				VFD'S: EATON WATERTOWN, WI	VFD'S: EATON, WATERTOWN, WI ST. PAUL, MN	VFD'S: EATON WATERTOWN, WI
				STANDBY ENGINE GENERATOR: CATERPILLAR, NEWBERRY, SC	STANDBY ENGINE GENERATOR: CATERPILLAR/BUTLER MACHINE NEWBERRY, SC/ BISMARCK, ND	STANDBY ENGINE GENERATOR: CATERPILLAR, NEWBERRY, SC
					GEAR: EATON, WATERTOWN, WI/ ST.PAUL, MN	
					FIXTURES: LITHONIA/ GRAYBAR, CONYERS, GA/ FARGO, ND	

**BID ANOMALIES**  
**NORTH DAKOTA STATE WATER COMMISSION**  
**DICKINSON WATER TREATMENT PLANT**  
**CONTACT 3-2D (ELECTRICAL REBID)**

The Bidder's Proposals for the contractor bidding on the North Dakota State Water Commission Contract 3-2D (Electrical Rebid) were checked electronically, and the following were noted:

**EDLING ELECTRIC, INC.**

The Mobilization bid item exceeds the 5% of the base bid maximum allowed in Section 012000 Measurement and Payment and will need to be reduced with the balance redistributed.



# 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>

*Agenda (3)*

## MEMORANDUM

TO: Governor Jack Dalrymple  
Members of the State Water Commission  
FROM: *TSD* Todd S. Sando, P.E., Chief Engineer - Secretary  
SUBJECT: SWPP Contract 4-1F/4-2C – Generator Upgrade Contract  
DATE: February 16, 2016

The scope of Southwest Pipeline Project (SWPP) Contract 4-1F/4-2C consists of relocating the existing 1,000-kW Dodge Pump Station standby generator to the Dickinson Finished Water Pump Station; furnishing and installing a new 1,500-kW generator with fuel tank and transfer switch at the Dodge Pump Station, relocating the existing 1,500-kW Richardton Pump Station generator to the Intake Booster Pump Station and furnishing and installing a new 2,000-kW standby generator with fuel tank at the Richardton Pump Station. The work also includes extending the existing concrete pad and conduit at the Richardton Pump Station to accommodate the larger engine generator and installation of a new concrete pad, conduit and a manual transfer switch at the Intake Booster Pump Station.

Bids for this contract were opened on January 28, 2016. Three bid packages were received. Two bid packages were found to be in order and opened. The contractor's signature on the bid bond for the third bid was not attested, and therefore the bid was not opened.

Tabulations of the bid results are shown below.

SWPP Contract 4-1F/4-2C		
Bidder	Base Bid Amount	Amount Higher than Low Bidder
Edling Electric, Inc.	\$1,847,000.00	\$0.00
Denny's Electric & Motor Repair	\$2,046,100.00	+\$199,100 +10.8%
Engineer's Estimate	\$2,200,500.00	+\$353,500 +19.1%

The low bid received from Edling Electric Inc. is a responsive bid in accordance with the Invitation for Construction Bid and Bid documents. Edling Electric, Inc. was the Electrical Contractor for OMND Water Treatment Plant Phase I and Phase II construction. Bartlett & West/AECOM has reviewed the low bid received from Edling Electric and recommended award

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY

SWPP Contract 4-1F/4-2C Award Memo

Page 2

February 16, 2016

of Contract 4-1F/4-2C to Edling Electric, Inc. in the amount of \$1,847,000.00. Bartlett & West/AECOM's recommendation letter and the bid tab is attached to this memo.

**I recommend the State Water Commission authorize the Chief Engineer and Secretary to award SWPP Contract 4-1F/4-2C to Edling Electric Inc., in the amount of \$1,847,000.00 contingent upon legal review of the contract documents.**

TSS:SSP:pdh/1736-99



February 5, 2016

North Dakota State Water Commission  
Attn: Ms. Sindhuja S.Pillai-Grinolds, P.E., Project Manager  
900 E. Boulevard Ave.  
Bismarck, ND 58505

**SUBJECT: SWPP Pump Station Standby Engine Generator Upgrades  
SWPP Contract 4-1F/4-2C  
Review of Bids Received  
W.O. 3033.A03**

Dear Sindhu:

On Thursday, January 28, 2016, bids were opened for the Southwest Pipeline Project (SWPP) Contract 4-1F/4-2C. The scope of work for this contract generally consists of: relocating the existing 1,000-kW Dodge Pump Station standby engine generator to the Dickinson Finished Water Pump Station; furnishing and installing one (1) new 1,500-kW (nominal) standby engine generator, with fuel tank and transfer switch, at the Dodge Pump Station; relocating the existing 1,500-kW Richardton Pump Station standby engine generator to the Intake Booster Pump Station; and furnishing and installing one (1) new 2,000-kW (nominal) standby engine generator, with fuel tank, at the Richardton Pump Station. The work also includes extending the existing concrete pad and conduit at the Richardton Pump Station to accommodate the larger engine generator and installation of anew concrete pad, conduit, and a manual transfer switch at the Intake booster Pump Station. The work also includes all incidental work associated with the proper installation and connections of both new generators, and the re-located generators, including wiring, startup, and testing.

The Dodge Pump Station is located 0.5 miles south of Dodge, ND. The Richardton Pump Station is located approximately 1 mile north of Richardton, ND. The Dickinson Finished Water Pump Station is located at 811 West Broadway Avenue, Building A, in the City of Dickinson, ND, adjacent to the existing water treatment plant at 811 West Broadway Avenue, Building B. The Intake Booster Station is located approximately 16 miles NW of Beulah, ND.

Three (3) bid packages were received for Contract 4-1F/4-2C. Two bid packages were found to be in order and opened. These bid packages were received from Edling Electric, Inc. and Denny’s Electric & Motor Repair, Inc. The contractor’s signature on the bid bond for the third bid was not attested and therefore the bid was not opened. This bid was received from Radtke Services, LLC, of Belfield, ND.

A summary of the bids received and opened for Contract 4-1F/4-2C is shown in the following table:

<b>SOUTHWEST PIPELINE PROJECT CONTRACT 4-1F/4-2C SWPP PUMP STATION STANDBY ENGINE GENERATOR UPGRADES</b>			
<b>Bidder</b>	<b>Bid Amount</b>	<b>Amount Higher Than Low Bid</b>	<b>Comparison to Engineers Estimate</b>
Edling Electric, Inc. Bismarck, ND	\$1,847,000.00	-	- \$353,500 -19.1%
Denny’s Electric & Motor Repair, Inc. Dickinson, ND	\$2,046,100.00	+ \$199,100 10.8%	- \$154,400 -7.5%
Engineer's Estimate	\$2,200,500.00	+ \$353,500 19.1%	-

The bids for this project came in somewhat lower than expected. The lower than expected bids could be attributed to a general downturn in economic activity due to the decrease in oil prices.

The apparent low bid of \$1,847,000.00 received for Contract 4-1F/4-2C was submitted by Edling Electric, Inc. (Edling). Edling chose to use Caterpillar as their supplier for the standby engine generators. An important requirement of bidding this project was to provide load sizing calculations for the standby engine generators. Edling provided this information and the design submitted by Caterpillar meets the specification requirements. Based upon our review, the bid received from Edling appears to be in accordance with the Advertisement for Construction Bids and the Bid Documents. It is thus considered to be a responsive bid. Edling Electric, Inc. is a reputable contractor and is fully capable of satisfactorily completing Contract 4-1F/4-2C. Edling was the electrical contractor on both phases of the OMND WTP and performed well on those two contracts. It is our recommendation to award SWPP Contract 4-1F/4-2C to Edling Electric, Inc. in the amount of \$1,847,000.00.

The Contract Documents require that the SWC award the contract, if awarded, within 60 calendar days after the bid opening as stipulated in the Advertisement for Construction Bids. That date would be March 28, 2016. We understand that 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. Thus the award of the contract requires concurrence from the Garrison Diversion Conservancy District. A copy of this letter and the two bids are being forwarded to the Garrison Diversion Conservancy District and the Bureau of Reclamation, Dakotas Area Office for their consideration.

The award of the contract and the Notice to Proceed are dependent on the satisfactory completion and submission of the Contract Documents by Edling and your legal counsel's review.

If you have any questions or comments, please contact us.

Sincerely,

**BARTLETT & WEST/AECOM**



Jim Lennington, P.E.  
Project Manager

Copy: SWA – Mary Massad  
BW/AECOM – AJR  
Garrison Diversion Conservancy District – Duane DeKrey  
Bureau of Reclamation – Tom THompson

File: SWPP Contract 4-1F/4-2C: 9.0



# BID TABULATION

3456 East Century Avenue  
P.O. Box 1077  
BISMARCK, ND 58501

CCI = 10,092.00  
W.O. 3033.A03

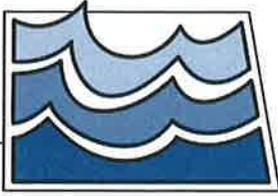
PROJECT: SWPP PUMP STATION STANDBY ENGINE GENERATOR UPGRADES

DATE: Contract 4-1F/4-2C

January 28, 2016

LOCATION: ND State Water Commission

Item No.	Description	Unit	ENGINEER'S ESTIMATE	Edling Electric, Inc.	Denny's Electric & Motor Repair, Inc.
<b>BASE BID</b>					
1	Furnish and install one (1) new (nominal 1,500 kW) Standby Engine Generator with fuel tank and transfer switch at the Dodge Pump Station. Standby Engine Generator shall be sized to start and run one (1) 1,000 hp pump motor with a RVAT at 80%, and a 30kW miscellaneous load. Work shall include all incidental work associated with proper installation and connections of the new generator including wiring and testing.	L.S.	\$895,500.00	\$765,000.00	\$849,900.00
2	Relocate the existing Dodge Pump Station generator to the Dickinson Finished Water Pump Station. Work shall include all incidental work associated with proper installation and connections of the generator including wiring and testing.	L.S.	\$71,000.00	\$98,000.00	\$72,000.00
3	Furnish and install one (1) new (nominal 2,000 kW) Standby Engine Generator with fuel tank at the Richardton Pump Station. Standby Engine Generator shall be sized to start and run one (1) 1,250 hp pump motor with a RVAT at 65% and a 45 kW miscellaneous load. Work shall include all incidental work associated with proper installation and connections of the new generator including wiring and testing.	L.S.	\$970,500.00	\$688,000.00	\$898,000.00
4	Furnish and install reinforced concrete pad extension at the Richardton Pump Station.	L.S.	\$16,500.00	\$26,000.00	\$12,000.00
5	Relocate the existing Richardton Pump Station generator to the Intake Booster Pump Station. Work shall include all incidental work associated with proper installation and connections of generator including furnishing and installing all conduit, wiring, and testing.	L.S.	\$79,000.00	\$142,000.00	\$83,900.00
6	Furnish and install reinforced concrete generator support pad at the Intake Booster Pump Station including sitework as shown on the Contract Drawings.	L.S.	\$43,500.00	\$44,000.00	\$32,000.00
7	Furnish and install a fused switch interlocked with the main fused switch, 400A, 4160V for the Intake Booster Pump Station.	L.S.	\$124,500.00	\$84,000.00	\$98,300.00
<b>SUBTOTAL BID (ITEMS 1-7)</b>			<b>\$2,200,500.00</b>	<b>\$1,847,000.00</b>	<b>\$2,046,100.00</b>
BID ADJUSTMENT (ADDITION OR DEDUCTION)					
<b>TOTAL BID</b>			<b>\$2,200,500.00</b>	<b>\$1,847,000.00</b>	<b>\$2,046,100.00</b>
<b>SUBCONTRACTORS</b>					
<b>CONCRETE &amp; FORMWORK</b>					
				WINN CONSTRUCTION	
<b>SUPPLIERS</b>					
<b>Generator</b>				CATERPILLAR	CUMMINS
<b>Transfer Switch</b>				EATON	BORDER STATES ELECTRIC
<b>Wire/Gear/Misc.</b>				GRAYBAR	



# 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>

*Agenda (H)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *Sando* Todd S. Sando, P.E., Chief Engineer - Secretary  
**SUBJECT:** SWPP Transfer of Service Agreements  
**DATE:** February 16, 2016

The State Water Commission approved the Transfer of Service agreement between the City of Killdeer, Southwest Water Authority (SWA) and the State Water Commission at the December 11, 2015 meeting. SWA has sent the Transfer of Service agreement to other communities within the 12 county service area excluding the City of Dickinson with the same template as the City of Killdeer. SWA is in negotiation with the City of Dickinson regarding the terms of transfer of service agreement. Attached to this memo is the copy of the approved Transfer of Service Agreement with City of Killdeer.

**I recommend the State Water Commission authorize the Chief Engineer/Secretary to execute Transfer of Service agreements for the Southwest Pipeline Project with the other cities in the service area.**

TSS:SSP:pdh/1736-99  
Attachments

# **SOUTHWEST PIPELINE PROJECT CONTRACT FOR TRANSFER OF SERVICE AREA**

## **I. PARTIES**

This Agreement is between the Southwest Water Authority (the “Authority”), the North Dakota State Water Commission (the “Commission”), and the City of Killdeer (the “City”).

## **II. INTRODUCTION**

1. The Commission is developing a water pipeline, water supply, and water distribution project known as the Southwest Pipeline Project (the “Project”).
2. The Authority, created under North Dakota Century Code § 61-24.5, provides operation, maintenance, and management of the Project.
3. In 1995, the Commission entered into an agreement with the Authority assigning to the Authority the completed portions of the Project for operation, maintenance, and management (the “1995 Agreement”).
4. Under North Dakota Century Code § 61-24.5-09, the Authority may enter into contracts for aiding and promoting the construction, maintenance, and operation of the Project and to promote the establishment, construction, development, or operation of the Project.
6. The Project provides water service to certain property identified on the map attached hereto as **Appendix A**. The “Service Area” consists of all lands lying outside the “Rural Water Boundary” depicted on Appendix A.
7. Pursuant to N.D.C.C. § 6-09.4-22, the Authority claims the exclusive right to provide water service to the Service Area. The City has the exclusive right to serve the lands within the Rural Water Boundary.
8. The City has experienced significant growth in recent years. As the City continues to grow, the City desires to provide water service to customers and areas within the Authority’s Service Area.

## **III. AGREEMENT**

The Authority and the City are in agreement with the following terms and provisions regarding the Transfer Area:

### **1. Compensation:**

- A. Paid to the Authority

- a. For each Project customer within the Service Area who will be disconnected from the Project and served directly by the City, the City shall pay to the Authority the projected difference in revenue the Authority would receive over 10 years, with the future years' projected revenue indexed at 4%. The projected revenue is the difference between the revenue the Authority would receive if the Project provides water directly to the customer and the revenue if the Project sells water in bulk to the City. The current projected difference in revenue is \$2,224.47 per customer. The Authority shall adjust the projected difference in revenue for all existing direct customers annually based on the previous year's average usage for customers of the Project and based on the prevailing water rate at the time customers are disconnected from the Project, with future years' projected revenue indexed at 4%. Payment is due to the Authority within 6 months of the date upon which the customer is first served by the City.
- b. For future customers who tie in to City water infrastructure within the Service Area for which the Authority has capacity to serve, the City shall pay to the Authority the projected difference in revenue the Authority would receive over 5 years, with the future years' projected revenue indexed at 4%. The projected revenue is the difference between the revenue the Authority would receive if the Project provides water directly to the customer and the revenue if the Project sells water in bulk to the City. The current projected difference in revenue is \$1,003.53 per customer. The Authority shall adjust the projected difference in revenue annually based on the previous year's average usage for customers of the Project and based on the prevailing water rate at the time customers are served by the City, with future projected revenue indexed at 4%. Payment is due to the Authority within 6 months of the date upon which the customer is first served by the City.

The capacity of the Authority to serve the future customers shall be determined by agreement of the City and the Authority, on a case-by-case basis, at the time the City annexes or makes water service available to any portion of the Service Area. In order to have capacity to serve any disputed area, the Authority must have water infrastructure within or in close proximity to the disputed area and must be capable of providing water service to the disputed area within a reasonable time after a request for service occurs.

- c. In addition to the compensation described above, the City will reimburse the Authority for all costs incurred by the Authority as a result of transferring service from the Authority to the City, including construction costs for relocation or abandonment of the Project pipeline, facilities, or appurtenances (collectively, "Project works") and engineering and legal fees.

**B. Paid to the Commission**

- a. For each Project customer within the Service Area who were disconnected from the Project and are now served directly by the City, the City shall pay to the

Commission the difference in capital repayment rate between the rural customers and contract rate customers for a period of 5 years. The capital repayment rate for rural customers is included in the monthly minimum. For a contract customer like the City, the current capital repayment rate is based on actual usage. The Commission and the Authority set the capital repayment rate. The City shall pay to the Commission \$1,780.56 per customer within 6 months of execution of this Agreement. To date, 0 customers have been disconnected from the Project and are now served by the City.

- b. For each Project customer within the Service Area who will be disconnected from the Project and served directly by the City, the City shall pay to the Commission the difference in capital repayment rate between the rural customers and contract rate customers for a period of 5 years. The capital repayment rate that will be used for determining the compensation will be prevailing rate at the time the customers are disconnected from the Project. Payment is due to the Commission within 6 months of the date upon which the City first serves the customer.

## **2. Procedure:**

- a. For all instances in which the City intends on providing service to any of the Authority's current customers in the Transfer Area:
  - i. The City shall notify all Project customers who will be transferred to City water service in writing at least 14 days prior to the date of transfer of service.
  - ii. The City must provide a Notice of Transfer of Service, via certified mail, to the Authority at least 14 days prior to the date of transfer of service.
  - iii. The Notice of Transfer of Service must describe the Project's customer whom the City intends on serving and the date of transfer of service to the City. The transfer of service must take place on the date of transfer of service as provided in the Notice of Transfer of Service received by the Authority.
  - iv. From the date of transfer of service forward, the City shall be responsible to provide water service to the customer.

## **3. Construction requirements:**

- a. Upon written permission of the Authority and the Commission, the City may use abandoned Project works.
- b. Should removing abandoned Project works be necessary, the City shall use due caution in removing abandoned Project works, namely valves, curb stops, and meter pits, and shall return said works to the Authority.

- c. In accordance with N.D.C.C. § 61-24.3-20, crossing permits are required should the City be required to cross any of the Project's water lines.
- d. The City shall adequately protect the Project works, and the City shall cover Project works sufficiently to prevent them from freezing.
- e. All easements in favor of the Authority or the Commission shall remain in full force and effect (even for those easements for abandoned Project works) until the Authority or the Commission, as applicable, explicitly vacates any such easement in writing.

#### 4. General Provisions:

- a. Liability. The City will indemnify and hold harmless the Authority and the Commission against all claims, demands, or causes of action brought as a result of the Authority or the Commission waiving its right to provide water service or the result of entering into this Agreement. The Authority will indemnify and hold harmless the City from all claims arising from or relating to this Agreement caused by a negligent act or omission of the Authority and resulting in bodily injury, sickness, disease, or death, or damage to tangible property. A party's total liability for claims based on its negligence shall not exceed the percentage share that the party's negligence bears to the total negligence of all entities.
- b. Term. This Agreement shall remain in effect for 40 years after the date of execution of this Agreement.
- c. Notice. All notices required under this Agreement must be given in person, by mail at the address shown on the signature page of this Agreement, by electronic mail, or by facsimile. Notice provided under this provision does not meet the notice requirements for monetary claims against the Commission found at N.D.C.C § 32-12.2-04.
- d. Severability. Whenever possible, each provision of this Agreement shall be interpreted as effective and valid under applicable law. The determination by any court of competent jurisdiction that any provision of this Agreement is unenforceable shall not invalidate this Agreement, and the decision of such court shall limit to the extent possible the provisions of this Agreement that are deemed unenforceable. To the extent such determination has a material impact upon the economic expectations of the parties, the parties agree to make appropriate modifications to this Agreement to take such impact into account.
- e. Merger. This Agreement constitutes the entire agreement between the parties. There are no understandings, agreements, or representations, oral or written, not specified within this Agreement. This Agreement may not be modified,

supplemented, or amended in any manner except by written agreement signed by each party to this Agreement.

- f. Construction. Section headings contained in this Agreement are for convenient reference only and shall not affect the meaning or interpretation of this Agreement. The language used in the Agreement will be deemed the language chosen by the parties to express their mutual intent, and no rule of strict construction will be applied against any person.
- g. Remedy. The use of any remedy specified herein to enforce this Agreement is not exclusive and does not prohibit or limit the application of any other remedy available by law.
- h. Attorney Fees. In the event a lawsuit is initiated by the Authority or the Commission to obtain performance due under this Agreement and the Authority or the Commission is the prevailing party, the City shall pay the Authority's or the Commission's reasonable attorney fees and costs in connection with the lawsuit.
- i. Assignment. The City may not assign, transfer, or delegate any right or duty without the express written consent of the Commission and the Authority.
- j. Venue and Jurisdiction. This Agreement is governed by and construed in accordance with the laws of the state of North Dakota. Any action to enforce this Agreement must be brought in the District Court of Burleigh County, North Dakota. However, this paragraph shall not restrict the Authority from bringing any claim involving a federal question in federal court.

**STATE WATER COMMISSION**

900 East Boulevard Avenue  
Bismarck, ND 58505

By:



Todd Sando, Chief Engineer and Secretary

Date

12/15/15

**SOUTHWEST WATER AUTHORITY**

4665 2<sup>nd</sup> Street SW  
Dickinson, ND 58601-7231

By:



Mary Massad, Manager/CEO

Date

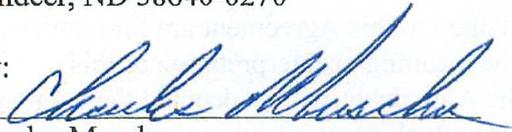
November 16, 2015

**CITY OF KILLDEER**

PO Box 270

Killdeer, ND 58640-0270

By:



Charles Muscha

President, Board of City Commissioners

Date

11-2-15

**CITY OF KILLDEER**

By:



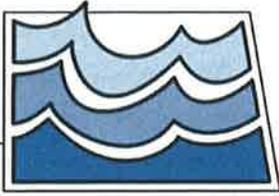
Dawn Marquardt

City Administrator

Date

11-2-15





# 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>

*Agenda*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer-Secretary  
**SUBJECT:** NAWS – Project Update  
**DATE:** February 17, 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* is to be filed by the State of North Dakota as intervenor defendant March 1, 2016 with oppositions by the plaintiffs due April 4, 2016 and replies by the defendants due April 25, 2016. Motions for Summary Judgment are 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. This court typically takes four to six months to reach a verdict after the cases are fully briefed.

The court had previously been notified of maintenance activity necessary at the Minot Water Treatment Plant to ensure its continued operation focused primarily on the lime storage, handling, and softening facilities. A design concept meeting was held February 9, 2016 to update the State Water Commission and City of Minot staff on the progress of this design work.

### NAWS High Service Pump Station

Contract 4-2A-1 includes furnishing and installing a 125 hp ‘Jockey’ pump to compliment the existing 350 hp pumps and maintenance work in the pump station. This contract was originally

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY

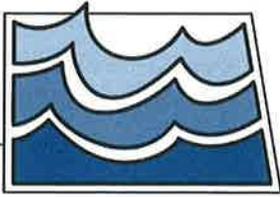
NAWS – Project Update

Page 2

February 17, 2016

intended to be complete by the end of 2015 but has been delayed by equipment delivery dates for the pump and drive.

TSS:TJF:pdh/237-04



# 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>

*Agenda (1)*

## MEMORANDUM

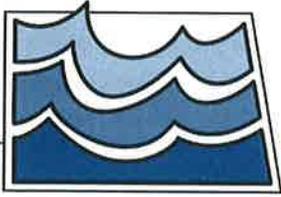
TO: Governor Jack Dalrymple  
Members of the State Water Commission  
FROM: *TSS* Todd S. Sando, P.E., Chief Engineer - Secretary  
SUBJECT: Mouse River Enhanced Flood Protection Project Status Report  
DATE: February 22, 2016

Design for Phase 1, the floodwall extending east from the Broadway Bridge on the north bank of the river, is being coordinated with the proposal to replace the Broadway Bridge in the near future. The 60 percent design report and plans will be submitted on March 24, with 90 percent submission scheduled for August, 2016 and 100 percent on November 20, 2016.

Design work also progresses on Phases 2 and 3, the levee system from the Highway 83 bypass to the CP Rail Bridge. These phases also include the EIS, which becomes the umbrella under which most of the coordination with federal agencies is undertaken. Phases 2 and 3 are scheduled to reach the 90 percent level in March of this year, with design and permitting scheduled for completion in January of 2017. Construction is scheduled for a 2017 start.

Both the Corps of Engineers and FEMA are fully engaged now. A meeting was held with both agencies on January 21, and progress was made in determining the steps needed and requirements to be met. The possibility of Corps of Engineers participation in the project is now a possibility which is being explored. Discussions are under way with the Corps on the subject of a Feasibility Study.

TSS:JTF:pdh/1974



# 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>

*Agenda (2)*

## MEMORANDUM

TO: Governor Jack Dalrymple  
Members of the State Water Commission  
FROM: *TSS* Todd S. Sando, P.E., Chief Engineer - Secretary  
SUBJECT: Mouse River Enhanced Flood Protection StARR Program Cost-Share Request  
DATE: February 22, 2016

From its inception, the Mouse River Enhanced Flood Protection Project has had a Total Basin scope. Developing measures to benefit the rural reaches is different than for the urban areas. The Rural Reaches component of the Preliminary Engineering Study identified a real need for an acquisition program in these areas. In response, the Souris River Joint Board developed the StARR Program. StARR stands for Structure Acquisition, Relocation, or Ring dike. The program intends to provide funding for rural residents in the Mouse River Valley to apply these measures to remove their properties from the threat of flooding.

The Joint Board has held a series of public meetings, and have had a very positive response. They have identified approximately 165 potential properties and estimates a total cost of \$24 Million for the whole program. The Joint Board plans to begin by funding half of the program estimated to cost \$12 Million at this time. The Souris River Joint Water Resources Board has requested 60% cost share funding in the amount of \$7.2 Million to be matched by a combination of sales tax proceeds from the City of Minot and a contribution from each individual owner. Because of the variety of different properties and measures that may be undertaken, there may be a mix of cost share eligibilities involved in the program. It is not possible to say what the overall eligibility will be. Ring dikes and many acquisitions will be eligible for 60% funding by policy, but some acquisitions may be eligible for 75% cost share. The recommendation is based on the minimum 60%. If an individual property is eligible for a higher percentage, they be accommodated within the overall program.

**I recommend the State Water Commission approve funding not to exceed \$7,200,000 to the Souris River Joint Board's StARR program from the funds appropriated to the State Water Commission in the 2015-2017 biennium.**

TSS:JTF:pdh/1974



**COST-SHARE REQUEST FORM**  
 NORTH DAKOTA STATE WATER COMMISSION  
 DEVELOPMENT DIVISION  
 SFN 60439 (10/2015)

This form is to be filled out by the project or program sponsor with State Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 30 days before a State Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

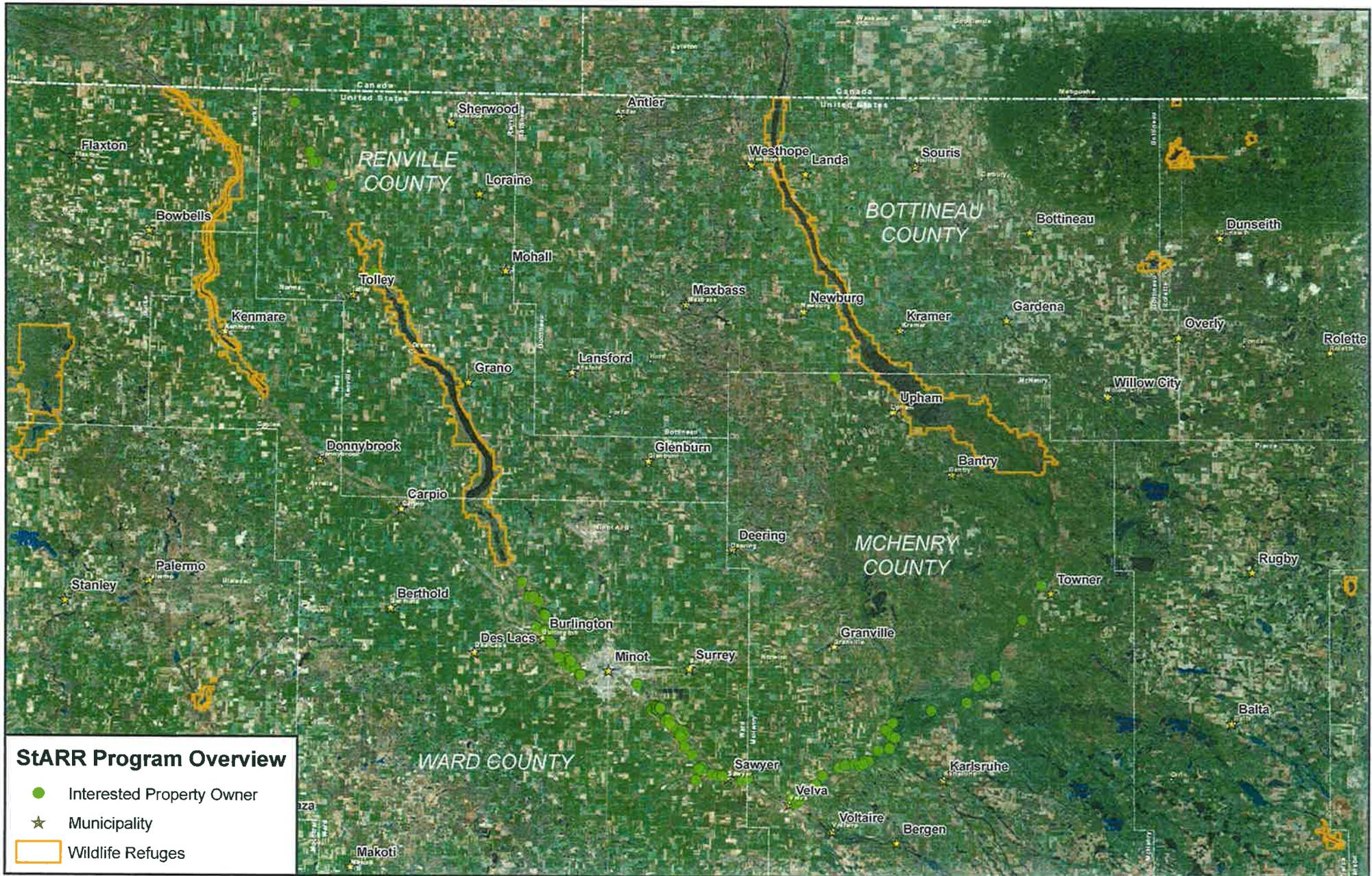
For information regarding cost-share program eligibility see the *State Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at [www.swc.nd.gov](http://www.swc.nd.gov).

Project, Program, Or Study Name Mouse River Enhanced Flood Protection Project (MREFPP) - Structure Acquisition, Relocation or Ring Dike (StARR) Program			
Sponsor(s) Souris River Joint Water Resources Board (SRJB)			
County Renville, Ward, McHenry, & Bottineau	City N/A	Township/Range Various	
Description Of Request <input checked="" type="checkbox"/> New <input type="checkbox"/> Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Provide assistance to rural residents to reduce their flood risk through structure acquisition, relocation, or ring dike construction			
If Study, What Type <input type="checkbox"/> Water Supply <input type="checkbox"/> Hydrologic <input type="checkbox"/> Floodplain Mgmt. <input type="checkbox"/> Feasibility <input checked="" type="checkbox"/> Other			
If Project/Program			
<input checked="" type="checkbox"/> Flood Control	<input type="checkbox"/> Multi-Purpose	<input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Dam Safety/EAP
<input type="checkbox"/> Recreation	<input type="checkbox"/> Water Supply	<input type="checkbox"/> Snagging & Clearing	<input checked="" type="checkbox"/> Property Acquisition
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Water Retention	<input checked="" type="checkbox"/> Rural Flood Control	<input type="checkbox"/> Other
Jurisdictions/Stakeholders Involved SRJB, Renville County, Ward County, McHenry County, Bottineau County, Minot			
Description Of Problem Or Need And How Project Addresses That Problem Or Need This request is to fund the StARR Program of the MREFPP. The MREFPP is a basin-wide program which provides flood control for all residents, urban and rural, in the Mouse River basin. Through the StARR Program, the rural residents will be given an opportunity to participate in either structure acquisition, relocation, or the construction of a ring dike. The program is voluntary. The SRJB is requesting cost-share approval to fund the first phase of this program, which is approximately 50% of the total program. Additional phases of the StARR program will be implemented based on funding availability (state and local). Each type of activity under the StARR program (acquisition, relocation, and ring dike) will be subject to the SWC Cost Share Policy Requirements. The local share for the StARR Program is being funded with a combination of sales tax proceeds from the City of Minot and a local contribution from each property owner.			
Has Feasibility Study Been Completed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Has Engineering Design Been Completed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable
Have Land Or Easements Been Acquired?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Ongoing <input type="checkbox"/> Not Applicable

Have You Applied For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any State Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Applied For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Have You Been Approved For Any Local Permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable				
If Yes, Please Explain				
Briefly Explain The Level Of Review The Project Or Program Has Undergone As part of the MREFPP Rural Alternative Analysis and through the USACE Silver Jackets Program, a review and survey of each property has been completed. In addition, a preliminary replacement value was provided by the USACE.				
Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? No				
Funding Timeline (carefully consider when SWC cost-share will be needed)				
Source	Total Cost	2015-2017 7/1/15-6/30/17	2017-2019 7/1/17-6/30/19	Beyond 7/1/19
Federal	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
State Water Commission	\$ 7,200,000.00	\$ 7,200,000.00	\$ 0.00	\$
Other State	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Local	\$ 4,800,000.00	\$ 4,800,000.00	\$ 0.00	\$
<b>Total</b>	<b>\$ 12,000,000.00</b>	<b>\$ 12,000,000.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied N/A				
Please Explain Implementation Timelines, Considering All Phases And Their Current Status It is anticipated that Phase 1 of the StARR Program (\$12 million total) will be completed by June 30, 2017. Additional applications for cost share will be made for the remainder of the program at a future date. Based on valuation information provided by the USACE, the total program is estimated to cost \$24 million.				
Have Assessment Districts Been Formed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Not Applicable				
Submitted By Souris River Joint Water Resources Board - David Ashley, Chairman			Date 2/8/16	
Address 1605 E Capitol Ave		City Bismarck	State ND	ZIP Code 58501
Telephone Number (701) 626-1566				
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.				
Signature Ryan Ackerman, SRJB Administrator 			Date 2/8/16	

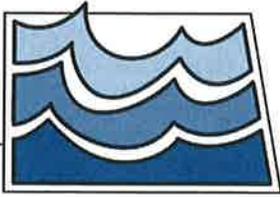
**MAIL TO:**

ND State Water Commission • ATTN: Cost-Share Program  
900 E Boulevard Ave. • Bismarck, ND 58505-0850



OWNER NAME	SITE LATITUDE	SITE LONGITUDE	COUNTY	MAILING ADDRESS	CITY	STATE	PHONE	LEGAL DESCRIPTION
WOZNICKI, BRETT L & THERESA A	48.3017	-101.4224	WARD	8601 COUNTY ROAD 15 W	MINOT	ND	701-725-4805	00156/00084 A 10 OLT 7 OF POR OLT 3 & SWSW LESS OLT 11, S25-156-84 KIRKELIE-57 A=12.77
KLEVEN, DARWYN J & LAUREL	48.3498	-101.4712	WARD	11200 COUNTY ROAD 15 W	MINOT	ND	701-725-4913	00156/00084 A 40 NE LESS OLT 1 & ROW 59-156-84 KIRKELIE-57 A 151.81
EKLUND, MARLYN RAY & DANELL	48.3304	-101.4567	WARD	10601 100TH AVE NW	MINOT	ND	701-725-4657	00156/00084 KIRKELIE-57 A 120.16 SBLT A OF OLT 5 OF SESW & SWSW 515-156-84 KIRKELIE-57 A 2.94
DAWSON, JON K & JONNA M	48.3240	-101.4370	WARD	9501 COUNTY ROAD 15 W	MINOT	ND	701-725-4601	00156/00084 A 13.03 LOT B OF OLT 1 OF E2NW & NE 523-156-84 KIRKELIE 57 A 8.40
GLASOE, AARON S & SARAH L	48.2843	-101.4153	WARD	7971 COUNTY ROAD 15 W	MINOT	ND	701-838-9441	00156/00084 A 2.00 VALLEY MEADOW ADDN LOT 10 KIRKELIE-57 A 2.01
BYRE, ROYAL & RENAE	48.2819	-101.4152	WARD	7941 COUNTY ROAD 15 W	MINOT	ND	701-578-4072	00155/00084 A 2.012 CIRCLE P RANCHES ADDN LOT 3 BURLINGTON-57 A 2.287
WALTER, SCOTT	48.2726	-101.4141	WARD	7731 COUNTY RD 15 W	MINOT	ND	701-720-8284	00155/00084 A 2.18 OLT 1 POR SWSW LS RD 51-155-84 BURLINGTON-57 A .75
LAFOUNTAIN, JESSE AND DEANN	48.2710	-101.4134	WARD	7701 COUNTY ROAD 15 W	MINOT	ND	701-720-4017	00155/00084 A .34 LOT 2 OF REPLAT OLT 12 OF SWSW; S1-155-84 BURLINGTON-57 A 2.60
OLSON, BARBARA J & JOEL R	48.2683	-101.4102	WARD	6724 COUNTY ROAD 15 W	MINOT	ND	701-839-2943	00155/00084 A 2.85 OLT 21 OF N2NE S12-155-84 BURLINGTON-57 A .55
DAKOTA R, LLC	48.2491	-101.3783	WARD	1301 54TH ST NW	MINOT	ND	701-839-5547	00155/00083 HARRISON-57; A 8 S2NW LS RD & N2SW LS POR S OF RIVER, & OLT 19 S17-155-83 HARRISON-57; A 144.77
ERICKSON, ROGER A & PATRICIA J	48.2418	-101.3861	WARD	6400 HIGHWAY 2 AND 52 W	MINOT	ND	701-898-6969	00155/00083 S18-155-83 A 13.675 POR SESE BETWEEN SOO RW & RIVER S18-155-83 HARRISON-57; A 15
ROSTAD, JAMES A & VERLA J	48.2418	-101.3814	WARD	6210 HIGHWAY 2 AND 52 W	MINOT	ND	701-833-8511	00155/00083 A 7.74 OLT 16 OF SWSW S17-155-83 HARRISON-51 A 24.29
MOCK, LAWRENCE L & PATRICIA	48.2390	-101.3783	WARD	6200 HIGHWAY 2 AND 52 W	MINOT	ND	701-721-0688	00155/00082 A 2.33 POR NWNW LYING N OF SOO RR; S20-155-82 HARRISON-57 A 24
BAHM, ROBERT & VALERIE	48.2425	-101.3739	WARD	515 54TH ST NW	MINOT	ND	701-721-1516	00155/00083 S17-155-83 A .25 SESW LS R-W S17-155-83 HARRISON-57 A 35
NELSON, JERRY AND TAWNYA	48.2447	-101.3731	WARD	909 54TH ST NW	MINOT	ND	701-721-3711	00155/00083 HARRISON-51; A 130.61 POR LYING ON S SIDE OF RIVER IN N2SW S17-155-83 HARRISON-57; A 8
BAHM, ROBERT & VALERIE	48.2359	-101.3727	WARD	115 54TH ST NW	MINOT	ND	701-838-9661	00155/00083 A 8.818 SENW LS RD & RWY LS OLT 24; S20-155-83 HARRISON-57 A 20.12
LANGSETH, BRIAN G AND CANDY	48.2367	-101.3697	WARD	118 54TH ST NW	MINOT	ND	701-852-8555	00155/00083 HARRISON-57 A 1.6 NWNW LS RD & OLT 26 NENE LS YMCA & OLT 27 S20-155-83 HARRISON-57 A 82.76
THUNSHELLE, RON T ETAL	48.2348	-101.3616	WARD	111 50TH ST SW	MINOT	ND	701-720-3928	00155/00083 A 6.24 RIVERWOOD ADDN LOT 3 HARRISON-57 A 6.25
BEHM, ROBERT	48.2268	-101.3530	WARD	1335 N 21ST ST	BISMARCK	ND	701-226-1167	00155/00083 A 3.00 BEHMS 2ND ADDN LOT 2 HARRISON-51 A 4.85
BEHM, ROGER J & JUDY E	48.2269	-101.3508	WARD	3804 HIGHWAY 2 AND 52 W	MINOT	ND	701-839-0200	00155/00083 HARRISON-51 A 2.57 BEHMS S-D OF OLT 13 LOT E HARRISON-51 A 3.42
BEHM, ROBERT	48.2260	-101.3510	WARD	1335 N 21ST ST	BISMARCK	ND	701-226-1167	00155/00083 HARRISON-51 BEHMS S-D OF OLT 13 LOT B HARRISON-51 A 3.70
HILL, GARY & REBECCA	48.1866	-101.2012	WARD	4103 55TH ST SE	MINOT	ND	701-839-6776	00154/00082 A 160 S2NW N2SW LESS POR S OF RIVER TO RY & OLT 13, S3-154-82 SUNDRE-510, A 81.68
KLEIN, THOMAS J	48.1815	-101.2079	WARD	5505 54TH AVE SE	MINOT	ND	701-720-8508	00154/00082 A 2.03 ERICKSON S/D LOT 1 SUNDRE-510 A 2.20
VERBRUGGEN, DONALD A & DAWN R	48.1803	-101.2068	WARD	5508 54TH AVE SE	MINOT	ND	701-720-1050	A 1.45 EISENZIMMER S/D LOT 2 SUNDRE-510 A 2.00
LYNNE, ARNE I JR & TOBI	48.1823	-101.2012	WARD	6065 54TH AVE SE	MINOT	ND	701-839-8229	00154/00082 A .23 SUNSHINE ADDITION LOT 2 SUNDRE-510 A 2.03
BRANDT, KELLY J & PENNY SUE	48.1819	-101.2019	WARD	6060 54TH AVE SE	MINOT	ND	701-839-1123	00154/00082 A 3.692 OLT 3 OF NENW S10-154-82 SUNDRE-510 A 1.44
IRWIN, ROBERT W & DONNA	48.1812	-101.1980	WARD	6310 54TH AVE SE	MINOT	ND	701-838-7459	00154/00082 A 2.1 OLT 26 BEING A PORTION OF OLT 6 IN THE NE 1/4 SUNDRE-510 A= 4.95
IRWIN, ROBERT W & DONNA	48.1812	-101.1971	WARD	6310 54TH AVE SE	MINOT	ND	701-838-7459	00154/00082 A 3.07 OLT 27 BEING A PORTION OF OLT 6 OF THE NE 1/4 SUNDRE-510 A=13.85
TRYHUS, CLARENCE & MARGARET	48.1822	-101.1984	WARD	5900 11TH AVE SE	MINOT	ND	701-838-7456	00154/00082 A 4.28 TRYHUS 2ND SUBDIV LOT 1 SUNDRE-510 A 2.92
TRYHUS, CLARENCE & MARGARET	48.1826	-101.1977	WARD	5900 11TH AVE SE - A	MINOT	ND	701-838-7456	00154/00082 A 4.28 TRYHUS 2ND SUBDIV LOT 1 SUNDRE-510 A 2.92
REDDICK, SHARLOTTE	48.1857	-101.1977	WARD	6503 54TH AVE SE	MINOT	ND	701-852-5565	00154/00082 A 6.46 OLT 14 OF W2SE & SESW LESS OLT 17 S3-154-82 SUNDRE-510 A 35.58
REDDICK, SHARLOTTE	48.1860	-101.1977	WARD	6503 54TH AVE SE	MINOT	ND	701-852-5565	00154/00082 A 6.46 OLT 14 OF W2SE & SESW LESS OLT 17 S3-154-82 SUNDRE-510 A 35.58
REDDICK, SHARLOTTE	48.1858	-101.1973	WARD	6503 54TH AVE SE	MINOT	ND	701-852-5565	00154/00082 A 6.46 OLT 14 OF W2SE & SESW LESS OLT 17 S3-154-82 SUNDRE-510 A 35.58
REDDICK, SHARLOTTE	48.1852	-101.1962	WARD	6503 54TH AVE SE	MINOT	ND	701-852-5565	00154/00082 A 17.61 OLT 17 OF POR OLT 14 S3-154-82 SUNDRE-510 A 20.05
GATES, LEWIS E & JEANETTE A	48.1853	-101.1927	WARD	5211 70TH ST SE	MINOT	ND	701-721-1136	00154/00082 SUNDRE-510 RIVERBEND ADDN TO MINOT LOT 8 SUNDRE-510
BOEHLER, LYLE R & BRENDA K	48.1846	-101.1914	WARD	5221 70TH ST SE	MINOT	ND	701-852-6783	00154/00082 SUNDRE-510 RIVERBEND ADDN TO MINOT LOT 6 SUNDRE-510
GIMBLE, LORRAINE LIV	48.1843	-101.1909	WARD	5301 70TH ST SE	MINOT	ND	701-720-5735	00154/00082 SUNDRE-510 RIVERBEND ADDN TO MINOT LOT 5 SUNDRE-510
WEBER, DON	48.1830	-101.1902	WARD	3120 72ND ST SE	MINOT	ND	701-720-1002	00154/00082 SUNDRE-510 RIVERBEND ADDN TO MINOT LOT 3 SUNDRE-510
GALUSHA, BYRON & JOELLA	48.1825	-101.1900	WARD	1505 46TH ST SE	MINOT	ND	701-240-3106	00154/00082 SUNDRE-510 RIVERBEND ADDN TO MINOT LOT 2 SUNDRE-510
REINERT, TED	48.1664	-101.1802	WARD	6800 COUNTY ROAD 19 S	MINOT	ND	701-721-2002	00154/00082 A 59.81 NENW, LESS OLTS 35,36,37 & 38 S14-154-82 SUNDRE-510 A=21.05
ANDERSON, WARREN JAMES & WENDY	48.1677	-101.1785	WARD	6751 66TH AVE SE	MINOT	ND	701-240-2047	00154/00082 A 20.00 SESW 5 OF R-W S11-154-82 SUNDRE-510 A 14.36
JENSON, JASON R.	48.1682	-101.1714	WARD	8201 66TH AVE SE	MINOT	ND	701-340-6844	00154/00082 A .33 OLT 2 SESE S11-154-82 SUNDRE-510 A .46
BERG, LAVERNE L & ELEANOR	48.1560	-101.1603	WARD	7520 89TH ST SE	MINOT	ND	701-624-5417	00154/00082 A 4.7 LOT B OF OLT 6 OF E2 SW, S13-154-82 SUNDRE-510 A 1.45
BERG, LAVERNE L & ELEANOR	48.1568	-101.1598	WARD	7520 89TH ST SE	MINOT	ND	701-624-5417	00154/00082 A 1.45 LOT C OF OLT 6 OF E2 SW, S13-154-82 SUNDRE-510 A 1.84
WEBER, JOHN M	48.1549	-101.1570	WARD	7791 COUNTY ROAD 19 S	MINOT	ND	701-509-3414	00154/00082 A 5 SUBLOT E OF OLT 6 SW LS RWY, S13-154-82 SUNDRE-510 A 5.79
KOHLMAN, DAVID D & MINDEE L	48.1542	-101.1538	WARD	9311 79TH AVE SE	MINOT	ND	701-624-5716	00154/00082 A 2.57 OLT 14 OF SE LS HWY, RWY, & LOT A S13-154-82 SUNDRE-510 A 22.71
WAGGONER, BURT AND STEPHANIE	48.1539	-101.1512	WARD	9401 79TH AVE SE	MINOT	ND	509-979-5997	00154/00082 SUNDRE-510 A 22.71 LOT A OF OLT 14 LS HWY S13-154-82 SUNDRE-510 A 17.71
AZURE, ANDREW J & LYNETTE	48.1532	-101.1438	WARD	9811 79TH AVE SE	MINOT	ND	701-340-5819	00154/00081 A 5.48 OLT 2 OF SW S18-154-81 NEW PRAIRIE-510 SFD A 4.55
MERTZ, MARVIN E & CINDY S	48.1527	-101.1450	WARD	9800 79TH AVE SE	MINOT	ND	701-624-5684	00154/00082 A 9986 OLT 13 NENE LS RD S24-154-82 SUNDRE-510 A 1.23
TRUST SHARE HARLAN SAUGSTAD	48.1488	-101.1463	WARD	9601 84TH AVE SE	MINOT	ND	701-624-5729	00154/00082 SUNDRE-510, A 56.29 N2SE E2NE LS POR SOLD & HWY & SOO RR, S24- 154-82, SUNDRE-510 A 132
WALDREF, ROBERT L & CAROL A	48.1469	-101.1419	WARD	804 35TH AVE SW UNIT C	MINOT	ND	701-852-6964	00154/00081 A 25.46 LOTS 1,2 & E2NW LS 27 A N & E OF TWP RD & POR OLT 6 & HY S19-154-81 NP-S10 SFD, A 127.76
HILL, REBECCA G AND GARY L	48.1421	-101.1449	WARD	4103 55TH ST SE	MINOT	ND	701-839-6776	00154/00082 A 2.63 S2SE LS HY LS POR SOLD, S24-154-82 SUNDRE-510 A 52.90
BENDER, WILLIAM A & RUTH	48.1304	-101.1400	WARD	10001 HIGHWAY 52 S	MINOT	ND	701-833-8759	00154/00081 A 1.57 OLT 15 OF NWSW S30-154-81 NEW PRAIRIE-510 SFD A .53
GOHEEN, WILLIAM & MARILYN	48.1206	-101.1245	WARD	11023 HIGHWAY 52 S	MINOT	ND	701-624-5258	00154/00081 A 40 E2NE LS OLT 1,30 & 31 SEC 31 S2NW LESS OLT 4 SEC 32-154-81 NP-S10 SFD A 85.35
HOCHSPRUNG, KIRK L & KATHY	48.1041	-101.1090	WARD	13001 HIGHWAY 52 S	SAWYER	ND	701-624-2134	00153/00081 A 2.60 OLT 1 IN SWNE NWSE LESS HWY 55-153-81 SAWYER TWP S16 SFD A 38.55
FRANCIS, DOUGLAS & CARRIE	48.1048	-101.1055	WARD	13015 HIGHWAY 52 S	SAWYER	ND	701-624-5784	00153/00081 A 40 ACRES OUTLOT 19 SENE AND NESE 5 05-153-81 SAWYER S16 FD 18 A 10.0
HARTLEIB, KEITH	48.0946	-101.0854	WARD	13701 HIGHWAY 52 S	SAWYER	ND	701-624-5794	00153/00081 A 71.51 NWNW LESS HWY 59-153-81 SAWYER TWP S16 SFD A 28.24
FEIST, MARK	48.0926	-101.0735	WARD	14001 HIGHWAY 52 S	SAWYER	ND	701-626-1865	00153/00081 A 1 OLT 6 NW LESS HWY S10-153-81 SAWYER TWP S16 SFD A 84.74
LAGGE, GARY E	48.0929	-101.0648	WARD	510 15T ST W	SAWYER	ND	701-626-1370	00153/00081 A 160 NWNW SEC 10 LS POR OLT 18; W2SE S3-153-81 SAWYER TWP S16 SFD A 112.22
BOOTH, DOLORES	48.0861	-101.0251	WARD	14801 HIGHWAY 52 S	VELVA	ND	701-624-5125	00153/00081 SE TWP S16 SFD A 119.52 W2NWSE LOCATED N OF CP RAILROAD TRACT S12-153-81 A 12.5 SAWYER TWP S16 SFD
MORGAN, TONY	48.3074	-101.4250	WARD	8821 CTRY RD 15 W	MINOT	ND	701-721-7930	00156/00084 A=12.77 OLT 10 OF OLT 2 OF SWNW S25-156-84 KIRKELIE 57 A 3.98
MOEN, STEVE & JAN	48.2850	-101.4150	WARD	7979 COUNTY RD 15	MINOT	ND	701-838-5751	00156/00084 A 10.04 VALLEY MEADOW ADDN LOT 1 KIRKELIE-57 A 2.05

OWNER NAME	SITE LATITUDE	SITE LONGITUDE	COUNTY	MAILING ADDRESS	CITY	STATE	PHONE	LEGAL DESCRIPTION
WEBER, KEVIN F. AND SONJA	48.3039	-101.4232	WARD	8651 CO RD 15 W	MINOT	ND	701-833-2311	00156/00084 A.15 OLT 11, BEING POR OF OLT 7 S25-156-84 KIRKELIE-S7 A 4.00
ENGELDINGER, PAUL R	48.2894	-101.4407	WARD	9420 PROJECT RD S.	BURLINGTON	ND	701-340-9729	00156/00084 A.3.56 OLT 13 OF SW LESS RD S35-156-84 KIRKELIE S7 A 1.64
SAUTNER, STUART & IONE	48.9163	-101.9160	WARD	1609 31ST AVE SE	MINOT	ND	701-852-5720	T 163 N 87 W 26
LAGGE, BRIAN AND BRUCE	48.1597	-101.1651	WARD	7220 89TH ST SE	MINOT	ND	701-626-1370	00154/00082 154-82, SR-S10,A 7.99 LOT A OF OLT 3 OF NWSW, S13-154-82 SUNDRE-S10 A 1.56
NORD, LONNY A	48.1627	-101.1705	WARD	7001 CTY RD 19 SO	MINOT	ND	701-624-5727	00154/00082 A.4.65 OLT 4 IN SENE S14-154-82 SUNDRE-S10 A 4.44
POYNTER, DUANE	48.1000	-101.1084	WARD	14201 111TH ST SE	SAWYER	ND	701-721-6154	00153/00081 A.7.03 OLT 14 OF NWSE S5-153-81 SAWYER TWP S16 SFD A 6.28
HARTLEIB, KEITH	48.1024	-101.1123	WARD	BOX 186	SAWYER	ND	701-624-5318	T 153 N R 81 W 05
GOODRICH, SERENA	48.0927	-101.0639	WARD	512 1ST ST W	SAWYER	ND	701-626-2476	
TRUST SHARE HARLAN SAUGSTAD	48.1458	-101.1502	WARD	9601 84TH AVE SE	MINOT	ND	701-833-7090	00154/00082 SUNDRE-S10, A 56.29 N25E E2NE L5 POR SOLD & HWY & SOO RR, S24- 154-82, SUNDRE-S10 A 132
POYNTER, DUANE & TONI	48.0863	-101.1172	WARD	14201 111TH ST SE	SAWYER	ND	701-721-6154	00153/00081 A.2.06 OLT 2 OF SW S8-153-81 SAWYER TWP S16 SFD A 44
HARTLEIB, KEITH	48.2149	-101.2373	WARD	BOX 186	SAWYER	ND	701-624-5318	00155/00082 A.1.97 OLT 30 OF NWSE S29-155-82 NEDROSE-S4 A 1.671
VERDANT VALLEY FARM LLP	48.3306	-101.4483	WARD	601 E BRISTOL DRIVE	BISMARCK	ND	701-222-1392	00156/00084 A.1.75 W25W L5 OLT 2 & ROW SEC 14 E2SE LESS OLT 8 & ROW S15-156-84 KIRKELIE-S7 A 151.04
CARD, JERRY LEE SR.	48.3063	-101.4244	WARD	8801 COUNTY ROAD 15 WEST	MINOT	ND	701-500-2904	KK250990000120
WISSBROD, JEFFREY C	48.2851	-101.4164	WARD	7981 COUNTY RD 15 W	MINOT	ND	701-570-2913	00156/00084 A.2.05 VALLEY MEADOW ADDN LOT 2 KIRKELIE-S7 A 2.00
SCHOCK, GREGORY L.	48.2844	-101.4250	WARD	4620 87TH ST NW	BURLINGTON	ND	701-226-3827	00156/00084 RYDER CITY-S50 LOT 1 BROOKS STRUCKNESS ADDN KIRKELIE-S7 A 1.06
PERLICHEK, RUSSELL JR ETAL	48.2833	-101.4250	WARD	4600 87TH ST NW	BURLINGTON	ND	701-839-5363	00155/00084 A.2.22 OLT 19 OF NW S1-155-84 BURLINGTON-S7 A. 86
MINOT COUNCIL BOY SCOUTS	48.2448	-101.3707	WARD	4200 19TH AVE S	FARGO	ND	701-293-5011	900 NW 54TH ST
WEBER, DONALD JR.	48.1832	-101.1903	WARD	3120 72ND ST SE	MINOT	ND	701-509-3641	00154/00082 SUNDRE-S10 RIVERBEND ADDN TO MINOT LOT 3 SUNDRE-S10
CLARKSON, KIM	48.2502	-101.3953	WARD	6420 24TH AVE NW	MINOT	ND	701-833-5425	00155/00083 HARRISON-S7 COUNTRY CLUB ACRES LOT 49 HARRISON-S07
ONES, CURTIS	48.8692	-101.8731	RENVILLE	10045 RIVER ROAD	TOLLEY	ND	701-386-2808	T 162 N R 86 W 07
JOHNSON, RICHARD	48.9026	-101.9012	RENVILLE	P.O. BOX 246	KENMARE	ND	701-263-5644	T 163 N R 87 W 36
MOTT, ERNEST JR.	48.9821	-101.9496	RENVILLE	P.O. BOX 154	SHERWOOD	ND	701-459-2852	T 164 N R 87 W 34
JOHNSON, KIRK	48.9032	-101.9100	RENVILLE	10241 RIVER ROAD	SHERWOOD	ND	701-467-3450	T 163 N R 87 W 36
MCKINNEY CEMETERY	48.7580	-101.7816	RENVILLE		TOLLEY	ND	701-386-2223	T 161 N 86 W 23
ONES, CURTIS	48.8727	-101.8700	RENVILLE	10045 RIVER ROAD	TOLLEY	ND	701-386-2808	T 162 N R 86 W 07
JOHNSTEN, DOUGLAS	48.0895	-101.0134	MCHENRY	PO BOX 481	VELVA	ND	701-509-9066	T 153 N R 80 W 07
FEIST, NEIL & VIRGINIA	48.0548	-100.9180	MCHENRY	P.O. BOX N	VELVA	ND	701-338-2678	T 153 N R 80 W 23
FEIST, CURTIS AND CONNIE	48.0592	-100.9105	MCHENRY	P.O. BOX 42	VELVA	ND	701-338-2378	T 153 N R 80 W 23
SCHLAG, ROGER & NANCY	48.0798	-100.8750	MCHENRY	100 CARMEL CT	VELVA	ND	701-338-2731	OUTLOT 362 OF NE 1/4 NE 1/4 AND NW 1/4 NE 1/4 18-153-79
JONES, KEITH	48.0816	-100.8774	MCHENRY	15 18TH ST SW	MINOT	ND	701-839-4001	T 153 N R 79 W 07
HOWE, DONALD & LINDA	48.0940	-100.8630	MCHENRY	1326 47TH ST N	VELVA	ND	701-338-2630	T 153 N R 79 W 07
VINESETT, OSSIE & CHERYL	48.1054	-100.8311	MCHENRY	1177 RIVER RD N	VELVA	ND	701-240-1460	T 153 N R 79 W 04
MEHLHOFF, VERNON	48.1088	-100.8184	MCHENRY	4799 10TH LN N	VOLTAIRE	ND	701-338-2177	T 153 N R 79 W 03
BAKKEN, CARROL & MARY ANN	48.1107	-100.7988	MCHENRY	987 RIVER RD N	VOLTAIRE	ND	701-338-2693	T 154 N R 79 W 34
FEIST, DICK	48.1079	-100.7893	MCHENRY	P.O. BOX 749	MINOT	ND	701-852-2181	T 153 N R 79 W 02
GJELLSTAD, ROBERT	48.1142	-100.7793	MCHENRY	876 RIVER ROAD N	VOLTAIRE	ND	701-338-2281	T 154 N R 79 W 35
GJELLSTAD, ROBERT	48.1141	-100.7712	MCHENRY	876 RIVER ROAD N	VOLTAIRE	ND	701-338-2281	T 154 N R 79 W 36
WOLHOWE, KARL AND LINDA	48.1292	-100.7525	MCHENRY	7661 ATHERTON WAY	EDEN PRAIRIE	MN	701-338-2160	T 154 N R 78 W 30
WALTER, RAYMOND & CATHERINE	48.1316	-100.7292	MCHENRY	2905 ELK DR #306	MINOT	ND	701-852-3244	T 154 N R 78 W 29
ABERLE, EDWARD & BEATRICE	48.1660	-100.7231	MCHENRY	13901 37TH AVE SE	NORWICH	ND	701-728-6755	T 154 N R 78 W 17
ESPESETH, MYRON AND LILLIAN L.E.	48.1833	-100.6454	MCHENRY	282 53RD PARKWAY N	TOWNER	ND	701-728-6910	T 154 N R 78 W 01
ANDERSON, H. RAMON & HELEN	48.2164	-100.5520	MCHENRY	158 55TH PARKWAY NE	TOWNER	ND	701-537-5382	T 155 N R 77 W 27
KONGSLIE, VERNON L.E.	48.2211	-100.5367	MCHENRY	45 54TH ST NE	TOWNER	ND	701-537-3038	T 155 N R 77 W 26
SWEARSON, TIMOTHY & KAREN	48.3044	-100.4614	MCHENRY	6161 HIGHWAY 14	TOWNER	ND	701-537-5976	T 156 N R 76 W 29
HAMAN, JAMES AND JUDY	48.3513	-100.4234	MCHENRY	PO BOX 313	TOWNER	ND	701-537-5454	T 156 N R 76 W 10
HUBRIG, TRACY AND JENNIFER	48.1568	-100.7394	MCHENRY	5140 RIVER ROAD N	VOLTAIRE	ND	701-338-3691	
ASHLEY, DAVID	48.1557	-100.7345	MCHENRY	4893 7TH AVE N	VOLTAIRE	ND		T 154 N R 78 W 18
SWEARSON, STEVEN AND LAUREN	48.3049	-100.4613	MCHENRY	6159 HIGHWAY 14	TOWNER	ND	701-340-4729	T 156 N R 76 W 29
ASHLEY, DAVID	48.1481	-100.7244	MCHENRY	4893 7TH AVE N	VOLTAIRE	ND	701-626-1566	T 154 N R 78 W 20
ASHLEY, DAVID	48.1462	-100.7175	MCHENRY	4893 7TH AVE N	VOLTAIRE	ND	701-626-1566	T 154 N R 78 W 20
KONGSLIE, LYNN AND SUSAN	48.1939	-100.5739	MCHENRY	45 54TH ST NE	TOWNER	ND	701-537-3038	T 154 N R 77 W 04
FEIST, RICHARD	48.6279	-100.8434	MCHENRY	P.O. BOX 479	MINOT	ND	701-833-2891	NE 1/4 S 1/2 NE 1/4 3-159-79
FEIST, RICHARD	48.1098	-100.7825	MCHENRY	P.O. BOX 479	MINOT	ND	701-833-2891	SE 1/4 SW 1/4 35-154-79
NELSON, HARRY	48.2306	-100.5154	MCHENRY	323 56TH ST NE	TOWNER	ND	701-537-5577	T 155 N R 77 W 24
KONGSLIE, VERNON L.E.	48.2259	-100.5439	MCHENRY	45 54TH ST NE	TOWNER	ND	701-537-3038	T 155 N R 77 W 22
SWEDLUND, IRIS	48.0626	-100.9247	MCHENRY	PO BOX 246	VELVA	ND	907-230-0911	



# 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>

*Appendix 3*

## MEMORANDUM

TO: Governor Jack Dalrymple  
Members of the State Water Commission  
FROM: *TSS* Todd S. Sando, P.E., Chief Engineer - Secretary  
SUBJECT: Mouse River Enhanced Flood Protection Project Funding Request for Engineering  
DATE: February 22, 2016

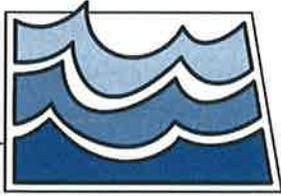
The engineering tasks for Phases 1, 2, and 3 have become more complex and costly than first estimated. This is not unlikely to happen on a project of this scope. At least part of the increase in cost is the necessary inclusion of other components and activities into the current work. Examples are the Environmental Impact Statement and permitting for the whole project and the revision of the plan for the interior drainage system pump stations. Additional requirements of federal agencies in the EIS process also has increased the cost.

In October of 2013, the State Water Commission allocated \$3,830,000 to this effort. In March of 2013, when the environmental work was added, the Commission increased the allocation to \$6,830,000.

The Souris River Joint Water Resources Board has submitted a request for an additional \$987,000 to fund 60 percent of these additional costs.

**I recommend the State Water Commission approve an amount not to exceed \$987,000 for additional engineering costs for Phases 1, 2, and 3 of the Mouse River Enhanced Flood Protection Project from the funds appropriated to the State Water Commission in the 2015-2017 biennium.**

TSS:JTF:pdh/1974



# 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>

*Agenda (1+2)*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission

**FROM:** *Sand* Todd Sando, P.E., Chief Engineer – Secretary

**SUBJECT:** Devils Lake Outlet & Hydrologic Update  
Devils Lake Outlet Operations Funding Appropriation

**DATE:** February 24, 2016

The current water surface elevation of Devils Lake is 1450.0 ft. This is approximately 1.6 feet below the water surface elevation from a year ago.

For Devils Lake the total precipitation for 2015 was 20.4 inches, which was about 0.8 inches less than the average since 1991. Snowpack and SWE in the Devils Lake Basin are near normal. The threat for significant, impactful, snowmelt flooding is low throughout the Red River Basin, although, the National Weather Service does indicate a slightly above historical average risk of snowmelt flooding for the Devils Lake Basin.

The National Weather Service Probabilities for exceeding listed lake levels for the period of February 14, 2016 to September 30, 2016 are shown in the table below. Also shown below is the increase in volume and area from current level to probable level.

Lake	90%	50%	10%
Devils Lake Elev.	1450.9 ft.	1451.3 ft.	1452.4 ft.
Lakes Vol. Increase	90,000 ac.-ft.	175,000 ac.-ft.	390,000 ac.- ft.
Lakes Area Increase	7,400 ac.	12,300 ac.	23,600 ac.

### **Tolna Coulee Control Structure:**

The operating plan for the structure requires that, prior to a natural overflow, the stop log elevation remain between 1 and 2 feet below the water surface of the lake. The current top elevation of the stop logs is 1449 feet. Two rows of stop logs were removed in 2015 as the lake receded to elevation 1450 feet.

### **Devils Lake Outlet Operations, SWC Contract Fund 416-10**

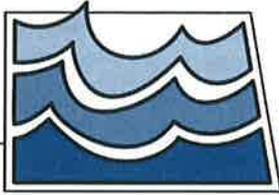
Devils Lake Outlet Operations (project number 416-10) had \$11,000,000 allocated in the State Water Commission's budget included in SB 2020 for the 2015-2017 Biennium.

**I recommend the State Water Commission approve the amount of \$11,000,000 for the Devils Lake Outlet Operations, from the funds appropriated by SB 2020 to the State Water Commission for the 2015-2017 biennium.**

TS:JK:ph/416-10

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
CHIEF ENGINEER AND SECRETARY



# 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>

*Aquanda L*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer/Secretary  
**SUBJECT:** 2016 Spring Flood Outlook  
**DATE:** February 25, 2016

On February 18, 2016, the National Weather Service (NWS) predicted a below average probability of widespread flooding occurring within the Red River, Mouse River, and Missouri River drainage systems for the Spring of 2016. The NWS also expects inflows into Devils Lake will be slightly higher than average; however, extreme volumes are unlikely.

Although the probabilities of widespread flooding are lower than average, it is early in the year and many variables can change. Heavy spring rains can cause major flooding, and spring snowstorms can also increase the flood risk. High water caused by ice jams are very difficult to predict and localized flooding caused by ice will remain a possibility for the remainder of the spring thaw.

The climate continues to be influenced by El Nino with a much greater than average chance of above average temperatures and a good chance of typical precipitation patterns covering all of North Dakota and the upper Missouri River basin for the 1-month, 2-month, and 3-month forecasts.

### **Red River Basin**

The Red River and its tributaries will likely experience average spring flows that include minor to moderate flooding; however, major flooding is not predicted. Typical minor to moderate flooding is expected on the Red River, and minor flood stages on the Red River tributaries are not expected.

### **Mouse River Basin**

The likelihood of widespread flooding within the Mouse River basin is well below normal risk. Reservoir levels are within their seasonal range, and it is probable that not all reservoirs will reach their desired levels without spring rains. However, Willow Creek near Willow City, which typically does not experience flooding, is an exception having an above average chance to experience minor flooding during the spring thaw.

### **Missouri River Tributaries and James River Basins**

Spring runoff within the Missouri River tributaries and the James River is expected to be near normal, and the rivers are not expected to reach flood stages.

### **Missouri River**

Widespread flooding from spring runoff along the Missouri River is not expected. According to the United States Army Corps of Engineers, total system reservoir volume is near average for this time of year, although Fort Peck, Garrison, and Lake Oahe reservoirs are higher than average for this time of year.

Plains snowpack is below average, and much of it has melted because of warmer than average temperatures. Mountain snowpack is 75 percent of average above Garrison for this time of year. Historically, mountain snow pack peaks near mid-April, with about 70 percent of the accumulation occurring by mid-February.

The Missouri River near Bismarck stage rose because of an ice jam occurring near the Grant Marsh Bridge (Interstate Bridge) from February 13 through February 18. The stage at Bismarck peaked at 12.8 ft. on February 14, slightly above the action stage of 12.5 ft. Flood stage at Bismarck is 14.5 ft. The Missouri River is mostly ice free, and it is likely that a substantial ice pack will not form again until next winter.

### **Devils Lake**

Devils Lake will likely have higher than average inflows this year. The forecast states there is a 50 percent chance it will rise 1.3 ft to elevation 1451.3 ft NGVD29. The peak elevation is expected to occur early-summer, which is typical.

TSS:MSW



# 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>

*Agenda M*

## MEMORANDUM

**TO:** Governor Jack Dalrymple  
Members of the State Water Commission  
**FROM:** *TSD* Todd Sando, P.E., Chief Engineer/Secretary  
**SUBJECT:** Missouri River Update  
**DATE:** February 18, 2016

### **System/Reservoir Status**

System volume on February 18 in the six mainstem reservoirs was 56.4 million acre-feet (MAF), 0.3 MAF above the base of flood control. This is 3.5 MAF above the average system volume for the end of February and 0.5 MAF less than last year.

On February 18, Lake Sakakawea was at an elevation of 1838.2 feet msl, 0.7 feet above the base of flood control. This is 0.9 feet lower than a year ago and 7.2 feet above its average end of February elevation. The minimum end of February elevation was 1806.9 feet msl in 2007 and the maximum end of February elevation was 1842.8 feet msl in 1973.

On February 18, the elevation of Lake Oahe was 1607.7 feet msl, 0.2 feet above the base of flood control. This is the same elevation as last year and 7.1 feet higher than the average end of February elevation. The minimum end of February elevation was 1572.3 feet msl in 2007, and the maximum end of February elevation was 1611.1 feet msl in 1996.

On February 18, the elevation of Fort Peck was 2234.0 feet msl, which is at the base of flood control. This is 1.0 feet lower than a year ago and 7.2 feet higher than the average end of February elevation. The minimum end of February elevation was 2196.3 feet msl in 2007, and the maximum end of February elevation was 2243.5 feet msl in 1976.

Plains snowpack this winter has been below normal, and most of it has melted due to above normal temperatures. On February 17, mountain snowpack in the "Above Fort Peck" reach and "Fort Peck to Garrison" reach was 93 percent and 76 percent of normal, respectively. Typically, 70 percent of the peak mountain snowpack has accumulated by February 15, and it normally peaks on April 15.

### **Ice-Affected Flow on Missouri River**

On February 13, accumulation of ice on the Missouri River caused an increase in stage at the Bismarck gage. River stage at the Bismarck gage peaked briefly at 12.8 feet on February 14 and then hovered around 12.0 feet for about two days. Most of the ice accumulated between the Interstate Bridge and Memorial Bridge. The greatest stage increase occurred upstream of the Interstate Bridge, which was not reflected in the stage at the Bismarck gage. Warm temperatures melted the ice and the stage at the Bismarck gage decreased to pre-ice jam levels by February 18.

### **Missouri River Recovery Implementation Committee (MRRIC)**

In Section 5018 of the 2007 Water Resources Development Act (WRDA) Congress authorized the Missouri River Recovery Implementation Committee (MRRIC). The Committee is to make recommendations and provide guidance on activities resulting from the Missouri River Recovery Program (MRRP). The Committee was established in 2008. MRRIC has nearly 70 members representing local, state, tribal, and federal interests throughout the Missouri River Basin.

The Corps is currently engaged in the process of preparing the Missouri River Recovery Management Plan and Environmental Impact Statement (MRRMP and EIS). This process involves the development of a range of alternatives for the purposes of assisting the recovery of species on the Missouri River protected under the Endangered Species Act, specifically the threatened piping plover and endangered least tern and pallid sturgeon. One of the goals of the MRRMP and EIS is to incorporate Adaptive Management into the Corps' Missouri River Recovery Program. The Corps is developing the MRRMP and EIS in collaboration with the U.S. Fish and Wildlife Service and the MRRIC.

The MRRIC will meet in Kansas City on February 22 to 25 where discussion will continue on the MRRMP and EIS. The Corps will be evaluating six alternatives in their draft EIS. Four of the six proposed alternatives include actions outside the constraints of the current Master Manual. Actions outside the Master Manual include fall or spring pulses for the creation of emergent sandbar habitat, low nesting season flows, and a couple variations of the pallid sturgeon spawning cue pulse.

As part of the MRRMP and EIS, the U.S. Fish and Wildlife Service (USFWS) has changed the non-jeopardy goals for the least terns and piping plovers. The goal is to maintain a 95 percent probability that a population of at least 50 individuals (birds) will persist for at least 50 years on the Missouri River. Emergent Sandbar Habitat (ESH) targets have been developed to support this goal. When questioned about the basis of their new non-jeopardy goal, the USFWS indicated they are still in the process of determining the basis.

### **Emergent Sandbar Habitat Plans for Garrison Reach**

Similar to last year, the Corps plans to spray vegetation on sandbars for the purpose of maintaining ESH in the Garrison Reach for the least terns and piping plovers. No other ESH-creating actions are planned for the Garrison Reach this year.