MINUTES

North Dakota State Water Commission
Bismarck, North Dakota

April 12, 2018

The North Dakota State Water Commission (State Water Commission or Commission) held a meeting at the Brynhild Haugland Room, State Capitol, Bismarck, North Dakota, on April 12, 2018. Lt. Governor Brent Sanford, acting Chairman, called the meeting to order at 9:05 a.m., and requested Garland Erbele, State Engineer, and Chief Engineer-Secretary to the State Water Commission, call the roll. Lt. Governor Sanford announced a quorum was present.

STATE WATER COMMISSION MEMBERS PRESENT:

Lt. Governor Brent Sanford, acting Chairman
Doug Goehring, Commissioner, North Dakota Department of Agriculture, Bismarck
Katie Andersen, Jamestown
Michael Anderson, Hillsboro
Richard Johnson, Devils Lake
Leander McDonald, Bismarck (arrived 1:15 p.m.)
Mark Owan, Williston
Matthew Pedersen, Valley City
Jason Zimmerman, Minot

OTHERS PRESENT:

Leslie Bakken-Oliver, General Counsel, Governor's Office
Jennifer Verleger, General Counsel, State Water Commission
Garland Erbele, State Engineer, and Chief Engineer-Secretary,
North Dakota State Water Commission, Bismarck
State Water Commission Staff
Approximately 50 people interested in agenda items.

The attendance register is on file with the official minutes.

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

Governor Burgum was absent because of meetings in Washington, D.C. Lt. Governor Sanford chaired the meeting.

CONSIDERATION OF AGENDA:

The agenda for the April 12, 2018, State Water Commission meeting was presented; there were no modifications.

CONSIDERATION OF DRAFT MINUTES OF FEBRUARY 8, 2018:

The draft minutes of the February 8, 2018, State Water Commission meeting were reviewed; there were no modifications.

It was moved by Commissioner Andersen, seconded by Commissioner Owan, and unanimously carried, that the minutes of February 8, 2018, be approved as presented. Commissioner McDonald was absent for vote.

PUBLIC COMMENT AND DISCUSSION ON REVISED COST-SHARE POLICY

Craig Odenbach, Director of Water Development Division, presented public comments on the proposed cost-share policy received after the February 8, 2018, meeting. Cost-Share Comments Received as of April 11, 2018; State Water Commission Project Prioritization Guidance Comments; and, a flowchart of the State Water Commission Cost-Share Funding Process are attached as **APPENDIX A.**

GOVERNANCE AND SUBCOMMITTEES:

After discussion, it was determined that subcommittees would be beneficial during the project review and funding determination process, with support by State Water Commission staff. The main objective is to provide a mechanism for the Commissioners' review of projects earlier in process with final approval provided at commission meetings as is currently done. Commissioners would also participate in the review all projects when initially submitted each biennium for the State Water Development Plan.

It was moved by Commissioner Johnson, seconded by Commissioner Andersen, and unanimously carried, that the following subcommittees be formed with Commissioners assigned as follows:

Finance, Planning, and Budget
Commissioner Katie Andersen
Commissioner Richard Johnson
Commissioner Mark Owan

Flood Control
Commissioner Matthew Pedersen
Commissioner Jason Zimmerman

Water Supply
Commissioner Michael Anderson
Commissioner Leander McDonald

COST-SHARE AND PRIORITIZATION PROCESS - PUBLIC COMMENTS:

Proposed revisions to the State Water Commission Policy, Procedure, and General Requirements is attached as **APPENDIX B.**

Blake Crosby, Executive Director, ND League of Cities, presented public comments on proposed revisions, **APPENDIX C.**

Eric Volk, Executive Director, ND Rural Water Systems Association, presented public comments on proposed revisions, **APPENDIX D.**

Michael Dwyer, Executive Secretary, ND Water Resource Districts Association, presented public comments on proposed revisions, **APPENDIX E.**

Pat Fridgen, Commission's Director of Planning and Education, gave an overview of the prioritization process.

After discussion, it was determined the revisions would be incorporated by staff into final draft policy documents and reviewed at the June 14, 2018, meeting. The prioritization revisions would not go into effect until the 2019-2021 biennium.

The meeting was adjourned for lunch at 12:25 p.m. and reconvened at 1:15 p.m.

STATE WATER COMMISSION FINANCIAL REPORTS:

The allocated program expenditures for the period ending February 28, 2018, were presented and discussed by David Laschkewitsch, Director of Administrative Services. The total expenditures are within the authorized budget amounts.

The Project Summary for the 2017-2019 Biennium, **APPENDIX F**, provides information on the committed and uncommitted funds from the Resources Trust Fund and the

Water Development Trust Fund. The final summary for projects shows approved projects totaling $555,294,467 with expenditures of $109,730,775. A balance of $126,974,548 remains available to commit to projects in the 2017-2019 biennium.

The oil extraction tax deposits into the Resources Trust Fund total $95,008,219 through February 2018 and are currently $6,559,203 or 7.4 percent above budgeted revenues.

No deposits have been received for the Water Development Trust Fund this biennium. The first planned deposit is for $9,000,000 in April 2018.

FOUR-YEAR PROJECT UPDATES: (SWC Project No. 1753)

The 2017 legislative session House Bill 1374 added the following section, **N.D.C.C. 61-02-14.3,** requiring that project sponsors must provide "a progress report to the commission at least every four years if the term of the project exceeds four years."

> **61-02-14.3. Commission agreements - Terms, conditions, and reapplication.**
> An agreement for funding which is approved by the commission to fund a water project under this chapter must require a progress report to the commission at least every four years if the term of the project exceeds four years. If a progress report is not timely received or, if after a review of a progress report, the commission determines the project has not made sufficient progress, the commission may terminate the agreement for project funding. The project sponsor may submit a new application to the commission for funding for a project for which the commission previously terminated funding.

A request for a progress report was sent to projects which exceeded four years from the date of approval identifying the following three options:

1. De-obligate the funds back to the State Water Commission.
2. Submit your final expenses for reimbursement.
3. Come before the State Water Commission to provide a progress report.

The following are projects for which a contract extension was requested.

Lisbon Permanent Flood Protection Project – Levee A
Lisbon has constructed four of the five major projects in the overall Sheyenne River Flood Protection Project. The cost-share participation was based on the policy of

60 percent for flood control, plus 20 percent to mitigate the additional flood risk from the Devils Lake Outlets. Project construction included Levee A in 2014, Levee C in 2015, Levee E in 2016, Levee D in 2017, and Levee F will begin construction in 2018. There are two gaps in the flood protection system that have not been completed. They are the closure structure between Levee A and Levee C, and the tie in on the south end of Levee E. Lisbon is working on securing final right-of-way to construct the Levee A-C closure and Levee E Phase 2 for construction in 2019. Once the scope of the closure is determined, Lisbon will request the State Water Commission re-program remaining funds from the other levee projects to the construction of the Levee A-C closure. The estimated Levee A project cost was $1,775,000 with $1,548,372 eligible for an approved 80 percent cost-share of $1,238,698. The cost-share balance is $146,969.

Secretary Erbele recommended the State Water Commission approve the agreement be extended with the project sponsor continuing to make progress in 2018-2019.

It was moved by Commissioner Pedersen and seconded by Commissioner Zimmerman that the State Water Commission approve continuation of the agreement with a balance of $146,969.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

Mandan New Raw Water Intake

Since 1999, the current raw water intake has been experiencing significant siltation problems that restrict water flow into the intake. The new raw water intake will continue to be shared with the Andeavor Refinery and the capacity increased from 14 to 24 million gallons per day to address future demands. The new intake will be located 4,500 feet south of the existing location at a site that will take advantage of the Missouri River's natural scouring forces. Mandan serves 22,000 people, the Missouri West Water System in Morton County, and Captains Landing, a rural residential community located south of Interstate 94 on the Missouri River. The current water supply from the Missouri River is treated with a filtration and lime softening water treatment plant rated at 12 million gallons per day. Mandan received cost-share for design and bidding with a 65 percent cost-share of $1,650,420 on an estimated cost of $2,539,108. Mandan's water rate is $15.16 monthly minimum and $3.87 per 1,000 gallons used. The cost-share balance is $1,488,014.

Secretary Erbele recommended the State Water Commission approve the agreement be extended based on the project sponsor continuing to make progress in 2018-2019, specifically having reached agreement with Andeavor.

It was moved by Commissioner Andersen and seconded by Commissioner McDonald that the State Water Commission approve continuation of the agreement with a balance of $1,488,014.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

Mercer County Water Resource District Lake Shore Estates High Flow Diversion
This is a high flow diversion to protect the Lake Shore Estates development north of Beulah on the shores of Lake Sakakawea. High rainfall and snowfall have caused a pond with no natural drain to inundate properties and disable sewage systems in the Lake Shore Estates rural subdivision. The present plan is to use tile drain to redirect high flows away from the pond and across Corps of Engineer (Corps) property to Lake Sakakawea. The Corps rejected the proposal in the fall of 2016, and the district is working on needed mitigation acres. The original rural flood control project had an estimated total cost of $119,510 with $97,380 eligible for cost-share of 45 percent of $43,821. No construction has occurred and progress appears to be delayed until the Corps accepts the overall project.

Secretary Erbele recommended the State Water Commission terminate the agreement and the cost-share balance of $43,821 be deobligated.

It was moved by Commissioner Goehring and seconded by Commissioner Owan that the State Water Commission approve continuation of the agreement with a balance of $43,821.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

Sawyer Phase 1 Floodway Acquisitions
Sawyer received cost-share for assistance in acquiring property for a future flood control project. Sawyer planned to acquire two properties in Phase I of the acquisition program. The estimated purchase price for these properties was $245,678 for 75 percent cost-share of $184,260. The progress report indicated the acquisition of the one remaining property is unlikely based on several failed attempts with the homeowner.

Sawyer withdrew its request that the $135,844 cost-share balance of funds be reprogramed for a future project under the Mouse River Enhanced Flood Protection Project.

> **It was moved by Commissioner Goehring and seconded by Commissioner McDonald that the State Water Commission deobligate the remaining balance of $135,844.**
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> **Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.**

After discussion concerning reallocation of the funding, Commissioner Goehring proposed that the funding remain committed to the city of Sawyer, and that the Souris River Joint Board discuss the city's receptiveness to using this funding to reimburse the Souris River Joint Board for a portion of their property acquisition costs.

> **It was moved by Commissioner Goehring and seconded by Commissioner Andersen that the State Water Commission reconsider and rescind the earlier motion and approve continuation of the agreement with a balance of $135,844.**
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> **Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.**

Ward County Floodway Acquisitions
The State Water Commission approved 75 percent cost-share of $18,285,205 to assist Ward County in acquiring property for a future flood control project. On March 14, 2017, Ward County indicated the county's voluntary acquisition effort in the rural areas was drawing to a close with $6,015,347 remaining in the program. On June 22, 2017, the

State Water Commission approved the county's request that the remaining funding be made eligible for acquisitions within the corporate limits of the city of Minot, since Minot is within Ward County, and the county commission would approve the acquisitions request from the city or Souris River Joint Board. The cost-share balance is $3,171,624.

Secretary Erbele recommended the State Water Commission approve the agreement be extended based on the project sponsor continuing to make progress in 2018-2019.

> **It was moved by Commissioner Zimmerman and seconded by Commissioner Goehring that the State Water Commission approve continuation of the agreement with a balance of $3,171,624**.
>
> **Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.**

Washburn New Raw Water Intake

Larry Thomas, Washburn City Commission President, presented an update on the Washburn Raw Water Intake project, attached as **APPENDIX G.** Mr. Thomas indicated Washburn applied for a 75 percent federal grant to be used on the local share and will proceed upon hearing of the award of federal funding.

Washburn's raw water intake suffers from sediment in the raw water and limited capacity during low flows with the change in riverbed elevations after the 2011 Missouri River flood. Washburn plans to replace their current intake in the Missouri River to minimize issues with elevation, quality, and capacity. The estimated project cost was $3,591,154 with an approved 65 percent cost-share of $2,334,250. Washburn serves 1,303 people and provides water to McLean Sheridan Water District for a portion of their rural water service area. Washburn's water rate is $40 monthly minimum, which includes 2,000 gallons, and $4 per 1,000 gallons used. Washburn plans to bid the project in May and start construction in June. The cost-share balance is $2,141,211.

It was the recommendation of Secretary Erbele that the State Water Commission approve the agreement be extended based on the project sponsor continuing to make progress in 2018-2019.

> **It was moved by Commissioner Goehring and seconded by Commissioner McDonald that the State Water Commission approve continuation of the agreement with a balance of $2,141,211**.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

STATE COST-SHARE PARTICIPATION REQUESTS – MUNICIPAL CONSTRUCTION

CITY OF MANDAN, SUNSET RESERVOIR WATER TRANSMISSION LINE - $3,135,000 (SWC Project No. 2050MAN)

Mandan submitted a cost-share request for pre-construction and construction costs for the Sunset Reservoir Water Transmission Line. The transmission line is intended to address current and future capacity demands in the northwest area of Mandan. The project includes the installation of 9,145 feet of 30-inch pipeline to connect Mandan's water treatment plant to the Sunset Reservoir. Mandan's water supply is the Missouri River, and the water is treated with a filtration and lime softening water treatment plant rated at 12 million gallons per day. Mandan serves over 22,000 people: Missouri West Water System in Morton County, and Captains Landing, a rural residential community located south of Interstate 94 on the Missouri River. Mandan's water rate is $15.16 per month minimum and $3.87 per 1000 gallons. Limited survey of water rates shows municipal systems across the state have an average rate of $14.50 per month minimum and $5 per 1,000 gallons.

Mandan completed the project planning, determined the local match, and begin work on plans and specifications. Mandan plans to bid June 29, start construction in September, and have construction completed by October 30. The project has an estimated total cost of $5,402,084 with $425,000 for pre-construction and $4,977,084 for construction. Cost-share of 35 percent on pre-construction costs and 60 percent on construction costs provides total cost-share funding of $3,135,000. The Cost-Share Request Form and supporting material is attached as **APPENDIX H**.

Secretary Erbele recommended the State Water Commission approve cost-share of $3,135,000, with pre-construction costs funded at 35 percent and construction costs funded at 60 percent. The funding is in the form of a cost-share towards eligible costs, and contingent on available funding.

It was moved by Commissioner Johnson and seconded by Commissioner McDonald that the State Water Commission approve total state cost-share of $3,135,000, paid on eligible costs for 35 percent pre-construction costs and 60 percent construction costs. This action is contingent upon the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

WING WATER TOWER REPAIR - $72,000
SWC Project No. 2050

The city of Wing submitted a letter dated January 18, 2018, requesting reimbursement for costs already incurred in the repair of their existing water tower and cost-share towards the future coating of the exterior of the tank. The request letter and supporting material is attached as **APPENDIX I**.

H&H Coatings from Devils Lake completed the work on the water tower in October 2017 at a cost of $120,000. The work included repair of the recirculation system, lining the interior, and replacing the roof. Wing borrowed the funding for the repair from the North Dakota Finance Authority. H&H estimated an additional $55,000 to coat the exterior of the tank.

Wing's water supply is the Wing Channel Aquifer and the water is treated with chlorine. Wing serves 130 people. Wing's water rate is $22 per month minimum and $5 per 1,000 gallons. Limited survey of water rates shows municipal systems across the state have an average rate of $14.50 per month minimum and $5 per 1,000 gallons.

Cost-share policy states work and costs incurred prior to a cost-share approval date are ineligible costs. Cost-share policy also provides that 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. This project was not an emergency; H&H noted the interior coating was failing in their 2008 inspection.

This project was not submitted as part of the 2017-2019 State Water Plan, but if it had been submitted, it would have been prioritized as a low priority project. If the two costs

were considered for cost-share, then 60 percent would be $72,000 on the $120,000 repair, and $33,000 on the $55,000 for exterior coating.

A table of the 2017-2019 water supply budget is below. After the $3,135,000 is obligated to Mandan there will be a total of $1,312,650 remaining out of the $43,125,000 budgeted for municipal water supply. There is a total of over $25 million worth of unfunded high priority municipal water supply projects included in the State Water Plan at this time. There is a total of over $62 million of low priority projects that were included in the State Water Plan but remain unfunded at this time.

2017-2019 Water Supply Budget
March 29, 2018

Category	Budget	Approved	Pending	Balance
Northwest Area Water Supply	$ 10,000,000	$10,000,000	$0	$0
Southwest Pipeline Project	$ 17,000,000	$ 6,300,000	$10,700,000	$0
Western Area Water Supply	$ 20,000,000	$20,000,000	$0	$0
Red River Valley Water Supply	$ 30,000,000	$17,000,000	$13,000,000	$0
Municipal Water Supply	$ 43,125,000	$38,677,350	$3,135,000	$1,312,650
Total	$120,125,000	$81,977,350	$26,835,000	$1,312,650

Because costs incurred prior to cost-share approval are by policy ineligible, Secretary Erbele recommended the State Water Commission deny the requested reimbursement of costs already incurred in the repair.

Because there are a multitude of high priority projects and other low priority projects that were actually submitted as part of the planning and budgeting process that remain unfunded at this time, Secretary Erbele recommended the State Water Commission defer any potential funding for the future exterior coating. Sixty percent is $72,000 of the $120,000 repair

It was moved by Commissioner Goehring and seconded by Commissioner McDonald that the State Water Commission approve total state cost-share of $72,000, paid 60 percent on repair costs. This action is contingent upon the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

STATE COST-SHARE PARTICIPATION REQUESTS – RURAL CONSTRUCTION

EAST CENTRAL REGIONAL WATER SUPPLY DISTRICT - $5,345,000 (SWC Project No. 2050GFT/2050TRA)

On March 1, 2018, Grand Forks Traill Water District and Traill Rural Water District merged into East Central Regional Water District. The district has completed the project planning, determined the local match, and completed plans and specifications for several projects. The request letter, Cost-Share Request Form, and supporting material is attached as **APPENDIX J**.

The Grand Forks System uses raw water from the Elk Valley Aquifer treated at the water treatment plant six miles north of Northwood. Grand Forks' 2,850 users have water rates ranging from $29.40 to $55 per month minimum, based on several system expansions with all water users paying $5.40 per 1,000 gallons used. New users will have a water rate of $55 per month minimum and $5.40 per 1,000 gallons.

The Traill System obtains water from both the cities of Mayville and Hillsboro water treatment plants, both using raw water from the Page/Galesburg Aquifer. Traill's 779 users have a water rate of $55 per month minimum and $7 per 1,000 gallons. Rural systems across the state have a median rate of $45 per month minimum and $6 per 1,000 gallons.

The Grand Forks System cost-share request included an expansion to address current and future demands of the system. The Grand Forks expansion provides additional capacity in the system and adds 40 new water users by installing 175,000 feet of 4-inch to 12-inch transmission pipeline in the system's central and northern areas. The Grand Forks expansion is to bid April 19, 2018, is scheduled to start construction May 9, 2018, and construction is proposed to be completed by August 30, 2019.

The interconnect project will connect the two separate systems bringing water north from the Mayville water treatment plant via installation of 78,750 feet of 14-inch transmission pipeline. The merger of the two water districts allows the interconnect project and Grand Forks expansion project be offered in one bid contract. The interconnect project is to bid April 19, 2018, is scheduled to start construction May 9, 2018, and construction is proposed to be completed by August 30, 2019.

The Traill System cost-share request includes an expansion to address current and future demands of the system. The Chief Engineer approved cost-share of $75,000 on the Traill Expansion Part 1 project construction costs on September 7, 2017, allowing 5,649 feet of 8-inch pipeline to be completed the fall of 2017, to ensure adequate capacity for American Crystal Sugar. The Traill Expansion Part 2 project brings water north from the Hillsboro water treatment plant to connect to the completed Expansion Part 1 project through installation of 16,050 feet of 8-inch pipeline in the system's northeast portion. Traill Expansion Part 2 was bid February 21, 2018, is scheduled to start construction April 13, 2018, and the construction is proposed to be completed by July 15, 2018.

Total cost-share approved to-date is $276,880, including $201,880 approved on August 23, 2017, for pre-construction activities, and the $75,000 approved for Traill Expansion Part 1 construction. The two system's total combined project cost is now estimated to be $7,767,657 with pre-construction costs of $509,658, and construction costs of $7,257,999. With pre-construction funded at 35 percent and construction funded at 75 percent, the total cost-share is $5,621,880 for an additional $5,345,000.

Secretary Erbele recommended the State Water Commission approve an additional $5,345,000, resulting in a total cost-share of $5,621,880, with pre-construction costs funded at 35 percent and construction costs funded at 75 percent, for the East Central Regional Water District projects. The funding is in the form of a cost-share towards eligible costs, contingent on available funding, and allows East Central Regional Water District to use the cost-share in a combined bid package.

It was moved by Commissioner Owan and seconded by Commissioner Johnson that the State Water Commission approve an additional $5,345,000, for total state cost-share of $5,621,880, paid on eligible costs for 35 percent pre-construction costs and 75 percent construction costs. This action is contingent upon the availability of funds.

Commissioners Andersen, Johnson, McDonald, Owan, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Commissioner Anderson abstained from voting. Lt. Governor Sanford announced the motion unanimously carried.

STUTSMAN RURAL WATER DISTRICT PHASE 6 - $2,100,000
(SWC Project No. 2050STU)

The cost-share request for Stutsman Rural Water District's Phase 6 Pettibone project is for pre-construction and construction costs to address current and future demands in western Stutsman County, the city of Pettibone, and users in eastern Kidder County in the area around Lake Williams. The area water is of poor quality being high in calcium, sulfates, and total dissolved solids. Stutsman purchases water for this area of their system from the city of Carrington's water treatment plant, which uses raw water from the Carrington Aquifer. Phase 6 includes installation of 175,000 feet of 4-inch to 12-inch transmission pipeline and addition of 55 new water users. The 2,325 existing Stutsman users have water rates ranging from $40 to $48 per month minimum being based on the several system expansions with all water users paying $5 per 1,000 gallons used. The new users will have a water rate of $48 per month minimum and $5 per 1,000 gallons. Rural systems across the state have a median rate of $45 per month minimum and $6 per 1,000 gallons.

Stutsman has completed the project planning, is ready to design the project, has determined the local match, and will complete plans and specifications for bidding this summer. Phase 6 is to bid in July 2018, proposed to start construction in August 2018, and complete construction in July 2019. The project estimated total cost is $2,840,000 with pre-construction costs of $75,000 and construction costs of $2,765,000. Cost-share of 35 percent on pre-construction costs and 75 percent on construction costs provides total cost-share funding of $2,100,000. The Cost-Share Request Form and supporting material is attached as **APPENDIX K**.

Secretary Erbele recommended the State Water Commission approve total cost-share of $2,100,000 with pre-construction costs funded at 35 percent and construction costs funded at 75 percent for the Stutsman Rural Water District Phase 6 project. The funding is in the form of a cost-share towards eligible costs and contingent on available funding.

It was moved by Commissioner Pedersen and seconded by Commissioner Goehring that the State Water Commission approve total state cost-share of $2,100,000, paid on eligible costs for 35 percent pre-construction costs and 75 percent construction costs. This action is contingent upon the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

WALSH RURAL WATER DISTRICT EXPANSION - $1,242,625
(SWC Project No. 2050WAL)

Walsh Rural Water District submitted a cost-share request for construction costs to address current and future demands of the system by installing over 30 miles of pipeline, adding 25 new users in the western portion of the system, and upsizing over 10 miles of pipeline in the southern and eastern portion for system capacity around Minto. Walsh currently provides water to the city of Minto. Walsh obtains treated water from the city of Park River's water treatment plant with Park River obtaining its raw water from the Fordville Aquifer. The 1,400 existing Walsh users have water rates ranging from $36 to $55 per month minimum based on the several system expansions with all water users paying $7.50 per 1,000 gallons used. The new users will have a water rate of $55 per month minimum and $7.50 per 1,000 gallons. Rural systems across the state have a median rate of $45 per month minimum and $6 per 1,000 gallons.

The expansion project was approved for cost-share of $57,375 on pre-construction costs on August 23, 2017. Walsh completed the project planning, determined the local match, and completed plans and specifications for bidding the project on April 25, 2018. The plan is to start construction May 17, 2018, and complete construction by July 30, 2018. The estimated total cost is $1,821,867 with pre-construction cost of $166,000 and construction costs of $1,655,867. Cost-share of 35 percent on pre-construction costs and 75 percent on construction costs provides total cost-share funding of $1,300,000 or an additional $1,242,625 addressed in this request. The request letter, Cost-Share Request Form and supporting material is attached as **APPENDIX L**.

Secretary Erbele recommended the State Water Commission approve an additional $1,242,625, resulting in a total cost-share of $1,300,000, with pre-construction costs funded at 35 percent and construction costs funded at 75 percent, for the Walsh Rural Water District 2017 Expansion Project. The funding is in the form of a cost-share towards eligible costs and contingent on available funding.

> **It was moved by Commissioner Goehring and seconded by Commissioner Owan that the State Water Commission approve an additional $1,242,625, total state cost-share of $1,300,000, paid on eligible costs for 35 percent pre-construction costs and 75 percent construction costs. This action is contingent upon the availability of funds.**

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

STATE COST-SHARE PARTICIPATION REQUESTS – FLOOD CONTROL

CITY OF MAPLETON, RECERTIFICATION OF FLOOD CONTROL LEVEE SYSTEM - $213,670
(SWC Project No. 2008)

In their correspondence dated March 5, 2017, Mapleton requested additional cost-share assistance for recertification of their Flood Control Levee System. On March 17, 2014, the State Water Commission approved $718,941 in cost-share for the project.

The project is located in Mapleton. The project has experienced delays due to FEMA's ongoing flood insurance study. The project will improve the flood control levee system to a level that can be certified to FEMA for accreditation. Mapleton has received approval from FEMA to allow an exception for two feet of freeboard above the 500-year event, rather than the standard three feet above the 100-year event, since there would have been substantially more levee raises required using three feet above the 100-year event. Mapleton has acquired the BNSF License Agreement to build the required improvements on BNSF property to meet FEMA's levee freeboard and tie-back requirements along the railroad. Now that the estimated final cost for construction and engineering are better known, Mapleton is requesting additional cost-share for the additional improvements required to complete the recertification of the levee system. The letter request, Cost-Share Request Form, and supporting material is attached as **APPENDIX M**.

Mapleton is requesting an additional 60 percent cost-share funds of $213,670, resulting in a total cost-share of $932,611.

Secretary Erbele recommended the State Water Commission approve an additional cost-share not to exceed $213,670. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission approve an additional $213,670, total cost-share not to exceed $932,611, paid on eligible costs at 60 percent. This approval is subject to the

entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

CITY OF LISBON, LEVEE D/LEVEE F - $704,000
SWC Project Nos. 1991-08 and 1991-10

In their correspondence dated March 13, 2018, Lisbon requested a reallocation of cost-share funds from Levee D to Levee F.

Lisbon began construction of Phase I – Levee A in 2014, construction of Phase I – Levee C in 2015, construction of Phase I – Levee E in 2016, and construction of Phase I – Levee D in 2017. Construction for Levee F will begin in 2018.

Lisbon is in the final closeout and punch-list phase of the Levee D project. Lisbon is projecting $950,000 in cost-share funds and $240,000 in loan funds remaining at closeout of the Levee D project due to low construction bids on the project and the project using very little of construction contingencies.

The final major planned project in the Sheyenne River Flood Protection project is Levee F, which is planned for construction in 2018. Lisbon has previously been allocated $3,800,000 in cost-share from the State Water Commission to construct Levee F. Levee F was publically bid on March 8, 2018, and bids exceeded the engineer's estimate with the low bid at $4,400,000 for construction costs. Due to higher than expected bids on the project, Lisbon does not currently have enough funds to construct Levee F. The new total project cost is approximately $5,630,000 with contingencies and engineering added. This amount is eligible for 60 percent cost-share for flood control, plus an additional 20 percent to mitigate the additional flood risk from the Devils Lake Outlets, for a cost-share amount of $4,504,000. With $3,800,000 approved for Levee F construction on June 22, 2017, an additional $704,000 of additional cost-share is requested for Levee F construction.

Lisbon requests that $704,000 previously approved for Levee D construction be reallocated to Levee F. This provides appropriate funds to complete Levee F and will bring Lisbon one step closer to obtaining permanent flood protection and a future letter of map revision. The remaining $246,000 of cost-share and $240,000 of loan monies

will remain obligated to Levee D pending final closeout. The letter request and map is attached as **APPENDIX N**.

Secretary Erbele recommended the State Water Commission approve the reallocation of funds requested for state-cost participation in the Levee D/Levee F projects in the amount of $704,000. This cost-share participation is based on the policy of 60 percent cost-share for flood control, plus 20 percent to mitigate the additional flood risk from the Devils Lake Outlets. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

It was moved by Commissioner Owan and seconded by Commissioner Pedersen that the State Water Commission approve the reallocation of funds request in the amount of $704,000. This approval is subject to the entire contents of the recommendation contained herein, obtaining all applicable permits, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT - $11,042,691 (SWC Project No. 1974-26)

The total construction authorization for the Broadway Pump Station approved March 29, 2017, and phases MI-1, MI-2, and MI-3 approved August 23, 2017, was $77,978,034. Bids for the Broadway Pump Station and MI-1/2/3 were awarded at an amount lower than anticipated. As a result, the Souris River Joint Board (SRJB) requested the total construction authorization be reduced by $2,315,300 to provide funding for acquisitions needed within the city of Minot, which was approved December 12, 2018. This reduction in construction authorization brought the project's total construction authorization to $75,662,734.

SRJB entered into a cost-share agreement for the Broadway Pump Station and Phase MI-1 for a total cost-share participation of $35,271,200, and an agreement for Phase MI-2/3 for a total cost-share participation of $29,348,843. Each agreement reflected the awarded bids, leaving a construction authorization balance of $11,042,691.

SRJB requested the remaining $11,042,691 be reallocated to 11 different projects within the Souris River Basin. The table below provides a breakdown of the reallocation and a description of each project is also provided below. The letter request and Cost-Share applications are attached as **APPENDIX O.**

Phase	County	Total Amount	Cost-Share Percentage	Cost-Share
BU-1A: Burlington Bridge Construction	Ward	$ 3,900,000	65%	$ 2,535,000
MI-4: Maple Diversion Design	Ward	$ 2,300,000	65%	$ 1,495,000
MC-1 Outlaw Creek Construction	McHenry	$ 2,150,000	65%	$ 1,397,500
WC-1: Terrecita Vallejo Levee Design	Ward	$ 1,800,000	65%	$ 1,170,000
MI-5: NE Tieback Additional Design	Ward	$ 600,000	65%	$ 390,000
RC-1: Mouse River Park Bridge Design	Renville	$ 600,000	65%	$ 390,000
SA-1: Sawyer Bridge Design	Ward	$ 400,000	65%	$ 260,000
VE-1: Velva Bridge Design	McHenry	$ 400,000	65%	$ 260,000
MI-1/2/3: Minot Design & EIS	Ward	$ 300,000	60%	$ 180,000
Flood Specific Emergency Action Plans	Ward/Renville/McHenry/ Bottineau	$ 200,000	65%	$ 130,000
City of Minot Acquisitions	Ward	-	75%	$ 2,835,191
			Total	**$ 11,042,691**

BU-1A: Burlington Bridge Construction ($2,535,000 reallocation requested)
The Colton Avenue Bridge in Burlington, represents a hydraulic bottleneck on the Mouse River system. The Mouse River plan calls for this 120-foot bridge to be replaced with a structure that spans 280 feet. The roadway immediately adjacent to the structure will be raised to an elevation commensurate with the flood of record's water surface elevation. As a result, the bridge will be open during large floods. This new bridge would be an important feature in the flood control project as it would provide another route across the river during large flood events.

MI-4: Maple Diversion Design ($1,495,000 reallocation requested)
Phase MI-4, the Maple Diversion, is the current focus of the Corps of Engineers' feasibility study. As part of the feasibility study, the design of the Maple Diversion is being advanced to an approximate completion level of 20 percent. The design needs to be advanced to completion in order to permit and construct the project. It is estimated that the remaining design effort is approximately $8 million. This cost-share reallocation request would advance the design to an approximate completion level of 50 percent.

MC-1: Outlaw Creek Construction ($1,397,500 reallocation requested)
Phase MC-1, Outlaw Creek construction, is a rural flood risk reduction system located at the downstream end of McHenry County near the southern boundary of the J. Clark Salyer National Wildlife Refuge, where Mouse River conveyance is impeded. The hydraulic behaviors in this area have been studied by the State Water Commission staff and SRJB. The proposed construction would improve and establish conveyance in this reach of the river, thereby reducing impacts of flooding due to depths and duration of high water.

WC-1: Tierrecita Vallejo Levee Design ($1,170,000 reallocation requested)
Phase WC-1, the Tierrecita Vallejo levee, is located on the western edge of Minot. As the western tieback for the Minot portion of the system, it is an integral portion of the initial milestone in Minot, which would remove approximately 60 percent of Minot's valley residents from the floodplain.

MI-5: NE Tieback Additional Design ($390,000 reallocation requested)
Phase MI-5, the NE Tieback levee, is located in northeast Minot and serves as the interim eastern tieback for the initial milestone in Minot, which would remove approximately 60 percent of Minot's valley residents from the floodplain. SRJB previously requested funding to advance the design of Phase MI-5, but the scope of the project has expanded to include significant work across the Burlington Northern Santa Fe railroad, which was not originally anticipated. The scope has also expanded to increase the protection level of this phase to the flood of record, instead of the 100-year flood event.

RC-1: Mouse River Park Bridge Design ($390,000 reallocation requested)
The Mouse River plan includes improvements at the existing federal project that surrounds Mouse River Park in Renville County. The most critical element for stakeholders is the western access into Mouse River Park and the current condition of the gate-well structures on the system. The western access becomes inundated during fairly frequent events. The proposed project replaces the box culvert structure with a bridge. The project would also replace the existing gate-well structures to ones designed for the flood of record.

SA-1: Sawyer Bridge Design ($260,000 reallocation requested)
Levee and conveyance improvements are being planned around the city of Sawyer as part of the Mouse River plan. One critical component of the system is the bridge on Ward County Road 23 over the Mouse River. The current bridge acts as a hydraulic bottleneck on the system. Upgrading the existing bridge from a 150-foot-span to a 275-foot-span will reduce the upstream water surface profile by several feet during the flood of record.

VE-1: Velva Bridge Design ($260,000 reallocation requested)
Levee and conveyance improvements are being planned around the city of Velva as part of the Mouse River plan. One critical component of the system is the bridge on ND Highway 41 over the Mouse River. The current bridge acts as a hydraulic bottleneck on the system. Upgrading the existing bridge from a 150-foot-span to a 250-foot-span will reduce the upstream water surface profile by several feet during the flood of record.

Phases M-1/2/3: Additional Environmental Services (EIS) ($180,000 reallocation requested)
The original scope of the EIS was based on the assumption that the document would be completed in 12 to 18 months. The record of decision was achieved approximately 36 months after the start of the EIS. As a result, the efforts associated with the responses and agency comments was higher than anticipated. A major factor in the scope adjustment was the requirement put in place by the Corps of Engineers Regulatory Office to provide detailed archeology and architectural history surveys of all lands and structures that would eventually be impacted by the phases of the project that constitute the initial Minot milestone.

It is estimated that the additional environmental work totaled approximately $1 million more than anticipated. The design work for the projects, however, was completed more efficiently than anticipated. Therefore, the cost adjustment necessary to cover the additional effort associated with the EIS is only $300,000. The cost-share percentage for these phases is 60 percent, or $180,000, due to the agreement for environmental services being signed before the update to the state's cost-share policy to provide the MREFPP with 65 percent cost-share approved on October 12, 2016.

Flood Specific Emergency Action Plans ($130,000 reallocation requested)
SRJB is intending to facilitate the development of flood-specific emergency action plans for Renville, McHenry, and Bottineau counties. These would be developed independently of each other and in conjunction with existing efforts in Ward County and the city of Minot. SRJB would work with local emergency management officials from each county to complete this effort and would leverage technical data that has been developed by its consultants and the State Water Commission staff.

City of Minot Acquisitions ($2,835,191 reallocation requested)
Acquisitions are being completed by the city of Minot for the project right-of-way within Minot city limits. It is critical that acquisitions continue. Minot has determined that its short-term need for acquisitions funding from the state to complete acquisitions within the initial milestone of Minot is $12 million. SRJB has prioritized its actions based on the need to provide basin-wide benefits while supporting other critical activities. SRJB is requesting that the remaining balance from the cost savings be reallocated to acquisitions.

Secretary Erbele recommended the State Water Commission approve the reallocation of $11,042,691 from the MREFPP Phase MI-1/2/3 construction authorization to the projects described in this request. This approval is subject to the entire contents of the recommendation contained herein, and the availability of funds.

It was moved by Commissioner Owan and seconded by Commissioner Andersen that the State Water Commission approve the reallocation of funds request in the amount of $11,042,691. This approval is subject to the entire contents of the recommendation contained herein, and the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT: ACQUISITIONS - $4,547,041
(SWC Project No. 1993-05)

In addition to requesting the reprogramming of the funds already obligated to projects MI-1,2&3, the Souris River Joint Water Resource District requested $4,547,041 of additional funding for property acquisitions for the Mouse River Enhanced Flood Protection project. This dollar amount represented their approximation of the total remaining unobligated funding within the flood control bucket for this biennium.

House Bill 1020 provided a total of $136,000,000 for flood control project funding for the current biennium. The following table lists the projects previously funded, those recommended for funding at the April 12, 2018, meeting, as well as those projects for which we know funding is desired yet this biennium. The letter request is the same letter request included in **APPENDIX O.**

Flood Control Bucket 2017-2019		
Bucket Total		**$136,000,000**
Already Obligated	Mouse River Flood Control	$62,781,034
	Valley City Flood Control	$2,171,925
	Maple River WRD	$35,000
	Pembina Co. WRD	$56,000
	SE Cass WRD	$3,043
	Bottineau Co. WRD	$41,427
	Traill Co. WRD	$61,917

Remaining Balance		**$70,849,654**
Recommended This Meeting	Fargo Diversion	$66,500,000
	Mapleton Re-Certification	$213,670
Remaining Balance		**$4,135,984**
Planned Yet This Biennium	Valley City Flood Control	$1,500,000
	Mandan Flood Control	$480,000
Remaining Balance		**$2,155,984**
Unplanned Flood Control	Sheldon Subdivision Levee	$323,570
Pending Conveyance	Various	$1,671,098

House Bill 1020 also expressed the legislature's intent to provide no more than $193,000,000 of state funding for Mouse River flood control projects within the city limits of Minot and this funding was to be made available over the course of the current and three subsequent biennia. With the reprogramming of funds, a total of $57,808,534 will have been provided this biennium for flood control efforts within the city of Minot. This is more than one-fourth of the funding to be provided over four biennia.

During the 2017 legislative session, the number of buckets was reduced from seven to four in legislative committee. The $1 million that had originally been budgeted for water conveyance projects was combined with the flood control bucket as part of that process. Thus, the original legislative intent was to provide $1 million for water conveyance projects. With $1 million intended for water conveyance and recognizing that the funding requests yet to be formally made by Valley City and Mandan are only preliminary estimates at this time, the most recommended for additional acquisition funding for Minot is an additional $1 million. This would then bring the total obligated for efforts within the city of Minot this biennium to $58,808,534.

Because of competing demands for funding from the flood control bucket, including future requests by Valley City and Mandan, and the intent to provide $1 million to water conveyance projects, Secretary Erbele recommended the State Water Commission obligate an additional $1 million to the city of Minot for property acquisitions.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission approve the obligation of an additional $1 million to the city of Minot for property acquisitions. This approval is subject to the availability of funds.

Commissioners Andersen, Anderson, Johnson, McDonald, Owan, Pedersen, Zimmerman, Goehring, and Lt. Governor Sanford voted aye. There were no nay votes. Lt. Governor Sanford announced the motion unanimously carried.

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

Rocky Schneider, Program Management Consultant, AE2S, Fargo, and Chad Peterson, Cass County Commissioner, provided updates on the local, state, and federal efforts currently underway relating to the new agreement for the Fargo-Moorhead Area Diversion project. Dr. Tim Mahoney, mayor of Fargo, provided updates on the financial impact of the agreement. Fargo will defer the request for an additional $66.5 million. A summary of the presentation is included as **APPENDIX P.**

LOWER YELLOWSTONE IRRIGATION DISTRICT (LYID):

James Brower, Manager, LYID, provided an update on the status of current litigation and potential impacts to North Dakota related to *The Defenders of Wildlife and Natural Resources Defense Council vs. Lower Yellowstone Irrigation Project, the US Army Corps of Engineers, and the Bureau of Reclamation,* and costs associated with erosion occurring at the lower end of the Yellowstone River. The LYID encompasses 58,000 acres, of which 19,000 acres are in North Dakota.

Ken Kjos, Manager, Buford/Trenton Irrigation District, provided an update on the future funding request for needed fish screen for the pump house intake located on the Missouri inlet.

2019 WATER DEVELOPMENT PLAN:

An update of ongoing Water Development Plan efforts was presented by Pat Fridgen.

Background

NDCC 61-02-01.3 requires that on a biennial basis, the State Water Commission *"develop and maintain a comprehensive water development plan organized on a river basin perspective, including an inventory of future water projects for budgeting and planning purposes."*

In compliance with this statutory requirement, the Planning and Education Division began the process of developing a 2019 Water Development Plan – focusing on the 2019-2021 biennium and beyond. To make this process a success, the agency sent inquiries to potential project sponsors from all across the state during the second week of January.

Potential project sponsors were asked for their help in identifying the water development projects they're trying to move forward, the timing of their implementation, and estimated costs. As in the past, the input gained from local project sponsors and water managers will become the foundation of the State Water Commission's budget request to the Governor and legislature.

Looking Ahead
Project sponsors were given a March 23, 2018, deadline to submit projects to the Commission. They were able to submit their information electronically through the Water Commission's website, or to email/mail in forms. Staff provided the most current information available regarding the number and type of submittals received: approximately 280 projects have been received consisting of 27 regional or rural water projects, 3 irrigation projects, and over 140 flood control, general water, or conveyance projects.

Ultimately, the project information submitted to the Commission is presented during Commissioner-hosted basin meetings around the state. The basin meetings are expected to be scheduled for the summer of 2018. Traditionally at those meetings, the Commission has asked sponsors to verify the project information they submitted. This enables the agency to include the most accurate information possible in the Water Development Plan to the water community, and the 2019 Legislative Assembly.

After discussion, it was determined that after project application material is compiled, State Water Commission staff and Commissioners will review the projects for potential eligibility, and to assign priority to the projects. This will occur each biennium.

PROJECT UPDATES:

Commission staff provided brief updates on the following projects with the summary updates attached as **APPENDIX Q:**

Jon Kelsch, Construction Section Chief, Devils Lake Outlet;
Laura Ackerman, Investigations Section Chief, Missouri River and Mouse River;
Tim Freije, NAWS Project Manager, Northwest Area Water Supply Project;
Sinduhja S.Pillai-Grinolds, SWPP Project Manager, Southwest Pipeline Project;

Pat Fridgen, Director of Planning and Education, Drought Disaster Livestock Water Supply Program and Economic Analysis and Life Cycle Cost Analysis;
Jeffrey Mattern, Engineer Manager, Rural Water Systems.

The next scheduled meeting is scheduled for June 14, 2018.

Commissioner Owan acknowledged Jaret Wirtz, has resigned as the Executive Director of Western Area Water Supply Authority, and thanked him for his years of service and assistance throughout Jaret's career.

There being no further business to come before the State Water Commission, Lt. Governor Sanford adjourned the April 12, 2018, meeting at 4:15 p.m.

Brent Sanford, Lt. Governor
Acting Chairman, State Water Commission

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

Cost Share Comments Received as of April 11, 2018			
Item	**Previous Staff Recommendation (Draft)**	**Comments Received**	**Staff Comments**
Definition of Cost Share	Added Definitions from Statute	Appropriate	Appropriate
Water Conveyance	Added Definitions from Statute	Appropriate	Appropriate
Engineering Selection Process	Modified threshold to $1,000,000 cost share	WRDA approves but asks that interval be increased from 3 years to 5	Staff feels that 3 years is appropriate.
Ineligible Items	Draft recommends no changes	WRDA suggests making land and easement acquisitions eligible not to exceed a qualified appraisal	Staff feels the prior policy of not funding actual land or easement purchase costs as eligible other than in the footprint of a flood control project is appropriate. Expanding eligibility in the face of shrinking resources may not be prudent.
		WRDA suggested change to outline	Staff concurs that this makes sense.
		WRDA suggests making construction costs incurred prior to SWC approval eligible if the project had received pre-application approval	This would dramatically change the scope of the pre-application process. Staff does not feel this is appropriate. With regularly scheduled SWC meetings every two months, it is easier than ever to schedule projects accordingly.
		Commission Anderson questioned the need to wait for 75% construction funding when 35% for pre-construction has already been approved.	It should be possible to make this work with a meeting every two months. In recent cases we were waiting for bids before bringing the construction costs to the SWC for approval in an attempt to make the available funding work for as many projects as possible. In the future this approach may need to be revised to better accommodate construction needs.

APPENDIX A

Pre-Application Process	Leaves process in place	Commissioner Johnson suggested that a sub-committee should be involved in the pre-application process.	Sub-committee involvement is welcomed.
Project Presentation	Draft provides modified language that local sponsor will be asked to present the project AND the Chief Engineer will provide a recommendation.	Commissioner Johnson suggests that the language be modified to 'local sponsor will present the project'. Commissioner Anderson suggests it is appropriately a joint effort, possibly including a sub-committee member as well as the sponsor and staff.	Staff is open to whatever approach the commissioners want to see.
SE Authorization up to $75,000	Draft recommends no changes	Appropriate	Appropriate
35% on Pre-Construction	Draft recommends changing this to whatever percentage the overall project purpose might be eligible for.	Some comments support the change, others suggest that the 35% for pre-construction engineering is appropriate.	Staff is open. Our draft suggested changing to the full project percentage, and this is of course supported by the sponsors, but if the commission desires to continue the 35% we certainly would not object. The 35% does represent a middle ground of sorts given historic fluctuations in this policy.
Water Supply Percentages	Draft recommends leaving the percentages the same but removing the 80% total funding cap.	All comments support removal of the 80% cap.	Staff recommends removing the 80% cap
Flood Control Percentages	Current draft does not recommend any changes	Appropriate	Appropriate
Flood Control Design Events	Current draft includes language from statute	Appropriate	Appropriate
FC City Infrastructure Relocation	Current draft leaves this to staff judgment	Comments included the suggestion that this would be left to the judgment of staff AND a sub-committee. No changes in language would be required.	Staff welcomes sub-committee input

Snagging & Clearing	Draft removes snagging and clearing as an eligible category	Appropriate	Appropriate
Rural Flood Control Permits	Draft does not change the practice of not bringing a project to the commission until the assessment vote has passed and a permit application has been filed. Practice has been to not provide an agreement until the permit has been issued.	Appropriate	Appropriate
RFC Sediment Removal	Draft includes language to address the need to ensure we are not funding the removal of sediment and are in compliance with the statute.	Appropriate	Appropriate
FC vs RFC vs Storm Water	Draft includes language formalizing the precedent that has been followed in recent years to differentiate between flood control and storm water management.	Comments question whether the difference in runoff from rural vs urban acres should be included in the analysis. Sub-committee input was also suggested.	Staff feels the acreage basis that has been historically used is adequate. Basing the percentage on a modelled flow will bring a significant degree of subjectivity and technical conflict into the process.
Irrigation	Draft includes new language specifically identifying our policy of only cost sharing with an irrigation district.	Appropriate	Appropriate
Other Comments Received			
Construction Costs		WRDA suggested adding "water supply works" to the list of activities recognized as construction costs.	Staff feels it is unnecessary but does not opposed the change.

Timing of Request		WRDA suggests language that softens the requirement that requests for cost share be received 30 days prior to the SWC meeting	Staff does not agree with softening the 30 day requirement; in fact the time limit may need to increase to 45 days to allow for sub-committee involvement.
Inclusion in Water Plan		WRDA suggested language that softens the requirement that projects requesting funding were submitted as part of the planning process.	Staff does not concur. We are statutorily required to complete a planning process, and the value of that process is diminished if there is no true impetus for the sponsors to participate.
Timing of SE response to requests		WRDA suggests a 60-day time limit for the SE to respond to a funding request less than $75,000.	Staff does not concur unless there are some caveats. The project's level of priority and funding availability within the appropriate bucket can result in situations where action on a funding request is delayed until later in the biennium.
Retention Projects		WRDA suggests language that makes large watershed retention projects a flood control project and small watershed retention projects general water management.	Staff does not concur that it is logical to split retention projects based on their size. Both are intended to provide a rural flood control benefit and are therefore appropriately categorized as flood control projects.
Rural Flood Control		WRDA suggests language that would make assessment projects dealing with storm water runoff from urban or residential sources eligible for cost share.	Staff does not concur that storm water management projects should be eligible for cost share assistance simply because they were formed as assessment projects under the authority of Chapter 61 of the NDCC

SWC Project Prioritization Guidance Comments

Item	Previous Staff Recommendation (Draft)	Comments Received	Staff Comments
Project Prioritization Guidance Structure	Provided minor changes within High, Moderate, and Low priority categories, but overall structure remained the same and allowed for comparison of all project types to one another – not categorized by project purpose.	Suggested the agency separate the Project Priority Guidance into three categories – Water Supply, Flood Control, and General Water Management and Irrigation to better reflect local (community, river basin, sub-river basin) priorities.	▪ It isn't clear how the suggested structure would account for geographically based priorities. ▪ If the agency's budget continues to be organized within project purposes, such as water supply, flood control, and general water management, reorganization of the prioritization structure by purpose may be warranted. ▪ Reorganization of the structure by purpose also resulted in changes to priority ranking of various project types. Priority changes would likely require additional discussion by the SWC.
Rural flood control drains and bank stabilization projects	No changes to priority ranking.	Suggested that rural flood control and bank stabilization projects be included under the General Water Management/Irrigation category for prioritization.	The Legislature defined "Water Conveyance" projects as "any surface or subsurface drainage works, bank stabilizations, or snagging and clearing of water courses." Those types of projects were then included within the flood control project purpose for funding – separate from general water management purpose funding. This indicates the Legislature has determined that conveyance projects (drains, bank stabilizations, and snagging and clearing) are not considered general water management projects.
Prioritization within priority categories	Not addressed.	The question was raised as to how prioritization would/could occur within the High, Moderate, and Low categories if multiple projects are submitted and funding is limited.	Requires additional discussion.
Footnotes and Disclaimer	Minor wording changes.	The footnotes and disclaimer were removed from the alternative priority guidance that was provided.	The footnotes and disclaimer are both necessary.

North Dakota State Water Commission Cost-Share Funding Process

DRAFT March 2018

Is applicant Federal or State Entity, Political Subdivision, or Commission Legislatively granted ND Recognition?

NO → Letter to applicant with reasons for denial.

YES

Was project submitted as part of water development planning and SWC biennial budgeting process?

NO → Does project address an emergency directly impacting human health and safety?

NO → Application may be held until action can be taken on projects included during budgeting/planning process.

Letter to applicant with reasons for deferral.

YES

Was cost-share application received 30-days prior to SWC meeting?

NO → Application potentially addressed at a future SWC meeting.

YES

Does the cost-share application require regulatory action before it is presented to SWC?

YES → Deferred pending regulatory compliance.

NO

Is additional information required?

YES → Has applicant provided requested clarification?

NO → Letter to applicant with reasons for denial or deferral.

NO

YES

Is funding available in SWC budget cost-share category considering the project's priority?

NO → Letter to applicant with reasons for denial or deferral.

YES

Chief Engineer prepares recommendation for SWC consideration.

YES

SWC concurs with cost-share recommendation?

NO → Letter to applicant with explanation of SWC action.

YES

Are there conditions requiring regulatory compliance?

YES → Has regulatory compliance been achieved?

NO

YES

Is Cost-Share agreement completed?

YES

Is Legal and Chief Engineer review complete?

YES

Applicant returns signed agreement?
(Applicant has 60 days after Chief Engineer's signature)

YES

Applicant may submit invoices for reimbursement.

For Additional Information On North Dakota State Water Commission Cost-Share Funding Process

(701) 328-2752 | www.swc.nd.gov/project_development/cost_share | swc@nd.gov

APPENDIX B

NORTH DAKOTA STATE WATER COMMISSION

PROJECT FUNDING 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 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** means funds appropriated by the legislative assembly or otherwise transferred by the Commission to a local entity under commission policy as reimbursement for a percentage of the total approved cost of a project approved by the Commission.

C. **GRANT** means a one-time sum of money appropriated by the legislative assembly and transferred by the commission to a local entity for a particular purpose. A grant is not dependent on the local entity providing a particular percentage of the cost of the project.

D. **LOAN** means an amount of money lent to a sponsor of a project approved by the commission to assist with funding approved project components. A loan may be stand-alone financial assistance.

E. **WATER CONVEYANCE PROJECT** means any surface or subsurface drainage works, bank stabilization, or snagging and clearing of water bodies.

F. **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 construction observation. 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 the total anticipated cost share from the State Water Commission for a specific project is anticipated to be greater than $1,000,000, 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 a 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.

G. **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.

H. **INELIGIBLE ITEMS** excluded from cost-share include:

1 Administrative costs;

2 Property acquisitions, easement 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.

7 The removal of vegetative material and sediment for water conveyance projects.

I. **EXPANSIONS** are construction related projects that increase the project area or users served. Expansions do not include maintenance, replacement, or reconstruction activities.

J. **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.

K. **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.

L. **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.

M. **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.

N. **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 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 shown on a map

3 Description, purpose, goal, objective, narrative of the proposed activities
4 Delineation of costs
5 Anticipated timeline of project from preliminary study through final closeout
6 Potential federal, other state, or other North Dakota state entity participation
7 Documentation of an engineering selection process if cost-share is anticipated to be greater than $1,000,000
8 Engineering plans, if applicable
9 Status of required permitting
10 Potential territorial service area conflicts or service area agreements, if applicable
11 Sustainable operation, maintenance, and replacement plan for projects
12 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 financial needs for the State Water Plan. Projects 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 local sponsor will be asked to present the application, and the Chief Engineer will provide 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 and also approve cost overruns up to $75,000 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.

The project sponsor must provide a progress report to the Commission at least once every four years if the term of the project exceeds four years. If a progress report is not received in a timely fashion or, if after a review of the progress report the Commission determines the project has not made sufficient progress, the Commission may terminate the agreement for project funding. The project sponsor may submit a new application to the Commission for funding for a project for which the Commission previously terminated funding.

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 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. 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. The local sponsor may apply for funding, and the application will be reviewed to determine project priority. Projects within category (1) may be considered for cost-share funding up to 75 percent. Projects in category (2) may be considered for cost-share funding up to 60 percent. Cost-share funding within category (3) will be on a case-by-case basis. All projects may be considered for loan funding.

(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 or connection of communities to the regional system.

(2) Up to a 60 percent cost-share is intended for projects to support improvements or connection of new customers within the existing service area of a municipal water system or other improvements to rural water

systems. 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. Funding is based on level of impact as determined by the State Water Commission.

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 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 up to 60 percent of eligible costs. For projects with federal participation, the cost-share may be up to 50 percent of eligible non-federal costs. The State Water Commission may consider a greater level of cost participation for projects involving a total cost greater than $100 million and having a basin wide or regional benefit.

Local share must be provided on a timely basis. The State Water Commission may lend a portion of the local share based on demonstrated financial need.

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

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

The cost-share application must include the return interval or design flow for which the structure will provide protection. The Commission will calculate the amount of its financial assistance, based on the needs for protection against:

1. One-hundred year flood event as determined by a federal agency;

2. The national economic development alternative; or

3. The local sponsor's preferred alternative if the Commission first determines the historical flood prevention costs and flood damages and the risk of future flood prevention costs and flood damages, warrant protection to the level of the local sponsor's preferred alternative.

Storm water management is not an eligible cost-share category. In order to differentiate between a flood control project and storm water management, the Commission may reduce the cost-share provided by the percentage of the contributing watershed that is located within the community's corporate limits as calculated on an acreage basis

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-federal 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 a threat to public safety. 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 water 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 an operation plan and a quantification of the flood reduction benefits for 25, 50, and 100-year events must be submitted with the cost-share application.

6 **INDIVIDUAL RURAL AND FARMSTEAD 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. 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 up to a limit of $55,000 per ring dike.

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.

D. WATER CONVEYANCE.

1 **RURAL FLOOD CONTROL.** 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. 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.

A sediment analysis must be provided with any application for cost-share assistance for reconstruction of an existing drain. The analysis must be completed by a qualified professional engineer and must clearly indicate the percentage volume of sediment removal involved in the project. The cost of that removal must be deducted from the total for which cost-share assistance is being requested.

2 **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

3 **SNAGGING AND CLEARING.** These projects are ineligible for State Water Commission funding.

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. The Commission will only enter into cost share agreements with political subdivisions, including irrigation districts, and not with individual producers.

ATTACHMENT A
INDIVIDUAL RURAL AND FARMSTEAD RING DIKE CRITERIA

MINIMUM DESIGN CRITERIA

- HEIGHT: The dike must be built to an elevation 2 ft above either the 100-year flood or the documented high water mark of a flood event of greater magnitude, whichever is greater.
- TOP WIDTH: If dike height is 5 ft or less: 4 ft top width
  If dike height is between 5 ft and 14 ft: 6 ft top width
  If dike height is greater than 14 ft: 8 ft top width
- SIDE SLOPES: 3 horizontal to 1 vertical
- STRIP TOPSOIL AND VEGETATION: 1 ft
- ADEQUATE EMBANKMENT COMPACTION: Fill in 6-8 inch layers, compact with passes of equipment
- SPREAD TOPSOIL AND SEED ON RING DIKE

LANDOWNER RESPONSIBILITY

Landowners are responsible to address internal drainage on ring dikes. If culverts and flap gates are installed, these costs are eligible for cost-share. The landowner has the option of completing the work or hiring a contractor to complete the work.

If contractor does the work, payment is for actual costs with documented receipts.
If landowner does the work, payment is based on the following unit prices:

- STRIPPING, SPREADING TOPSOIL, AND EMBANKMENT FILL: Chief Engineer will determine rate schedule based on current local rates
- SEEDING: Cost of seed times 200%
- CULVERTS: Cost of culverts times 150%
- FLAP GATES: Cost of flap gates times 150%

OTHER FACTS AND CRITERIA

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

APPENDIX C

April 12, 2018
North Dakota State Water Commission

Governor Burgum and Commissioners, for the record, Blake Crosby with the North Dakota League of Cities.

I appreciate the work you are doing to make the Commission, and in this instance the cost-share policy, responsive to the needs of the customers. We all recognize that change can be difficult, and compromise takes time. I am sure that all of us are willing to help you in any way we can.

Some of my suggestions will be impacted by the sub-committees the Commission has discussed.

I will begin with comments on the staff recommendations attached to the Cost-Share Policy letter from State Engineer Erbele dated January 11, 2018. The page number refers to that document.

Engineering Selection Process (page 5 of 21)—I agree with the staff recommendation to remove that requirement. Cities are fiscally responsible and can decide when an engineering selection is necessary. If a time frame brings some comfort, I suggest 5 years.

Ineligible items (page 6 of 21)—I also agree that with the Commission meeting more frequently, and with there being cost-share for pre-engineering, the situation of a request for work completed prior to cost-share approval may not come before the Commission very often. However, I suggest going back to the 2-year window until we see how the new process of more frequent meetings and committees works out.

Chief Engineer will present "with a recommendation" (page 8 of 21)—SWC Commissioners should be involved in the review and recommendation process. You were selected based on major drainage systems and you are accountable to the water users in that system. Along that same line, there has been discussion about allowing sponsors to appear before the Commission and I encourage the project application to recommend to sponsors that they be present at the meeting in which their project is being considered.

Pre-construction expenses (engineering) at 35% (page 10 of 21)--these expenses should be funded at the same percent as construction costs.

Water Supply Percentages Categories and 80% Combined Cap (page 11 of 21)—I agree on removing the 80% limitation, but not mentioned by staff is the "up to" language. I recommend for water supply projects, as defined, that projects within category 1 be funded at 75 percent and projects in category 2 at 60 percent. It impacts all aspects of planning if a sponsor plans on a 60 percent cost-share and the recommendation comes in at less than that. Changes are time consuming and expensive.

Move to comments on the January 2018 Revised Draft. (2 versions)

First page--I would separate Definitions and Eligibility/Ineligibility into 2 sections and move both to an attachment, so it is easier to include or delete as things change.

Under "Definitions" --You recall from the presentation by Jeremy Cook from HDR on Life-Cycle Cost Analysis (LCCA) and Economic Analysis (EA) that he used some terminology differently than our current definitions. I contacted Jeremy and asked for definitions of those terms and they are presented below:

OPERATIONS costs are costs associated with normal operations of the infrastructure including costs such as labor, electricity and chemicals.

MAINTENANCE costs include costs for routine, preventive and corrective maintenance to keep the infrastructure working and to preserve the service life of the infrastructure/equipment.

REHABILITATION STRATEGIES are repair, replacement and rehabilitation. They are described together and are not separated out as they typically overlap. These strategies are activities associated with restoring or rehabilitating the facility to function at an acceptable level of service.

Repair are costs to bring equipment to a functional state and are not generally associated with maintenance costs.

Replacement includes costs to replace the existing equipment altogether.

Rehabilitation are costs to restore existing equipment to functional status.

HB 1374 directs the Commission to use LCCA and EA so I recommend that we use that terminology in the cost-share policy.

All Rehabilitation Strategies should be eligible for funding, especially if the normal expected life has been exceeded.

Page 3. **EXPANSIONS** are construction related projects that increase the project area or users served. ~~Expansions do not include maintenance, replacement, or reconstruction activities.~~

Page 3. I would delete "Replacement Plan" from the **Sustainable Operation, Maintenance, and Replacement Plan** title and delete "replacement cost of assets" from the definition. Demographics do not support smaller cities having the revenue sources to build a new water tower or treatment plant, even after 30-40 years of setting aside a reserve, and those smaller cities should not have an unreachable bar.

I would also change "**Capital Improvement Fund**" to "Capital Improvement Plan (CIP)" in this definition. A fund changes with revenue and expenses where a plan is static.

From January 2018 Revised Draft: (cont.)

Section II C (page 5)—make sure replacement, if not supported by LCCA or EA, does not eliminate the project from other options such as regionalization.

Section II D (page 5)—"…will give notice to local sponsors at least 15 days prior…". If a sponsor elects to appear before the Commission, we need to be respectful of their part-time status as a public servant and their employment situation.

Section III B 1 and III B (1 and 2) (page 7)—Change language to "at" instead of "up to" as I recommended earlier in my comments.
Delete the reference to population growth and affordability. Those terms are not objectively quantifiable, create a barrier and should not be listed as a high priority consideration in the prioritization guidance. Affordability is a decision to be made at the local level.

Section B 2 (page 7)—If you accept the definitions from HDR the ND Administrative Code Article 89-12 would need to be changed to reflect those new definitions and any changes in eligibility/ineligibility if adopted by the Commission.

It should be recommended, but not required, that a project requesting funding be in the State Water Plan.

Water Supply, General Water Management and Flood Control are all a bit different so there may be a need for each to have a separate policy document attachment.

Local sponsors should review and cost-out options, and project applications should present those options. For example, a water storage tank liner as opposed to a new storage tank; pipe bursting or pipe lining instead of ripping up streets.

Thank you for your time and courtesy. Again, your work to make this process more responsive to customers' needs is greatly appreciated. I will try to answer any questions.

Unrelated note: water infrastructure inventory went out last week and some responses are starting to "trickle in" …pun intended.

APPENDIX D

April 12, 2018

North Dakota State Water Commission (SWC) Policy and Prioritization Comments

Eric Volk, Executive Director, ND Rural Water Systems Association

Governor Burgum, Agriculture Commissioner Goehring and State Water Commissioners, my name is Eric Volk and I am the Executive Director of the ND Rural Water Systems Association. Today, I will be submitting comments on the January 2018 Revised Draft of the SWC Funding Policy, Procedure, and General Requirements; and the Revised Draft Project Prioritization Guidance policy.

Page 2, H. 1
Support the removal of permits and cost of obtaining easements from the list of ineligible items. Most rural water easements are acquired via donation, so they have never sought reimbursement for the acquisition (purchase) of them.

Page 2, F. Engineering Selection Process
Discussed this topic at length. The RW group is fine with this being in policy but would not object with it being removed.

Page 3, L. Extraordinary Maintenance Costs
Since that activity is an eligible cost, it should be included in the prioritization guidance.

Page 6, A.
Support the removal of *pre-construction expenses approved by the State Water Commission are cost-shared up to 35 percent.* All pre-construction expenses should be funded at the same percentage as the construction expenses.

Page 6, B. 1
Projects should be funded simply based on project type.
a. Municipal – up to 60% cost share
b. Rural & Regional – up to 75% cost share
c. Grant and loan can equal 100% of project cost

Had discussions on eliminating the phrase “up to” but decided flexibility should be maintained.

Rural & Regional – up to 75% cost share

- Percentage would be consistent with the current and successful Federal MR&I Water Supply Program.
- On average, rural customers already pay a higher water rate compared to other groups.
- Early systems were built with limited and restrictive funding, which require a substantial amount of resources to correct and maintain.
- Lack of economy scales – fewer customers to share fixed costs.
- Rural to urban migration – shrinking customer base in some areas.
- Demands caused by extreme growth in others.
- Large service areas with thousands of miles of pipe – increased costs to provide services.

- Water Districts do not have the ability to tax its customers. All revenue comes from the rates charged to customers.
- Already serve the low hanging fruit, new users are further apart and harder to get to.
- Systems understand that less projects will potentially be completed each funding cycle, but they will be funded properly.

Rural Water Individual Connection Assistance Program

There are still areas in the state where residents do not have an adequate and affordable supply of quality water. Not all rural/regional water systems are in a situation where they can do an expansion project to provide water to those in need. This program is designed to assist individual residents in obtaining water from a rural/regional water system. This is based off the SWC current individual rural/farmstead ring dike program.

This program is intended to assist individuals, who are not part of an expansion project, to connect to an existing regional/rural water supply system. The State Water Commission may provide up to 75 percent cost-share of eligible items for individuals connecting to a regional/rural water supply system, limited to a maximum cost-share of $XX,XXX (possibly what SWA currently uses). Project eligibility shall be consistent with current water supply project policies.

Other Thoughts…

Bidding a project before receiving construction funding. Just looking for clarification on this topic.

1. Pre-construction funding can be awarded using the engineer's estimate.
2. In the past, the engineer's estimate was used to determine the amount of cost-share a project would receive. That process has worked well.
3. Now, some projects are being required to bid the project before they can become eligible for construction funding.
4. Some projects this biennium have been awarded construction funding using the engineer's estimate.

Rural & Regional Water Project Prioritization

1. Correcting a violation of a primary water quality condition in a water supply system.
    a. Connection to a City with a violation
    b. Connection to a group of users
2. Serving New Users
    a. New Service Area
    b. In System Expansion
    c. Connection to a City
3. Extraordinary Maintenance – replacement to extend the overall life of the system
3. Upgrades to provide increased efficiency or capacity
4. Priority is normally given to projects currently being funded. Completion of the project is essential. Too many projects have been phased over the years.

Thank You for your time and effort on this!

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701-391-5080

APPENDIX E

north dakota
water
resource
districts
association

Michael A. Dwyer, Executive Secretary

MEMO

TO: Garland Erbele, State Engineer
FROM: North Dakota Water Resource Districts Association
DATE: April 2, 2018
RE: SWC Cost-Share Policy

This is to provide recommendations for the North Dakota State Water Commission "Project Funding Policy, Procedure, and General Requirements" for cost-sharing for state and local water supply, flood control, and water management projects.

1. **Prioritization Guidance.** Our first and important recommendation is that the SWC Project Priorities Guidance be changed to have a separate Project Priorities Guidance for the following areas:
    a. Water Supply
    b. Flood Control
    c. General Water Management and Irrigation

    Having three separate areas of **Project Priorities Guidance** much better reflects the different circumstances in the communities, river basins, and sub-river basins across our state. For example, in one area the highest priority may be irrigation, to support industrial and agricultural processing opportunities, which benefit our entire state, while in another area the highest priority may be water supply. By having separate areas of **Project Priorities Guidance**, high, medium, and low priorities can be established separately for water supply, for flood control, and for general water management and irrigation. In this manner, funding for each of these areas can be applied using the **Project Priorities Guidance** for that category, resulting in the best and most beneficial allocation of funds in each respective area.

2. **Definitions and Eligibility.** We recommend that "definitions" and "eligibility" be separated into two separate sections, as eligibility is an entire discussion in and of itself.

3. **Eligibility.** We recommend that "eligible items" include easement and fee acquisitions subject to a qualified appraisal.

4. **Reimbursements.** This is a topic of discussion that is highlighted in blue on pages 2,3, and 11. We recommend that pre-construction activities incurred after pre-application approval but prior to SWC approval be eligible for cost-sharing.

5. **Engineering Selection.** (Page 2) We recommend that engineering selection be required every five years.

6. **Flood Control and General Water Management.** It is proposed that flood control and general water management categories of cost-sharing be separated into different sections, to be consistent with the proposal to separate the Priorities Guidance into separate categories. As a result, it is proposed that paragraphs on "Large Watershed Retention Projects", and "Small Watershed Retention Projects and Closed Basin Outlets," as set forth on pages 10-12, be revised and added to the cost-share policy.

Recommendations, except those relating to Definitions/Eligibility and those highlighted in blue concerning Reimbursements, **are highlighted in yellow.** Thank you for consideration of these recommendations.

Edward Grunett

Ed Grunett, Chairman

NORTH DAKOTA STATE WATER COMMISSION

PROJECT FUNDING 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 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, water supply works, 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 means funds appropriated by the legislative assembly or otherwise transferred by the Commission to a local entity under commission policy as reimbursement for a percentage of the total approved cost of a project approved by the Commission.

C. GRANT means a one-time sum of money appropriated by the legislative assembly and transferred by the commission to a local entity for a particular purpose. A grant is not dependent on the local entity providing a particular percentage of the cost of the project.

D. LOAN means an amount of money lent to a sponsor of a project approved by the commission to assist with funding approved project components. A loan may be stand-alone financial assistance.

E. WATER CONVEYANCE PROJECT means any surface or subsurface drainage works, bank stabilization, or snagging and clearing of water bodies.

F. **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 construction observation. 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 the total anticipated cost share from the State Water Commission for a specific project is anticipated to be greater than $1,000,000, 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 a selection process for a general engineering services agreement at least once every ~~three~~ five 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.

G. **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.

(section moved to II. ELIGIBILITY)

~~H. INELIGIBLE ITEMS excluded from cost-share include:~~

~~1 Administrative costs;~~

~~2 Property acquisitions, easement 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.~~

~~7 The removal of vegetative material and sediment for water conveyance projects.~~

I. **EXPANSIONS** are construction related projects that increase the project area or users served. Expansions do not include maintenance, replacement, or reconstruction activities.

J. **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.

K. **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.

L. **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.

M. **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.

N. **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. ELIGIBILITY

A. ELIGIBLE cost-share items include:

1. Property acquisitions and easement acquisitions not greater than a qualified appraisal;
2. Property acquisitions, easement acquisitions, property surveys, and legal expenses specifically identified as eligible within the Flood Recovery Property Acquisition Program, the Flood Protection Program, or the Water Retention Projects;

B. INELIGIBLE ITEMS excluded from cost-share include:

1. Administrative costs;
2. ~~Work and~~ Construction costs incurred prior to a cost-share approval date, except for emergencies as determined by the Chief Engineer;
3. Project related operation and regular maintenance costs;
4. Funding contributions provided by federal, other state, or other North Dakota state entities that supplant costs;
5. Work incurred outside the scope of the approved study or project;
6. The removal of vegetative material and sediment for water conveyance projects.

~~II.~~ III. COST-SHARE APPLICATION AND APPROVAL PROCEDURES

The State Water Commission will not consider any cost-share applications 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~~ may be considered by the State Water Commission during its next meeting at the discretion of the Chief Engineer ~~at that meeting and~~. If insufficient evaluation time is available, the application 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 shown on a map
3. Description, purpose, goal, objective, narrative of the proposed activities
4. Delineation of costs
5. Anticipated timeline of project from preliminary study through final closeout
6. Potential federal, other state, or other North Dakota state entity participation
7. Documentation of an engineering selection process if cost-share is anticipated to be greater than $1,000,000
8. Engineering plans, if applicable
9. Status of required permitting
10. Potential territorial service area conflicts or service area agreements, if applicable
11. Sustainable operation, maintenance, and replacement plan for projects
12. 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 financial needs for the State Water Plan. Projects not included in the State Water Plan may be considered for funding at the discretion of the Chief Engineer. Projects 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 local sponsor will be asked to present the application, and the Chief Engineer will provide 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~~ whether or not the project is in the State Water Plan, and a priority ranking within the water supply, flood control, and general water management/irrigation project areas 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 and also approve cost overruns up to $75,000 without State Water Commission action. The Chief Engineer will respond to such requests within 60-days of receipt of the request.

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.

The project sponsor must provide a progress report to the Commission at least once every four years if the term of the project exceeds four years. If a progress report is not received in a timely fashion or, if after a review of the progress report the Commission determines the project has not made sufficient progress, the Commission may terminate the agreement for project funding. The project sponsor may submit a new application to the Commission for funding for a project for which the Commission previously terminated funding.

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.

~~II~~ IV. COST-SHARE CATEGORIES

The State Water Commission supports the following categories of projects 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.

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. The local sponsor may apply for funding, and the application will be reviewed to determine project priority. Projects within category (1) may be considered for cost-share funding up to 75 percent. Projects in category (2) may be considered for cost-share funding up to 60 percent. Cost-share funding within category (3) will be on a case-by-case basis. All projects may be considered for loan funding up to 100%.

(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 or connection of communities to the regional system.

(2) Up to a 60 percent cost share is intended for projects to support improvements or connection of new customers within the existing service area of a municipal water system or other improvements to rural water systems. 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. Funding is based on level of impact as determined by the State Water Commission.

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 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 up to 60 percent of eligible costs. For projects with federal participation, the cost-share may be up to 50 percent of eligible non-federal costs. The State Water Commission may consider a greater level of cost participation for projects involving a total cost greater than $100 million and having a basin wide or regional benefit.

Local share must be provided on a timely basis. The State Water Commission may lend a portion of the local share based on demonstrated financial need.

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

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

The cost-share application must include the return interval or design flow for which the structure will provide protection. The Commission will calculate the amount of its financial assistance, based on the needs for protection against:

1. One-hundred year flood event as determined by a federal agency;

2. The national economic development alternative; or

3. The local sponsor's preferred alternative if the Commission first determines the historical flood prevention costs and flood damages and the risk of future flood prevention costs and flood damages, warrant protection to the level of the local sponsor's preferred alternative.

Storm water management is not an eligible cost-share category. In order to differentiate between a flood control project and storm water management, the Commission may reduce the cost-share provided by the percentage of the contributing watershed that is located within the community's corporate limits as calculated on an acreage basis

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-federal 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 a threat to public safety. 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~~ LARGE WATERSHED RETENTION PROJECTS.** The goal of ~~water~~ large watershed retention projects is to reduce flood damages by storing floodwater upstream of areas prone to flood damage. Large watershed retention projects are defined as projects that temporarily store at least 10,000 acre-feet of water at the emergency spillway. The State Water Commission may provide cost-share up to 60 percent of eligible costs ~~for water~~ of large watershed retention projects, including purchase price of the property. For projects with federal participation, the cost-share may be up to 50 percent. ~~Water~~ Large watershed 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 an operation plan and a quantification of the flood reduction benefits for 25, 50, and 100-year events must be submitted with the cost-share application.

6 **INDIVIDUAL RURAL AND FARMSTEAD 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. 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 up to a limit of $55,000 per ring dike.

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.

D. ~~**WATER CONVEYANCE.**~~ **GENERAL WATER MANAGEMENT.** The State Water Commission may provide cost-share for eligible items of general water management and irrigation projects.

1 **RURAL FLOOD CONTROL.** These projects are intended to improve the drainage and management of runoff from ~~agricultural sources~~ rural watershed sources; with the exception of water resource district projects established under N.D.C.C. Chs. 61-16.1 and 61-21, projects that manage runoff or drainage from residential or urban sources are not eligible. 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. 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. Pre-construction activities following submission of a pre-application request are eligible for cost-share, if the State Water Commission ultimately approves cost-share for the project.

A sediment analysis must be provided with any application for cost-share assistance for reconstruction of an existing drain. The analysis must be completed by a qualified professional engineer and must clearly indicate the percentage volume of sediment removal involved in the project. The cost of that removal must be deducted from the total for which cost-share assistance is being requested.

2 **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

3. **SMALL WATERSHED RETENTION PROJECTS AND CLOSED BASIN OUTLETS.** The goal of small watershed retention projects is to reduce the risk of flood damages by storing floodwater upstream of areas prone to flood damage. Small watershed retention projects are defined as projects that temporarily store less than 10,000 acre-feet of water as the emergency spillway. The goal of closed basin outlets is to provide flood risk reduction by preventing uncontrolled overtopping of the natural outlet of ponds, lakes, and sloughs. Closed basin outlet projects must include control structures and operating plans that prevent water from releasing during downstream flood events. The State Water Commission may provide cost-share up to 60 percent of eligible costs for small watershed retention projects and basin outlets, including purchase price of the property. For projects with federal participation, the cost-share may be up to 50 percent. Small watershed retention projects constructed with State Water Commission cost-share must meet dam safety requirements, including the potential of cascade failure and 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.

~~3~~ 4 **SNAGGING AND CLEARING.** These projects are ineligible for State Water Commission funding.

~~E.~~ 5 **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.~~ 6 **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. The Commission will only enter into cost share agreements with political subdivisions, including irrigation districts, and not with individual producers.

ATTACHMENT A
INDIVIDUAL RURAL AND FARMSTEAD RING DIKE CRITERIA

MINIMUM DESIGN CRITERIA

- HEIGHT: The dike must be built to an elevation 2 ft above either the 100-year flood or the documented high water mark of a flood event of greater magnitude, whichever is greater.
- TOP WIDTH: If dike height is 5 ft or less: 4 ft top width
  If dike height is between 5 ft and 14 ft: 6 ft top width
  If dike height is greater than 14 ft: 8 ft top width
- SIDE SLOPES: 3 horizontal to 1 vertical
- STRIP TOPSOIL AND VEGETATION: 1 ft
- ADEQUATE EMBANKMENT COMPACTION: Fill in 6-8 inch layers, compact with passes of equipment
- SPREAD TOPSOIL AND SEED ON RING DIKE

LANDOWNER RESPONSIBILITY

Landowners are responsible to address internal drainage on ring dikes. If culverts and flap gates are installed, these costs are eligible for cost-share. The landowner has the option of completing the work or hiring a contractor to complete the work.

If <u>contractor</u> does the work, payment is for actual costs with documented receipts.
If <u>landowner</u> does the work, payment is based on the following unit prices:

- STRIPPING, SPREADING TOPSOIL, AND EMBANKMENT FILL: Chief Engineer will determine rate schedule based on current local rates
- SEEDING: Cost of seed times 200%
- CULVERTS: Cost of culverts times 150%
- FLAP GATES: Cost of flap gates times 150%

OTHER FACTS AND CRITERIA

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

SWC PROJECT PRIORITIZATION GUIDANCE

Projects submitted during the project planning inventory process[1] that meet SWC cost-share eligibility requirements will be considered for prioritization. Projects that do not meet local cost-share match requirements, (per SWC cost-share policies), will be dropped to the next lowest priority category. Ineligible projects will be diverted toward alternative funding sources.

CURRENT

ESSENTIAL PROJECTS (No Priority Ranking)

Agency operational expenses.

An imminent water supply loss to an existing multi-user system, an immediate flood or dam related threat to human life or primary residences, or emergency response efforts.

Existing agency debt obligations.

SWC project mitigation.

HIGH PRIORITY PROJECTS

Federally authorized water supply or flood control projects with a federal funding appropriation.

Federally authorized water supply or flood control projects that do not have a federal appropriation.

Corrects a lack of water supply for a group of water users or connects a city to a regional/rural system.

Corrects a violation of a primary water quality condition in a water supply system.

Addresses severe or anticipated water supply shortages for domestic use in a service area or city with a three-year avg. population growth > 3%.

Protects primary residences or businesses from flooding in population centers or involves flood recovery property acquisitions.

MODERATE PRIORITY PROJECTS

Dam repairs, reconstructions, or removals/breaches.

Expansion of an existing water supply system.

Levee recertifications, floodwater retention, emergency action plans, or flood mitigation property acquisitions.

Irrigation system construction.

Snagging and clearing.

Bank stabilization.

LOW PRIORITY PROJECTS

Studies, reports, analyses, surveys, models, assessments, mapping projects, or engineering designs.[II]

Improvement of a water supply system.

Construction or improvement of rural flood control drains, ditches, diversion channels, or outlets.

Recreation projects.

Individual ring dike constructions.

Footnotes

I. All local sponsors are encouraged to submit project and study financial needs during the budgeting process. Projects and studies not submitted as part of the project information collection effort 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.

II. May be considered as a higher priority if the related project is of higher priority.

Disclaimer

This process is meant to provide guidance for prioritizing water projects during the budgeting process that may be eligible for cost-share assistance through the State Water Commission. Interpretation and deviations from the process are within the discretion of the state as authorized by the State Water Commission or Legislature.

SWC PROJECT PRIORITIZATION GUIDANCE

PROPOSED

PROPOSED

PROJECT PRIORITY

Agency operational expenses, existing agency debt obligations, and SWC project mitigation are required allocations from the RTF.

	WATER SUPPLY	FLOOD CONTROL	GENERAL WATER MANAGEMENT/ IRRIGATION
ESSENTIAL	• An imminent water supply loss to an existing multi-user system • Emergency response efforts	• An immediate flood or dam related threat to human life or primary residences • Emergency response efforts	• Emergency response efforts
HIGH	• Federally authorized water supply projects with federal or no federal funding appropriation • Corrects a lack of water supply for a group of water users or connects a city to a regional/rural system • Corrects a violation of a primary water quality condition in a water supply system • Addresses severe or anticipated water supply shortages for domestic use in a service area or city with a three-year average population growth >3%	• Federally authorized flood control projects that have federal or no federal appropriation • Protects primary residences or businesses from flooding in population centers or involves flood recovery property acquisitions	• Irrigation system construction • Construction or improvement of rural flood control drains, ditches, diversion channels, or outlets • Recreation projects
MODERATE	• Expansion of an existing water supply system	• Individual ring dike constructions • Dam repairs, reconstructions, or removals/breaches • Levee recertifications, floodwater retention, emergency action plans, or flood mitigation property acquisitions	• Bank stabilization • Studies, reports, analyses, surveys, models, assessments, mapping projects, or engineering designs
LOW	• Improvement of water supply system		

APPENDIX F

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 BIENNIUM

Feb-18

	BUDGET	SWC/SE APPROVED	EXPENDITURES	REMAINING UNOBLIGATED	REMAINING UNPAID
MUNICIPAL & REGIONAL WATER SUPPLY:					
MUNICIPAL WATER SUPPLY	93,480,009	93,480,009	12,739,744	0	80,740,264
RED RIVER VALLEY	30,000,000	17,000,000	3,000,000	13,000,000	14,000,000
OTHER REGIONAL WATER SUPPLY	96,541,296	96,541,296	24,654,436	0	71,886,861
UNOBLIGATED MUNICIPAL/REG WATER SUPPLY	15,147,650			15,147,650	
RURAL WATER SUPPLY:					
RURAL WATER SUPPLY	51,945,563	51,945,563	19,869,624	0	32,075,939
UNOBLIGATED RURAL WATER SUPPLY	16,629,051			16,629,051	
FLOOD CONTROL:					
FARGO	144,876,087	78,376,087	16,520,614	66,500,000	61,855,473
MOUSE RIVER	89,410,776	89,358,276	3,712,551	52,500	85,645,724
VALLEY CITY	14,607,634	14,607,634	1,735,323	0	12,872,311
LISBON	9,000,010	9,000,010	2,549,208	0	6,450,802
OTHER FLOOD CONTROL	35,830,517	35,830,517	2,371,974	0	33,458,543
PROPERTY ACQUISITIONS	20,422,133	20,422,133	12,502,813	0	7,919,320
WATER CONVEYANCE	18,333,016	18,333,016	1,696,145	0	16,636,871
UNOBLIGATED FLOOD CONTROL	5,802,275			5,802,275	
GENERAL WATER:					
GENERAL WATER	23,629,027	23,629,027	5,731,843	0	17,897,184
UNOBLIGATED GENERAL WATER	9,843,071			9,843,071	
REVOLVING LOAN FUND:					
GENERAL WATER PROJECTS	5,581,900	5,581,900	2,292,500	0	3,289,400
WATER SUPPLY	1,189,000	1,189,000	354,000	0	835,000
TOTALS	682,269,015	555,294,467	109,730,775	126,974,548	445,563,692

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium

WATER SUPPLY

Approved By	SWC No	Dept	Sponsor	Project	Approved Date	Total Approved	Total Payments	Feb-18 Balance
			Municipal Water Supply:					
	2050-13	5000	Mandan	New Raw Water Intake	10/7/2013	1,515,672	27,658	1,488,014
	2050-15	5000	Washburn	New Raw Water Intake	10/7/2013	2,281,927	140,716	2,141,211
	2050-18	5000	Grafton	Water Treatment Plant Phase 3	10/7/2013	816,343	48,822	767,521
	2050-20	5000	Dickinson	Capital Infrastructure	10/6/2015	1,793,507	0	1,793,507
	2050-21	5000	Watford City	Capital Infrastructure	8/1/2015	536,627	1,617	535,010
	2050-26	5000	Fargo	Fargo Water System Regionalization Improvements	7/29/2015	4,131,788	736,440	3,395,348
	2050-28	5000	Mandan	Water Systems Improvement Project	10/6/2015	2,005,765	1,054,606	951,159
	2050-29	5000	Minot	Water Systems Improvement Project	10/6/2015	3,478,647	1,831,772	1,646,875
	2050-30	5000	Watford City	Water Systems Improvement Project	10/6/2015	5,374,639	248	5,374,391
	2050-31	5000	West Fargo	Water Systems Improvement Project	10/6/2015	1,086,602	392,388	694,214
	2050-32	5000	Williston	Water Systems Improvement Project	10/6/2015	7,857,010	0	7,857,010
	2050-36	5000	Dickinson	Water Systems Improvement Project	10/6/2015	674,881	0	674,881
	2050-37	5000	Dickinson	Dickinson State Avenue South Water Main	12/11/2015	963,920	0	963,920
	2050-44	5000	Beulah	Water Treatment Plant	3/9/2016	1,639,813	1,033,581	606,232
	2050-49	5000	Grand Forks	Grand Forks Water Treatment Plant	8/23/2017	50,645,520	7,471,897	43,173,623
	2050-51	5000	Mercer	Connect to McLean-Sheridan	8/23/2017	166,950	0	166,950
	2050-52	5000	New Town	Water Transmission Storage	8/23/2017	1,040,000	0	1,040,000
	2050-53	5000	West Fargo	Brooks Harbor Water Tower	8/23/2017	1,950,000	0	1,950,000
	2050-54	5000	West Fargo	North Loop Connection	8/23/2017	510,000	0	510,000
	2050-55	5000	West Fargo	West Loop Connection	8/23/2017	1,110,000	0	1,110,000
	2050-56	5000	Williston	US Highway 2 Water Main	8/23/2017	434,400	0	434,400
	2050-66	5000	Lincoln	Lincoln Water System Improvement Project	2/8/2018	1,130,000	0	1,130,000
	2050-67	5000	Williston	Williston Water System Improvements	2/8/2018	2,336,000	0	2,336,000
				TOTAL MUNICIPAL WATER SUPPLY		***93,480,009***	***12,739,744***	***80,740,264***
			Regional Water Supply:					
	1736-05	8000	SWPP	Southwest Pipeline Project	7/1/2017	44,988,408	15,881,235	29,107,174
	2374	9000	NAWS	Northwest Area Water Supply	2/8/2018	22,508,462	1,290,003	21,218,459
HB 1020	1973-02	5000	WAWSA	WAWSA	9/15/2014	155,603	155,603	(0)
	1973-05	5000	WAWSA	WAWSA	10/6/2015	8,888,823	4,576,785	4,312,038
	1973-06	5000	WAWSA	WAWSA	12/8/2017	20,000,000	2,750,809	17,249,191
	325-105	5000	RRVWSP	RRVWSP Garrison Diversion	8/23/2017	17,000,000	3,000,000	14,000,000
				TOTAL REGIONAL WATER SUPPLY		***113,541,296***	***27,654,436***	***85,886,861***
			Rural Water Supply:					
	2050-17	5000	Barnes Rural RWD	Improvements	3/11/2015	1,096,634	956,249	140,385
	2050-23	5000	Greater Ramsey WRD	SW Nelson County Expansion	8/23/2017	1,364,794	352,481	1,012,313
	2050-24	5000	All Seasons Water District	System 1 Well Field Expansion	9/15/2014	292,500	0	292,500
	2050-25	5000	All Seasons Water District	Bottineau County Extension, Phase I	7/29/2015	299,358	0	299,358
	2050-33	5000	Stutsman RWD	Phase V Storage & Pipeline Expansion Project	10/6/2015	1,172,760	497,149	675,611
	2050-34	5000	North Prairie RWD	Storage and Water Main	10/6/2015	1,968,086	423,490	1,544,596
	2050-35	5000	Southeast Water Users Dist	System Wide Expansion Feasibility Study	8/23/2017	13,159,145	3,391,720	9,767,425
	2050-38	5000	Dakota Rural Water District	Reservoir C Expansion	12/11/2015	90,841	17,366	73,475
	2050-41	5000	Northeast Regional WD	City of Devils Lake Water Supply Project	12/11/2015	12,789,020	10,277,351	2,511,669
	2050-42	5000	Walsh RWD	Phase 1 & 2 System Expansion	12/11/2015	1,639,753	845,775	793,978
	2050-43	5000	All Seasons Water District	System 4 Connection to System 1	12/11/2015	4,900,000	0	4,900,000
	2050-45	5000	Garrison Rural Water District	System Expansion Project	3/9/2016	1,731,110	1,362,787	368,323
	2050-50	5000	Grand Forks Traill RWD	Eastern Expansion & TRWD Interconnect Fesibility	8/23/2017	126,000	77,700	48,300
	2373-39	5000	North Central Rural Water Consortium	Carpio Berthold Phase 2	4/1/2015	2,425,167	584,977	1,840,191
	2373-41	5000	North Central Rural Water Consortium	Granville-Deering Area	10/24/2016	1,831,540	964,579	866,962
	2050-57	5000	North Central Regional Water District	Mountrail Expansion Phase II	8/23/2017	3,086,000	3,063	3,082,938
	2050-58	5000	North Central Regional Water District	Mountrail Co. Watery Phase III	8/23/2017	3,430,000	0	3,430,000
	2050-59	5000	Cass Rural Water District	Horace Storage Tank	8/23/2017	91,000	0	91,000
	2050-60	5000	North Prairie Rural District	Reservoir 9 Water Supply	8/23/2017	26,950	0	26,950
	2050-61	5000	North Prairie Rural District	Surrey/Silver Spring	8/23/2017	5,950	0	5,950
	2050-62	5000	Traill Rural District	Expansion/Interconnect	8/23/2017	150,880	114,939	35,941
	2050-63	5000	Walsh RWD	System Expansion Project	8/23/2017	57,375	0	57,375
	2050-64	5000	McLean-Sheridan Water District	Turtle Lake Water Tower	12/8/2017	107,450	0	107,450
	2050-65	5000	Tri-County Rural Water District	System Expansion Project	12/8/2017	103,250	0	103,250
				TOTAL RURAL WATER SUPPLY		***51,945,563***	***19,869,624***	***32,075,939***
				TOTAL		***258,966,867***	***60,263,803***	***198,703,064***

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium

FLOOD CONTROL

Approved By	SWC No	Dept	Sponsor	Project	Approved Date	Total Approved	Total Payments	*Feb-18* Balance
			Flood Control:					
SB 2020	1928-01	5000	Fargo	Fargo Flood Control Project	4/19/2016	20,001,131	16,520,614	3,480,517
SB 2020	1928-05	5000	Fargo Metro Flood Diversion	Fargo Metro Flood Diversion Authority 2015-2017	7/6/2016	58,374,956	0	58,374,956
	1771-01	5000	Grafton	Grafton Flood Control Project	10/12/2016	32,175,000	2,371,974	29,803,026
	1974-06	5000	Souris River Joint WRD	Development of 2011 Flood Inundation Maps	12/18/2015	1,522	0	1,522
	1974-09	5000	Souris River Joint WRD	Mouse River Flood Control Design Engineering	8/8/2016	96,696	96,696	(0)
	1974-11	5000	Souris River Joint WRD	Funding of 214 agreement between SRJB & USACE	12/5/2014	31,500	0	31,500
	1974-14	5000	Souris River Joint WRD	StARR Program (Structure Acquisition, Relocation, or Ring Dike)	3/9/2016	5,895,975	1,557,062	4,338,913
	1974-15	5000	Souris River Joint WRD	Perkell Ditch Improvements	12/2/2016	404,593	242,952	161,641
	1974-16	5000	Souris River Joint WRD	Corps of Engineers Feasibility Study MREFPP	12/9/2016	355,546	60,165	295,381
	1974-18	5000	Souris River Joint WRD	Rural Reaches, Preliminary Engineering	10/12/2016	236,941	9,211	227,730
	1974-19	5000	Souris River Joint WRD	4th Avenue Tieback Levee & Burlington Levee - Design Engineerng	10/12/2016	2,463,340	1,134,020	1,329,320
	1974-20	5000	Souris River Joint WRD	Utility Relocations	10/12/2016	422,034	11,289	410,745
	1974-21	5000	Souris River Joint WRD	Highway 83 Bypass & Bridge Replacement	10/12/2016	1,983,623	476,406	1,507,217
	1974-22	5000	Souris River Joint WRD	Broadway Pump Station Phases MI-1	3/29/2017	35,271,200	0	35,271,200
	1974-23	5000	Souris River Joint WRD	Peterson Coulee Outlet	3/29/2017	1,427,022	0	1,427,022
	1974-25	5000	Souris River Joint WRD	Flood Specific Emergency Action Plan for Ward Co.	7/20/2017	52,000	0	52,000
	1974-26	5000	Souris River Joint WRD	Phases MI-2, MI-3 Construction	8/23/2017	40,391,534	0	40,391,534
	1974-27	5000	Souris River Joint WRD	Corps of Engineers Section 408 Review Through Section 2145	8/23/2017	74,750	74,750	0
	2122-01	5000	US Army Corps of Engineers	Development of Comprehensive Plan for Souris Basin	9/5/2017	250,000	50,000	200,000
	1344-04	5000	Valley City	Sheyenne River Valley Flood Control Project PHII	8/29/2016	58,414	0	58,414
	1504-01	5000	Valley City	Permanent Flood Protection Project	5/1/2015	477,445	0	477,445
	1504-03	5000	Valley City	Permanent Flood Protection PH III	12/9/2016	13,157,600	1,735,323	11,422,277
	1504-06	5000	Valley City	Permanent Flood Protection PH III & PH V	12/8/2017	914,175	0	914,175
SB 2371	1344-02	5000	Lisbon	Sheyenne River Valley Flood Control Project	8/8/2016	1,000,582	338,916	661,666
	1991-01	5000	Lisbon	Permanent Flood Protection Project	5/29/2014	146,969	0	146,969
	1991-03	5000	Lisbon	Permanent Flood Protection - Levee C Project	3/11/2015	377,799	2,160	375,639
	1991-06	5000	Lisbon	Permanent Flood Protection - Levee E Project	3/9/2016	84,125	52,000	32,125
	1991-08	5000	Lisbon	Permanent Flood Protection - Levee D Project	3/29/2017	3,590,535	2,156,132	1,434,403
	1991-10	5000	Lisbon	Permanent Flood Protection - Levee F Project	6/22/2017	3,800,000	0	3,800,000
	2079-01	5000	Williston	West Williston Flood Control	12/9/2016	3,655,517	0	3,655,517
				Subtotal Flood Control		***227,172,523***	***26,889,671***	***200,282,852***
			Floodway Property Acquisitions:					
	1993-05	5000	Minot	Minot Phase 2 - Floodway Acquisitions	12/8/2017	10,258,529	7,943,229	2,315,300
SB 2371	1523-05	5000	Ward County/Minot	Ward County Phase 1, 2 & 3 - Floodway Acquisitions	1/27/2012	6,015,347	2,843,723	3,171,624
SB 2371	1504-05	5000	Valley City	Valley City Phase 1 - Floodway Acquisitions	12/8/2017	3,406,947	1,521,080	1,885,867
SB 2371	2000-05	5000	Sawyer	Sawyer Phase 1 - Floodway Acquisitions	6/13/2012	135,844	0	135,844
	1991-05	5000	Lisbon	Lisbon - Floodway Acquisition	12/9/2016	603,300	194,780	408,520
	1987-05	5000	Burlington	Mouse River Enhanced Flood Plan Property Acquistion	5/10/2017	2,166	0	2,166
				Subtotal Floodway Property Acquisitions		***20,422,133***	***12,502,813***	***7,919,320***
				TOTAL FLOOD CONTROL		***247,594,656***	***39,392,483***	***208,202,173***
			Revolving Loan Fund:					
			(General Water)					
	2077	1050	Valley City	Valley City Flood Protection - Phase II Construction (LOAN)	12/9/2016	3,289,400	0	3,289,400
	2077-15	1050	Valley City	Valley City Pre Design & Eng & Phase III Buyouts (LOAN)	12/9/2016	1,392,500	1,392,500	0
	2077-14	1050	Lisbon	Permanent Flood Control	8/23/2017	900,000	900,000	0
			(Water Supply)					
	2077	1050	Barnes Rural Water District	Rural Expansion (LOAN)	10/12/2016	835,000	0	835,000
	2077-13	1050	North Central Rural Water Consortium II	Carpio Berhold Phase 2 (LOAN)	10/12/2016	215,000	215,000	0
	2077-12	1050	North Central Rural Water Consortium	Granville-Surrey-Deering Water Supply Project (LOAN)	10/12/2016	139,000	139,000	0
				REVOLVING LOAN TOTAL		***6,770,900***	***2,646,500***	***4,124,400***
				TOTAL		***254,365,556***	***42,038,983***	***212,326,573***

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium
Resources Trust Fund

WATER CONVEYANCE

Approved By	SWC No	Dept	Approved Biennum	Sponsor	Project	Approved Date	Total Approved	Total Payments	*Feb-18* Balance
				Drain & Channel Improvement Projects:					
SWC	710	5000	2015-17	Maple River WRD	Upper Swan Creek Channel Improvement Project	10/6/2015	62,061	0	62,061
SWC	1056	5000	2015-17	Bottineau Co. WRD	Tacoma Bitz Legal Drain	7/6/2016	210,572	49,978	160,594
SE	1056	2000	2015-17	Bottineau Co. WRD	Stead Legal Drain	2/16/2017	14,738	7,369	7,369
SWC	1064	5000	2013-15	Rush River WRD	Cass County Drain No. 2 Channel Improvements Proj	3/11/2015	41,683	0	41,683
SWC	1070	5000	2015-17	Maple River WRD	Drain #14 Channel Improvements	3/29/2017	741,562	0	741,562
SWC	1071	5000	2015-17	Maple River WRD	Cass County Drain #15 Channel Improvements	3/9/2016	282,561	0	282,561
SWC	1088	5000	2015-17	Maple River WRD	Cass Drain #37 Channel Improvements	3/9/2016	215,157	0	215,157
SWC	1089	5000	2015-17	Maple River WRD	Cass County Drain #39 Channel Improvements	3/9/2016	210,568	0	210,568
SE	1180	5000	2015-17	Richland Co WRD	Legal Drain No. 7 Channel Improvements	5/11/2017	24,926	0	24,926
SWC	1101	5000	2011-13	Dickey Co. WRD	Yorktown-Maple Drainage Improvement Dist No. 3	11/1/2017	798,562	0	798,562
SE	1140	5000	2015-17	Pembina Co. WRD	Drain 11 Outlet Extension Cost Overrun Project	7/7/2015	5,088	0	5,088
SWC	1176	5000	2015-17	Richland Co. WRD	Legal Drain #2 Reconstruction/Extension Project	3/9/2016	224,231	28,549	195,682
SWC	1222	5000	2015-17	Sargent Co WRD	Drain No 11 Channel Improvements	10/12/2016	1,378,376	0	1,378,376
SWC	1227	5000	2011-13	Traill Co. WRD	Mergenthal Drain No. 5 Reconstruction	9/15/2014	12,225	0	12,225
SWC	1231	5000	2015-17	Traill Co. WRD	Carson Drain No. 10 Channel Improvements	10/12/2016	141,322	102,966	38,356
SWC	1236	5000	2015-17	Traill Co. WRD	Murray Drain No. 17 Channel Improvements	10/12/2016	127,759	45,812	81,947
SWC	1311	5000	2015-17	Traill Co. WRD	Buxton Township Improvement District No. 68	3/9/2016	110,418	61,348	49,070
SWC	1314	5000	2015-17	Wells Co. WRD	Hurdsfield Legal Drain	3/29/2017	644,292	0	644,292
SE	1328	5000	2015-17	North Cass Co. WRD	Drain No. 23 Channel Improv Preliminary Engineering	9/30/2015	921	0	921
SWC	1328	5000	2015-17	North Cass Co. WRD	Drain #23 Channel Improvements	3/9/2016	81,612	53,103	28,509
SWC	1331	5000	2015-17	Richland Co WRD	Drain #14 Reconstruction	12/9/2016	252,738	138,492	114,246
SWC	1486	5000	2015-17	Griggs Co. WRD	Thompson Bridge Outlet No. 4 Project	10/6/2015	621,661	0	621,661
SWC	1520	5000	2015-17	Walsh Co. WRD	Walsh County Drain 30-1	3/29/2017	282,307	175,455	106,852
SWC	2087	5000	2015-17	Walsh Co. WRD	Drain #87/McLeod Drain	3/29/2017	5,273,586	69,362	5,204,224
SWC	1951	5000	2015-17	Maple River WRD	Lynchburg Channel Improvements	7/6/2016	1,131,338	0	1,131,338
SWC	1951	5000	2015-17	Maple River WRD	Lynchburg Channel Improvements	7/6/2016	23,412	0	23,412
SWC	1975	5000	2015-17	Walsh Co. WRD	Drain 31-1	10/12/2016	111,543	55,330	56,213
SWC	1977	5000	2011-13	Dickey-Sargent Co WRD	Jackson Township Improvement Dist. #1	5/20/2015	447,653	0	447,653
SE	1978	5000	2015-17	Richland-Sargent Joint WRD	RS Legal Dam #1 - Pre-Construction Engineering	10/24/2016	13,680	0	13,680
SWC	1978	5000	2015-17	Richland-Sargent Joint WRD	RS Legal Drain #1 Extension & Channel Improvement	3/29/2017	378,000	0	378,000
SWC	1990	5000	2011-13	Mercer Co. WRD	Lake Shore Estates High Flow Diversion Project	3/7/2012	43,821	0	43,821
SE	2016	5000	2015-17	Pembina Co. WRD	Establishment of Pembina County Drain No. 80	4/10/2017	74,965	0	74,965
SWC	2049	5000	2015-17	Grand Forks Co. WRD	Grand Forks Legal Drain No. 58	3/29/2017	1,481,850	0	1,481,850
SWC	2062	5000	2015-17	Traill Co. WRD	Traill Co. Drain #64	7/6/2016	19,549	13,729	5,820
SWC	2068	5000	2015-17	Traill Co. WRD	Stavanger-Belmont Drain No. 52 Channel Impr	10/12/2016	414,652	271,004	143,648
SWC	2080	5000	2015-17	Walsh Co. WRD	Sam Berg Coulee Drain	10/12/2016	182,775	60,014	122,761
SWC	2081	5000	2015-17	Walsh Co. WRD	Drain #70	10/12/2016	562,429	426,068	136,361
SWC	2088	5000	2015-17	Pembina Co. WRD	Drain No. 79	12/9/2016	875,428	0	875,428
SWC	2108	5000	2015-17	Walsh Co. WRD	Walsh Co Drain #22	6/22/2017	266,086	24,906	241,180
SE	2112	5000	2017-19	Pembina Co. WRD	Pembina Co Drain #81	7/30/2017	56,000	0	56,000
SE	2093/1427	5000	2015-17	Bottineau Co. WRD	Moen Legal Drain	9/6/2016	18,542	0	18,542
				Snagging & Clearing Projects:					
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches I,II,III	12/9/2016	150,073	0	150,073
SE	662	5000	2015-17	Walsh Co. WRD	Park River Snagging & Clearing	2/17/2017	51,435	0	51,435
SE	1287	5000	2013-15	McHenry Co. WRD	Souris River Snagging & Clearing Project	2/3/2015	10,500	0	10,500
SE	1667	5000	2015-17	Traill Co. WRD	Goose River Snagging & Clearing	6/21/2017	47,500	0	47,500
SE	1934	5000	2015-17	Traill Co. WRD	Elm River Snagging & Clearing	6/21/2017	47,500	0	47,500
SE	2095	5000	2015-17	Nelson Co WRD	Sheyenne River Snagging & Clearing	4/10/2017	19,700	0	19,700
SE	2110	5000	2015-17	Ward Co. WRD	Meadowbrook Snagging & Clearing	6/21/2017	33,000	0	33,000
					TOTAL		18,220,357	1,583,486	16,636,871

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium
Resources Trust Fund

COMPLETED WATER CONVEYANCE

Approved By	SWC No	Dept	Approved Biennum	Sponsor	Project	Approved Date	Total Approved	Total Payments	*Feb-18* Balance
SWC	568	5000	2013-15	Southeast Cass WRD	Sheyenne River Reaches Snagging & Clearing Project	12/5/2014	94,238	10,312	83,926
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches II	12/11/2015	27,905	2,451	25,454
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches I	12/11/2015	73,902	0	73,902
SWC	568	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches III	12/11/2015	87,035	0	87,035
SE	571	5000	2013-15	Oak Creek WRD	Oak Creek Snagging & Clearing Project	3/30/2015	1,107	0	1,107
SWC	1179	5000	2015-17	Richalnd Co. WRD	Legal Drain #5 (Lateral 27) Reconstruction	3/9/2016	180,353	10,937	169,416
SWC	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement	7/6/2016	2,599	2,599	0
SWC	2042	5000	2015-17	Bottineau Co. WRD	Haas Coulee Legal Drain Phase II	6/22/2017	86,361	86,361	0
					TOTAL		553,500	112,659	440,841

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium
Resources Trust Fund

GENERAL PROJECTS

Approved By	SWC No	Dept	Approved Biennum	Sponsor	Project	Approved Date	Total Approved	Total Payments	*Feb-18* Balance
				Hydrologic Investigations:					
SE	1400	3000	2015-17	Fireside Office Solutions	Document Conversion (Water Permit Scanning)	8/23/2016	19,330	19,330	0
SE	989	3000	2017-19	ND Dept of Health	Water Sampling Testing	9/25/2017	52,750	52,750	0
SWC	2041	3000	2017-19	USGS	Stream Gage Joint Funding Agreement	12/8/2017	553,790	0	553,790
					Subtotal Hydrologic Investigations		***625,870***	***72,080***	***553,790***
				Devils Lake Basin Development:					
SWC	416-10	4700	2015-17	Operations	Devils Lake Outlet Operations	3/9/2016	10,027,973	2,516,793	7,511,180
SE	416-01	5000	2017-19	Devils Lake Basin Joint WRB	Board Manager	6/14/2017	60,000	0	60,000
					Subtotal Devils Lake Basin Development		***10,087,973***	***2,516,793***	***7,571,180***
				General Water Management:					
SE	274	5000	2015-17	City of Neche	Neche Levee Certification Project	3/21/2016	54,000	0	54,000
SWC	346	5000	2015-17	Williams County WRD	Epping Dam Spillway Reconstruction	3/29/2017	19,499	0	19,499
SWC	347	5000	2009-11	City of Velva	City of Velva's Flood Control Levee System Certificatic	3/28/2011	32,497	0	32,497
SE	390	5000	2015-17	Logan County WRD	Beaver Lake Dam Rehabilitation Feasibility Study	6/8/2016	16,076	0	16,076
SE	394	5000	2015-17	Golden Valley Co WRD	Odland Dam Rehabilitiation Feasibility Study	10/13/2016	13,220	9,528	3,692
SE	399	5000	2013-15	Barnes Co WRD	Kathryn Dam Feasibility Study	9/19/2014	12,742	0	12,742
SE	420	5000	2015-17	Hettinger Park Board	Mirror Lake Dam Emergency Action Plan	12/2/2016	24,400	12,827	11,573
SE	460	5000	2015-17	Griggs Co. WRD	Ueland Dam Rehabilitation Feasibility Study	5/20/2016	17,500	0	17,500
SE	477	5000	2015-17	Valley City	Mill Dam Rehabilitation Feasibilty Study	6/8/2016	15,073	0	15,073
SE	479	5000	2017-19	Morton Co Parks & Recreation	Fish Creek Dam Rehabilitiation	10/4/2017	62,970	6,970	56,000
SE	512	5000	2015-17	Emmons County WRD	Nieuwsma Dam Emergency Action Plan	11/28/2016	7,532	812	6,720
SE	531	5000	2015-17	Benson Co WRD	Bouret Dam Rehabilitiation Feasibilitly Study	10/11/2016	12,118	0	12,118
SWC	551	5000	2015-17	McHenry Co. WRD	Buffalo Lodge Lake Outlet	6/22/2017	134,915	0	134,915
SE	561	5000	2015-17	City of Tioga	Tioga Dam EAP	5/20/2016	40,000	0	40,000
SWC	620	5000	2007-09	Lower Heart WRD	Mandan Flood Control Protective Works (Levee)	6/22/2017	15,000	0	15,000
SE	667	5000	2017-19	Burke Co WRD	Northgate Dam 2 Emergency Action Plan	9/5/2017	26,396	0	26,396
SE	841	5000	2013-15	Maple River WRD	Garsteig Dam Repair Project	1/26/2015	18,661	0	18,661
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-1-A (Brummond-Lubke) Dam EAP	12/18/2015	12,016	0	12,016
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-7 (Nelson) Dam EAP	12/18/2015	12,180	0	12,180
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Emergency Action Plan	9/29/2015	2,212	0	2,212
SWC	980	5000	2015-17	Cass Co. Joint WRD	Rush River Watershed Detention Study	1/7/2016	127,697	703	126,994
SWC	980	5000	2013-15	Cass Co. Joint WRD	Swan Creek Watershed Detention Study PHII	3/11/2015	122,666	0	122,666
SWC	980	5000	2015-17	Cass Co. Joint WRD	Upper Maple River Watershed Detention Study	1/11/2016	128,039	9,967	118,072
SE	1059	5000	2017-19	Bottineau Co WRD	Baumann Legal Drain	3/7/2018	41,427	0	41,427
SE	1264	5000	2013-15	Barnes Co WRD	Little Dam Repurposing Feasibility Study	6/17/2015	12,385	0	12,385
SE	1270	5000	2015-17	City of Wilton	Wilton Pond Dredging Recreation Project	12/29/2015	35,707	0	35,707
SWC	1273	5000	2015-17	City of Oakes	James River Bank Stabilization	12/11/2015	262,500	0	262,500
SE	1289	5000	2015-17	McKenzie Co. Weed Board	Control of Noxious Weeds on Sovereign Land	4/10/2017	44,010	11,378	32,632
SWC	1301	5000	2015-17	Richland Co. WRD	North Branch Antelope Creek NRCS Small Watershec	3/9/2016	113,400	0	113,400
SE	1303	5000	2013-15	Sargent Co WRD	Gwinner Dam Improvement Feasibility Study Program	4/17/2015	20,181	0	20,181
SWC	1303	5000	2015-17	Sargent Co WRD	Shortfoot Creek Watershed Planning Program	3/9/2016	109,047	0	109,047
SWC	1389	5000	2013-15	Bank of ND	BND AgPace Program	12/13/2013	170,365	60,000	110,365
SE	1396	5000	2017-19	USGS	Water Level Monitoring of Missouri River	9/7/2017	15,000	0	15,000
SWC	1401	5000	2015-17	Pembina Co. WRD	International Boundary Roadway Dike Pembina	7/20/2017	294,528	27,974	266,554
SE	1418	5000	2015-17	City of Bisbee	Big coulee Dam EAP	5/10/2017	11,320	0	11,320
SE	1444	5000	2015-17	City of Pembina	Flood Protection System Certification	4/19/2016	1,657	0	1,657
SE	1453	5000	2015-17	Hettinger County WRD	Karey Dam Rehabilitation Feasibility Study	5/23/2016	6,853	0	6,853
SE	1625	5000	2015-17	Carlson McCain, Inc.	Ordinary High Water Mark Delineations Left Bank of M	12/2/2016	2,000	0	2,000
SE	1808	5000	2015-17	Steele Co WRD	Beaver Creek Dam Safety Inspection	5/23/2016	2,625	0	2,625
SWC	1851-01	5000	2015-17	ND State Water Commission	Drought Disaster Livestock Water Supply Assistance	2/8/2018	2,025,000	913,835	1,111,165
SWC	1859	5000	2017-19	ND Dept of Health	NPS Pollution	8/23/2017	200,000	0	200,000
SWC	1932	5000	2015-17	Nelson Co. WRD	Michigan Spillway Rural Flood Assessment	3/9/2016	67,903	25,850	42,053
SWC	1968	5000	2015-17	Garrison Diversion	MM 15 Irrigation Project	3/29/2017	321,781	226,424	95,357
SWC	1968	5000	2015-17	Garrison Diversion	MM 42L Irrigation Project	8/23/2017	937,207	0	937,207
SWC	1991	5000	2013-15	City of Lisbon	Sheyenne Riverbank Stabilization Project	9/15/2014	47,768	0	47,768
SWC	2008	5000	2013-15	City of Mapleton	Recertification of Flood Control Levee System Project	3/17/2014	101,100	0	101,100
SE	2111	5000	2017-19	Maple River WRD	Davenport Flood Risk Reduction	7/20/2017	35,000	0	35,000
SWC	2050-68	5000	2017-19	Valley City	Valley City Membrane Replacement Project	2/8/2018	586,350	0	586,350
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	4/10/2017	8,177	0	8,177
SWC	2059	5000	2015-17	Park River Joint WRD	North Branch Park River NRCS Watershed Study	10/6/2015	81,200	0	81,200
SWC	2060	5000	2015-17	Walsh Co. WRD	Forest River Watershed Study	4/10/2017	154,012	0	154,012
SWC	2065	5000	2015-17	Cass Co. Joint WRD	Lake Bertha Flood Control Project No. 75	3/9/2016	201,350	0	201,350
SWC	2066	5000	2015-17	Southeast Cass WRD	Sheyenne-Maple Flood Control Dist #1 Mitigation Impr	3/9/2016	169,201	0	169,201
SE	2070	5000	2015-17	Garrision Diversion Conservan	Mile Marker 42 Irrigation Project	5/20/2016	29,741	0	29,741
SE	2071	5000	2015-17	Foster County WRD	Alkali Lake High Water Feasibilitly Study	4/19/2016	4,830	0	4,830
SE	2072	5000	2015-17	Barnes Co WRD	Ten Mile Lake Flood Risk Reduction Project	6/8/2016	36,812	0	36,812
SWC	2073	5000	2015-17	Walsh Co. WRD	Oslo Area Ag Levee Feasibility Study	7/6/2016	71,701	54,959	16,742
SWC	2074	5000	2015-17	City of Wahpeton	Flood Control - Levee Certification	7/6/2016	247,500	0	247,500
SWC	2074	5000	2015-17	City of Wahpeton	Breakout Easements	7/6/2016	265,000	0	265,000
SWC	2074	5000	2015-17	City of Wahpeton	Toe Drain & Encroachment Project	7/6/2016	1,125,482	1,108,663	16,819
SWC	2075	5000	2015-17	Ward Co. WRD	Second Larson Coulee Detention Pond	7/6/2016	602,307	0	602,307
SE	2076	5000	2015-17	Elm River Joint WRD	Elm River Dam #1 Modification Study	7/6/2016	9,503	0	9,503
SE	2078	5000	2017-19	Southeast Cass WRD	Raymond-Mapleton Township Imp Dist #76	7/20/2017	3,043	0	3,043
SWC	2083	5000	2015-17	Pembina Co. WRD	Herzog Dam Gate & Catwalk Retrofit - Construction	10/12/2016	114,632	0	114,632
SE	2085	5000	2015-17	Adams Co WRD	Orange Dam Rehabilitation Feasibility Study	10/13/2016	10,770	977	9,793
SE	2089	5000	2015-17	Maple River WRD	Tower Township Improvement District No. 77 Study	12/19/2016	28,175	0	28,175
SE	2090	5000	2015-17	International Water Institute	River Watch Program	1/12/2017	24,150	5,713	18,437
SE	2094	5000	2015-17	McLean Co WRD	Lower Buffalo Creek Flood Management Feasibility	6/7/2017	7,539	0	7,539

STATE WATER COMMISSION
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2017-2019 Biennium
Resources Trust Fund

GENERAL PROJECTS

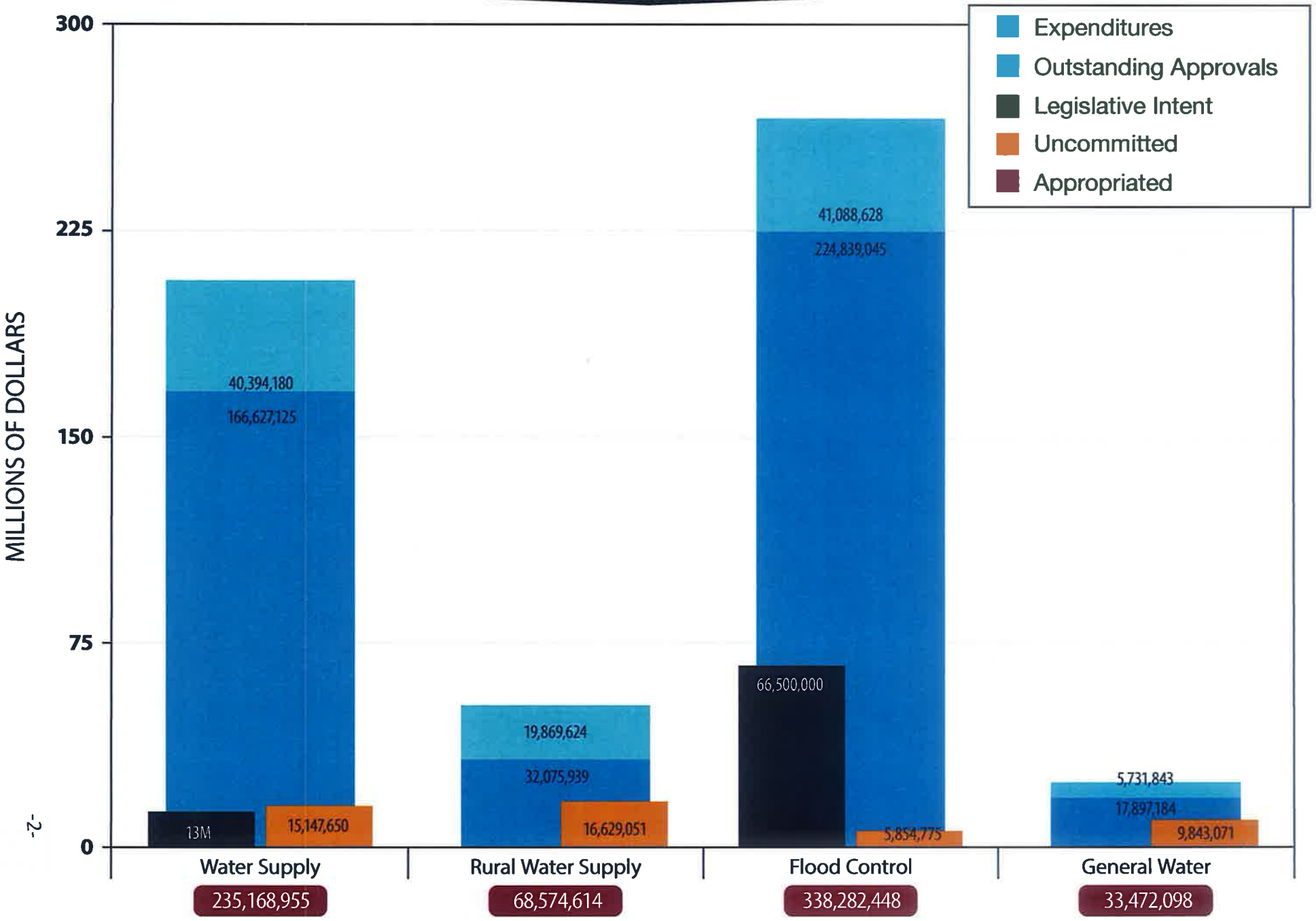
Approved By	SWC No	Dept	Approved Biennum	Sponsor	Project	Approved Date	Total Approved	Total Payments	*Feb-18* Balance
SWC	2096	5000	2015-17	Southeast Cass WRD	Sheyenne-Maple Flood Control Dist #2 Improvements	3/29/2017	1,035,358	0	1,035,358
SE	2099	5000	2017-19	City of Hunter	Hunter Dam Emergency Action Plant	2/22/2018	46,108	0	46,108
SWC	2107	5000	2015-17	City of Minot	Levee Repair & Bank Stabilization Project	6/22/2017	950,254	0	950,254
SE	2109	5000	2017-19	Logan County WRD	McKenna Lake Feasibility Study	6/21/2017	2,247	0	2,247
HB1020	2114	5000	2017-19	HDR Engineering	Economic Analysis-Flood Control & Conveyance Proje	12/28/2017	74,093	45,037	29,055
HB1020	2119	5000	2017-19	HDR Engineering	Life Cycle Cost Analysis Guidelines & Process Develo	12/28/2017	59,263	33,582	25,681
SE	1396-01	5000	2013-15	Trout, Raley, Montano, Witwer	Missouri River Recovery Program	11/17/2015	46,785	275	46,510
SE	1878-02	5000	2015-17	Maple-Steele Joint WRD	Upper Maple River Dam EAP	5/20/2016	12,800	0	12,800
SWC	849-01	5000	2015-17	Pembina Co. WRD	Tongue River NRCS Watershed Plan	3/9/2016	104,703	0	104,703
SE	AOC/IRA	5000	2017-19	ND Irrigation Association	Water Irrigation Funding	10/3/2017	50,000	50,000	0
SE	AOC/WRD	5000	2015-17	ND Water Resource Districts A	ND Water Managers Handbook	6/21/2017	24,750	15,876	8,874
SE	AOC/WEF	5000	2017-19	ND Water Education Foundatic	ND Water Magazine	8/2/2017	26,000	6,500	19,500
SWC	AOC/RRC	5000	2017-19	Red River Basin Commission	Red River Basin Commission Contractor	6/22/2017	200,000	50,000	150,000
SWC	AOC/ASS	5000	2017-19	Assiniboine River Basin Inititiat	ARBI's Outreach Efforts	6/22/2017	100,000	0	100,000
SE	PS/WRD/UPP	5000	2017-19	Upper Sheyenne River Joint W	USRJWB Operational Costs	6/20/2017	6,000	1,082	4,918
SE	AOC/MIS	5000	2017-19	Missouri River Advisory Counc	MRAC Startup Funding	8/3/2017	2,000	0	2,000
SE	NDAWN	5000	2017-19	NDSU	NDAWN CENTER	3/13/2018	1,500	0	1,500
SE	PS/WRD/MRJ	5000	2017-19	Missouri River Joint WRB	MRRIC Terry Fleck	6/7/2017	45,000	0	45,000
SE	PS/WRD/MRJ	5000	2017-19	Missouri River Joint WRB	Board Operational Costs	6/7/2017	10,000	0	10,000
SE	PS/WRD/LOW	5000	2015-17	Lower Heart WRD	Lower Heart Flood Contral Study	5/10/2017	21,140	0	21,140
					Subtotal General Projects		*12,451,147*	*2,678,933*	*9,772,215*
					TOTAL		23,164,990	5,267,805	17,897,184

STATE WATER COMMISSION
PROJECT SUMMARY
2017-2019 Biennium
Resources Trust Fund

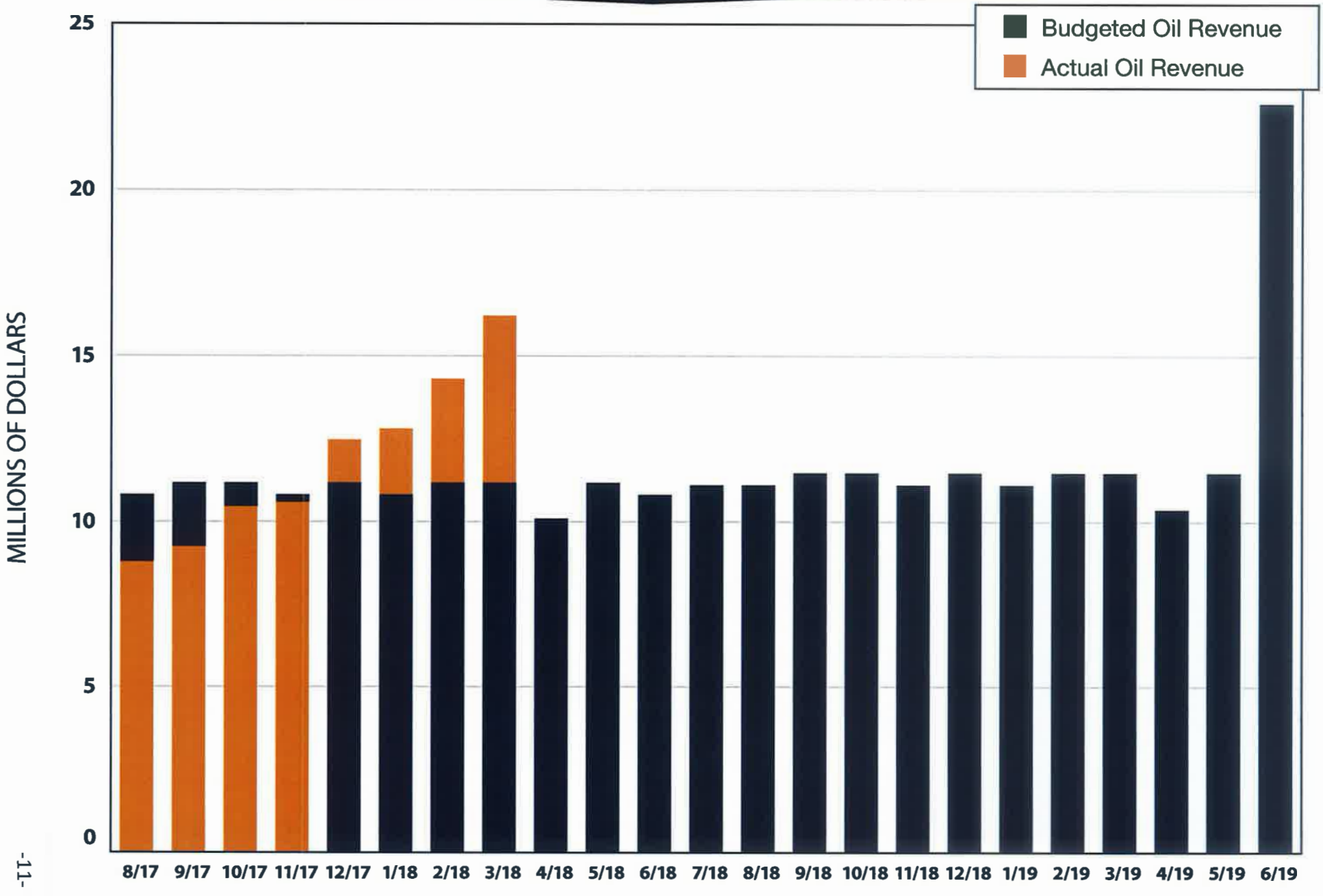
COMPLETED GENERAL PROJECTS

Approved By	SWC No	Dept	Approved Biennum	Sponsor	Project	Approved Date	Total Approved	Total Payments	*Feb-18* Balance
					Hydrologic Investigations:				
SE	1396	3000	2017-19	USGS	Maintain Gaging Station East of Lisbon Sheyenne River	9/25/2017	10,500	10,500	0
SWC	2041	3000	2015-17	USGS	Stream Gage Joint Funding Agreement	10/12/2016	136,028	136,028	0
					Subtotal Hydrologic Investigations		***146,528***	***146,528***	***0***
SWC	322	5000	2009-11	ND Water Education Foui	ND Water: A Century of Challenge	2/22/2010	36,800	35,000	1,800
SE	1296	5000	2013-15	Pembina Co. WRD	Bathgate-Hamilton & Carlisle Watershed Study	10/17/2013	6,726	6,726	0
SE	1303	5000	2015-17	Sargent Co WRD	Gwinner Dam Breach Project	2/20/2017	31,125	31,125	0
SE	1403	5000	2017-19	NDSU	ND Water Resource Institute grant student stipends	1/9/2018	0	25,000	(25,000)
SWC	1523	5000	2015-17	Ward Co. WRD	Robinwood Bank Stabilization Project	10/6/2015	98,648	18,238	80,410
SWC	1638	5000	2009-11	Mutiple	Red River Basin Non-NRCS Rural/Farmstead Ring Dike Progr	6/23/2009	177,864	0	177,864
SWC	1705	5000	2011-13	Red River Joint Water Re	Red River Joint WRD Watershed Feasibilily Study - Phase 2	9/21/2011	19,218	0	19,218
SWC	1968	5000	2013-15	Garrison Diversion	McClusky Canal Mile Marker 10 & 49 Irrigation Project	3/17/2014	51,614	0	51,614
SE	1974	5000	2015-17	USGS	Installation of 5 Rapid Deployment Gages in the Mouse River	3/23/2017	23,200	23,200	0
SE	1974	5000	2015-17	USGS	Regulated Streamflow Frequency for the Upper Souris River Bi	12/16/2016	12,367	12,367	0
HB1009	1986	5000	2017-19	ND Dept Agriculture	Wildlife Services 17-201	8/22/2017	125,000	125,000	0
SE	2069	5000	2015-17	Center Township	Wild Rice River Bank Stabilization	4/19/2016	954	954	0
SE	2079-01	5000	2015-17	City of Williston	West Williston Flood Control	10/24/2016	39,900	39,900	0
SWC	PS/WRD/ELM	5000	2013-15	Elm River Joint WRD	Dam #3 Safety Improvements Project	9/15/2014	5,672	0	5,672
					Subtotal General Projects		***629,088***	***317,510***	***311,578***
					TOTAL		775,616	464,038	311,578

PROJECT FUNDS



BUDGETED TRUST FUND PAYMENTS



Washburn
... on the Missouri River.

Washburn Raw Water Intake SWC Update

Larry Thomas – Commission President

April 12, 2018

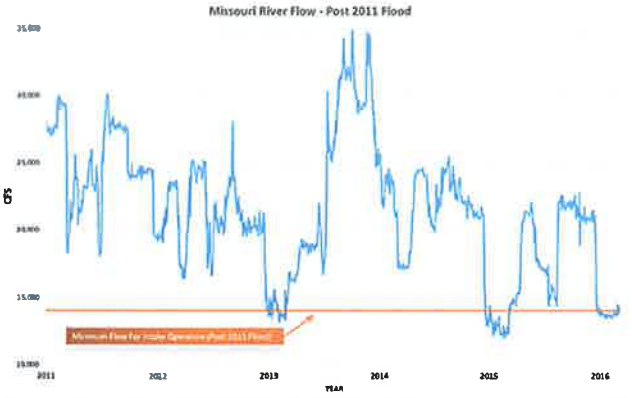
Advanced Engineering and Environmental Services, Inc.

BACKGROUND

- Washburn Water Treatment Facility
  - Facility Updated in 2010
  - Regional Water Supplier
    - City Residents, Commercial, and Light Industrial
    - McLean Sheridan Rural Water
    - Local Agricultural
  - City Population = 1,313 (2014)
- Raw Water Intake
  - Originally installed in 1970's
  - Updated in 2010 utilizing existing infrastructure

PROJECT NEED

- Major Concerns
  - **RELIABILITY**
- 2011 Flood
  - Scoured River Channel
  - Sedimentation near intake
  - Migration of low flow channel



Graph shows 3 instances where water was too low to enter Intake.

INVESTIGATION, SITE SELECTION, & DESIGN

Completed: Fall 2016 – Apr 2018

- Options Considered:
  - Modify Existing Intake
  - Horizontal Collector Well
  - Angle Wells
  - Connection to Red River Valley Water Supply Project
  - **New Conventional Intake**
    - **Cost Effective**
    - **Lower caisson**
    - **Redundant intake line w/screening**
    - **Reused Existing Intake Line/Structure**

PROJECT COSTS & SCHEDULE

Total Project Costs: $3.6 Million

Overall Project Funding	City
City Participation	$1.3 M
State Participation	$2.3 M

Updated Project Schedule	
Final Design	April 2018
Bidding & Award	February 2019
Construction Completion	Fall 2019
Post Construction/Warranty	Fall 2020

FUNDING SUMMARY

- Requests for Funding
  - Began after 2009/2010 WTP Upgrade
  - 2013 SWC approved 50% grant
    - Impact to Residents too high
  - 2015 SWC approved 15% grant increase
- Current Water Rates:
  - Residential and Commercial
    - $40.00 base rate
    - $4.00/1,000 gallons above 2,000
  - McLean Sheridan Rural Water =
    - Flat Rate: $0.00475/gallon
  - Bulk Water Sales (Agriculture) =
    - Flat Rate: $0.02/gallon

- >20% Rate increase required with 65% SWC Grant Funding

Funding Summary Cont.

- Please be patient with us!
  - Completed 5 Major Infrastructure Projects from 2013-2017.
    - Total Costs $11.3 Million
    - ≈90% Directly Assessed to Residents
  - Lost Auditing Staff in 2018.
- FEMA Pre-Disaster Mitigation Grant
  - Applied in 2017 and was not selected.
  - Will reapply 2018 – more funding is available
  - Additional $770,000 in funding requested.

In Summary

- Please be patient with us!
  - City is committed to completing this project.
  - Delay Bidding/Construction to 2019
    - Additional time to reapply for the FEMA Pre-Disaster Mitigation Grant
- Thank you! Questions?

APPENDIX H

SWC Received: 3-7-18

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Mandan 30" Sunset Reservoir Transmission Line Improvements

Sponsor(s)
City of Mandan

County	City	Township/Range/Section
Morton	Mandan, ND	

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
See attached supplemental information packet

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☑ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Mandan, Andeavor

Description Of Problem Or Need And How Project Addresses That Problem Or Need
See attached supplemental information packet

Has Feasibility Study Been Completed?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone
Project has gone through environmental solicitation process. Project will require archaeological assessment, railroad permits, and highway permits.

Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? None 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	$	$	$	$
Other State	$	$	$	$
Local	$	$	$	$
Total	$	$	$	$

List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied
Project is on the DWSRF IUP

Please Explain Implementation Timelines, Considering All Phases And Their Current Status
See attached supplemental information packet

Have Assessment Districts Been Formed? ☐ Yes ☐ No ☐ Ongoing ☑ Not Applicable

Submitted By Jim Neubauer, City Administrator, City of Mandan			Date
Address 205 2nd Avenue NW	City Mandan	State ND	ZIP Code 58554
Telephone Number 701-667-3214	Sponsor Email jneubauer@cityofmandan.com	Engineer Email ken.weber@ae2s.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Jim Neubauer Date 3/6/2018

MAIL TO:

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

SWC Received: 3-7-18

City of Mandan
Project Background Information
30" Sunset Reservoir Transmission Line

Date: March 2018

This document is provided as a supplement to the SWC cost share application form (SFN 60439)

I. Project Description

The City has identified this project as an essential high priority improvement as this pipeline is a critical component of distribution service. The project includes replacing or rehabilitating in place four segments of 30" diameter Pre-stressed Concrete Cylinder Pipe (PCCP) totaling 9,145 linear feet. See Exhibit A for project location. This particular project was identified on the City's Capital Improvements Plan (CIP) in 2008 as concern about its reliability was brought into question by City staff. The project has been on the DWSRF IUP for approximately 10 years waiting for its turn for Water Plan funding assistance.

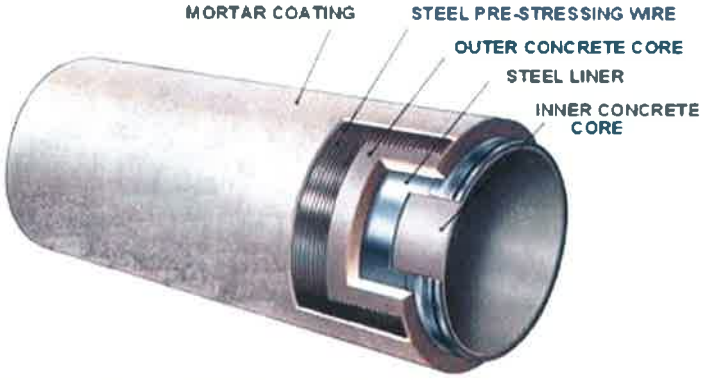


Figure 1 – Typical PCCP Composite Section

The 30" PCCP transmission line, along with an adjacent secondary 24" PCCP transmission line were originally installed in the 1970s. At the time of installation, PCCP was considered an applicable product for high pressure transmission lines. Figure 1 shows the composition of typical PCCP. Failure typically occurs when the steel pre-stressing wire corrodes and the pipe becomes structurally unstable.

After 20 years of service the pipelines developed a history of random catastrophic structural failures. Due to the nature of the pipe and prestressed construction, when pipe failure occurs, there is usually an upward explosion of dirt and water resulting in a crater and mounds of displaced soils. During those early pipeline repairs the pipe condition was investigated and it was determined the pipe integrity is subject to both internal and external corrosion. In Figure 2, the steel prestressed wire corrosion has delaminated the exterior concrete coating causing the unexpected failures and a shortened pipeline life expectancy. The City of Mandan proactively started to address the pipe material deficiencies in 1994 as indicated on the following timeline.

Figure 2- Typical External Corrosion

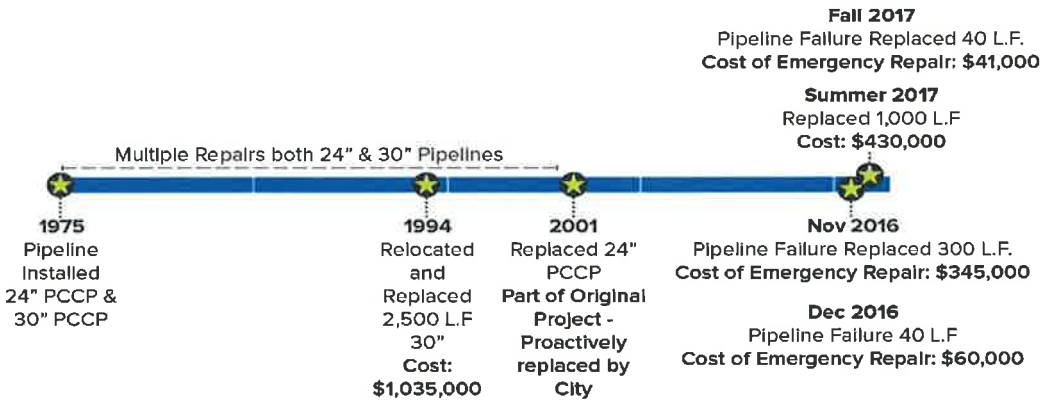


Figure 3- Mandan's PCCP Historical Timeline

The pipeline had been holding up until late 2016 as indicated on the timeline above. ***The 2016 emergency events and 2017emergency event, along with the history of the pipeline, and the known PCCP material concerns have prompted the City to elevate this improvement need to the City's number one priority.***

II. Alternatives Considered

During project development, alternatives for replacement were considered. Alternatives include replacing the pipeline, rehabilitating the pipe in place, and pipeline rerouting. The project as presented is Alternative #1 - Replacing all 30" PCCP. This alternative has

been identified as the most cost-effective project. Table 1 provides a summary of the planning level cost estimates for each Alternative:

TABLE 1- SUMMARY OF ALTERNATIVES

Alternative Description	*Estimated Cost*
Alt. #1 - Replace All 30" PCCP	$5,610,000
Alt. #2 – Rehabilitate Existing 30" PCCP (Lining)	$6.750,000
Alt. #3 – Reroute 30" Pipeline (Avoid Andeavor Site) *	$7,000,000

*** Transmission Main rerouted in current and future City right of way**

III. Project Purpose, Goals, and Objectives

As explained above, the existing pipeline is not reliable. The ***purpose*** of this project is to cost effectively replace or rehabilitate the existing PCCP infrastructure to provide reliability. Proactively replacing the pipeline using modern materials and construction methods is the most cost-effective approach.

The pipeline primarily serves the northwest service area of town and supplements the remainder of the distribution system. See Exhibit B for a delineation of the service area. Usage and demand within this service area has increased over 30% during the past 6-7 years and roughly doubled over the twenty years. Growth is 65% due to residential growth with the remaining 35% growth due to commercial and industrial users. This growth has increased system demand and reliance on the transmission line. See Exhibit C for identified growth areas within the service area.

Without this critical pipeline, the northwest service area will experience inadequate water supply to meet peak and fire protection demands. Replacing the existing pipeline will meet the City's ***goal and objective*** to provide the northwest service area with a reliable source of water for peak demands and adequate fire protection as this area continues to grow.

IV. Project Funding Assistance Needs

Since 2000, the City has improved both the distribution and treatment systems in accordance with the adopted CIPs. Water system improvement expenditures since 2000 are $42,033,000, including $4,810,000 of SWC assistance received by the City over the past three biennia. Even with the SWC assistance, water user base rates have increased **658%** from $2.00/month to $15.16/month since the year 2008. The graphic below shows how Mandan's Water User base rates compare to the statewide average.

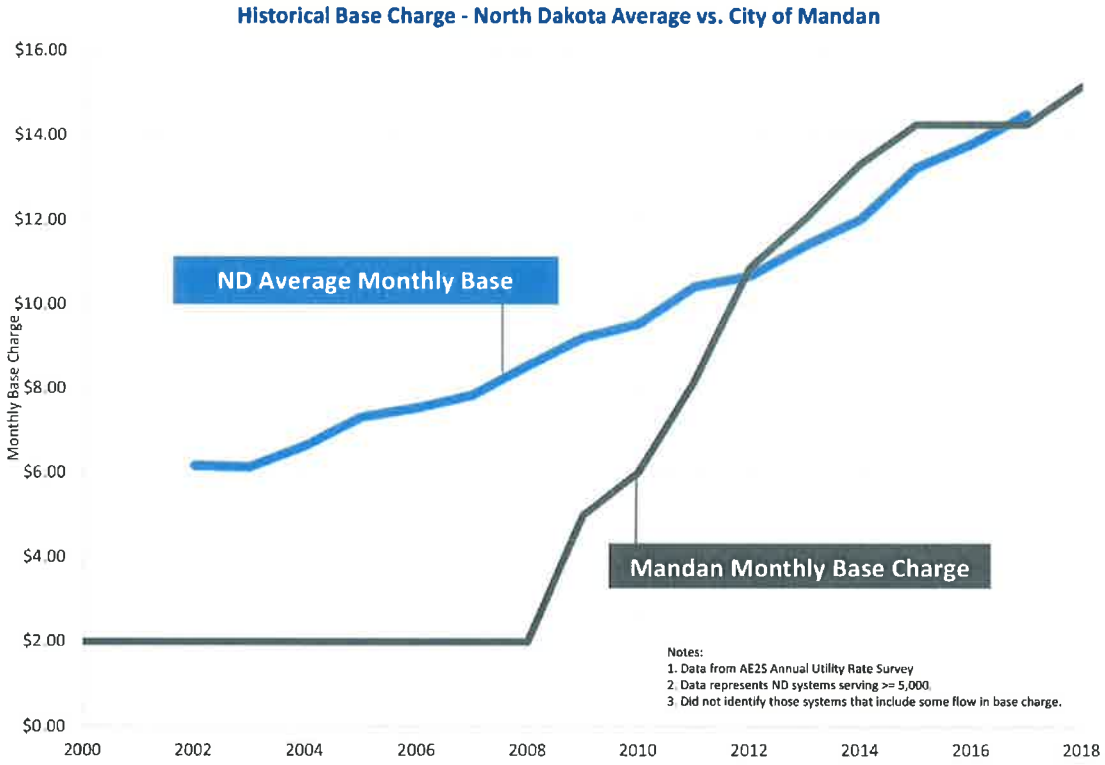


Figure 4- Historical Rate Comparison

The graph above indicates Mandan's current water user base rates are near state average. The proposed 30" Sunset Reservoir Transmission Line Project will cause the monthly base rate to increase by 23%. Separately from this project, the City is also undertaking design and construction of a new raw water intake expected to cost approximately $18,000,000. Combined, these two projects will cause a base rate increase of 96%, or basically double the current rates. The City cannot proceed with either project without SWC assistance. The rate impacts, with and without assistance, are summarized in Table 2.

TABLE 2 - PROJECT BASE RATE IMPACT

	30" Sunset Reservoir Transmission Line	New Raw Water Intake	Combined Projects
Current Probable Cost	$5,610,000	$17,977,000	$23,587,000
Impact Without SWC Assistance			
Rate Increase	$3.45/Month	$11.06/month	$14.51/month
% increase	22.8%	73.0%	95.8%
Impact With SWC Assistance*			
SWC Assistance	$3,265,000	$11,685,000	$14,950,000
City Share	$2,345,000	$3,146,000	$5,491,000[1]
Andeavor Share	NA	$3,146,000	$3,146,000
Rate Increase	$1.45/month	$1.95/month	$3.40/month
% increase	9.6%	12.9%	22.5%

***Assumes the projects are funded at the current SWC policy levels**

[1] City has a tentative Agreement with Andeavor to split City share after SWC funding assistance

A rate increase of 95.8% is drastic and certainly will affect the City's ability to be economically competitive with its neighboring communities. A 22.5 % increase is not desirable, but much more manageable.

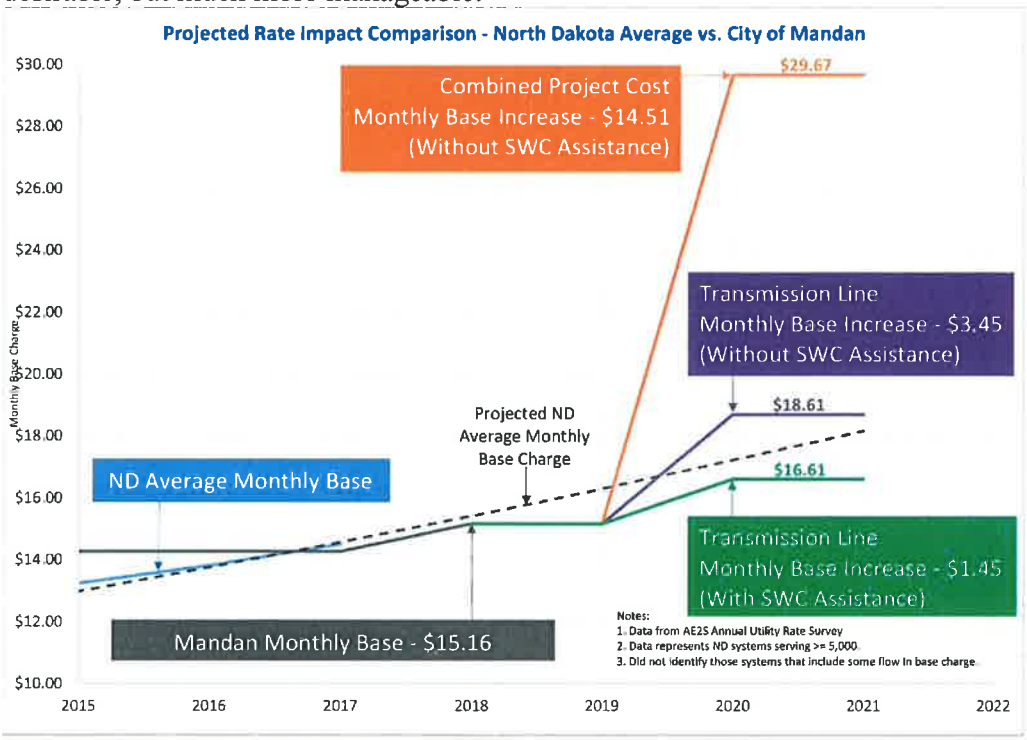


Figure 5- Proposed Project Rate Impact Comparison

Total water user costs will be affected by the base rate increase. Figure 6 provides a comparison of where Mandan's Utility Billing is and will be in relation to other communities in the state.

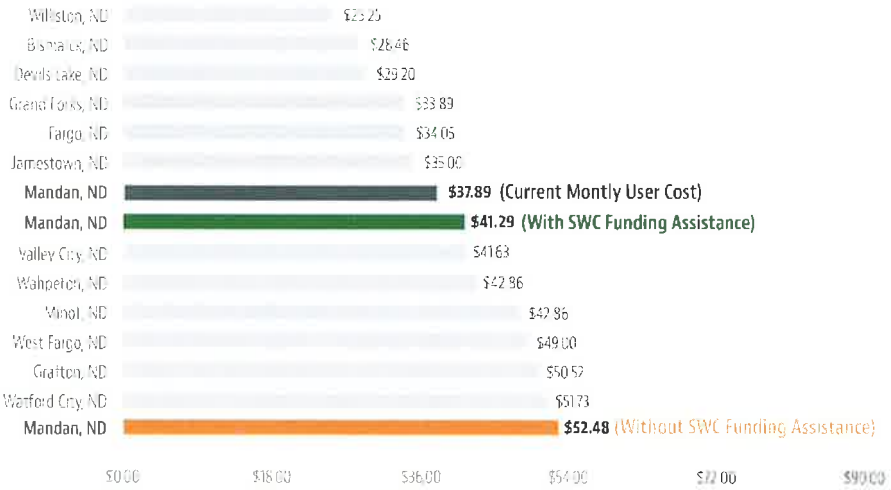


Figure 6 - Rate Impact Comparison to Other Communities

V. Project Schedule

There are two potential project timelines that could be followed, one for early construction in summer of 2018 or a later timeline starting construction spring 2019. The timeline is entirely dependent on funding. If the SWC agrees to a funding package yet this spring, construction can start on the earlier schedule, otherwise it will be necessary construction until 2019. For the purposes of this application, the early construction schedule and it is driven by the following milestones:

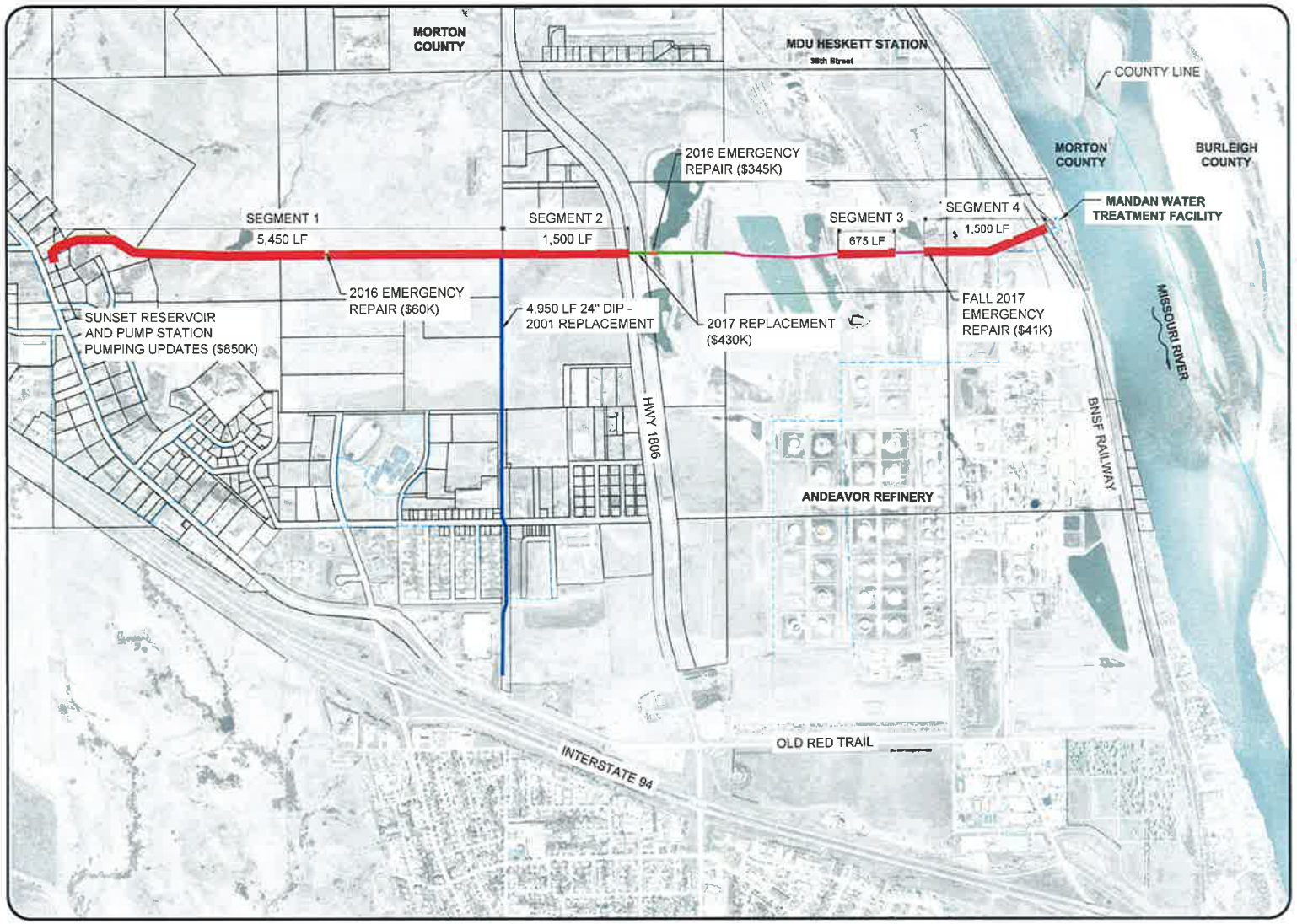
- February 20, 2018 – City Approval of Engineering Services Agreement
- February 21, 2018 – Start Preliminary Design and Funding Pursuit
- Week of March 5, 2018 – Meet with State Water Commission Staff
  a. Present project funding needs for the 2019-2021 biennium
  b. Request to present at the April 12, 2018 SWC Meeting
- April 12, 2018 – Present project needs at the SWC Meeting
- June 1, 2018 – Complete Bid Documents and Advertise Project
- June 29, 2018 – Bid Letting
- July 17, 2018 – Commission Meeting to approve bids
- September 2018 – Begin Construction
- Sept 30, 2019 – Substantial Construction Completion
- Oct 30, 2019 – Final Construction Completion

VI. Sustainable Operation, Maintenance & Replacement Plan

For financing capital improvements in the Utility Fund, the City is required by Ordinance to establish net revenues (through rates) in an amount at least equal to 125% of the average annual principal and interest payments due on all revenue bonds. The City does not purposely fund for the depreciation of the Utility, instead the City places any net revenues above and beyond; 1) the 25% Operations and Maintenance Cash Reserve and 2) the Revenue Bond Cash Reserve into a Capital Improvement Cash Reserve to pay for capital outlay without long-term financing. The City's Utility Capital Improvement Cash Reserve as of December 31, 2017 = $2,371,569

VII. Attachments

- Exhibit A - Project Map
- Exhibit B – Service Area
- Exhibit C– Service Area Growth.
- Exhibit D – Detail Project Cost
- Exhibit E – Capital Improvement Fund Information



1 PROJECT LOCATION
1

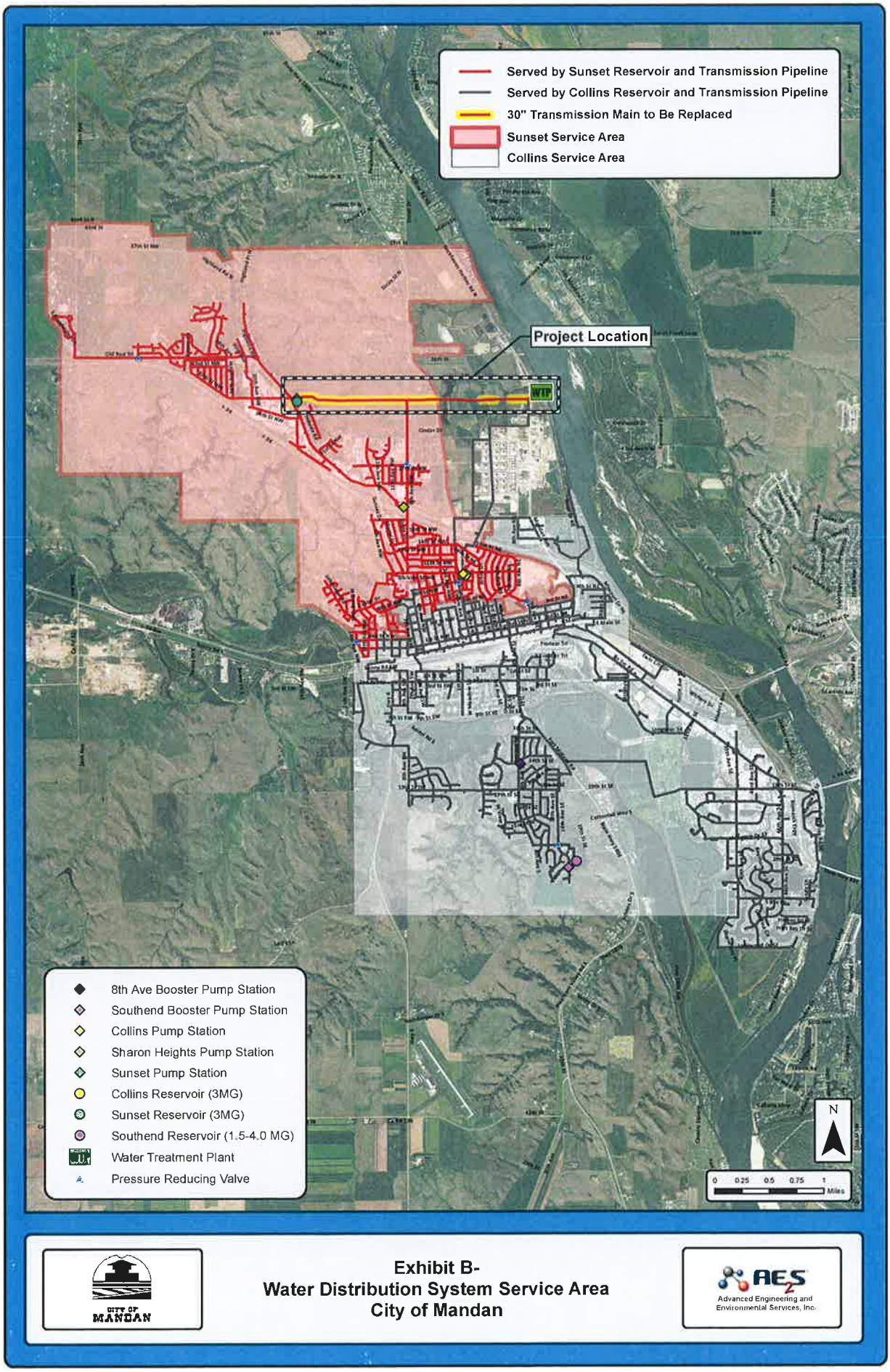
600 0 600 1200
Scale in Feet

NORTH

30" WATER TRANSMISSION LINE
CITY OF MANDAN
MANDAN, NORTH DAKOTA
EXHIBIT A

2016-09
EXHIBIT
TWN
LDH / KJW
MARCH 2018
P00510-2016-014
1 of 1
EXA

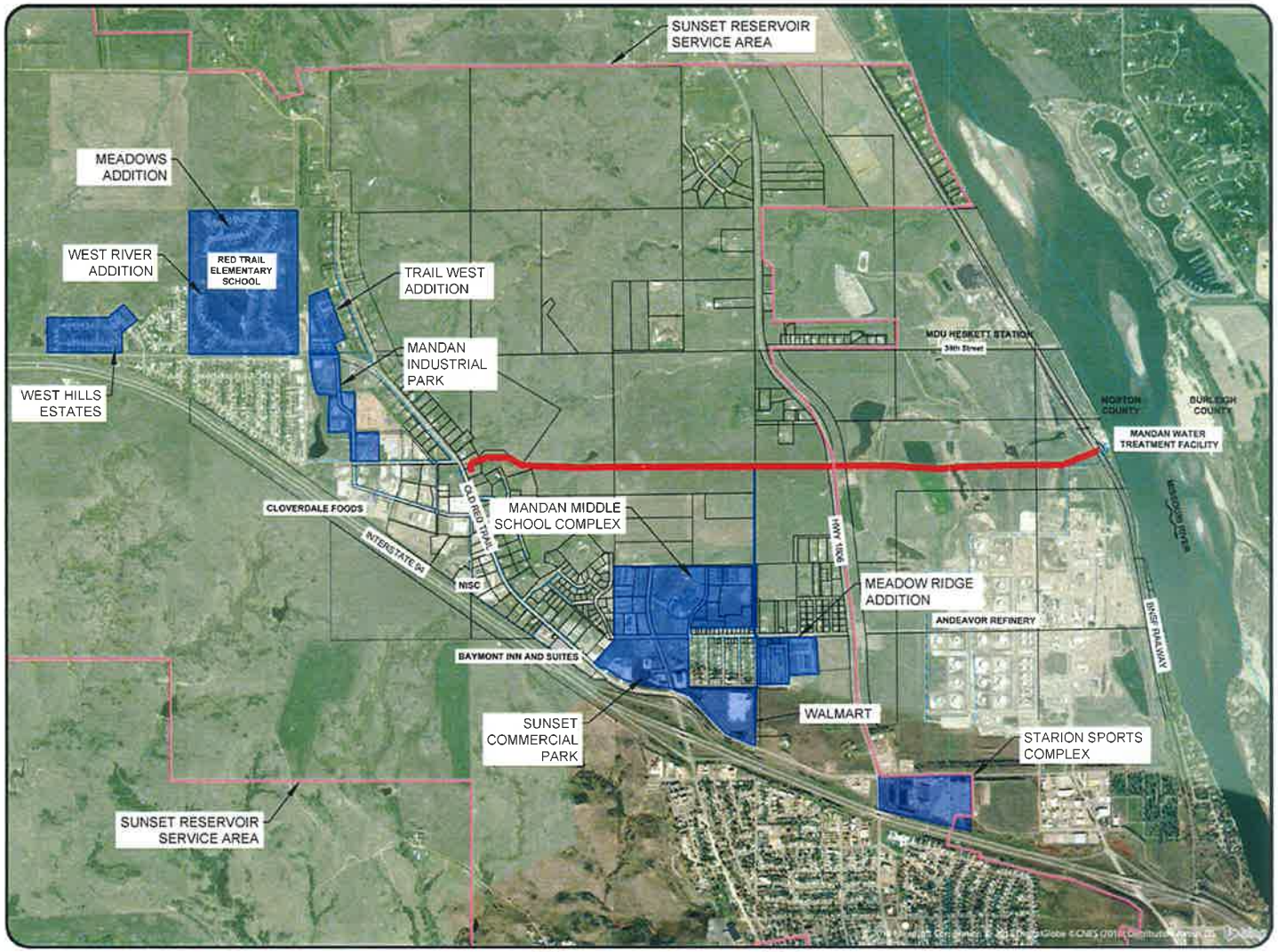
Advanced Engineering and Environmental Services, Inc. • 1815 Schafer St Ste 301 Bismarck, ND 58501 • (t) 701-221-0530 (f) 701-221-0531 • www.ae2s.com



CITY OF MANDAN

Exhibit B-
Water Distribution System Service Area
City of Mandan

AE2S
Advanced Engineering and Environmental Services, Inc.



30" WATER TRANSMISSION LINE
CITY OF MANDAN
MANDAN, NORTH DAKOTA
EXHIBIT C

CITY OF MANDAN PROJECT: 2016-09
DRAWING TYPE: EXHIBIT
PREPARED BY: TWN
CHECKED / APPROVED: LDH / KJW
DATE: MARCH 2018
PROJECT NUMBER: P00510-2016-014
SHEET: 1 of 1
DRAWING: EXC

BY/M	DATE	DESCRIPTION	APP'D

Advanced Engineering and Environmental Services, Inc. • 1815 Schafer St Ste 301 Bismarck, ND 58501 • (t) 701-221-0530 (f) 701-221-0531 • www.ae2s.com

CITY OF MANDAN, NORTH DAKOTA
30" Sunset Avenue Reservoir Transmission Main
Segments 1 thru 4 (9,145 LF)
Engineers Opinion of Probable Costs
(February 2018)

AE2S
Advanced Engineering and Environmental Services, Inc.

	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL COST
A.	Bonding and Insurance	1	l.s.	$200,000.00	$200,000
B.	Rehab Entrances	4	ea.	$22,000.00	$90,000
C.	30" Pipeline Rehabililation	9,145	l.f.	$350.00	$3,200,000
D	30" Gate Valves	5	ea.	$40,000.00	$200,000
E	30" Fittings	20,000	lbs.	$4.50	$90,000
F	Air Release Manholes and Appurtenances	5	ea.	$15,450.00	$80,000
G	Seeding Restoration	12.6	acres	$5,000.00	$60,000
H	Dewatering	2,000	l.f.	$50.00	$100,000
I	Miscellaneous Appurtenances	1	l.s.	$100,000.00	$100,000

Subtotal Construction Costs	**$4,120,000**
Contingencies 15%	**$620,000**
Total Construction Costs	**$4,740,000**
Pre-Construction Engineering	**$425,000**
Post Construction Engineering	**$445,000**
OPINION OF TOTAL PROJECT COSTS	**$5,610,000**

Mandan 30" SRTL Cost Share Cash flow

Source	Total Cost	2017-2019	2019-2021	Beyond 7/1/2021
Federal	$0	$0	$0	$0
State Water Commission	$3,264,750	$1,551,750	$1,713,000	$0
Other State	$0	$0	$0	$0
Local(CWSRF Loan)	$2,345,250	$1,203,250	$1,142,000	$0
Total	$5,610,000	$2,755,000	$2,855,000	

APPENDIX I

City of Wing
PO Box 39 · Wing, ND 58494

January 18, 2018

The City of Wing respectfully requests consideration of the attached 2017-2019 Project Information and Planning Form. This is a revised form as the previous Mayor applied for a water tower replacement with a cost estimated to be $1,050,000.00. It is my understanding that the tower replacement project received a low priority designation and was not considered for cost-share funding.

Before I was selected to fill the past mayor's position, Moore Engineering was contacted, and they quoted a price of $3,085,700.00. This quote included a new water tank, replacing all water and sewer lines, then we would need to repave all the streets.

Realizing that neither price tag was affordable for a city of our size, H & H coatings from Devils Lake was contacted as they had our water tower maintenance contract for several years. After the last inspection the maintenance man notified us that he would no longer inspect the tower as it had become too dangerous.

H & H checked the condition of everything, took the attached pictures, and told us the water tower could see another 20-25 years of use with a lining and a roof replacement with a cost of $114,550.00 (invoices are attached). The water lines, as well as sewer lines, are in good condition. As construction was underway, it was noticed that the recirculating system was not sufficient and the tank completely freezing up was likely to happen. We had already experienced a partial freeze-up on some very cold temperature days. That added cost was $5,472.74. Now the total was $120,022.74. A loan was made through North Dakota Finance Authority for $120,000.00.

I did use the League of Cities listserv to see what other cities have used an H & H liner and if they were happy with the product and service. All comments were very positive.

The State Water Commission was contacted about applying for funding for a liner, but we came to find out a liner was not an eligible item. We were faced with an emergency as the primary user of water in Wing is the public school, the holes in the tank were big enough for birds, dirt, etc. to get in and it was now late summer, so we moved forward. If the tank failed or was no longer useable, the school would have had to run on bottled water. We went forward with the liner and a new roof and borrowed $120,000.00 from the North Dakota Public Finance Authority. This depleted all our reserve funds.

The repair situation took place when I took over as acting mayor. We did immediately raise the water rates by $5.00 and will raise all water connected rates again by another $5.00 starting February 1, 2018. Soon we will have to replace many water meters and are hoping the increase in rates provides us with funds to do that.

This request is for $175,000.00 as we would like to coat the tank exterior to prevent corrosion on the outside. The exterior coating was quoted at $55,000.00.

We are working with the North Dakota League od Cities to help us understand the process and have been told that in addition to liners not being eligible, there is also a policy against funding for projects that have been completed. However, as we started this process some months ago, we would like your

consideration as this was an emergency and work needed to be completed while the weather was good. If we receive assistance we would adjust our loan amount to reduce our loan payments. A loan of $120,000.00 is a lot for a city of about 130 people.

Thank you.

Sincerely,

JoyAnn Holsten

Acting Mayor City of Wing

Project Information and Planning Submission

Received : 1/17/18

Project Name : Refurbishing water tower

Local Sponsor : City of Wing

Location : City of Wing, Burleigh County, ND

Benefitting Basin : Lower Missouri

Type of Request : ☑ Project ☐ Study

Update Existing Project : ☑

Project Type : Water Supply (Municipal)

Description : This project has improved the water system in the City of Wing by relining the 50,000 gallon water tank, which serves our community.

T^he exact age of the existing tower is unknown. At an October 2015 Council meeting, a resident explained that they believed that the
city purchased a previously owned tower from the City of New Salem, ND and that the used tower has served the City of Wing for approximately the last 50 years.

The existing tower is a riveted steel tank that had deteriorated and had severe roof damage. It had reached the end of its useful life. Also, the existing coatings on the original tank contain heavy metals such as lead and chromium. The original project was to remove the old tank and replace it with a new tower. After checking with H & H Coatings, it was determined that the tank could be saved by relining it, which last another 20 + years. This was done by H & H Coatings and a new roof was manufactured on the job site to replace the former roof. At this time the roof has been painted, the new lining is done, but the tank on the outside is still in need of being finished due to cost.

Feasibility Study Completed

☑ Yes ☐ No ☐ Ongoing ☐ Not Applicable

Land Easements Acquired

☐ Yes ☑ No ☐ Ongoing ☐ Not Applicable

Engineering Design Completed

☐ Yes ☑ No ☐ Ongoing ☐ Not Applicable

Necessaary Permits Acquired

☑ Yes ☐ No ☐ Ongoing ☐ Not Applicable

Public Review : The project was discussed with residents at city council meetings. A public meeting was held also with Moore Engineering. The proposed submission of a 2017 - 2019 SWC planning form to replace water tower was discussed and approved at the April 12, 2016 City Council meeting. City Council meetings in the City of wing are advertised and open to the public.

Expected Obstacles : No significant obstacles are anticipated.

Project Information and Planning Submission

Received : 1/17/18

	7/1/2017 - 6/30/2019 (And Prior Bienna)	7/1/2019 - 6/30/2021	7/1/2021 - 6/30/2023	Beyond 6/30/2023	Total
Federal	550,000,000	0	0	0	550,000,000
SWC	500,000,000	0	0	0	500,000,000
State	0	0	0	0	0
Local	0	0	0	0	0
Other	0	0	0	0	0
Total	1,050,000,000	0	0	0	1,050,000,000

Funding Partners / Sources : A loan has been obtained from North Dakota Public Finance Authority (CFP) for $120,000.00.

Implementation Timelines : Due to the deteriorated condition of the tower, it was decided to do the repairs right away with or without proper back up of funding. Very improper!

Project Consultant

Name : JoyAnn Holsten
Title : Acting Mayor
Address : 321 Mann St
City : Wing
State : ND Zip : 58494
Email : hojomoo@bektel.com
Phone : (701) 943-2317

Project Sponsor

Name : JoyAnn Holsten
Title : Acting Mayor
Address : PO Box 39
City : Wing
State : No Zip : 58494
Email : hojomoo@bektel.com
Phone : (701) 226-6962

H&H COATINGS, INC.

Full Service Watertower and Steel Structure Repair, Sandblasting and Coatings

404 Roberts Street · Devils Lake, ND 58301-8538
Phone: (701) 662-8190 · Fax: (701) 662-3889
Email: hhcoat@gondtc.com

INVOICE SUMMARY

City of Wing
P.O. Box 39
Wing, North Dakota
58494

Invoice No. : 1(Final)

Contract No.: C00927-1-17

Invoice Date: 08-October-2017

Project Title: Complete Roof Replacement
50,000 Gallon Elevated Water Storage Tank (Conical Roof)
Wing, North Dakota

Month Ending: 31-October-2017

Original Contract Amount	$58,750.00
Approved Change Orders	$0.00
Total Contract Amount	$58,750.00

	Total Amount Invoiced to Date	Amount Retained	Amount Due
Invoiced to Date	$58,750.00	$0.00	$58,750.00
Previously Invoiced	$0.00	$0.00	$0.00
This Invoice	$58,750.00	$0.00	$58,750.00

DUE THIS INVOICE $58,750.00

Due and Payable upon receipt
We Appreciate Your Business!
Thank You!

Approved for Payment: _____

Title: _____

Date: _____

All invoices over 30 days are subject to a finance charge of 1.7% per month, compounded monthly, unless other arrangements have been made with management.

Contract No.: C00927-1-17

Invoice No: 1(Final)

Project Title: Complete Roof Replacement
50,000 Gallon Elevated Water Storage Tank (Conical Roof)
Wing, North Dakota

Month Ending: 31-October-2017

Item No.	Contract Quantity	Unit	Quantity To Date	Description	Unit Price	Invoiced To Date	Previously Invoiced	This Invoice
1	1	1	1	**As Per Written Contract** **SSPC-SP6 Sandblast with 2 Coats of Tnemec Series 37H Chem Prime and 1 Complete Finish Coat/Tnemec Series 1028 Enduratone** **Installed 2 New 24" Manways** **Installed New Center Screened Roof Finial/ Vent** **Installed New Roof Ladder** **Installed New Safety Rails** **Installed Safety Climb** **Welded Entire New Roof Directly to the top of the tanks sidewalls** **(Also removed old roof, roof hold down brackets, spider rods and hub assembly. Removed old overflow pipe stub and patch plated)**	$58,750.00	$58,750.00	$0.00	$58,750.00
					Total:	$58,750.00	$0.00	$58,750.00

H&H COATINGS, INC.

Full Service Watertower and Steel Structure Repair, Sandblasting and Coatings

404 Roberts Street · Devils Lake, ND 58301-8538
Phone: (701) 662-8190 · Fax: (701) 662-3889
Email: hhcoat@gondtc.com

INVOICE SUMMARY

City of Wing
P.O. Box 39
Wing, North Dakota
58494

Invoice No. : 1(Final)

Contract No.: C00926-1-17

Invoice Date: 08-October-2017

Project Title: Interior Reconditioning with Miscellaneous Structural Repairs
50,000 Gallon Elevated Water Storage Tank (Conical Roof)
Wing, North Dakota

Month Ending: 31-October-2017

Original Contract Amount	$55,800.00
Approved Change Orders	$0.00
Total Contract Amount	$55,800.00

	Total Amount Invoiced to Date	Amount Retained	Amount Due
Invoiced to Date	$55,800.00	$0.00	$55,800.00
Previously Invoiced	$0.00	$0.00	$0.00
This Invoice	$55,800.00	$0.00	$55,800.00

DUE THIS INVOICE $55,800.00

Due and Payable upon receipt
We Appreciate Your Business!
Thank You!

Approved for Payment: _____

Title: _____

Date: _____

All invoices over 30 days are subject to a finance charge of 1.7% per month, compounded monthly, unless other arrangements have been made with management.

Contract No.: C00926-1-17

Invoice No: 1(Final)

Project Title: Interior Reconditioning with Miscellaneous Structural Repairs 50,000 Gallon Elevated Water Storage Tank (Conical Roof) Wing, North Dakota

Month Ending: 31-October-2017

Item No	Contract Quantity	Unit	Quantity To Date	Description	Unit Price	Invoiced To Date	Previously Invoiced	This Invoice
1	1	1	1	**As Per Written Contract** **SSPC-SP10 Sandblast with 2 Coats of Tnemec Series 20 Pota Pox** **Installed New Square Knockout Plug** **Patch Plated Hole in the Bowl Area** **Installed New Coupling and T-Style Knockout Plug** **Installed New 3"Inch Steel Crossover Pipe** **Disinfection** **Returned to Full Service/October 08, 2017**	$55,800.00	$55,800.00	$0.00	$55,800.00
					Total:	$55,800.00	$0.00	$55,800.00

H&H COATINGS, INC.

Full Service Watertower and Steel Structure Repair, Sandblasting and Coatings

404 Roberts Street · Devils Lake, ND 58301-8538
Phone: (701) 662-8190 · Fax: (701) 662-3889
Email: hhcoat@gondtc.com

INVOICE SUMMARY

City of Wing
P.O. Box 39
Wing, North Dakota
58494

Invoice No. : 1(Final)

Contract No.: C00928-1-17

Invoice Date: 08-October-2017

Project Title: Recirculation System Repair and New Flow Switch
50,000 Gallon Elevated Water Storage Tank (Conical Roof)
Wing, North Dakota

Month Ending: 31-October-2017

Original Contract Amount	$5,472.74
Approved Change Orders	$0.00
Total Contract Amount	$5,472.74

	Total Amount Invoiced to Date	Amount Retained	Amount Due
Invoiced to Date	$5,472.74	$0.00	$5,472.74
Previously Invoiced	$0.00	$0.00	$0.00
This Invoice	$5,472.74	$0.00	$5,472.74

DUE THIS INVOICE $5,472.74

Approved for Payment: _____

Title: _____

Date: _____

Due and Payable upon receipt
We Appreciate Your Business!
Thank You!

All invoices over 30 days are subject to a finance charge of 1.7% per month, compounded monthly, unless other arrangements have been made with management.

Contract No.: C00928-1-17

Invoice No: 1(Final)

Project Title: Recirculation System Repair and New Flow Switch
50,000 Gallon Elevated Water Storage Tank (Conical Roof)
Wing, North Dakota

Month Ending: 31-October-2017

Item No.	Contract Quantity	Unit	Quantity To Date	Description	Unit Price	Invoiced To Date	Previously Invoiced	This Invoice
1	1	1	1	**Removal and Replacement of Broken Recirculation Line. To Include All New Plumbing and Repair Clamp**	$5,260.00	$5,260.00	$0.00	$5,260.00
2	1	1	1	**New Flow Switch**	$212.74	$212.74	$0.00	$212.74
					Total:	$5,472.74	$0.00	$5,472.74

Full Serv ucture
Rep
404 Rob
Phon

H&H COATINGS, INC.

Exterior Painting
pg 3

April 10, 2017

City of Wing - Note's and Recommendation's for 50,000 Gallon Elevated Conical Roof/Lattice Leg

#1. Tower Roof – At this time the roof is starting to rust thru in several spots and the steel is deteriorating. There are holes needing to be welded shut to prevent exterior water and contaminants from entering the tank. As addressed in the past the roof is very bad and at this point, is almost to dangerous to be on. The steel around the manway is very thin and one of the angle iron support brackets has rusted completely off since our last visit. At this time our recommendation would be to remove and replace the existing roof. This would take care of the next 6 line items that also need to be addressed.

#2. 2 New Manways – The current OSHA and AWWA Regulations require 2 manways or openings in this style of tank for proper air movement during any work within the tank. These are needed to bring the tower up to date and meet Confined Space Entry Regulations for workers safety.

24 in

#3. Center Finial Vent – As currently exists, during water fluctuation tanks vent through gaps between the sidewalls, roof, overflow pipe and a little around the manways. If the roof was to be welded down to the sidewalls a proper sized screened vent will be needed for the tank to breath during rapid water fluctuation times.

#4. Roof Hold Down Brackets – At the top of the sidewalls there are approximately 30 brackets that hold the roof down to the sidewalls. These brackets are in horrid condition with heavy pack rust and a lot of steel deterioration. These brackets consist of a ready rod with a nut and there are a number of the nuts that are rusted completely off. These old brackets should all be removed with the roof being welded directly down to the sidewalls. At this point or time most of these brackets are rusted beyond repair.

#5. Spider Rods – Currently on the inside of the tower at the top of the sidewalls is a hub and rod assembly. These rods are referred to as spider rods and were essentially used during the initial construction of the tank. At this time these rods serve no structural purpose. These rods are all rusted and are difficult to blast and paint during reconditioning. A recommendation would be to remove the old rods and hub when the roof is replaced

#6. **Old Overflow Pipe Stub** – In 1998 when a new overflow pipe was installed from the high water level to the ground the Contractor left the old overflow stub remaining in the tank. The old stub should have been removed and the hole patch plated. This Contractor had been cleaning the tower out every two (2) years. Upon our cleaning of the interior of the tank in 2008 the piece of steel that was cut out of the wall in 1998 to install the new overflow pipe was still lying in the bottom of the tanks floor. (This was removed). This portion of work would be done during the roof replacement. Steel Pipe Stub

#7. **Exterior and Interior of New Roof Blasting and Painting** – Exterior of roof to be blasted to a SSPC-SP6 "Commercial Blast", Interior to be blasted to a SSPC-SP10 "Near White Metal Blast": Exterior would receive 2 coats of primer and 1 finish coat. Interior would receive 2 coats of epoxy.

All the above would be included within the Total Roof Replacement (#1 thru #7): Total Cost: $58,750.00

#8. **Interior Coating** – At this time the interior coating has failed to the point where corrosion and pitting is detrimental to the tower. During our 2008 visit the floor area was patched and taken care of, but the sidewalls are showing excessive delamination around the top of the walls and the roof area has heavy pack rust with there being little if any coating intact. A recommendation would be in the next few years, reline the interior water holding area to prevent any further steel deterioration. Prior to the new interior epoxy application any necessary items that would require welding or torching be done to prevent any damage to the new coating. Interior to be blasted to a SSPC-SP10 "Near White Metal Blast"with 2 coats of Epoxy.
Total Cost: $52,400.00

#9. **Knockout Plug** – The knockout plug located in the floor of the tank used to remove the heavy sediment once the tower is drained has a large pit or steel deterioration around the edge and the threads are showing some wear. During our last visit the pit was recoated but if any work is done in the near future to the interior a new plug and coupling should be installed to help with long term problem free serviceability of the tower. **Total Cost $800.00**

#10. **Crossover Pipe** – When the tower is drained and the knockout plug is removed the heavy dirty sediment is allowed to drain all over the legs and sub-structure, staining the exterior paint. An ideal situation would be to install a crossover pipe. This pipe would run from the belly of the tank and tie into the overflow pipe which is already running down the leg and expel all the dirty water to the ground during tank cleaning. **Total Cost: $2,600.00**

All the above would be included within the Interior Reconditioning (#8 thru #10): Total Cost: $55,800.00

#11. Aircraft Warning Light – The light on the top of the tower is intact, however the wiring and conduit run up the exterior sidewall and in through the top of the interior sidewall and then to the housing. The wiring and conduit within the tank is rusted and questionable. This wiring should not run within the water holding area. A closer evaluation should be done to reroute the wiring and remount the housing for the obstruction light. Contractor shall install a new LED Obstruction Light. **Total Cost $2,200.00** Don't Need –

#12. Exterior Coating – Throughout our visual inspection of the exterior there are areas on the tower that do and will need to be recoated within the upcoming years. The surface preparation prior to the recoating will depend on how long the exterior coating is prolonged. Exterior to be power washed, spot primed and finish coat. To include re-applying the lettering as currently exists. **Total Cost: $55,000.00**

Save for Later date

58,750 - roof
55,800 - liner
114,550.00
5,472.74
120,022.74

1-7 = $58,750.00
8-10 = 55,800.00
$114,550.00
55,000

120.000
55
14500

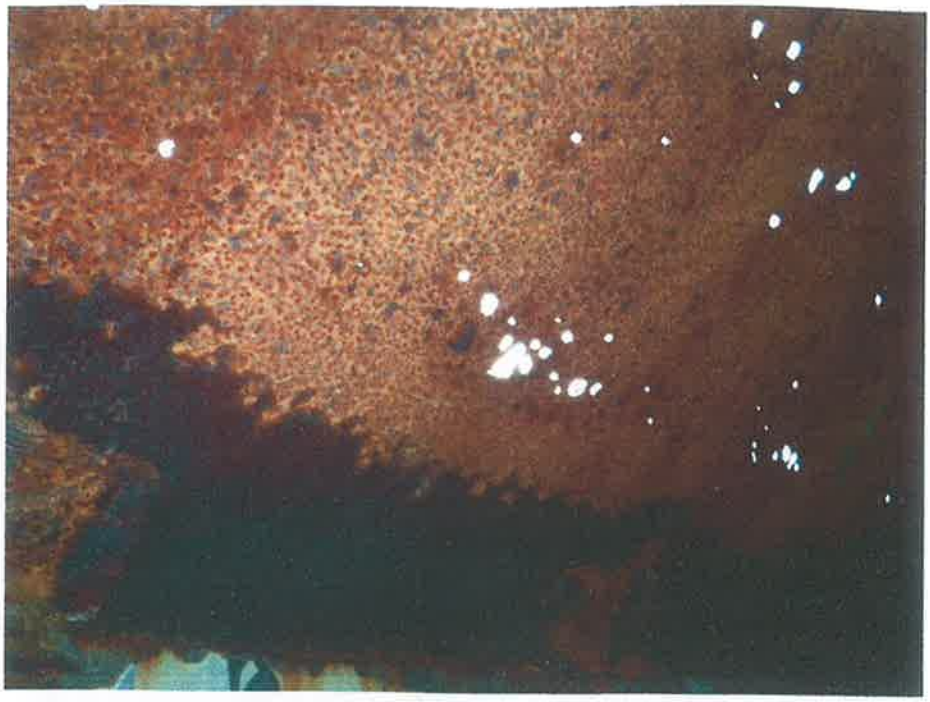


Photo #1

The following photos were taken while on site during the Interior Reconditioning and Roof Replacement of the Elevated Water Storage Tank. From Wednesday, Sept. 20th, 2017 thru Thursday, October 5th, 2017. Close up interior view of the old roof.

Photo #2

Old roof view.

Photo #3

Old roof view.

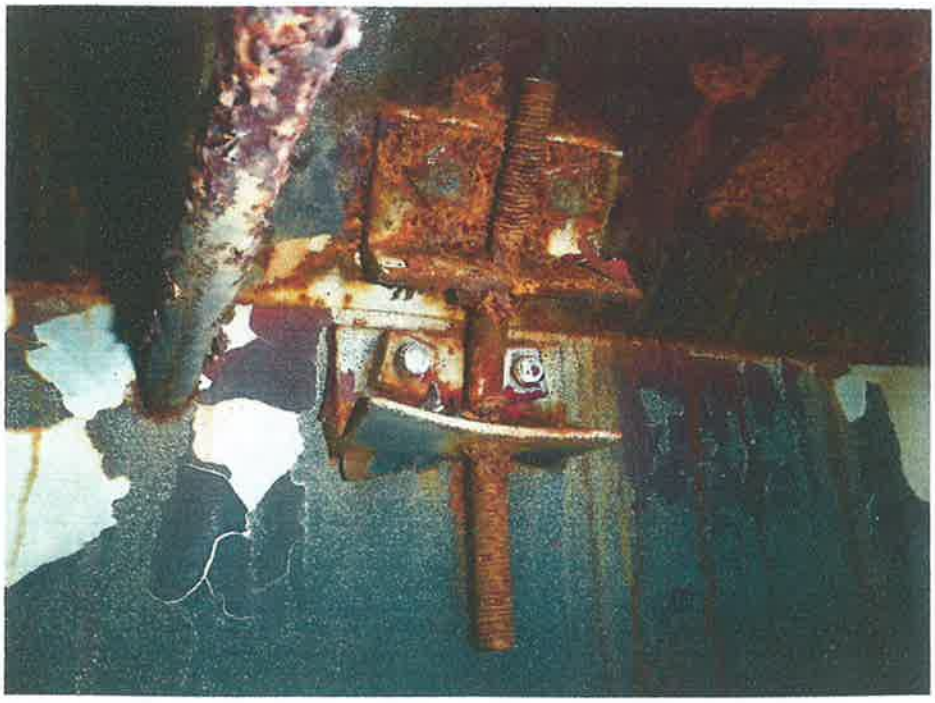


Photo #4

Old roof view. In this photo you can also see 1 of the spider rods which were all removed and 1 roof hold down bracket.

Photo #5

Old roof view.

Photo #6

Overall exterior roof view after removing.

APPENDIX J

Grand Forks Traill Water District

BOX 287
1401 7th AVENUE N.E.
THOMPSON, NORTH DAKOTA 58278
"Rural Water for a Better Rural Life"

Office: 1 Mile West of Thompson
Phone: 701-599-2963
Fax: 701-599-2056

Neil Breidenbach
System Manager
www.gftwd.com

March 2, 2018

Garland Erbele, P.E.
North Dakota State Water Commission
900 E Boulevard Ave
Bismarck ND 58505-0850

Re: GFTWD: User Expansion, Pipeline Expansion, and TRWD Interconnect
Grand Forks Traill Water District (GFTWD)

Dear Mr. Erbele:

GFTWD is currently in the design phase for the above referenced project. In order to bid the project and move into the construction phase, GFTWD is requesting the ND SWC to consider approval of the cost share request application dated 1/5/18. See attached for a copy of the request for reference.

GFTWD was previously awarded $126,000 in matching grant funds from the ND SWC to begin the engineering and report phase of the above referenced project. GFTWD is requesting to be on the agenda for the April 12, 2018 ND SWC meeting to ensure that this very important project can continue to move forward to the construction phase.

GFTWD is requesting construction grant approval before the bid is let, in order to ensure that after the bid is let, GFTWD would be able to award the contract to the lowest bidder immediately.

Thank you for your continued cooperation regarding the above referenced project. If you have any questions, please feel free to contact me at (701) 599-2963.

Sincerely,

Neil Breidenbach
GFTWD System Manager

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.

Project, Program, Or Study Name GFTWD: User Expansion, Pipeline Expansion and TRWD Interconnect			
Sponsor(s) Grand Forks Traill Water District			
County Grand Forks/Traill	City	Township/Range	
Description Of Request ☐ New ☒ Updated (previously submitted)			
Specific Needs Addressed By The Project, Program, Or Study Addition of 35 new users, upsizing pipelines for systen capacity and interconnection with TRWD.			
If Study, What Type ☒ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other			
If Project/Program ☐ Flood Control ☐ Multi-Purpose ☐ Bank Stabilization ☐ Dam Safety/EAP ☐ Recreation ☒ Water Supply ☐ Snagging & Clearing ☐ Property Acquisition ☐ Irrigation ☐ Water Retention ☐ Rural Flood Control ☐ Other			
Jurisdictions/Stakeholders Involved Grand Forks Traill Water District			
Description Of Problem Or Need And How Project Addresses That Problem Or Need Currently, GFTWD has an additional 35 users requesting to become part of GFTWD. These users have requested to become to become members of GFTWD under the previous phases of the project, but due to lack of funding were not able to be installed. The increase in system users by 15% over the past five years, has exhausted capacity throughout the system. Many portions in the eastern side of the system are currently undersized. The up-sizing of these pipelines will allow adequate flow and pressure now and into the future. GFTWD and TRWD are propose to connect via pipelines. The interconnection of pipelines will allow the two systems to deliver water back and forth based on needs and usage.			
Has A Feasibility Study Been Completed?	☐ Yes ☐ No	☒ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☒ Yes ☐ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☒ Yes ☐ No	☒ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☒ No	☒ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☒ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☒ No	☒ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Project is 80% complete with plan to bid Mid April timeframe.

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	$4,301,606.00	$
Local	$1,629,068.00	$
Total	$5,930,674.00	$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	$	$4,301,606.00	$
Local	$	$1,629,068.00	$
Total	$0.00	$5,930,674.00	$0.00

Please Explain Implementation Timelines, Considering All Phases And Their Current Status

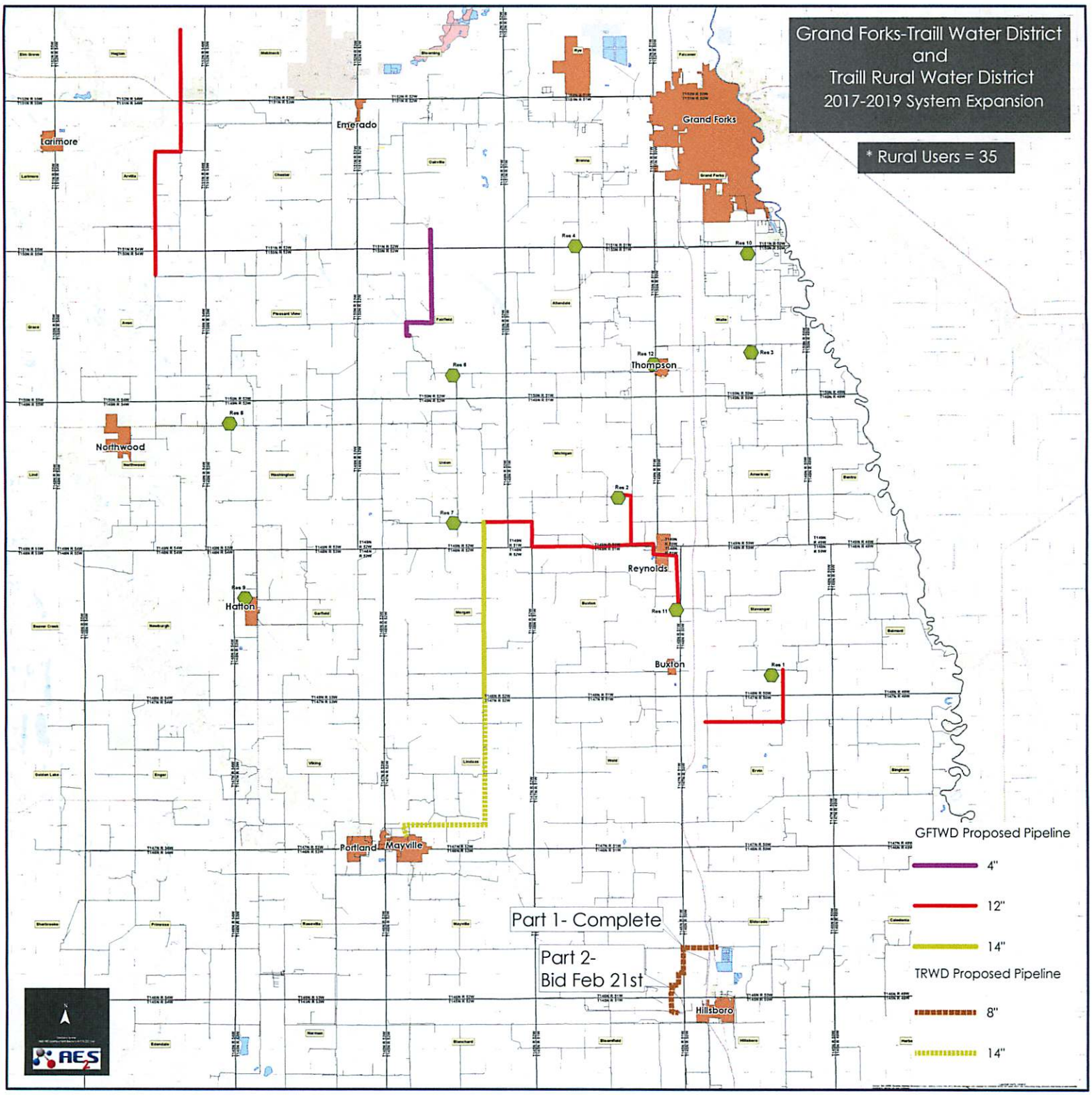
Feasibility study is complete, design is 80% complete. GFTWD is requesting 75% grant on the construction portion of the project, in order to be able to bid and award construction contracts.

Have Assessment Districts Been Formed? ☐ Yes ☐ No ☒ Ongoing ☐ Not Applicable

Submitted By Neil Breidenbach		Date 03/02/18	
Address PO Box 287	City Grand Forks	State ND	ZIP Code 58278
Telephone Number 701-599-2963			

MAIL TO:

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


Grand Forks-Traill Water District
and
Traill Rural Water District
2017-2019 System Expansion
* Rural Users = 35
Larimore
Emerado
Grand Forks
Thompson
Northwood
Reynolds
Hatton
Buxton
Portland
Mayville
Hillsboro
Part 1- Complete
Part 2-
Bid Feb 21st
GFTWD Proposed Pipeline
4"
12"
14"
TRWD Proposed Pipeline
8"
14"

Grand Forks Traill Water District					
PHASE 3 - TOTAL PROJECT					
OPINION OF TOTAL PROBABLE PROJECT COSTS					
Last Updated: February 26, 2018					
				UNIT	TOTAL
ITEM	ITEM DESCRIPTION	QUANTITY	UNIT	COST	COST
1.0	**BASE BID: 2018-2019 User Expansion**				
A.	Mobilization	1	l.s.	$106,000.00	$106,000.00
B.	Pipe				
	1. 2-Inch PVC - CL200	58,000	l.f.	$3.50	$203,000.00
	2. 4-Inch PVC - CL200	27,000	l.f.	$5.50	$148,500.00
	3. 12-inch PVC - SDR26	90,050	l.f.	$20.00	$1,801,000.00
	4. 14-inch PVC - SDR26	32,580	l.f.	$25.00	$814,500.00
C.	Gate Valves				
	1. 2-Inch	12	ea.	$750.00	$9,000.00
	2. 4-Inch	2	ea.	$1,150.00	$2,300.00
	3. 12-inch	10	ea.	$4,000.00	$40,000.00
	4. 14-inch	4	ea.	$4,500.00	$18,000.00
D.	1-inch Flush/Air Blow-off Valve	30	ea.	$800.00	$24,000.00
E.	Connection to Existing System **(New Users)**				
	1. New 2-Inch to Ex. 1.5-Inch (TEE)	10	ea.	$1,200.00	$12,000.00
	2. New 2-Inch to Ex. 2-Inch (TEE)	9	ea.	$1,250.00	$11,250.00
	3. New 2-Inch to Ex. 2.5-Inch (TEE)	1	ea.	$1,275.00	$1,275.00
	4. New 2-Inch to Ex. 3-Inch (SADDLE)	7	ea.	$1,300.00	$9,100.00
	5. New 2-Inch to Ex. 3.5-Inch (SADDLE)	2	ea.	$1,325.00	$2,650.00
	6. New 2-Inch to Ex. 4-Inch (SADDLE)	5	ea.	$1,350.00	$6,750.00
	7. New 2-Inch to Ex. 6-Inch (SADDLE)	1	ea.	$1,400.00	$1,400.00
	8. New 2-Inch to Ex. 8-Inch (SADDLE)	4	ea.	$1,500.00	$6,000.00
F.	Connection to Existing System				
	1. New 4-Inch to Ex. Service Lead	5	ea.	$1,500.00	$7,500.00
	2. New 4-Inch to Ex. 3-Inch (TEE)	1	ea.	$3,000.00	$3,000.00
	3. New 4-Inch to Ex. 4-Inch (TEE)	1	ea.	$3,500.00	$3,500.00
	4. New 12" to Ex. 6"	7	ea.	$4,500.00	$31,500.00
	5. New 12" to Existing Customers	25	ea.	$1,500.00	$37,500.00
	6. New 14" to Ex. 10"	1	ea.	$5,100.00	$5,100.00
	7. New 14 to Existing Service Lead	15	ea.	$2,500.00	$37,500.00
F.	Non-Cased Bores				
	1. 2-Inch	42	ea.	$1,200.00	$50,400.00
	2. 4-Inch	9	ea.	$1,750.00	$15,750.00
	3. 12-inch	23	ea.	$7,000.00	$161,000.00
	4. 14-inch	6	ea.	$8,500.00	$51,000.00
G.	Directional Bores				
	1. 2-Inch POLY - SDR11	4,000	l.f.	$16.00	$64,000.00
	2. 4-Inch POLY - SDR11	1,100	l.f.	$25.00	$27,500.00
	3. 12-inch POLY - SDR11	3,250	l.f.	$60.00	$195,000.00
	4. 14-inch POLY - SDR11	1,500	l.f.	$65.00	$97,500.00
F.	12-inch Steel Cased Railroad Bore	1	l.s.	$35,000.00	$35,000.00
I.	Underground Meter Vault	1	l.s.	$120,000.00	$120,000.00
J.	ARV Manhole	4	ea.	$12,000.00	$48,000.00
H.	Signs	58	ea.	$150.00	$8,700.00
I.	Seeding	135	acre	$600.00	$81,000.00
J.	Gravel	1,350	ton	$20.00	$27,000.00
K.	1-inch Curb Valve	40	ea.	$750.00	$30,000.00
L.	Residential Meter Setters	40	ea.	$1,200.00	$48,000.00
M.	Restoration	85,000	l.f.	$0.50	$42,500.00
				TOTAL BASE BID =	**$4,444,675.00**
	ADMINISTRATIVE COSTS				
	Land Acquisition (Easements and Crop Reimbursement)				$250,000.00
	ENGINEERING				
	Report				$30,000.00
	Preliminary Engineering				$21,000.00
	Design				$285,000.00
	Bidding				$30,000.00
	Construction				$600,000.00
	Post Construction Engineering				$45,000.00
	CONTINGENCIES (5%)				$225,000.00
				TOTAL PROJECT COSTS:	**$5,930,675.00**

Traill Rural Water District

26 PLUMMER STREET SOUTH
P.O. BOX 25 • CLIFFORD, NORTH DAKOTA 58016-0025
Phone: (701) 488-2536 • Fax: (701) 488-2265

March 2, 2018

Garland Erbele, P.E.
North Dakota State Water Commission
900 E Boulevard Ave
Bismarck ND 58505-0850

Re: TRWD: User/Transmission Pipeline Expansion Part 1, Part 2 and GFTWD Interconnect Traill Rural Water District (TRWD)

Dear Mr. Erbele:

TRWD recently completed construction on the Part 1 of their Transmission Pipeline Expansion. TRWD is currently completed with the design and bid the Part 2 Transmission pipeline Expansion project and is completed with design of the GFTWD Interconnect Project. In order to bid the project GFTWD Interconnection project and move into the construction phase, GFTWD is requesting the ND SWC to consider approval of the cost share request application dated 2/28/18. See attached for a copy of the request for reference and a breakdown of project costs.

TRWD was previously awarded $150,880 in matching grant funds from the ND SWC to begin the engineering and report phase of the above referenced project and construction for Transmission Pipeline Expansion Phase 1. TRWD is requesting to be on the agenda for the April 12, 2018 ND SWC meeting to ensure that this very important project can continue to move forward to the construction phase.

Thank you for your continued cooperation regarding the above referenced project. If you have any questions, please feel free to contact me at (701) 599-2963.

Sincerely,

Neil Breidenbach
TRWD System Manager

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.

Project, Program, Or Study Name TRWD: User/Transmission Pipeline Expansion Part 1, Part 2, and GFTWD Interconnect		
Sponsor(s) Traill Rural Water District		
County Traill	City	Township/Range

Description Of Request ☐ New ☒ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Addition of new users, upsizing pipelines for user capacity and interconnection with GFTWD.

If Study, What Type ☒ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☒ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
Traill Rural Water District

Description Of Problem Or Need And How Project Addresses That Problem Or Need

Currently, TRWD has potential users requesting to become part of TRWD. These users have requested to become to become members of TRWD, but due to lack of funding are not able to become members. TRWD's largest user is also requesting additional flow. TRWD current pipelines do not have adequate capacity to provide the bulk user with additional flow. A proposed pipeline will bring additional flow to the user as well as provide a larger pipeline in the northeast portion of their system to be able to connect to GFTWD. Another connection point in the west portion of the system is also proposed.

The connection of pipelines between TRWD and GFTWD would be the first phase in merging of the two systems. The interconnection of pipelines will allow the two systems to deliver water back and forth based on needs and usage.

Has A Feasibility Study Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☒ Yes	☒ No	☐ Not Applicable
If Yes, Please Explain I 29 Highway crossing			
Have You Been Approved For Any State Permits?	☐ Yes	☒ No	☒ Not Applicable
If Yes, Please Explain Not as of yet.			
Have You Applied For Any Local Permits?	☐ Yes	☒ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☒ No	☒ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Part 1 construction is complete. Part 2 and the interconnect pipeline are designed and ready for bid.

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	$1,396,846.00	$
Local	$545,433.00	$
Total	$1,942,279.00	$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	$	$1,396,846.00	$
Local	$	$545,433.00	$
Total	$0.00	$1,942,279.00	$0.00

Please Explain Implementation Timelines, Considering All Phases And Their Current Status

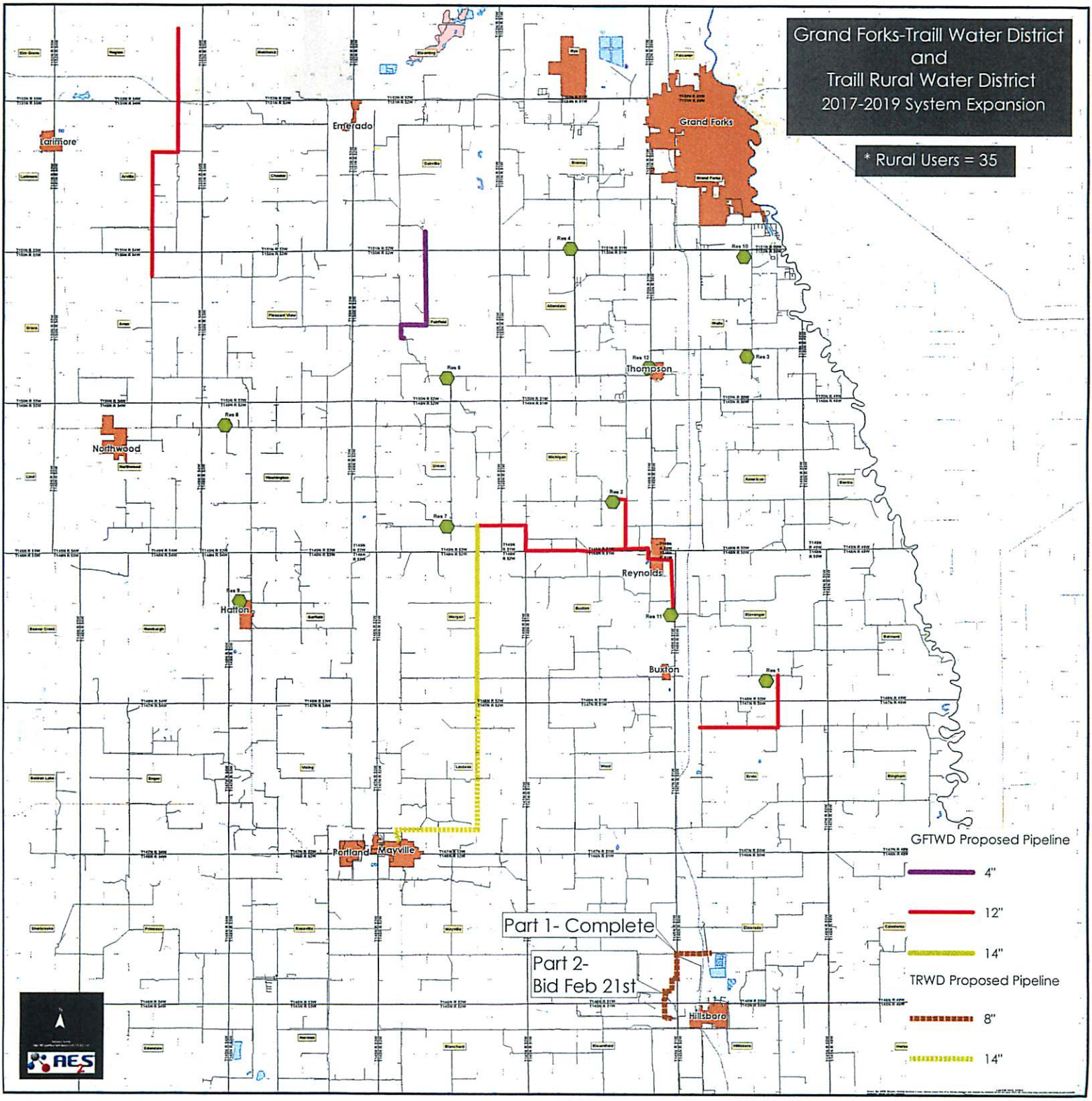
Part 1 construction is complete. Part 2 is bid. GFTWD is designed and will be bid in April. TRWD is requesting 75% grant reimbursement on construction of Part 2 and GFTWD interconnect.

Have Assessment Districts Been Formed? ☐ Yes ☐ No ☐ Ongoing ☒ Not Applicable

Submitted By Neil Breidenbach		Date 02/28/18	
Address PO Box 25	City Clifford	State ND	ZIP Code 58016
Telephone Number 701-488-2536			

MAIL TO:

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


Grand Forks-Traill Water District
and
Traill Rural Water District
2017-2019 System Expansion
* Rural Users = 35
Larimore
Emerado
Grand Forks
Thompson
Northwood
Reynolds
Hatton
Buxton
Portland
Mayville
Hillsboro
Part 1- Complete
Part 2-
Bid Feb 21st
GFTWD Proposed Pipeline
4"
12"
14"
TRWD Proposed Pipeline
8"
14"
AE2S

TRWD: User/Transmission Pipeline Expansion Part 1, Part 2, and GFTWD Interconnect Project

Traill Rural Water District
Installed Cost - Breidenbach Excavation
Last Updated: March 2, 2018

ITEM	ITEM DESCRIPTION	INSTALLED QUANTITY	UNIT	UNIT PRICE	TOTAL COST
BID TRANSMISSION PIPELINE - PART 1					
A.	Mobilization	1	l.s.	$4,999.00	$4,999.00
B.	Water Main				
	1. 8-inch PVC - SDR26 (Material)	5,649	l.f.	$4.97	$28,075.53
	1. 8-inch PVC - SDR26 (Labor)	5,649	l.f.	$5.48	$30,956.52
C.	Non-Cased Bores				
	1. 8-inch	4	ea.	$2,000.00	$8,000.00
D.	Directional Bores				
	1. 8-inch POLY - SDR11	200	l.f.	$35.00	$7,000.00
E.	Cased Bores				
	1. Material - Interstate Bore (480' of 8" DR 11 DIPS Poly, 400' of 12" DR 11 POLY Casing, 8" -	1	l.s.	$16,634.00	$16,634.00
	2. Labor - Interstate Bore (400' of 12" Poly, 480' 8-inch Poly Carrier, Link Seals, End Seal)	1	l.s.	$16,000.00	$16,000.00
	3. RR Bore (150' - 14-inch Steel Casing, 300' of 8-inch POLY)	1	l.s.	$18,000.00	$18,000.00
F.	Fittings				
	1. 8" DI 90-Degree Bend	2	ea.	$1,000.00	$2,000.00
	2. 8" DI 45-Degree Bend	0	ea.	$1,000.00	$0.00
G.	New Connection to Existing System				
	1. Hillsboro WTP	0	ea.	$2,500.00	$0.00
	1. Tie-in to Exsting at Section 25 (Includes all 4" and 6" piping, all tees, elbows, reducers, fittin	1	ea.	$4,000.00	$4,000.00
	1. Tie-in to exising 2" (includes tees, couplers, reducers, fittings, and 2" pipeline)	1	ea.	$2,500.00	$2,500.00
H.	Gate Valves				
	1. 2-inch	2	ea.	$900.00	$1,800.00
	2. 4-inch	1	ea.	$1,400.00	$1,400.00
	3. 6-inch	1	ea.	$1,800.00	$1,800.00
	4. 8-inch	2	ea.	$2,800.00	$5,600.00
I.	1-inch Flush/Air Blow Off	0	ea.	$1,000.00	$0.00
J.	Signs	6	ea.	$75.00	$450.00
K.	Seeding	0	acre	$1.00	$0.00
L.	Gravel	0	ton	$1.00	$0.00
M.	Hydro-seed/Mulch	0	s.y.	$10.00	$0.00
	SUBTOTAL 8-INCH TRANSMISSION PIPELINE				$149,215.05
BID TRANSMISSION PIPELINE - PART 2					
A.	Mobilization	1	l.s.	$3,000.00	$3,000.00
B.	Water Main				
	1. 8-inch PVC - SDR26	16,050	l.f.	$11.25	$180,562.50
C.	Non-Cased Bores				
	1. 8-inch	2	ea.	$3,000.00	$6,000.00
D.	Directional Bores				
	1. Goose River Crossing consisting of 300' of 8" DR 11 IPS Poly Pipe	1	l.s.	$12,000.00	$12,000.00
	2. Goose River Crossing and County Road 11 Crossing consisting of 450' of 8' DR 11	1	l.s.	$16,500.00	$16,500.00
E.	Fittings				
	1. All Fittings	1	l.s.	$3,000.00	$3,000.00
F.	New Connection to Existing System				
	1. Hillsboro WTP	1	ea.	$3,694.02	$3,694.02
	1. Tie-in to Exsting at Section 25	1	ea.	$300.00	$300.00
G.	Gate Valves				
	1. 8-inch	1	ea.	$3,150.00	$3,150.00
H.	1-inch Flush/Air Blow Off	1	ea.	$1,200.00	$1,200.00
I.	Signs	2	ea.	$175.00	$350.00
J.	Seeding	5	acre	$200.00	$1,000.00
K.	Gravel	100	ton	$15.00	$1,500.00
	SUBTOTAL 8-INCH TRANSMISSION PIPELINE				$232,256.52
ESTIMATED - GFTWD/TRWD INTERCONNECT					
A.	Mobilization	1	l.s.	$30,000.00	$30,000.00
B.	Water Main				
	1. 12-inch PVC - SDR26	44,800	l.f.	$20.00	$896,000.00
C.	Non-Cased Bores				
	1. 12-inch	12	ea.	$5,000.00	$60,000.00
D.	Directional Bores				
	1. 12-inch POLY - SDR 11	1100	l.f.	$60.00	$66,000.00
E.	Cased Bores				
	1. 12-inch POLY - SDR 11/16" Steel Cased	1	l.s.	$35,000.00	$35,000.00
F.	New Connection to Existing System				
	1. New 12-inch to Booster Station	1	ea.	$4,500.00	$4,500.00
G.	Gate Valves				
	1. 12-inch	3	ea.	$5,000.00	$15,000.00
H.	1-inch Flush/Air Blow Off	3	ea.	$1,200.00	$3,600.00
I.	Signs	6	ea.	$175.00	$1,050.00
J.	Seeding	10	acre	$200.00	$2,000.00
K.	Gravel	200	ton	$15.00	$3,000.00
L.	Booster Station Renovation	1	l.s.	$50,000.00	$50,000.00
	SUBTOTAL 12-INCH TRANSMISSION PIPELINE				$1,166,150.00
	ADMINISTRATIVE COSTS				
	Crop Reimbursement				$40,000.00
	ENGINEERING				
	SRF Feasibility Report				$25,000.00
	Preliminary Design Phase				$5,658.00
	Design				$99,000.00
	Bidding				$20,000.00
	Costruction				$135,000.00
	Post-Construction				$20,000.00
	CONTINGENICES				$50,000.00
				TOTAL PROJECTCOSTS:	**$1,942,279.57**

East Central Regional Water District Project Timeline	
TRWD: ACS Part 2	
Bid	2/21/2018
Funding Approval	4/12/2018
Start Construction (Order Material)	4/13/2018
Substantial Completion	6/15/2018
Final Completion	7/15/2018
Post-Construction Period End	6/15/2019
TRWD/GFTWD Interconnect & GFTWD System Expansion	
Funding Approval	4/12/2018
Bid	4/19/2018
Award	4/24/2018
Begin Construction	5/9/2018
Substantial Completion	7/31/2019
Final Completion	8/30/2019
Post-Construction Completion	7/31/2020

North Dakota Rural Water Districts & Associations

North Dakota State Water Commission, March 2018

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Burke-Divide-Williams Rural Water Association (701) 965-6029

Northwest Rural Water District (701) 774-8915

McKenzie County Rural Water Association (701) 444-3452

Fort Berthold Rural Water (701) 627-8185

Upper Souris Water Dist (701) 385-4093

Turtle Mtn Public Utilities (701) 477-6159

Northeast Regional Water District (701) 265-8503

Walsh Rural Water Dist (701) 352-3915

All Seasons Water Users Dist (701) 228-3663

Greater Ramsey Water Dist (701) 662-5782

North Central Regional Water Dist (701) 852-1886

North Central Regional Water Dist (701) 852-1886

North Central Regional Water Dist (701) 852-1886

North Prairie Rural Water Dist (701) 852-1886

Tri-County Water Dist (701) 345-8595

Agassiz Water Users Dist (701) 869-2690

Spirit Lake Rural Water (701) 766-1209

Central Plains Water Dist (701) 547-3751

Garrison Rural Water Dist (701) 463-7276

Greater Ramsey Water Dist (701) 662-5782

Dakota Rural Water Dist (701) 524-2393

East Central Regional Water Dist (701) 599-2963

McLean-Sheridan Water Dist (701) 448-2686

South Central Regional Water Dist (701) 258-8710

Stutsman Rural Water Dist (701) 252-7727

Barnes Rural Water Dist (701) 845-1117

Cass Rural Water Users Dist (701) 428-3139

Missouri West Water System (701) 663-8549

Water Service Provided By South Central Regional Water Dist (701) 258-8710

Southeast Water Users District (701) 242-7432

Standing Rock Rural Water (701) 854-7477

State Line Water Co-op (701) 336-7681

DIVIDE BURKE WILLIAMS MOUNTRAIL MCKENZIE RENVILLE BOTTINEAU WARD MCHENRY PIERCE ROLETTE TOWNER CAVALIER PEMBINA WALSH RAMSEY BENSON NELSON GRAND FORKS EDDY FOSTER GRIGGS STEELE TRAIL DUNN MERCER OLIVER GOLDEN VALLEY BILLINGS STARK MORTON BURLEIGH KIDDER STUTSMAN BARNES CASS SLOPE HETTINGER ADAMS BOWMAN GRANT SIOUX EMMONS LOGAN MCINTOSH DICKEY LAMOURE RANSOM RICHLAND SARGENT MCLEAN SHERIDAN WELLS

Williston Minot Bismarck Mandan Dickinson Jamestown Devils Lake Valley City Fargo West Fargo Grand Forks

SWC Date Received : 3/9/18

APPENDIX K

COST-SHARE REQUEST FORM
NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Stutsman Rural Water District Phase 6 Expansion Pettibone Water Supply

Sponsor(s)
Stutsman Rural Water District

County	City	Township/Range/Section
Kidder	Pettibone	T142N/R72W,Sec.14(Pettibone City)

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Will provide a high quality water supply for the residents of the City of Pettibone and the surrounding farmers and ranchers.

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☑ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
Stutsman Rural Water District, Kidder County, City of Pettibone

Description Of Problem Or Need And How Project Addresses That Problem Or Need
Residents in the City of Pettibone each have individual wells and septic systems. The current water supply is of poor quality and is high in calcium, sulfates and TDS. Area farmers and ranchers also have water quality and quantity issues. Water will be delivered to approximately 55 new users in this area from the storage tank north of Woodworth which was installed with the SRWD Phase 2B expansion project in 2013. The water supply for this area is purchased from the City of Carrington.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Design work to provide water to the Pettibone area has been on going for the last 2 years. There have been 2 public meetings held at Pettibone with a lot of interest. Our Engineers are ready to proceed with final design.

Do You Expect Any Obstacles To Implementation (i.e., problems with land acquisition, permits, funding, local, opposition, environmental concerns, etc.)? none

Funding Timeline (carefully consider when SWC cost-share will be needed) April of 2018

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	$ 2,145,000.00	$	$ 2,145,000.00	$
Other State	$ 755,000.00	$	$ 755,000.00	$
Local	$	$	$	$
Total	$ 2,900,000.00	$	$ 2,900,000.00	$

List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied

North Dakota Health Department State Revolving Fund

Please Explain Implementation Timelines, Considering All Phases And Their Current Status

We are ready to proceed with final design as soon as funding is acquired. We would like to bid the project mid summer and begin construction soon after that. Construction to be completed late fall of 2018 or early spring of 2019.

Have Assessment Districts Been Formed? ☐ Yes ☑ No ☐ Ongoing ☐ Not Applicable

Submitted By	Date
Geneva Kaiser, General Manager	3/9/18

Address	City	State	ZIP Code
1812 Hwy. 281 North	Jamestown	ND	58401

Telephone Number	Sponsor Email	Engineer Email
701-252-7727	genevasrwdistrict@daktel.com	Bryan.Zeigler@bartwest.com

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature	Date
Geneva Kaiser	3/09/2018

MAIL TO:

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

Stutsman Rural Water District
Phase 6 Estimated Project Costs

Water Service to Pettibone Area	Total Project		Grant	Loan
Design Engineering Fees	$ 75,000.00	*(35% grant eligilbe)*	$ 26,250.00	$ 48,750.00
Construction Engineering Fees	$ 225,000.00	(75% grant eligible)	$ 168,750.00	$ 56,250.00
Construction Costs	$ 2,600,000.00	*(75% grant eligible)*	$ 1,950,000.00	$ 650,000.00
Total Estimated Project Costs	**$ 2,900,000.00**		**$ 2,145,000.00**	**$ 755,000.00**

Stutsman Rural Water District
Phase 6 Costs

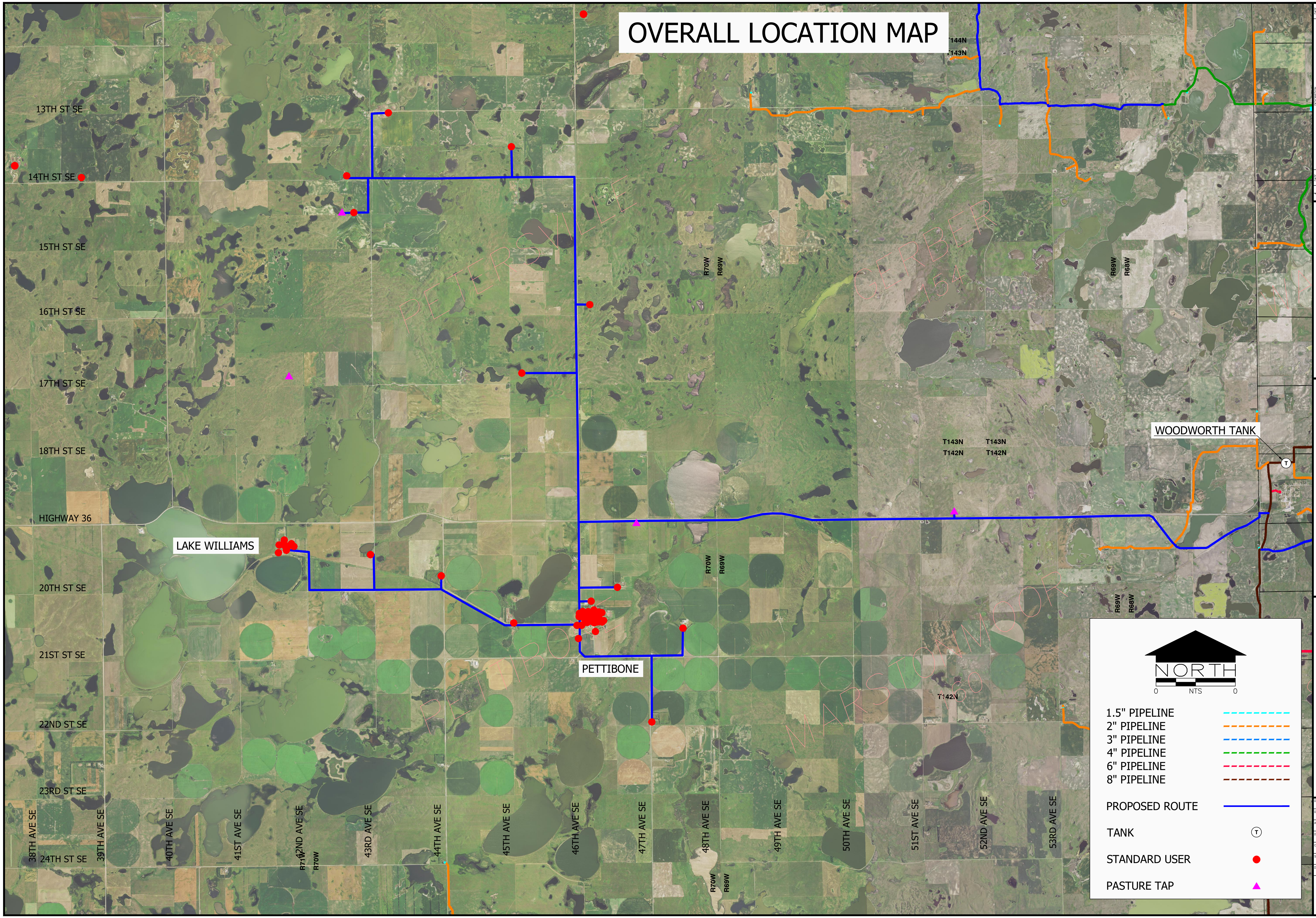
Service to Pettibone

Description	Quantity	Unit Price	Extension
6" PVC	36,500	$ 8.50	$ 310,250
4" PVC	38,400	$ 6.50	$ 249,600
3" PVC	69,500	$ 5.40	$ 375,300
2" PVC	90,000	$ 4.50	$ 405,000
1.5" Srvice Line	8,500	$ 6.00	$ 51,000
Town Pipeline	16,000	$ 18.00	$ 288,000

Subtotal - Pipeline			**$ 1,679,000**
Services	65	$ 1,200.00	$ 78,000
Appurtenances @ 40%			$ 672,000
Construction Total			**$ 2,429,000**
Contigency @ 2.5%			$ 61,000
Crop Damages			$ 50,000
Design Engineering			$ 75,000
Construction Phase Engineering			$ 225,000

Total Phase 6 Costs **$ 2,840,000**

OVERALL LOCATION MAP



13TH ST SE
14TH ST SE
15TH ST SE
16TH ST SE
17TH ST SE
18TH ST SE
HIGHWAY 36
20TH ST SE
21ST ST SE
22ND ST SE
23RD ST SE
24TH ST SE
38TH AVE SE
39TH AVE SE
40TH AVE SE
41ST AVE SE
42ND AVE SE
43RD AVE SE
44TH AVE SE
45TH AVE SE
46TH AVE SE
47TH AVE SE
48TH AVE SE
49TH AVE SE
50TH AVE SE
51ST AVE SE
52ND AVE SE
53RD AVE SE
LAKE WILLIAMS
PETTIBONE
WOODWORTH TANK
T144N
T143N
T142N
R70W
R69W
R68W
NORTH
0
NTS
0
1.5" PIPELINE
2" PIPELINE
3" PIPELINE
4" PIPELINE
6" PIPELINE
8" PIPELINE
PROPOSED ROUTE
TANK
STANDARD USER
PASTURE TAP

BARTLETT & WEST

Stutsman Rural Water District
Phase 6 Expansion

LOCATION

DESIGNED BY: BJZ
DRAWN BY: JAH
APPROVED BY: BJZ
DESIGN PROJ.: 13704.052
CONST PROJ.: 13704.052
SCALE: AS NOTED
DATE: 2/18
SHEET NUMBER: loc 03
OF: X

Last edit on: Jan 04, 2006 by: DDM00439 Drawing name: F:\Proj\13000\13704\13704.000\autocad\13704 PHASE 6\2017 Phase 6.dwg Layout name: Loc 03 Plotted by: joh01161 Plotted on: Mar 21, 2018 – 3:26pm

SWC Date Received : 3/22/18

North Dakota Rural Water Districts & Associations

North Dakota State Water Commission, March 2018

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McKenzie County Rural Water Association (701) 444-3452

Fort Berthold Rural Water (701) 627-8185

Upper Souris Water Dist (701) 385-4093

Turtle Mtn Public Utilities (701) 477-6159

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Walsh Rural Water Dist (701) 352-3915

All Seasons Water Users Dist (701) 228-3663

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DIVIDE BURKE WILLIAMS MOUNTRAIL MCKENZIE RENVILLE BOTTINEAU WARD MCHENRY PIERCE ROLETTE TOWNER CAVALIER PEMBINA WALSH RAMSEY BENSON NELSON GRAND FORKS EDDY FOSTER GRIGGS STEELE TRAIL DUNN MERCER OLIVER GOLDEN VALLEY BILLINGS STARK MORTON BURLEIGH KIDDER STUTSMAN BARNES CASS SLOPE HETTINGER ADAMS BOWMAN GRANT SIOUX EMMONS LOGAN MCINTOSH DICKEY LAMOURE RANSOM RICHLAND SARGENT MCLEAN SHERIDAN WELLS

Williston Minot Bismarck Mandan Dickinson Jamestown Devils Lake Valley City Fargo West Fargo Grand Forks

APPENDIX L

WALSH RURAL WATER DISTRICT
P. O. Box 309
Grafton, North Dakota 58237

Quality On Tap!
Our Committment Our Profession

March 2, 2018

Garland Erbele, P.E.
North Dakota State Water Commission
900 E Boulevard Ave
Bismarck ND 58505-0850

Re: WRWD: 2017 User and System Expansion
Walsh Rural Water District

Dear Mr. Erbele:

On August 23, 2017 Walsh Rural Water District (WRWD) got approved for $57,375 in 35% grant reimbursement for the 2017 User and System Expansion Project. Since, that time WRWD has started engineering work and has completed a cultural resource survey on the pipeline routings.

WRWD is working towards being shovel ready in March with an April bid opening. Currently, WRWD is estimating the construction and construction engineering to be $1.65M for a total project cost of $1.87M. In order to award the bid to the lowest contractor, WRWD is requesting a 75% grant match share in the amount of $1.35M for the construction phase of this project.

WRWD is requesting construction grant approval before the bid is let, in order to ensure that after the bid is let, WRWD would be able to award the contract to the lowest bidder immediately. Contractors are not eager to bid projects that have a 30-60 day wait on contract approval. If a bid is let and construction dollars are not approved, WRWD would not be able to award the bid to the lowest bidder. This could cause projects delays and project cost increases.

WRWD is eager to move forward in order to begin construction in spring of 2018. WRWD looks forward to working with the State Water Commission in completing this very important project.

Sincerely,

Brian Reilly
WRWD Manager

cc: Geoffrey Slick, AE2S

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.

Project, Program, Or Study Name
WRWD: 2017 User and System Expansion

Sponsor(s)
Walsh Rural Water District

County	City	Township/Range
Walsh		

Description Of Request ☐ New ☒ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Increase capacity to southern and eastern portions of the system and the addition of 26 new users.

If Study, What Type ☒ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☒ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
Walsh Rural Water District

Description Of Problem Or Need And How Project Addresses That Problem Or Need
Currently, 26 new users are waiting to connect to the system. Due to their location and the existing infrastructure they are unable to connect without expanding the system's infrastructure. Without the proposed project to increase pipe miles and adjust the system hydraulics WRWD will not be able to add new users and ensure adequate pressure throughout the entire system, existing users would potentially see diminishing water service and interruptions in actual service if new users were added without adding infrastructure. If this project is not completed, users will be left without a stable water supply. This project will also provide looping on the eastern side of the system to ensure adequate flow.

Has A Feasibility Study Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☒ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☒ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☒ No	☒ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☒ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☒ No	☒ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

WRWD is in the design phase of the project with anticipation to bid in April.

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	$1,407,732.00	$
Local	$469,244.00	$
Total	$1,876,976.00	$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	$	$1,407,732.00	$
Local	$	$469,244.00	$
Total	$0.00	$1,876,976.00	$0.00

Please Explain Implementation Timelines, Considering All Phases And Their Current Status

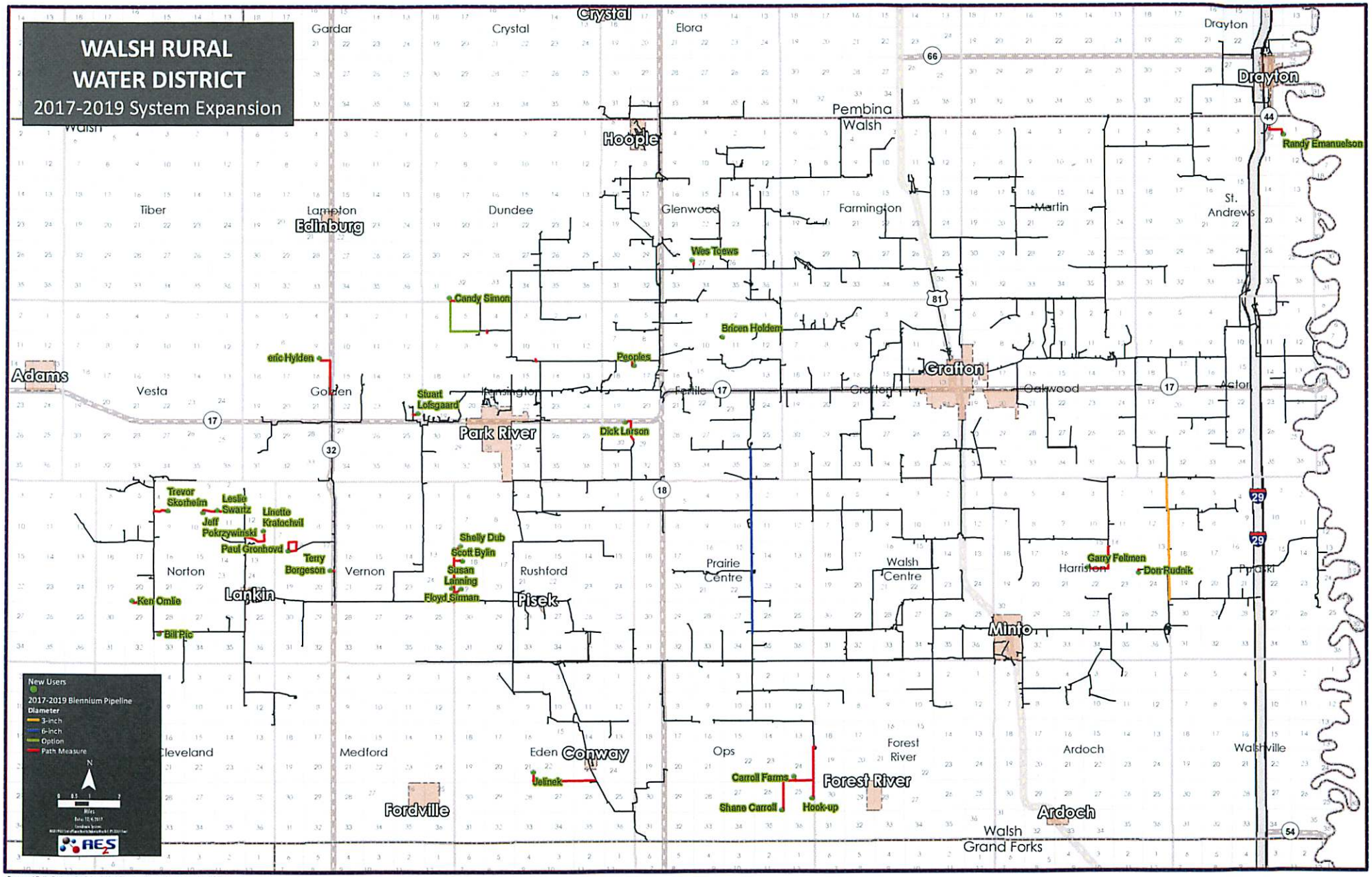
WRWD is moving towards bidding the above mentioned project. WRWD board of directors are requesting grant funds approved prior to bidding to ensure funds are available.

Have Assessment Districts Been Formed? ☐ Yes ☐ No ☒ Ongoing ☐ Not Applicable

Submitted By Brian Reilly		Date 03/02/18	
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



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2017-2019 System Expansion - USER & SYSTEM EXPANSION

Walsh Rural Water District
Preliminary Cost Estimate
Last Updated: February 16, 2018

ITEM	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
CONTRACT 1 – BASE BID TRANSMISSION PIPELINE					
A.	Mobilization	1	l.s.	$50,000.00	$50,000.00
B.	Water Main				
	1. 2-Inch PVC - CL200	110,000	l.f.	$3.50	$385,000.00
	2. 3-inch PVC - SDR26	21,660	l.f.	$4.00	$86,640.00
	3. 6-inch PVC - SDR26	32,500	l.f.	$8.00	$260,000.00
C.	Gate Valves				
	1. 2-Inch	6	ea.	$750.00	$4,500.00
	2. 3-inch	2	ea.	$1,500.00	$3,000.00
	3. 6-inch	4	ea.	$2,500.00	$10,000.00
D.	Non-Cased Bores				
	1. 2-Inch	32	ea.	$1,500.00	$48,000.00
	2. 3-inch	10	ea.	$2,000.00	$20,000.00
	3. 6-inch	10	ea.	$3,000.00	$30,000.00
E.	Directional Bores				
	1. 2-Inch RR	1	l.s.	$18,000.00	$18,000.00
	2. 2-Inch POLY - SDR11	7,214	l.f.	$15.00	$108,210.00
	3. 3-inch POLY - SDR11	200	l.f.	$25.00	$5,000.00
	4. 6-inch POLY - SDR11	4600	l.f.	$30.00	$138,000.00
F.	New Connection to Existing System				
	1. New 6-Inch to Ex. 1.5-Inch (TEE)	28	ea.	$1,200.00	$33,600.00
	2. New 3" to Ex. 3"	2	ea.	$2,600.00	$5,200.00
	3. New 6" to Ex. 6"	2	ea.	$3,500.00	$7,000.00
	Connection to Existing	20	ea.	$1,200.00	$24,000.00
G.	1-inch Flush/Air Blow Off	1	ea.	$1,000.00	$1,000.00
H,	Signs	6	ea.	$150.00	$900.00
I.	Seeding	25	acre	$600.00	$15,000.00
J.	Gravel	300	ton	$20.00	$6,000.00
K.	1-inch Curb Valve	25	ea.	$750.00	$18,750.00
L.	Residential Meter Setters	25	ea.	$1,200.00	$30,000.00
M.	Restoration	164,160	l.f.	$0.50	$82,080.00
	SUBTOTAL ALL PIPELINES				$1,389,880.00

ADMINISTRATIVE COSTS	
Crop Reimbursement	$50,000.00
Archelogical	$6,000.00
ENGINEERING	
Report Phase (Preconstruction)	$30,000.00
Design (Preconstruction)	$110,000.00
Bidding (Preconstruction)	$20,000.00
Construction (Construction)	$150,000.00
Post Construction (Construction)	$10,000.00
CONTINGENCIES	$100,000.00
TOTAL PROJECT COSTS:	**$1,865,880.00**

Walsh Rural Water District Project Timeline	
Advertise	4/3/2018
Approval of Funds (75% Grant)	4/12/2018
Bid	4/25/2018
Award	4/26/2018
Preconstruction Meeting	5/15/2018
Start Construction	5/17/2018
Substantial Completion	6/30/2019
Final Completion	7/30/2019

North Dakota Rural Water Districts & Associations

North Dakota State Water Commission, March 2018

This data is provided by the ND State Water Commission for your convenience. This data is provisional. This service is provided "AS IS" and without warranty of any kind, either express or implied. No warranty, either expressed or implied, is made regarding the accuracy or utility of the data or information presented at this site. The ND State Water Commission is not responsible for any errors or damages that may occur resulting from the use or mis-use of the data that is provided at th is site. If you have any questions regarding the data, generation methods, or errors, please direct any these comments to ND State Water Commission. Phone: (701) 328-4998

Burke-Divide-Williams Rural Water Association (701) 965-6029

Northwest Rural Water District (701) 774-8915

McKenzie County Rural Water Association (701) 444-3452

Fort Berthold Rural Water (701) 627-8185

Upper Souris Water Dist (701) 385-4093

Turtle Mtn Public Utilities (701) 477-6159

Northeast Regional Water District (701) 265-8503

Walsh Rural Water Dist (701) 352-3915

All Seasons Water Users Dist (701) 228-3663

Greater Ramsey Water Dist (701) 662-5782

North Central Regional Water Dist (701) 852-1886

North Central Regional Water Dist (701) 852-1886

North Central Regional Water Dist (701) 852-1886

North Prairie Rural Water Dist (701) 852-1886

Tri-County Water Dist (701) 345-8595

Agassiz Water Users Dist (701) 869-2690

Spirit Lake Rural Water (701) 766-1209

Central Plains Water Dist (701) 547-3751

Garrison Rural Water Dist (701) 463-7276

Greater Ramsey Water Dist (701) 662-5782

Dakota Rural Water Dist (701) 524-2393

East Central Regional Water Dist (701) 599-2963

McLean-Sheridan Water Dist (701) 448-2686

South Central Regional Water Dist (701) 258-8710

Stutsman Rural Water Dist (701) 252-7727

Barnes Rural Water Dist (701) 845-1117

Cass Rural Water Users Dist (701) 428-3139

Missouri West Water System (701) 663-8549

Water Service Provided By South Central Regional Water Dist (701) 258-8710

Southeast Water Users District (701) 242-7432

Standing Rock Rural Water (701) 854-7477

State Line Water Co-op (701) 336-7681

DIVIDE BURKE WILLIAMS MOUNTRAIL MCKENZIE RENVILLE BOTTINEAU WARD MCHENRY PIERCE ROLETTE TOWNER CAVALIER PEMBINA WALSH RAMSEY BENSON NELSON GRAND FORKS EDDY FOSTER GRIGGS STEELE TRAIL DUNN MERCER OLIVER GOLDEN VALLEY BILLINGS STARK MORTON BURLEIGH KIDDER STUTSMAN BARNES CASS SLOPE HETTINGER ADAMS BOWMAN GRANT SIOUX EMMONS LOGAN MCINTOSH DICKEY LAMOURE RANSOM RICHLAND SARGENT MCLEAN SHERIDAN WELLS

Williston Minot Bismarck Mandan Dickinson Jamestown Devils Lake Valley City Fargo West Fargo Grand Forks

APPENDIX M

SWC Date Received : 3/12/18

City of Mapleton

P O Box 9 - 651 2nd Street, Mapleton, ND 58059
701-282-6992 phone 701-282-0080 fax
city.mapletonnd@midconetwork.com
www.mapletonnd.com

March 5, 2018

Beth Nangare
Development Division
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, ND 58505-0850

RE: SWC Cost-Share Contract Extension – Recertification of Flood Control Levee System
City of Mapleton, North Dakota

Dear Beth:

Per your letter dated February 23, 2018, we are providing you a progress update pertaining to the referenced project.

As you know, the main reason for the long timeline regarding this project is due to FEMA's ongoing Flood Insurance Study that started many years ago. The 100-year Maple River profile has been changing as the study has progressed and it would be unwise to complete the certification study before the elevations are finalized. FEMA is due to release updated preliminary results within the next couple of months and we've been able to assess the elevation of the current levees compared to the current models. As of today, we are confident that any additional changes to water surface elevations will be very minor and we can finalize all construction and submit the recertification report to FEMA in the fall of 2018.

With that said, we have made good progress on finalizing the project since our last update provided to you on May 26, 2017. Since then we have received approval from FEMA to allow an exception for 2.0' of freeboard above the 500-year event, rather than the standard 3.0' above the 100-year event, since there would have been substantially more levee raise improvements required using 3.0' above the 100-year.This was a significant cost savings for our community. We have also acquiredthe BNSF License Agreement to build the required improvements on BNSF property to meet FEMA's levee freeboard and tie-back requirements along the railroad for the levee.

Now that those two critical items are complete, we will finish the remaining improvements on BNSF's property, perform final as-built surveys of the levee, and finalize the recertification report to be submitted to FEMA for approval to accredit the levee system. We are also updating our Operations and Maintenance Manual for the levee system, which was originally created in 2001. When the recertification effort began in 2011, only minor updates to the O&M manual were necessary. Since then, the USGS and NOAA have updated how they report flood elevations and predictions for the gage upstream of Mapleton. This change, as well as the addition of several

new ponds and lift stations to accommodate adjacent development have made the current O&M severely out of date. We anticipate the construction to be completed by July 2018 and the recertification report to be submitted by fall 2018.

Now thatestimated final cost for construction and engineering are better known, we are respectfully requesting additional cost-share that may be available for the additional improvements we have been required to complete for the recertification of the levee system. We have already been approved for additional funds from the Cass County Flood Risk Reduction Sales Tax Grant to use for 50% of the remaining local share.

We have enclosed an Engineer's Statement of Estimated Final Cost for your review. We have also enclosed plans for the "Levee Raises" and the "Railroad Tie-Back" work that is required. We have been previously approved for up to $718,941 in cost share. We are now requesting a total of $932,611 in cost share, which is an increase of $213,670 to the previously approved amount. A portion of the request includes additional engineering for the additional work required for the recertification report, which included additional internal drainage analysis, additional freeboard survey and analysis, and a technical memorandum to FEMA for the 2.0' freeboard exception. We are also asking that the NDSWC reconsider the cost share for the levee closure structures. The cost share request for these items was not approved as part of the 2014 cost share agreement; however, the closures are necessary to meet the requirements of 44 CFR 65.10(c)(2)(iii), which requiresprovisions for manual backup of automatic systems related to interior drainage systems. In this case, the sluice gate closure structures represent manual backup for the automatic flap gates that are installed at the outlet of each culvert penetration through the levee.

Please let us know if you have any questions or concerns with the project. You can also contact Brandon Oye, our City Engineer, at 701-282-4692 or boye@mooreengineeringinc.com.

I will be attending the State Water Commission meeting on April 12th as requested to answer any questions.

Sincerely,

Barry Lund
Mayor, City of Mapleton

Cc: Brandon Oye – Moore Engineering, Inc

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Recertification of Flood Control Levee System

Sponsor(s)
City of Mapleton

County	City	Township/Range/Section
Cass	Mapleton	NA

Description Of Request ☐ New ☑ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
FEMA Accreditation for Levee System

If Study, What Type ☐ Water Supply ☐ Hydrologic ☑ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Mapleton

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The project will improve the flood control levee system to a level that can be certified to FEMA for accreditation.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☑ Yes	☐ No	☐ Not Applicable
If Yes, Please Explain BNSF License for work on BNSF right-of-way			
Have You Been Approved For Any Local Permits?	☑ Yes	☐ No	☐ Not Applicable
If Yes, Please Explain BNSF approved the License (Tracking #17-58349) on January 5, 2018			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

The Project has been discussed at numerous City Council meetings as a recurring item since 2011. The project was also discussed and approved at a ND State Water Commission meeting in 2014. Project has been designed and remaining work is under contract to be constructed this spring.

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) Summer 2018

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	$ 932,611	$	$ 213,670	$
Other State	$	$	$	$
Local	$ 1,543,614	$	$	$
Total	$ 2,476,225	$	$ 213,670	$

List All Other State Of North Dakota Funding Sources (Grant or Loan), For Which You Have Applied

Received approval for $718,941 in SWC cost share in 2014 from SWC Project No. 2008 agreement. Requesting additional $213,670 from SWC cost share. Received $658,004 in grant funds from Cass County Flood Risk Reduction Sales Tax Fund to assist with Local share.

Please Explain Implementation Timelines, Considering All Phases And Their Current Status

All work has been completed except levee tie-back work on BNSF property and finalizing the recertification report to be submitted to FEMA for accreditation.

Have Assessment Districts Been Formed? ☑ Yes ☐ No ☐ Ongoing ☐ Not Applicable

Submitted By Barry Lund, Mayor for the City of Mapleton			Date 3/5/2018
Address PO Box 9 651 2nd St	City Mapleton	State ND	ZIP Code 58059
Telephone Number 701-282-6992	Sponsor Email city.mapletonnd@midconetwork.com	Engineer Email boye@mooreengineeringinc.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature	Date

MAIL TO:

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

LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Summary of Engineer's Statement of Estimated Final Cost

		FUNDING SOURCES		
Category	**Total**	**NDSWC**	**COUNTY**	**CITY**
Base Bid	$1,735,384.64	$691,696.38	$521,844.13	$521,844.13
Levee Closure Structures	$202,000.00	$100,200.00	$50,900.00	$50,900.00
North Side Storm Sewer Replacement	$201,733.38	$0.00	$0.00	$201,733.38
Levee Raises	$159,181.00	$78,708.60	$40,236.20	$40,236.20
Pump Station Outlet Flood Improvements	$38,977.60	$0.00	$19,488.80	$19,488.80
Railroad Levee Tie-Back	$138,949.00	$62,006.34	$38,471.33	$38,471.33
Total Project Cost	**$2,476,225.62**	**$932,611.32**	**$670,940.46**	**$872,673.84**

LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Engineer's Statement of Estimated Final Cost

						FUNDING SOURCES		
	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	NDSWC	COUNTY	CITY
	BASE BID							
1.	Topsoil Stripping	SY	5,717	$3.50	$20,009.50	$12,005.70	$4,001.90	$4,001.90
2.	Clearing and Grubbing - Sites 14 and 18	LS	1	$21,000.00	$21,000.00	$12,600.00	$4,200.00	$4,200.00
3.	Ditching	LF	2,980	$13.00	$38,740.00	$23,244.00	$7,748.00	$7,748.00
4.	Tree Removal - 12"	EA	20	$550.00	$11,000.00	$6,600.00	$2,200.00	$2,200.00
5.	Tree Removal - 18"	EA	2	$650.00	$1,300.00	$780.00	$260.00	$260.00
6.	Tree Stump Removal	EA	2	$135.00	$270.00	$162.00	$54.00	$54.00
7.	Gravel - Remove	SY	1,750	$6.50	$11,375.00	$6,825.00	$2,275.00	$2,275.00
8.	Riprap - Salvage & Reinstall	CY	50	$100.00	$5,000.00	$3,000.00	$1,000.00	$1,000.00
9.	Televise - Culvert	LF	852	$2.00	$1,704.00	$1,022.40	$340.80	$340.80
10.	Storm Sewer Catch Basin - 48" - Grate Inlet	EA	1	$12,000.00	$12,000.00	$7,200.00	$2,400.00	$2,400.00
11.	Storm Sewer Manhole - 60"	EA	1	$10,000.00	$10,000.00	$6,000.00	$2,000.00	$2,000.00
12.	Perforated Pipe - 4" PVC	LF	90	$31.50	$2,835.00	$1,701.00	$567.00	$567.00
13.	Culvert - Salvage & Reset	LF	41	$31.50	$1,291.50	$774.90	$258.30	$258.30
14.	Culvert - 15" PVC	LF	53	$58.00	$3,074.00	$1,844.40	$614.80	$614.80
15.	Storm Sewer - 36" RCP	LF	172	$163.00	$28,036.00	$16,821.60	$5,607.20	$5,607.20
16.	Flap Gate - 36" RCP	EA	1	$11,000.00	$11,000.00	$6,600.00	$2,200.00	$2,200.00
17.	FES - 24" CSP - Remove & Replace	EA	1	$600.00	$600.00	$360.00	$120.00	$120.00
18.	Catch Basin - Adjust Existing	EA	3	$2,000.00	$6,000.00	$3,600.00	$1,200.00	$1,200.00
19.	Excavate and Recompact	CY	44	$12.60	$554.40	$332.64	$110.88	$110.88
20.	Excavation and Embankment	CY	1,045	$20.00	$20,900.00	$12,540.00	$4,180.00	$4,180.00
21.	Subgrade Preparation - 6"	SY	171	$16.00	$2,736.00	$1,641.60	$547.20	$547.20
22.	Reinforcement Fabric	SY	171	$5.00	$855.00	$513.00	$171.00	$171.00
23.	Aggregate Base Course - 6"	SY	171	$10.00	$1,710.00	$1,026.00	$342.00	$342.00
24.	Asphalt Base Course - 3"	SY	402	$32.00	$12,864.00	$7,718.40	$2,572.80	$2,572.80
25.	Asphalt Wearing Course - 2"	SY	402	$25.00	$10,050.00	$6,030.00	$2,010.00	$2,010.00
26.	Sheet Pile - PR SCZ 14	SF	3,040	$24.00	$72,960.00	$43,776.00	$14,592.00	$14,592.00
27.	Sheet Pile - PR AZ 12 - 770	SF	14,664	$32.00	$469,248.00	$281,548.80	$93,849.60	$93,849.60
28.	Sheet Pile Cap	LF	563	$140.00	$78,820.00	$47,292.00	$15,764.00	$15,764.00
29.	Fence - 3'-6"	LF	562	$21.00	$11,802.00	$7,081.20	$2,360.40	$2,360.40
30.	Sign - Right-of-Way	EA	24	$45.00	$1,080.00	$648.00	$216.00	$216.00
31.	Lilac Shrub	EA	250	$45.00	$11,250.00	$6,750.00	$2,250.00	$2,250.00
32.	Topsoil Replacement	SY	4,507	$6.00	$27,042.00	$16,225.20	$5,408.40	$5,408.40
33.	Topsoil - Import	CY	317	$19.00	$6,023.00	$3,613.80	$1,204.60	$1,204.60
34.	Erosion Control Blanket - Type III	SY	2,269	$2.10	$4,764.90	$2,858.94	$952.98	$952.98
35.	Seed - Type I	SY	161	$2.10	$338.10	$202.86	$67.62	$67.62
36.	Seed - Type I	AC	1.68	$1,030.00	$1,730.40	$1,038.24	$346.08	$346.08
37.	Seed - Type III	SY	928	$1.60	$1,484.80	$890.88	$296.96	$296.96
38.	Seed - Type III	AC	1.42	$1,103.00	$1,566.26	$939.76	$313.25	$313.25
39.	Mulch - Type A	SY	608	$0.80	$486.40	$291.84	$97.28	$97.28
40.	Mulch - Type A	AC	0.49	$475.00	$232.75	$139.65	$46.55	$46.55
41.	Mulch - Type B	SY	1,919	$1.05	$2,014.95	$1,208.97	$402.99	$402.99
42.	Mulch - Type B	AC	2.08	$1,950.00	$4,056.00	$2,433.60	$811.20	$811.20
43.	Sedimentation Control Wattle - 9"	LF	880	$2.65	$2,332.00	$1,399.20	$466.40	$466.40
44.	Inlet Protection Device	EA	6	$135.00	$810.00	$486.00	$162.00	$162.00
45.	Watering	MG	0	$21.00	$0.00	$0.00	$0.00	$0.00
46.	Railroad Insurance	LS	1	$5,005.00	$5,005.00	$3,003.00	$1,001.00	$1,001.00
47.	Railroad Flagging	ALLOWANCE	1	$1,000.00	$1,000.00	$600.00	$200.00	$200.00
48.	Traffic Control	LS	1	$17,500.00	$17,500.00	$10,500.00	$3,500.00	$3,500.00
49.	Floating Silt Curtain	LS	1	$4,200.00	$4,200.00	$2,520.00	$840.00	$840.00

LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Engineer's Statement of Estimated Final Cost

						FUNDING SOURCES		
	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	NDSWC	COUNTY	CITY
50.	Stormwater Management	LS	1	$10,000.00	$10,000.00	$6,000.00	$2,000.00	$2,000.00
51.	Material Testing	ALLOWANCE	0.605800	$10,000.00	$6,058.00	$3,634.80	$1,211.60	$1,211.60
52.	Remove and relocate tree (CO3)	EA	2	$262.50	$525.00	$315.00	$105.00	$105.00
53.	Remove and reinstall flap gate (CO3)	EA	1	$315.00	$315.00	$189.00	$63.00	$63.00
54.	CSP - 18" (CO3)	EA	20	$47.25	$945.00	$567.00	$189.00	$189.00
55.	Riprap - Class III (CO4)	CY	30	$105.00	$3,150.00	$1,890.00	$630.00	$630.00
56.	Relocate Existing Trees (CO7)	EA	2	$420.00	$840.00	$0.00	$420.00	$420.00
57.	Install Haroldson Apple Tree 1" (CO7)	EA	1	$262.50	$262.50	$0.00	$131.25	$131.25
58.	Install Northern Red Oak 1.5" (CO7)	EA	1	$367.50	$367.50	$0.00	$183.75	$183.75
59.	Interest for late payments (CO7)	LS	1	$870.68	$870.68	$0.00	$435.34	$435.34
60.	Sign - Right-of-Way (CO9)	EA	10	$50.00	$500.00	$300.00	$100.00	$100.00
				Total Base Bid Construction	$984,484.64	$589,286.38	$197,599.13	$197,599.13
				Studies and Reports	$35,000.00	$0.00	$17,500.00	$17,500.00
				Pre-construction Engineering	$92,000.00	$0.00	$46,000.00	$46,000.00
				Construction Engineering	$114,500.00	$0.00	$57,250.00	$57,250.00
				Right-of-Way Survey	$32,000.00	$0.00	$16,000.00	$16,000.00
				Right-of-Way Purchase	$400.00	$0.00	$200.00	$200.00
				FEMA Levee Certification Report	$110,000.00	$66,000.00	$22,000.00	$22,000.00
				Operations and Maintenance Manual Update	$50,000.00	$0.00	$25,000.00	$25,000.00
				Geotechnical Admin and Survey	$15,000.00	$0.00	$7,500.00	$7,500.00
				Geotechnical Evaluation Report	$45,000.00	$24,410.00	$10,295.00	$10,295.00
				Utility Company Relocations	$20,000.00	$12,000.00	$4,000.00	$4,000.00
				Funding Administration	$25,000.00	$0.00	$12,500.00	$12,500.00
				Assessments	$20,000.00	$0.00	$10,000.00	$10,000.00
				Publishing and Admin	$1,000.00	$0.00	$500.00	$500.00
				Railroad Permits	$12,500.00	$0.00	$6,250.00	$6,250.00
				Legal	$25,000.00	$0.00	$12,500.00	$12,500.00
				Bond Counsel	$15,000.00	$0.00	$7,500.00	$7,500.00
				Bond Discount & Fees	$68,500.00	$0.00	$34,250.00	$34,250.00
				Capitalized Interest	$55,000.00	$0.00	$27,500.00	$27,500.00
				Contingencies	$15,000.00	$0.00	$7,500.00	$7,500.00
				Base Bid Total Cost	**$1,735,384.64**	**$691,696.38**	**$521,844.13**	**$521,844.13**

	ALTERNATE 1 - CLOSURE STRUCTURES							
1.	Closure Structure 1	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
2.	Closure Structure 2	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
3.	Closure Structure 3	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
4.	Closure Structure 4	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
5.	Closure Structure 5	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
6.	Closure Structure 6	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
7.	Closure Structure 7	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
8.	Closure Structure 8	LS	1	$20,875.00	$20,875.00	$12,525.00	$4,175.00	$4,175.00
				Total Base Bid Construction	$167,000.00	$100,200.00	$33,400.00	$33,400.00
				Pre-construction Engineering	$15,500.00	$0.00	$7,750.00	$7,750.00
				Construction Engineering	$19,500.00	$0.00	$9,750.00	$9,750.00
				Alternate 1 Total Cost	**$202,000.00**	**$100,200.00**	**$50,900.00**	**$50,900.00**

LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Engineer's Statement of Estimated Final Cost

						FUNDING SOURCES		
	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	NDSWC	COUNTY	CITY
	ALTERNATE 2 - STORM SEWER REPLACEMENT							
1.	Topsoil Stripping	SY	950	$3.15	$2,992.50	$0.00	$0.00	$2,992.50
2.	Storm Sewer Catch Basin - Remove	EA	1	$925.00	$925.00	$0.00	$0.00	$925.00
3.	Pipe - Remove (All Types & Sizes)	LF	114	$18.50	$2,109.00	$0.00	$0.00	$2,109.00
4.	Storm Sewer Catch Basin - 30"	EA	0	$1,950.00	$0.00	$0.00	$0.00	$0.00
5.	Storm Sewer Catch Basin - 48"	EA	2	$4,700.00	$9,400.00	$0.00	$0.00	$9,400.00
6.	Storm Sewer Catch Basin - 54"	EA	1	$6,400.00	$6,400.00	$0.00	$0.00	$6,400.00
7.	Storm Sewer Manhole - 60"	EA	1	$6,800.00	$6,800.00	$0.00	$0.00	$6,800.00
8.	Storm Sewer - 24" HDPE	LF	381	$69.00	$26,289.00	$0.00	$0.00	$26,289.00
9.	Storm Sewer - 24" RCP	LF	78	$89.00	$6,942.00	$0.00	$0.00	$6,942.00
10.	Jacking - 24" RCP	LF	80	$400.00	$32,000.00	$0.00	$0.00	$32,000.00
11.	Ditching	LF	335	$12.50	$4,187.50	$0.00	$0.00	$4,187.50
12.	Perforated Pipe - 6" PVC	LF	886	$15.50	$13,733.00	$0.00	$0.00	$13,733.00
13.	Topsoil Replacement	SY	950	$5.25	$4,987.50	$0.00	$0.00	$4,987.50
14.	Seed - Type I	AC	0.70	$1,000.00	$700.00	$0.00	$0.00	$700.00
15.	Mulch - Type B	AC	0.70	$1,900.00	$1,330.00	$0.00	$0.00	$1,330.00
16.	Sedimentation Control Wattle - 9"	LF	20	$5.10	$102.00	$0.00	$0.00	$102.00
17.	Inlet Protection Device	EA	3	$130.00	$390.00	$0.00	$0.00	$390.00
18.	Watering	MG	0	$21.00	$0.00	$0.00	$0.00	$0.00
19.	Railroad Insurance	LS	1	$525.00	$525.00	$0.00	$0.00	$525.00
20.	Traffic Control	LS	1	$3,000.00	$3,000.00	$0.00	$0.00	$3,000.00
21.	Stormwater Management	LS	1	$1,200.00	$1,200.00	$0.00	$0.00	$1,200.00
22.	Material Testing	ALLOWANCE	0	$1,000.00	$0.00	$0.00	$0.00	$0.00
23.	Utility Crossing Manhole (CO4)	LS	1	$16,590.00	$16,590.00	$0.00	$0.00	$16,590.00
24.	Water Main Lowering (CO6)	LS	1	$6,001.28	$6,001.28	$0.00	$0.00	$6,001.28
25.	Root removal for televising (CO8)	LS	1	$2,129.60	$2,129.60	$0.00	$0.00	$2,129.60
				Total Base Bid Construction	$148,733.38	$0.00	$0.00	$148,733.38
				Engineering	$31,500.00	$0.00	$0.00	$31,500.00
				Bond Discount & Fees	$6,500.00	$0.00	$0.00	$6,500.00
				Capitalized Interest	$5,000.00	$0.00	$0.00	$5,000.00
				Railroad Permit	$10,000.00	$0.00	$0.00	$10,000.00
				Alternate 2 Total Cost	**$201,733.38**	**$0.00**	**$0.00**	**$201,733.38**

	LEVEE RAISES (CO9)							
1.	Topsoil Stripping	SY	10,535	$1.00	$10,535.00	$6,321.00	$2,107.00	$2,107.00
2.	Excavation and Embankment	CY	2,890	$34.00	$98,260.00	$58,956.00	$19,652.00	$19,652.00
3.	Topsoil Replacement	SY	10,211	$1.50	$15,316.50	$9,189.90	$3,063.30	$3,063.30
4.	Seed - Type III	SY	7,855	$0.35	$2,749.25	$1,649.55	$549.85	$549.85
5.	Mulch - Type A	SY	7,855	$0.55	$4,320.25	$2,592.15	$864.05	$864.05
				Total Construction	$131,181.00	$78,708.60	$26,236.20	$26,236.20
				Pre-construction Engineering	$12,500.00	$0.00	$6,250.00	$6,250.00
				Construction Engineering	$15,500.00	$0.00	$7,750.00	$7,750.00
				Levee Raises Total Cost	**$159,181.00**	**$78,708.60**	**$40,236.20**	**$40,236.20**

LEVEE IMPROVEMENT DISTRICT NO. 2012-1
Mapleton, North Dakota

Engineer's Statement of Estimated Final Cost

						FUNDING SOURCES		
	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	NDSWC	COUNTY	CITY
	PUMP STATION OUTLET FLOOD IMPROVEMENTS (CO10)							
1.	Mobilization	LS	1	$3,000.00	$3,000.00	$0.00	$1,500.00	$1,500.00
2.	Topsoil Stripping	SY	440	$2.00	$880.00	$0.00	$440.00	$440.00
3.	Concrete Apron - Remove	SY	10	$100.00	$1,000.00	$0.00	$500.00	$500.00
4.	Riprap - Remove	LS	1	$1,500.00	$1,500.00	$0.00	$750.00	$750.00
5.	Concrete - Reinforced - 6"	SY	20	$475.00	$9,500.00	$0.00	$4,750.00	$4,750.00
6.	Topsoil Replacement	SY	440	$3.00	$1,320.00	$0.00	$660.00	$660.00
7.	Ditching	LF	220	$45.00	$9,900.00	$0.00	$4,950.00	$4,950.00
8.	Seed - Type III	SY	871	$1.35	$1,175.85	$0.00	$587.93	$587.93
9.	Erosion Control Blanket - Type III	SY	871	$4.25	$3,701.75	$0.00	$1,850.88	$1,850.88
				Total Construction	$31,977.60	$0.00	$15,988.80	$15,988.80
				Engineering	$7,000.00	$0.00	$3,500.00	$3,500.00
				Pump Station Outlet Flood Improvements Total Cost	**$38,977.60**	**$0.00**	**$19,488.80**	**$19,488.80**
	RAILROAD LEVEE TIE-BACK (CO12)							
1	Topsoil Stripping	SY	735	$2.00	$1,470.00	$882.00	$294.00	$294.00
2.	Excavation and Embankment	CY	515	$16.00	$8,240.00	$4,944.00	$1,648.00	$1,648.00
3.	Topsoil Replacement	SY	735	$3.50	$2,572.50	$1,543.50	$514.50	$514.50
4.	Seed - Type III	SY	735	$2.00	$1,470.00	$882.00	$294.00	$294.00
5.	Mulch - Type B	SY	735	$2.00	$1,470.00	$882.00	$294.00	$294.00
6.	Weed Control - Type B	SY	735	$0.50	$367.50	$220.50	$73.50	$73.50
7.	Remove Existing Gravel Surface	SY	1,547	$6.00	$9,282.00	$5,569.20	$1,856.40	$1,856.40
8.	Clay Import	CY	635	$34.00	$21,590.00	$12,954.00	$4,318.00	$4,318.00
9.	Separation Fabric	SY	1,547	$5.00	$7,735.00	$4,641.00	$1,547.00	$1,547.00
10.	Crushed Concrete - 12"	SY	1,547	$26.00	$40,222.00	$24,133.20	$8,044.40	$8,044.40
11.	Railroad Flagging	ALLOWANCE	1	$1,000.00	$1,000.00	$600.00	$200.00	$200.00
				Total Construction	$93,949.00	$56,369.40	$18,789.80	$18,789.80
				Pre-construction Engineering	$9,000.00	$0.00	$4,500.00	$4,500.00
				Construction Engineering	$11,000.00	$0.00	$5,500.00	$5,500.00
				Railroad Permits	$10,000.00	$0.00	$5,000.00	$5,000.00
				Contingencies	$15,000.00	$5,636.94	$4,681.53	$4,681.53
				Railroad Levee Tie-Back Total Cost	**$138,949.00**	**$62,006.34**	**$38,471.33**	**$38,471.33**
				Total Project Cost	**$2,476,225.62**	**$932,611.32**	**$670,940.46**	**$872,673.84**

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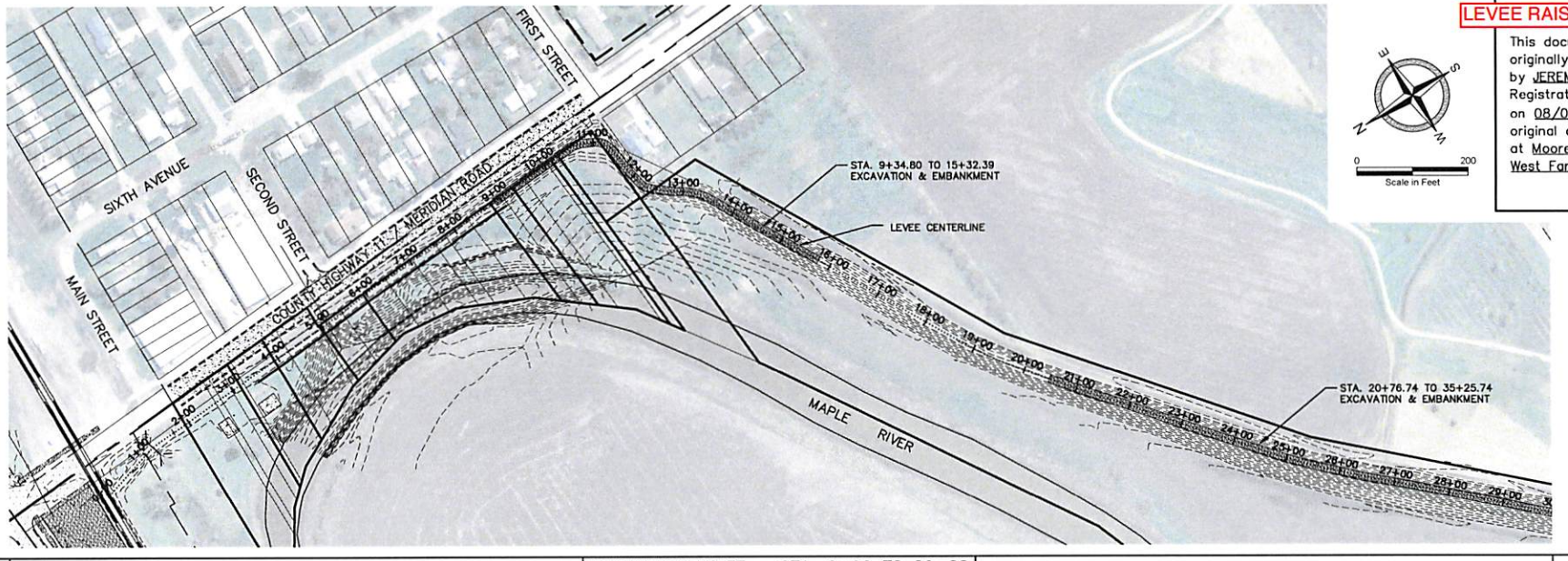

LEVEE RAISE PLANS

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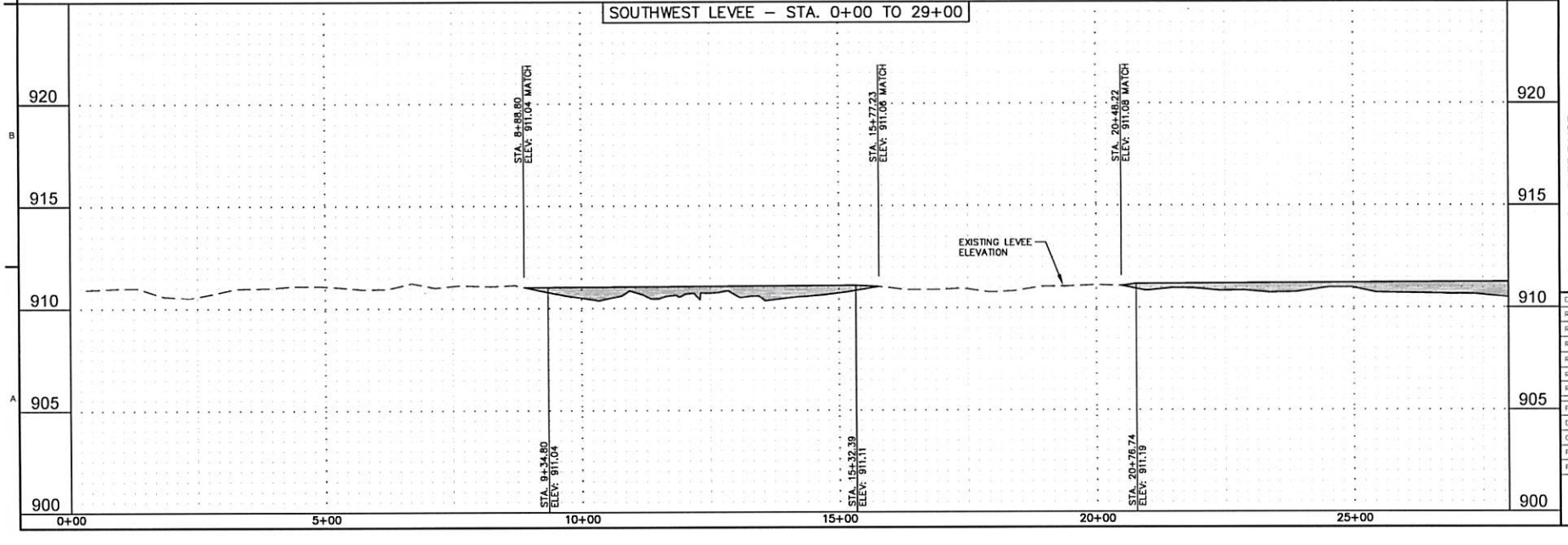

SOUTHWEST LEVEE RAISE
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
SOUTHWEST LEVEE RAISE STA. 0+00 TO 29+00

DATE	08.30.16
REVISED	09.06.16
REVISED	----
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REVISED	----
REVISED	----
RECORD	----
PROJECT No	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ. MANAGER	BLO
PROJ. ENGINEER	JJD

C-221

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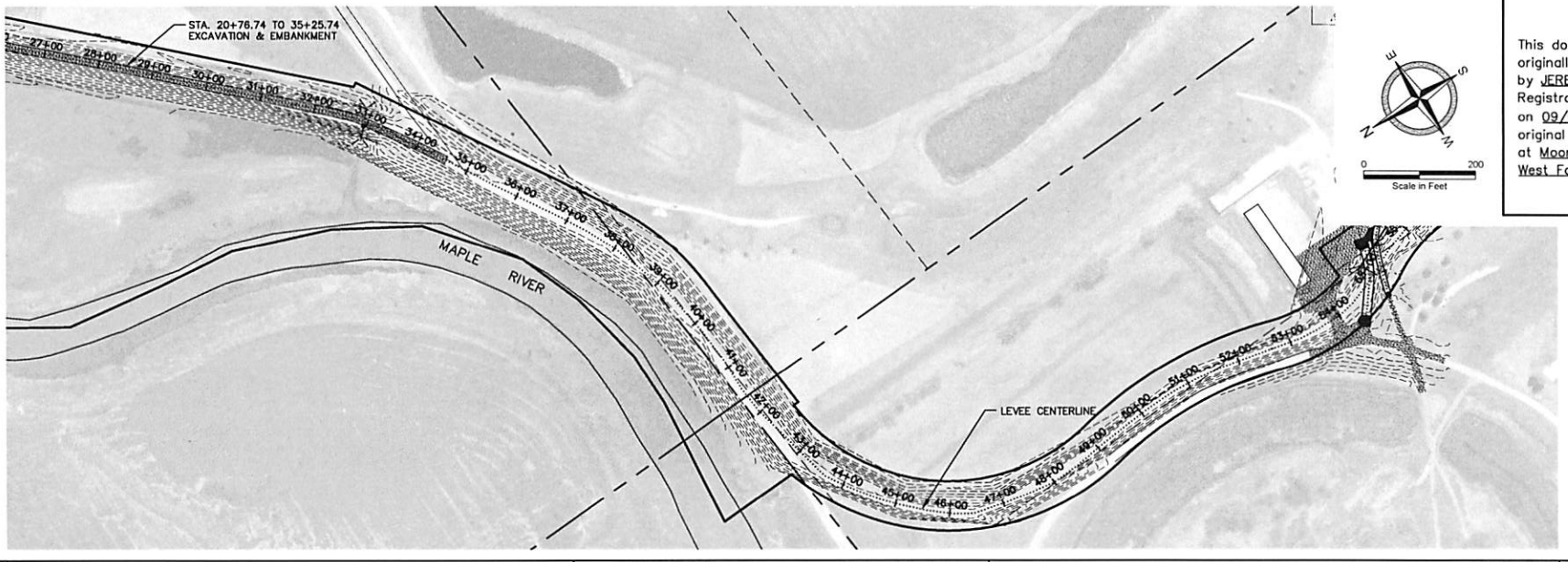

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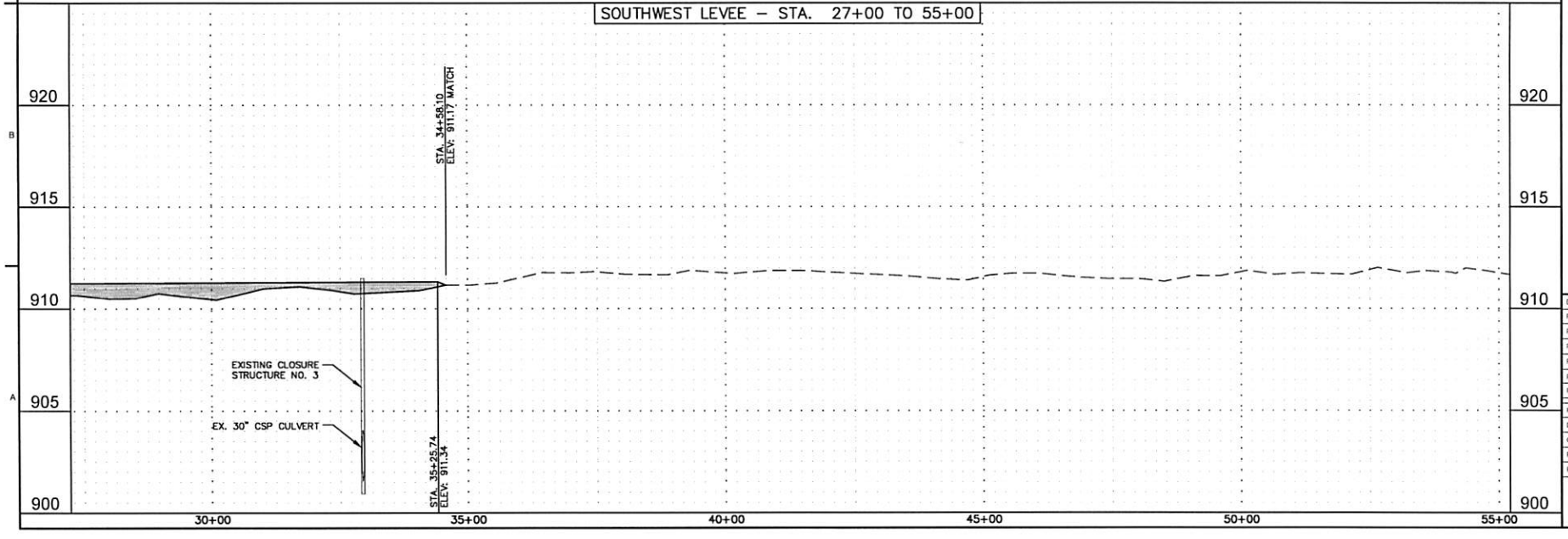
SOUTHWEST LEVEE – STA. 27+00 TO 55+00



SOUTHWEST LEVEE RAISE
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
- STA. 25+50 TO 32+0

DATE	08.30.16
REVISED	09.06.16
REVISED	----
REVISED	----
REVISED	----
REVISED	----
RECORD	----
PROJECT No.	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ. MANAGER	BLO
PROJ. ENGINEER	JJD

C-222

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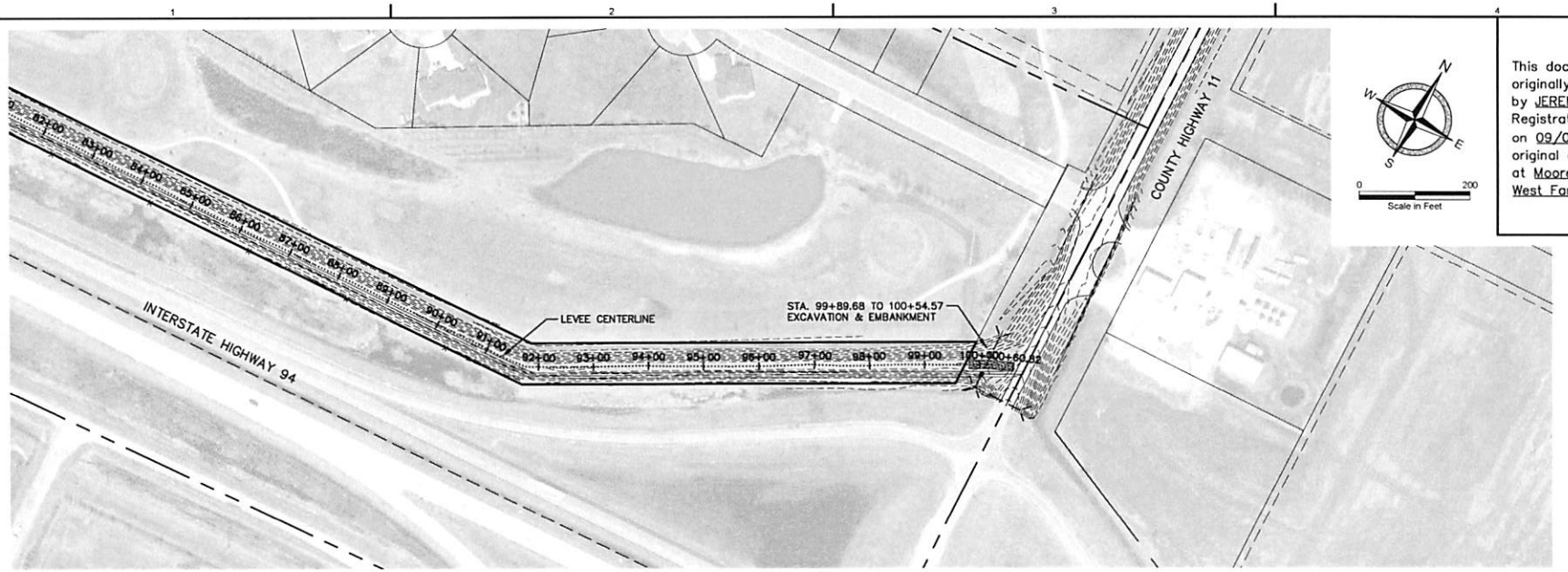

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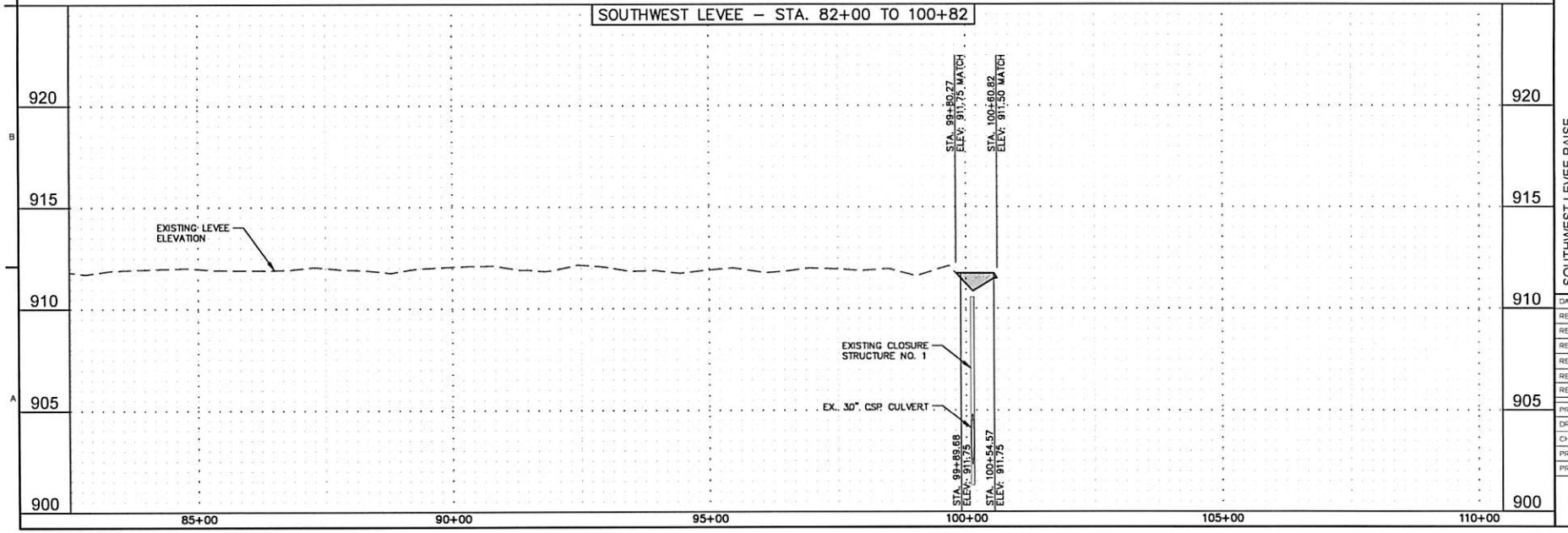

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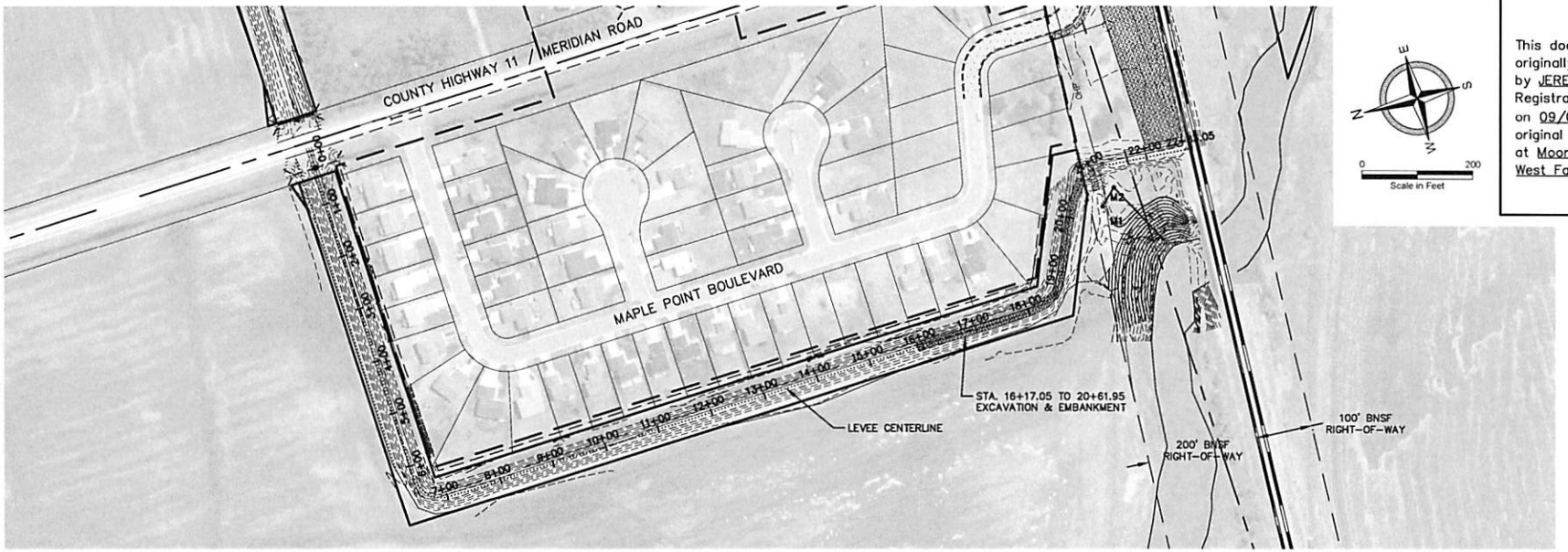
SOUTHWEST LEVEE RAISE
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
SOUTHWEST LEVEE RAISE - STA. 82+00 TO 100+82

DATE	08.30.16
REVISED	09.06.16
REVISED	----
REVISED	----
REVISED	----
REVISED	----
RECORD	----
PROJECT No	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ MANAGER	BLO
PROJ ENGINEER	JJD

C-223



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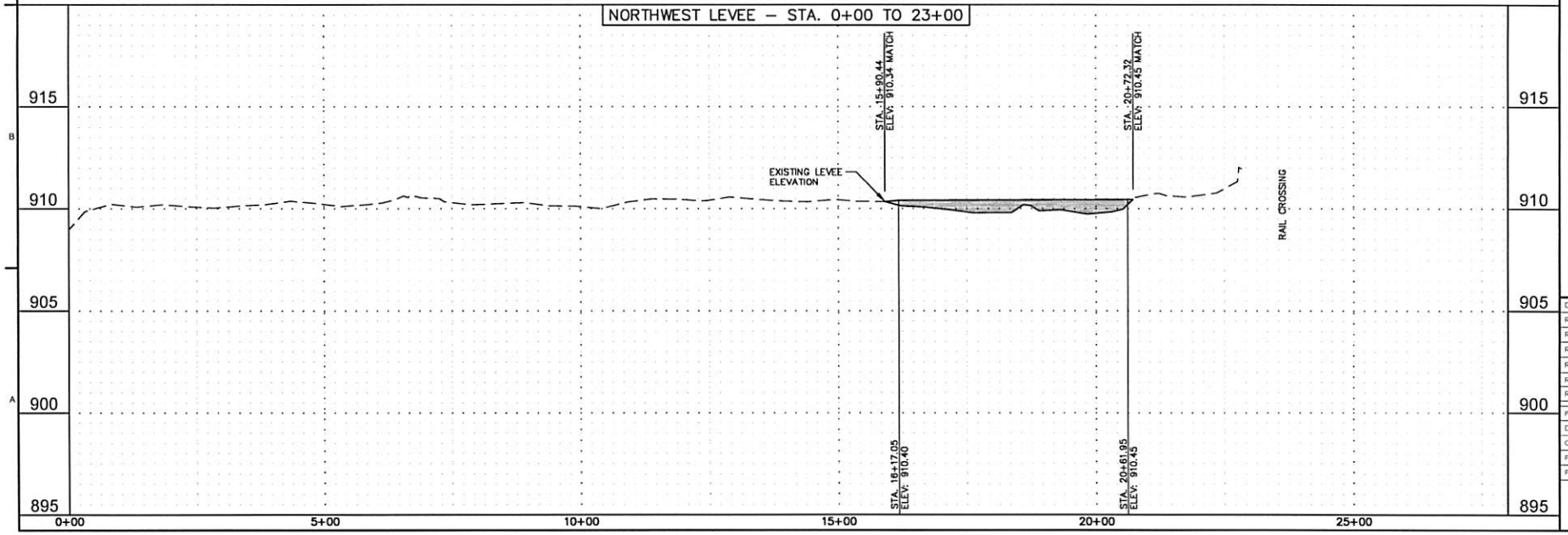

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NORTHWEST LEVEE RAISE
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
NORTHWEST LEVEE RAISE - STA. 0+00 TO 23+00

DATE:	08.30.16
REVISED	09.06.16
REVISED	----
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REVISED	----
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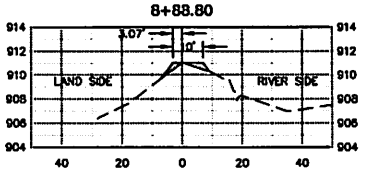
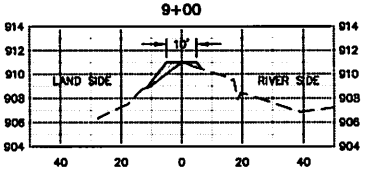
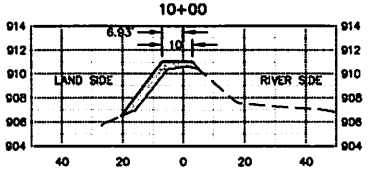
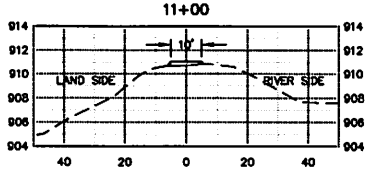
CHECKED BY	BLO
PROJ. MANAGER	BLO
PROJ. ENGINEER	JJD

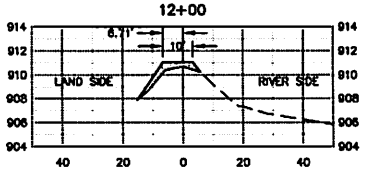
C-224

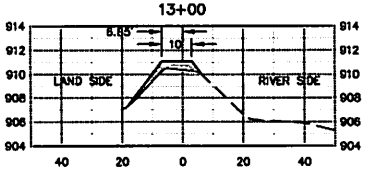


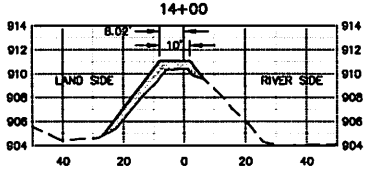


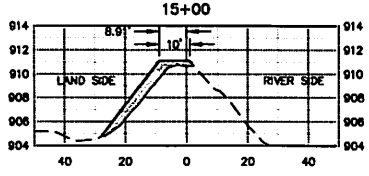


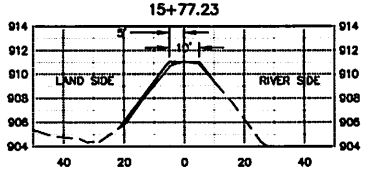


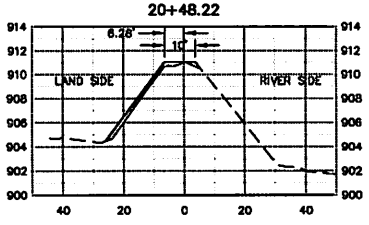


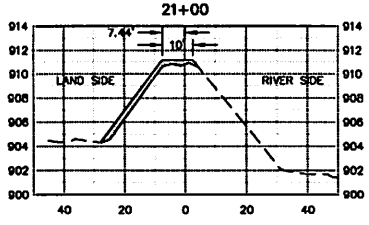


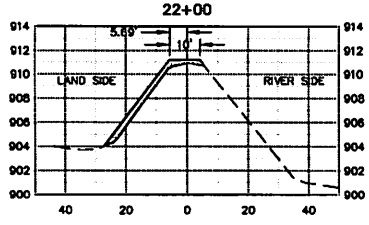


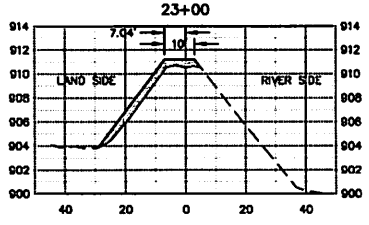


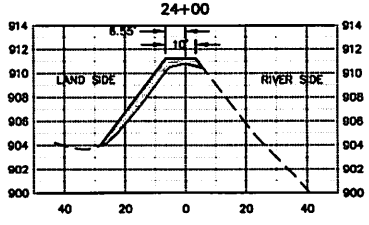


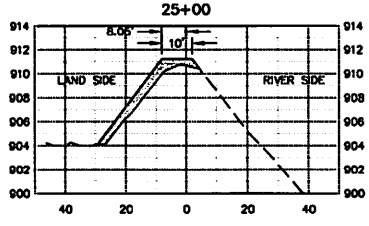


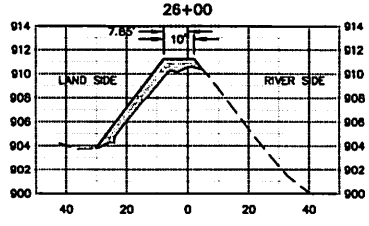












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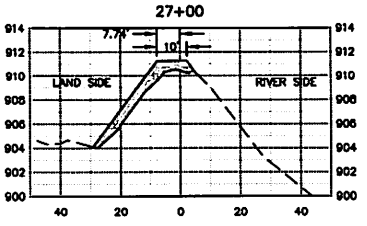
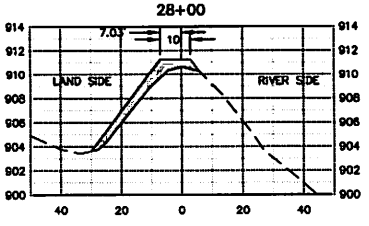
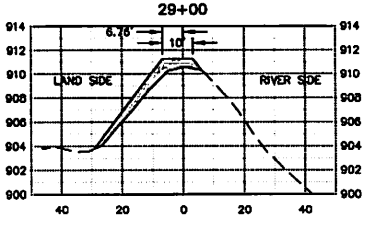
SOUTHWEST LEVEE RAISE - CROSS SECTIONS
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
SOUTHWEST LEVEE RAISE - CROSS SECTIONS

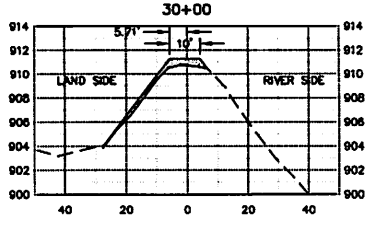
DATE	05 30 16
REVISED	09 06 16
REVISED	.....
REVISED	.....
REVISED	.....
REVISED	.....
RECORD	.....
PROJECT No	15173
DRAWN BY	JJO
CHECKED BY	BLO
PROJ MANAGER	BLO
PROJ ENGINEER	JJO

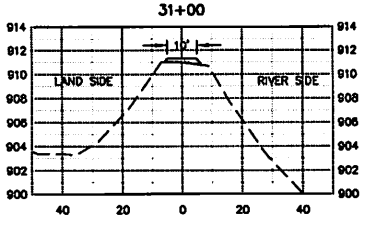
C-307

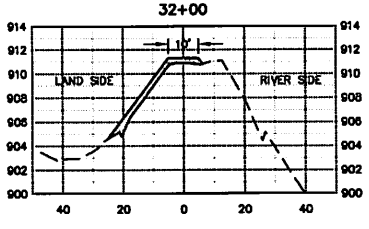


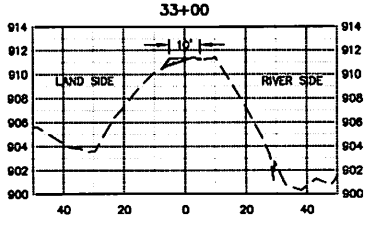


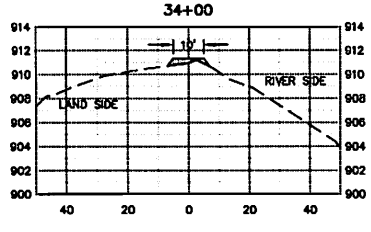


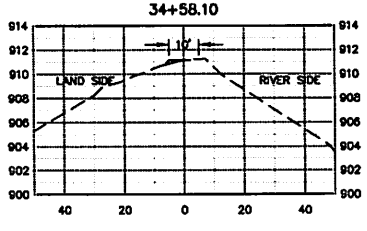


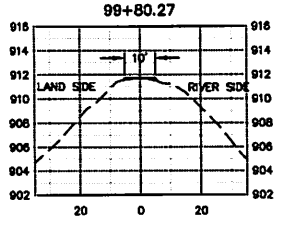


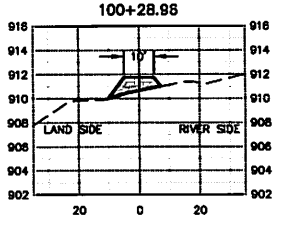


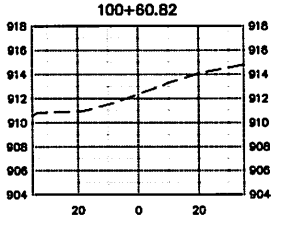












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moore engineering, inc.

SOUTHWEST LEVEE RAISE - CROSS SECTIONS
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
SOUTHWEST LEVEE RAISE - CROSS SECTIONS

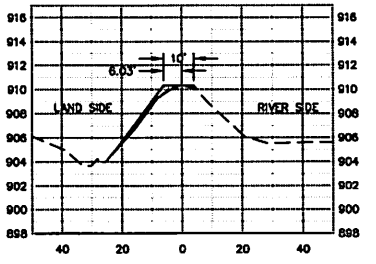
DATE	08 30 16
REVISED	09 06 16
REVISED	...
REVISED	...
REVISED	...
REVISED	...
RECORD	...

PROJECT No	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ MANAGER	BLO
PROJ ENGINEER	JJD

C-308

FILE LOCATION: R:\Civil 3D Projects\15172\DRAWINGS\DESIGN\15173-PP-1.dwg

15+80.44



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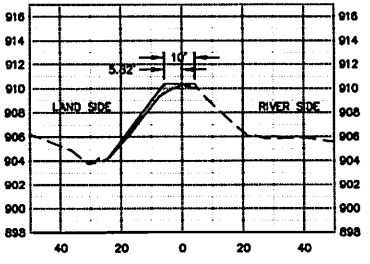

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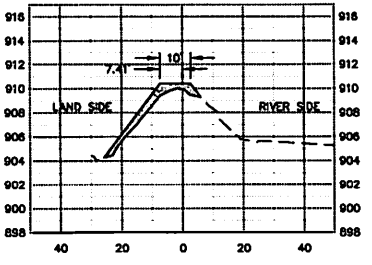

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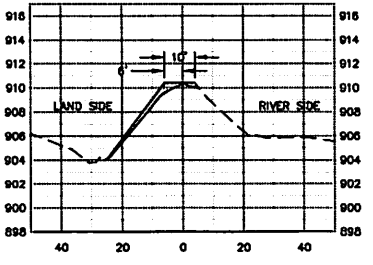
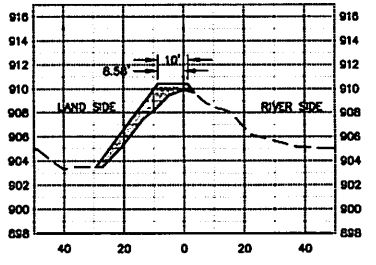


NORTHWEST LEVEE
19+00



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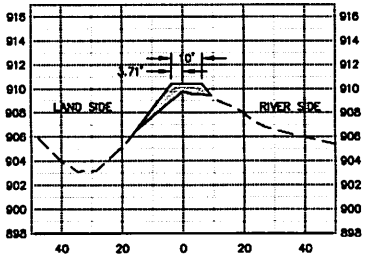

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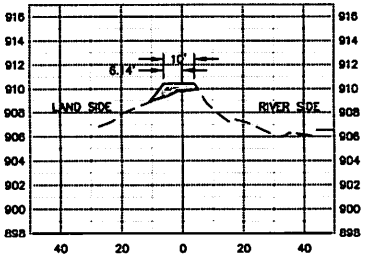

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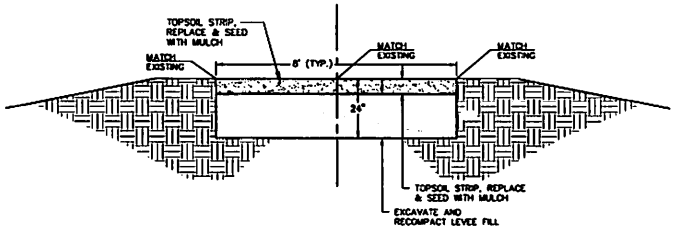
NORTHWEST LEVEE RAISE - CROSS SECTIONS
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
NORTHWEST LEVEE RAISE - CROSS SECTIONS

DATE	08 30 16
REVISED	09 06 16
REVISED	----
REVISED	----
REVISED	----
REVISED	----
RECORD	----

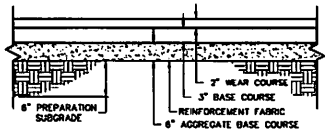
PROJECT No	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ MANAGER	BLO
PROJ ENGINEER	JJD

C-309

FILE LOCATION: R:\Civil 3D Projects\15173\DRAWINGS\DESIGN\15173-DETAILS.dwg

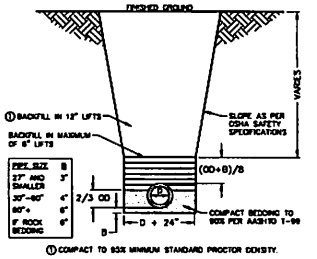


TYPICAL EXCAVATION AND RECOMPACT SECTION
NO SCALE

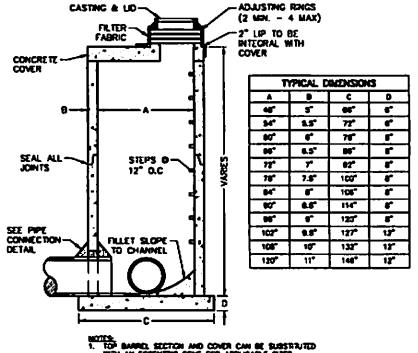


NOTES:
1. SUBGRADE TO BE SCARIFIED TO A DEPTH OF 6" AND COMPACTED TO 95% MINIMUM STANDARD PROCTOR DENSITY.
2. GOLF CART PATH SHALL BE COMPLETE RECONSTRUCTION. SUBGRADE PREPARATION, FABRIC AND GRAVEL SHALL EXTEND 1' WIDER THEN PAVEMENT SECTION.
3. GOLF COURSE ROAD SHALL HAVE EXISTING GRAVEL SHAPED AND NEW ASPHALT.

ASPHALT PAVEMENT SECTION
NO SCALE



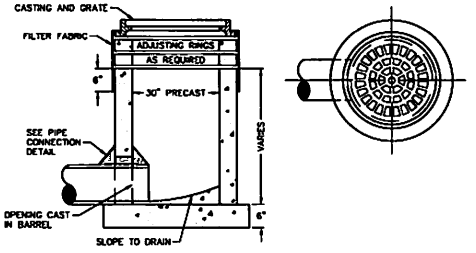
RCP STORM SEWER TRENCH
NO SCALE



TYPICAL DIMENSIONS			
A	B	C	D
48"	5"	66"	6"
54"	5.5"	72"	6"
60"	6"	78"	6"
66"	6.5"	84"	6"
72"	7"	90"	6"
78"	7.5"	102"	6"
84"	8"	108"	6"
90"	8.5"	114"	6"
96"	9"	120"	6"
102"	9.5"	127"	12"
108"	10"	132"	12"
120"	11"	146"	12"

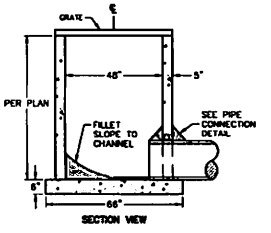
NOTES:
1. TOP BARREL SECTION AND COVER CAN BE SUBSTITUTED WITH AN ECCENTRIC CONE FOR APPLICABLE SIZES.
2. CATCH BASIN CASTING SHALL BE NEENAH R-2566-C OR EAST JORDAN 1130 TYPE M OR EQUAL.
3. PROVIDE RUBBER BOOT WITH STAINLESS STEEL CLAMP FOR DRAIN TILE CONNECTION.

STORM SEWER MANHOLE / CATCH BASIN
NO SCALE

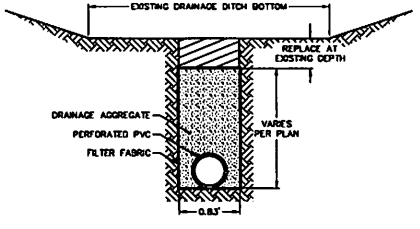


NOTES:
1. TOP BARREL SECTION AND COVER CAN BE SUBSTITUTED WITH AN ECCENTRIC CONE FOR APPLICABLE SIZES.
2. CATCH BASIN CASTING SHALL BE NEENAH R-2566-C OR EAST JORDAN 1130 TYPE M OR EQUAL.
3. PROVIDE RUBBER BOOT WITH STAINLESS STEEL CLAMP FOR DRAIN TILE CONNECTION.

CATCH BASIN 30" - FLAT CASTING
NO SCALE

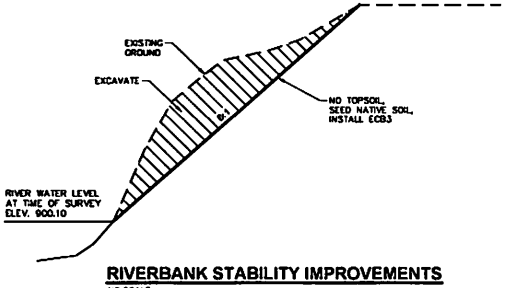


STORM SEWER MANHOLE - GRATE INLET
NO SCALE

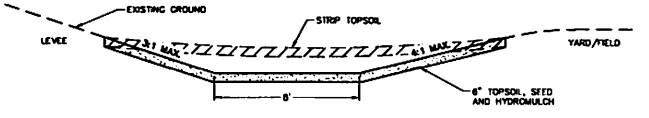


NOTES:
1. PAY LIMIT FOR SEED AND HYDROMULCH SHALL BE 15' WIDE ALONG THE LENGTH OF THE PERFORATED PIPE.

PERFORATED PIPE IN DITCH
NO SCALE



RIVERBANK STABILITY IMPROVEMENTS
NO SCALE



TYPICAL DITCHING SECTION
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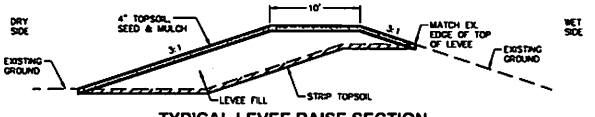

TYPICAL LEVEE RAISE SECTION
NO SCALE
NW LEVEE SEGMENT STA 21+20 TO 22+66
NW LEVEE SEGMENT STA 18+17 TO 20+42
SW LEVEE SEGMENT STA 0+10 TO 1+30
SW LEVEE SEGMENT STA 9+35 TO 13+32
SW LEVEE SEGMENT STA 20+77 TO 33+28
SW LEVEE SEGMENT STA 89+90 TO 100+55

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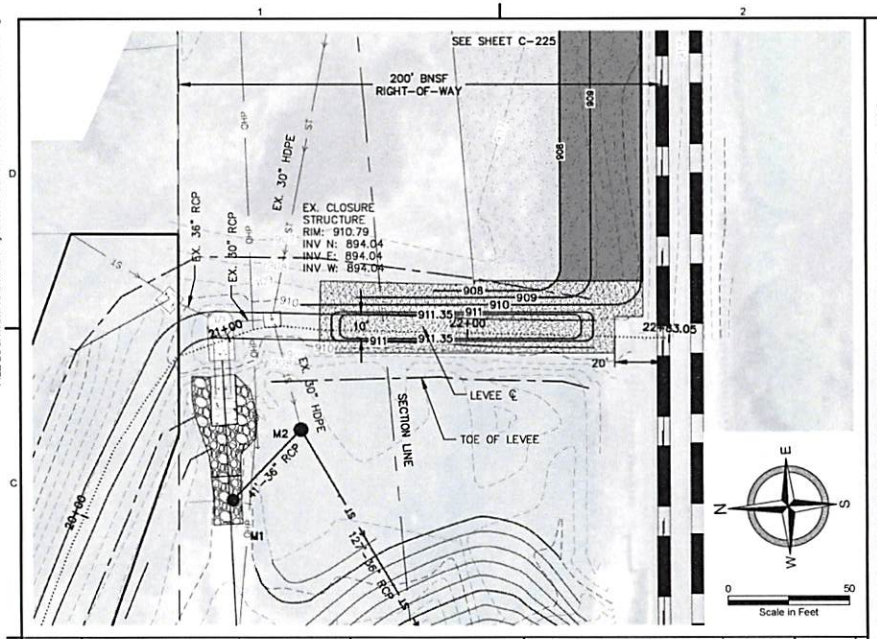
TYPICAL DETAILS
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
TYPICAL DETAILS

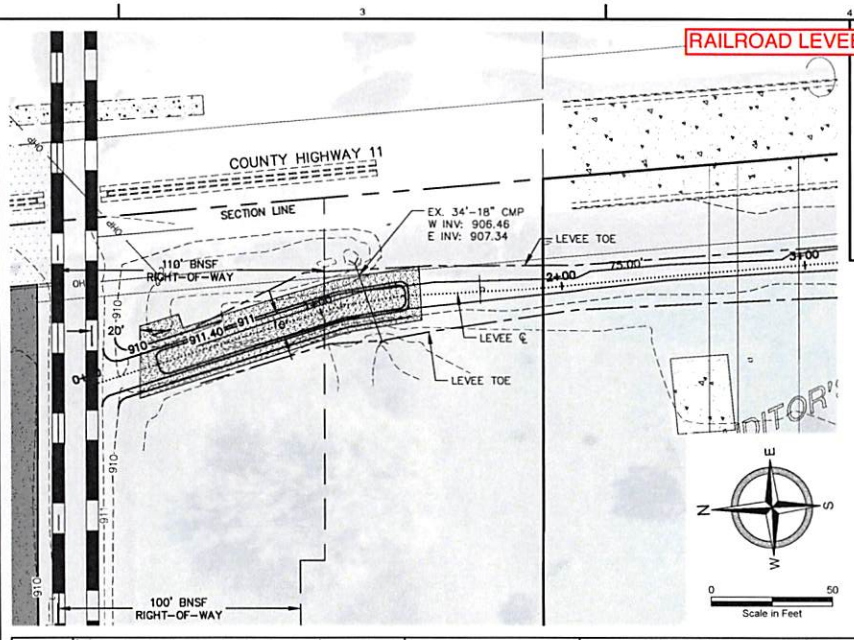
DATE	08.03.16
REVISED	08.30.16
REVISED	----
REVISED	----
REVISED	----
REVISED	----
RECORD	----
PROJECT No	15173
DRAWN BY	JJO
CHECKED BY	BLO
PROJ MANAGER	BLO
PROJ ENGINEER	JJD

C-501

SHEET 37 OF 39

FILE LOCATION: R:\Civil 3D Projects\15173\DRAWINGS\DES\GN\15173-PP.dwg





RAILROAD LEVEE TIE-BACK PLANS

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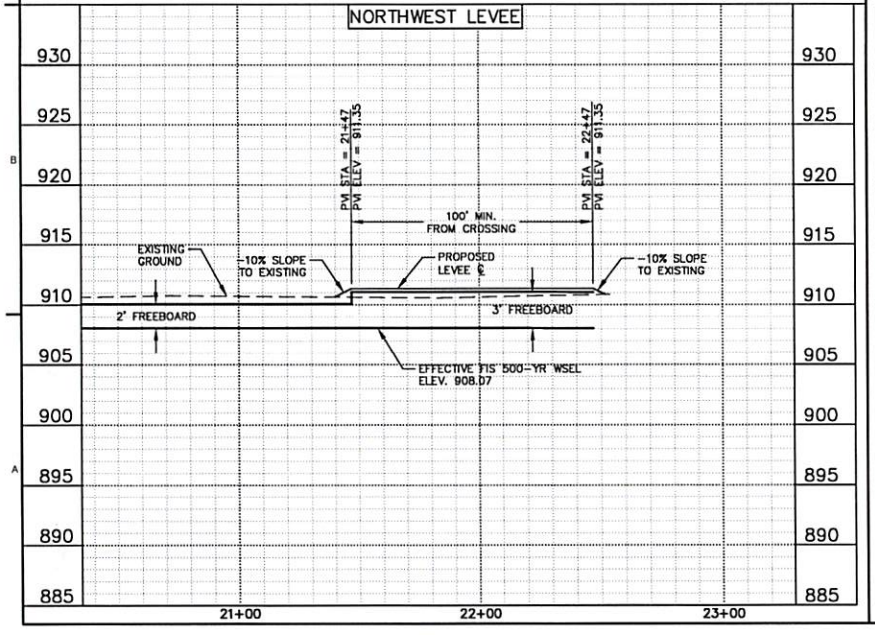
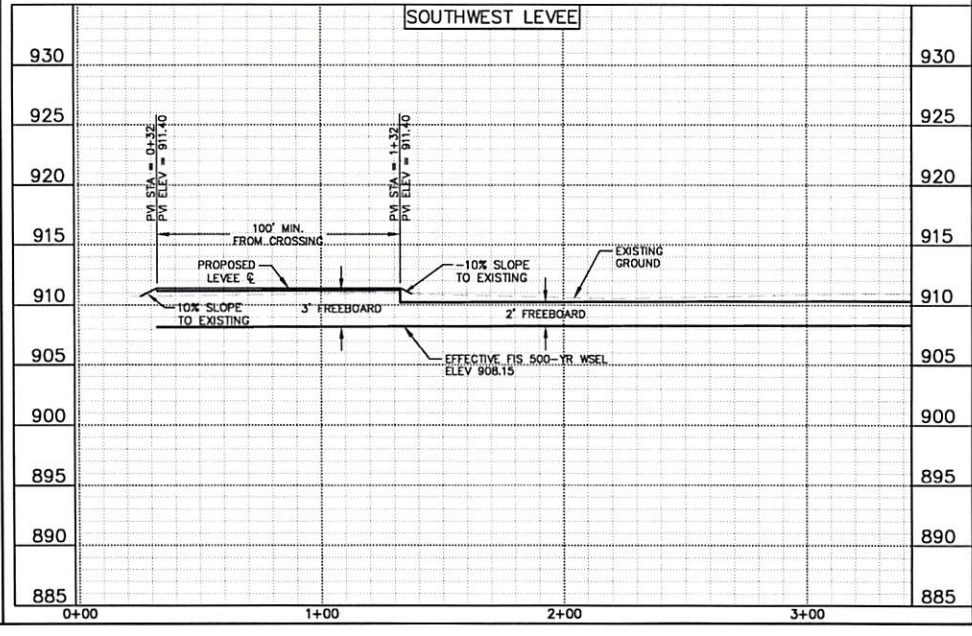




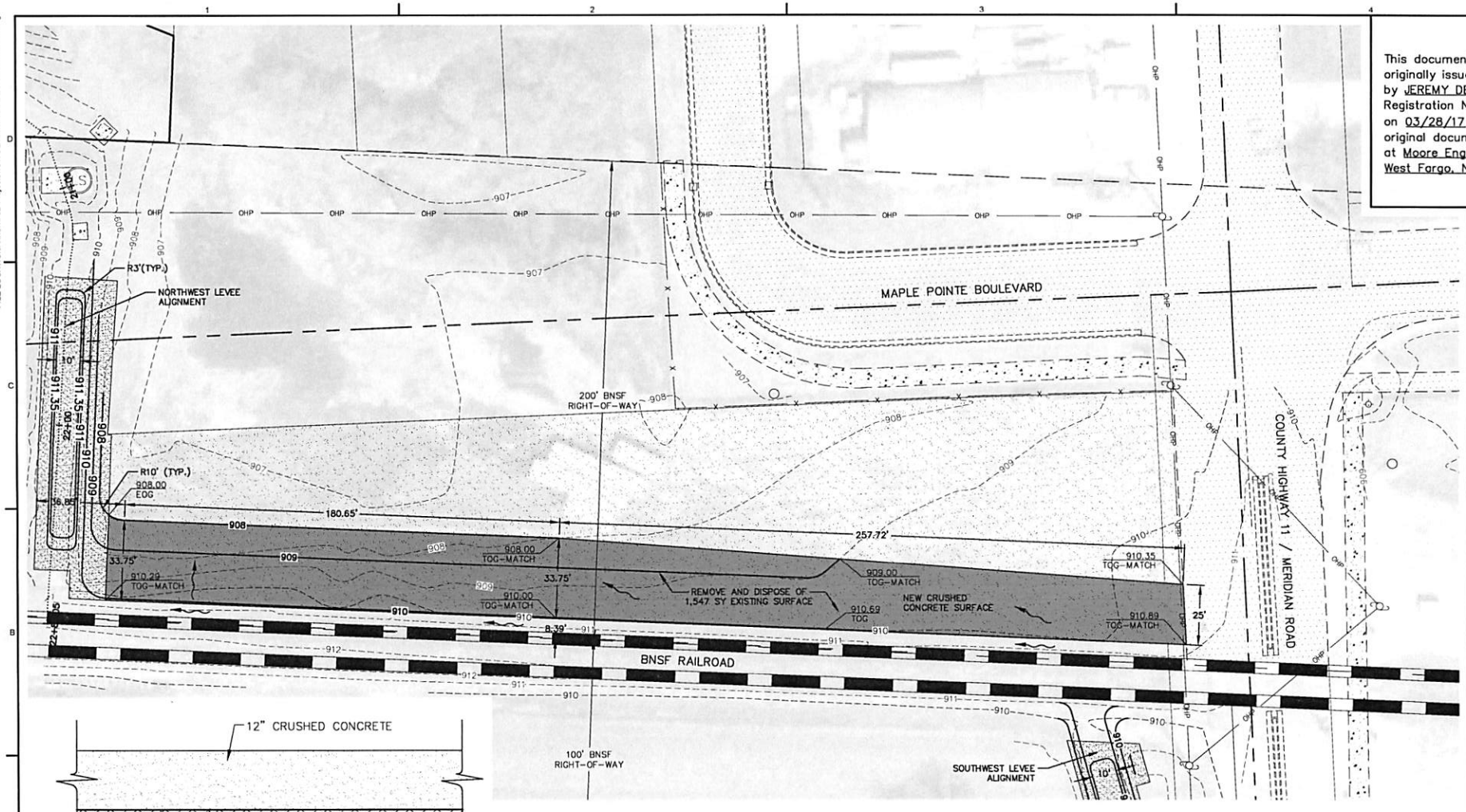
moore engineering, inc.

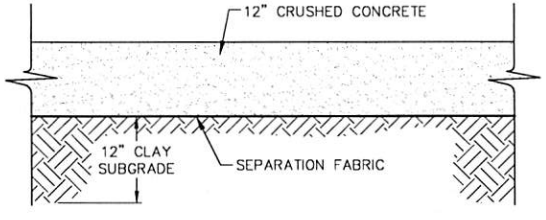
NORTHWEST AND SOUTHWEST LEVEE IMPROVEMENTS
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
NORTHWEST AND SOUTHWEST LEVEE IMPROVEMENTS

DATE	06.03.14
REVISED	03.28.17
REVISED	----
REVISED	----
REVISED	----
REVISED	----
RECORD	----
PROJECT No.	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ. MANAGER	BLO
PROJ. ENGINEER	JJD

C-207

SHEET 18 OF 39





NOTE:
1. SUBGRADE TO BE SCARIFIED TO A DEPTH OF 12" AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.

CRUSHED CONCRETE SECTION

NO SCALE

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NORTHWEST LEVEE CLOSURE PLAN - PERMANENT IMPROVEMENTS
LEVEE IMPROVEMENT DISTRICT No. 2012-1
LEVEE RECERTIFICATION
MAPLETON, NORTH DAKOTA
NORTHWEST LEVEE CLOSURE PLAN - PERMANENT IMPROVEMENTS

DATE	03.28.17
REVISED	----
REVISED	----
REVISED	----
REVISED	----
REVISED	----
RECORD	----
PROJECT No	15173
DRAWN BY	JJD
CHECKED BY	BLO
PROJ. MANAGER	BLO
PROJ. ENGINEER	JJD

C-225

N W E S

0 40
Scale in Feet

APPENDIX N

The City of Lisbon

423 MAIN STREET • PO BOX 1079
LISBON, NORTH DAKOTA 58054

March 13, 2018

Garland Erbele, P.E.
State Engineer
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, North Dakota 58105-0850

Sheyenne River Flood Protection
Levee D/Levee F
Lisbon, North Dakota

The City of Lisbon is in the final closeout and punch list phase of our 2017 Levee D Project, which is part of the overall Sheyenne River Flood Protection Project. Due to excellent construction bids on the project, and the project using very little of our planned construction contingencies, the City is projecting to have approximately $950,000 in grant funds and $240,000 in loan funds remaining at closeout of the Levee D project.

The final major planned project in our Sheyenne River Flood Protection project is Levee F and is planned for construction in 2018. The City has previously been allocated $3,800,000 in grant funds from the State Water Commission to construct Levee F. Levee F was publically bid on March 8, 2018. Bids for Levee F exceeded our estimates and the low bid was $4,400,000. Due to higher than expected bids on the project, the City does not currently have enough funds to construct Levee F.

We are requesting that the remaining funds from Levee D be used to construct Levee F. This will provide appropriate funds to complete Levee F, and bring the City one step closer to obtaining permanent flood protection and a future LOMR. This will be the final major project currently planned for our Sheyenne River Flood Protection Project.

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,

T Meyer

Tim Meyer
Mayor, City of Lisbon

Enclosure

LEVEE A/C CLOSURE PLANNED FOR 2019

LEVEE A CONSTRUCTED IN 2014

LEVEE C CONSTRUCTED IN 2015

LEVEE D CONSTRUCTED IN 2017

LEVEE F PLANNED FOR 2018

LEVEE E CONSTRUCTED IN 2016

LEVEE E – PHASE 2 PLANNED FOR 2019

AMERICAN LEGION THIRD ADDITION

SHEYENNE RIVER

LOT 9

LOT 5

LOT 6

LOT 13

LOT 11

LOT 2

LOT 3

LOT 4

LOT 9

LOT 6

OUTLOT 2

OUTLOT 9

OUTLOT 3

OUT LOT 1

OUT LOT 2

OUT LOT 3

OUT LOT 4

OUT LOT 5

STATE SOLDIERS HOME GROUNDS

STATE HIGHWAY No. 32

STATE HIGHWAY NO. 27

BURLINGTON NORTHERN RAILROAD

N

W E

S

0 600

Scale in Feet

LEGEND

CONSTRUCTED LEVEE

PLANNED LEVEE CONSTRUCTION

LISBON LEVEE EXHIBIT
SHEYENNE RIVER FLOOD PROTECTION
LISBON, NORTH DAKOTA

PROJECT No.	18681
DATE:	02.05.18
REVISED:	----
DRAWN BY:	TWD
CHECKED BY:	TJK

moore engineering, inc.

FILE LOCATION: R:\Civil 3D Projects\18208\DRAWINGS\PRESENTATION\Lisbon Levee Exhibit.dwg

APPENDIX O

Souris River Joint Board
c/o Dwyer Law Office
1605 East Capitol Avenue
Bismarck, ND 58501

info@mouseriverplan.com
www.mouseriverplan.com

March 12, 2018

North Dakota State Water Commission
Garland Erbele, PE – State Engineer
900 East Boulevard Avenue
Bismarck, North Dakota 58505-0850

Sent via email

Re: **Cost-Share Modifications**
Mouse River Enhanced Flood Protection Project
Phases MI-1 & MI-2/3 &
City of Minot Acquisitions

Dear Mr. Erbele:

The purpose of this letter is to provide the State Water Commission a budget update for the construction of Phases MI-1 and MI-2/3; to request that the State Water Commission decrease the amount previously authorized for the construction of Phases MI-1 and MI-2/3; to approve authorizations for additional projects for the same amount of the decreases; and to request additional authority from the flood control purpose established in the appropriation for the current biennium for City of Minot acquisitions.

Budget Update for Phases MI-1 and MI-2/3

Phase MI-1

Phase MI-1, 4th Avenue Floodwalls, was originally bid on October 25, 2017. Due to legal irregularities encountered during the bidding process, the SRJB elected to reject all bids for all contracts. Subsequently, Phase MI-1 was rebid on November 29, 2017.

During the rebid process, it was decided to bid the project in two separate ways – one assuming traditional revenue bonding and one assuming that a portion of the project would be built using State Revolving Fund (SRF) loan proceeds. The SRF loan conditions include additional administrative steps that the contractors must take during the construction process that traditionally add cost to the project. The benefit of SRF funding is that the interest rates are typically favorable.

The results of the rebid are summarized as follows:

General Construction (Traditional Bonding):		
Park Construction	$	39,495,100.10
Wagner Construction	$	41,235,319.13
Ames Construction	$	41,427,442.65
ICS	$	44,534,382.90
General Construction (SRF Funding):		
Park Construction	$	39,585,100.10
Wagner Construction	$	41,573,319.13
Ames Construction	$	42,169,975.15
ICS	$	45,553,531.04
Electrical Construction (Traditional Bonding):		
Main Electric Construction	$	3,759,420.00
Electrical Construction (SRF Funding):		
Main Electric Construction	$	3,835,195.00
Combined Prime Construction (Traditional Bonding):		
Park Construction	$	43,348,950.10
Wagner Construction	$	45,085,880.42
Ames Construction	$	45,185,942.65
ICS	$	49,248,866.90
Combined Prime Construction (SRF Funding):		
Park Construction	$	43,450,450.10
Wagner Construction	$	45,423,880.42
Ames Construction	$	45,931,475.15
ICS	$	50,693,172.04

No bids were received for the mechanical portions of the contract. However, in reviewing the bids, a mechanical bid would have to have been received for less than $30,155 for work that has an estimated construction cost of approximately $400,000.

Additionally, the difference between the traditional bonding and SRF funding alternatives ($101,500) is nominal compared to the interest savings that are expected to occur with the more favorable interest rates available through the SRF program. Consequently, the SRJB awarded the Combined Prime Construction contract based on utilizing SRF funding (Contract 4A) to Park Construction for $43,450,450.10.

Phase MI-2/3

Phase MI-2/3, Napa Valley Levees and Forest Road Levees, was bid on November 1, 2017. The results of the bid are summarized as follows:

General Construction:		
Wagner Construction	$	34,177,764.05
Ames Construction	$	36,492,402.86
Meyer Contracting	$	39,908,537.51
Veit & Company	$	40,579,722.56
Gladen Construction	$	40,460,560.50
Park Construction	$	42,959,762.00
Strata Corporation	$	45,982,719.15
Michels Corporation	$	46,367,810.11
Mechanical Construction:		
Veit & Company	$	796,000.00
Electrical Construction:		
Main Electric Construction	$	1,268,050.00
Veit & Company	$	2,262,750.00
Combined Prime Construction:		
Wagner Construction	$	35,678,634.25
Ames Construction	$	37,960,537.94
Veit & Company	$	38,952,472.56
Meyer Contracting	$	41,559,629.21
Park Construction	$	44,454,335.00
Michels Corporation	$	47,966,379.98

The low bid for the combined prime construction was less than the sum of the low bids for individual prime contracts. Therefore, the SRJB awarded the Combined Prime Construction contract (Contract 4) to Wagner Construction for $35,678,634.25.

The revised budget for construction of Phases MI-1 and MI-2/3 is summarized as follows:

Item	**Contractor**		**Amount**
Construction Phase MI-1	Park Construction	$	43,450,450.10
Construction Engineering Phase MI-1	Houston Engineering	$	5,879,899.00
Construction Phase MI-2/3	Wagner Construction	$	35,678,634.25
Construction Engineering Phase MI-2/3	Barr Engineering	$	4,693,000.00
Borrow Material Royalties	Price	$	500,000.00
Pre-Procured Stop Log Closure System	Wagner Construction	$	175,698.60
Subtotal		$	90,377,681.95
Contingency (10%)		$	9,037,768.20
Total		**$**	**99,415,450.15**

The previous total budget amount for these projects, based on the engineer's opinions of probable cost, was $119,966,206. This amount was also the basis for requests for funding from the ND State Water Commission, which have been approved. Accordingly, the total budget for the construction of these phases of the project has decreased by $20,550,755. Of the budget reduction, an estimated 65% will be State funds, or $13,357,991.

In its December 2017 meeting, the State Water Commission authorized $2,315,300 to be shifted from the construction authorization to the City of Minot acquisitions authorization. Taking into account this transfer, there is $11,042,691 of remaining funding that is currently authorized for construction activities on Phases MI-1 and MI-2/3 that could be shifted to other activities sponsored by the SRJB. The proposed activities are detailed below:

Phase	**County**	**Total Amount**
BU-1A: Burlington Bridge Construction	Ward	$3,900,000
MI-4: Maple Diversion Design	Ward	$2,300,000
MC-1: Outlaw Creek Construction	McHenry	$2,150,000
WC-1: Tierrecita Vallejo Levee Design	Ward	$1,800,000
MI-5: NE Tieback Additional Design	Ward	$600,000
RC-1: Mouse River Park Bridge Design	Renville	$600,000
SA-1: Sawyer Bridge Design	Ward	$400,000
VE-1: Velva Bridge Design	McHenry	$400,000
MI-1/2/3: Minot Design & EIS	Ward	$300,000*
Flood Specific Emergency Action Plans	All Four	$200,000
	Subtotal	$12,650,000
	State of ND (65%*)	$8,207,500
	Local (35%)	$4,442,500

*All state cost shares assumed to be 65%, with the exception of the cost adjustment to the design and environmental work associated with Phases MI-1 and MI-2/3, which is based on 60%

Phase BU-1A: Burlington Bridge Construction

The design of the Burlington system of the Mouse River Plan is approximately 95% complete. The intent of the SRJB was to complete the design of the entire Burlington system and to construct it beginning in 2019, provided that appropriation was secured in the 2019 legislative session and the construction was authorized by the State Water Commission. With the construction cost reductions, it is possible to construct a portion of the Burlington system in the current biennium. The most logical portion of that system that would provide standalone benefits is the replacement of the Colton Avenue (County Road 10) Bridge in Burlington.

The Colton Avenue Bridge in Burlington represents a hydraulic bottleneck on the Mouse River system. The Mouse River Plan calls for this 120-foot bridge to be replaced with a structure that spans 280 feet. The

roadway immediately adjacent to the structure will be raised to an elevation commensurate with the flood of record water surface elevation. As a result, the bridge will be open during large floods. This is an important feature in the basin for emergency operational logistics. The closest resilient crossing downstream of Colton Avenue is at the Highway 83 Bypass in Minot (6 miles away), and the closest resilient crossing upstream is the Lake Darling Dam (18 miles away).

The total estimated cost of this project is $3.9 million. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $2,535,000, from the previous construction authorizations for Phases MI-1 and MI-2/3 to this phase of the project.**

Phase MI-4: Maple Diversion Design

Phase MI-4, the Maple Diversion, is the current focus of the US Army Corps of Engineers Feasibility Study. As part of the feasibility study, the design of the Maple Diversion is being advanced to an approximate completion level of 20%.

The design of the Maple Diversion needs to be advanced to completion in order to permit and construct the project. It is estimated that the total remaining design effort is approximately $8 million. The intent of the SRJB was to fund the design of the Maple Diversion beginning in 2019, subject to legislative appropriation and State Water Commission approval.

If authorized by the State Water Commission, the funding shift would be utilized to advance the design of the Maple Diversion to an approximate completion level of 50%. The estimated cost of this engineering effort is $2.3 million. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $1,495,000, from the previous construction authorizations for Phases MI-1 and MI-2/3 to this phase of the project.**

Phase MC-1: Outlaw Creek Construction

Phase MC-1, Outlaw Creek Construction, is a rural flood risk reduction system located at the downstream end of McHenry County near the southern boundary of the J. Clark Salyer National Wildlife Refuge, where the Mouse River conveyance is impeded by a combination of US Fish and Wildlife Service dams, flat topography, and propagation of cattails.

The previous federal flood control project constructed by the US Army Corps of Engineers within the basin established wetland mitigation areas in J. Clark Salyer NWR. These mitigation areas were established to compensate for wetland impacts in the upstream communities, most notably Minot. Local residents in the area of Outlaw Creek have vocalized their opposition to the wetland mitigation and to the impacts that the dams within J. Clark Salyer NWR have had on adjacent agricultural lands.

The hydraulic behaviors in this area have been studied by the ND State Water Commission staff and the SRJB. The improvements being contemplated by the SRJB would establish increased conveyance in this reach of the river, thereby reducing the impacts of flooding due to depths and duration of high water.

The total estimated cost of this phase of the project is $2.15 million. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $1,3975,000, from the previous construction authorizations for Phases MI-1 and MI-2/3 to this phase of the project.**

Phase WC-1: Tierrecita Vallejo Levee Design

Phase WC-1, the Tierrecita Vallejo levee, is located on the western edge of Minot. As the western tieback for the Minot portion of the system, it is an integral portion of the initial milestone in Minot, which would remove approximately 60% of Minot's valley residents from the floodplain.

If authorized by the State Water Commission, the funding shift would be utilized to complete the design of the Tierrecita Vallejo levee system. The estimated cost of this engineering effort is $1.8 million. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $1,170,000, from the previous construction authorizations for Phases MI-1 and MI-2/3 to this phase of the project.**

Phase MI-5: Rodeo Road Levee (a.k.a. 4th Avenue NE Tieback) Design

Phase MI-5, the Rodeo Road levee, is located in northeast Minot and serves as the interim eastern tieback for the initial milestone in Minot, which would remove approximately 60% of Minot's valley residents from the floodplain.

The SRJB previously requested funding to advance the design of this phase of the project, and the State Water Commission has previously authorized $1.3 million for the design of Phase MI-5. The scope of the project has expanded to include significant work across the Burlington Northern Santa Fe railroad, which was not originally anticipated.

Additionally, the original intent of the SRJB was to implement the 4th Avenue Northeast tieback to a protection level of 10,000 cfs plus an allowance for freeboard. Instead, the SRJB is moving forward with a full-height design to the flood of record (27,400 cfs), since the full-height design will ultimately result in lower costs and fewer acquisitions.

If authorized by the State Water Commission, the funding shift would be utilized to complete the design of the Rodeo Road levee system. The estimated cost of this additional engineering effort is $0.6 million. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $390,000, from the previous construction authorizations for Phases MI-1 and MI-2/3 to the previous design authorization for Phase MI-5 (SWC Project No. 1974-19).**

Phase RC-1: Mouse River Park Bridge and Gatewell Design

The Mouse River Plan includes improvements at the existing federal project that surrounds Mouse River Park in Renville County. The SRJB intends to implement improvements to Mouse River Park in a phased approach. The most critical element for Mouse River Park stakeholders is the western access into Mouse River Park and the current condition of the gatewell structures on the system.

The western access into Mouse River Park becomes inundated during fairly frequent events (approximately 1 in 5 year chance). Additionally, the current box culvert configuration is inadequate to pass the deadfall that is carried by Mouse River flows. As a result, timber deadfall accumulates at the existing box culvert structure and causes upstream water surface profile impacts and operation and maintenance expense.

This phase of the project would replace the box culvert structure with a bridge, establish a more resilient western roadway access to the park, and construct new gatewell structures designed to the flood of record (27,400 cfs).

The total estimated design cost for this effort is $600,000. If authorized by the State Water Commission, the funding shift would be utilized to complete the design of the first phase of improvements at Mouse River Park. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $390,000, from the previous construction authorization for Phases MI-1 and MI-2/3 to this phase of the project.**

Phase SA-1: Sawyer Bridge Design

The city of Sawyer is surrounded by an existing federal levee system. In 2011, the city was able to raise its existing levees to keep the Mouse River within its banks. However, the raises were completed in an emergency fashion and evacuations were ordered in order to reduce the risk of life loss due to failure of the emergency levees.

As part of the Mouse River Plan, levees and conveyance improvements are being planned around the city of Sawyer. One critical component of the system is the bridge on Ward County Road 23 over the Mouse River. The current bridge acts as a hydraulic bottleneck on the system. Upgrading the existing bridge from a 150-foot span to a 275-foot span will reduce the upstream water surface profile by several feet during the design event.

The total estimated design cost for this effort is $400,000. If authorized by the State Water Commission, the funding shift would be utilized to complete the design of the first phase of improvements at Mouse River Park. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $260,000, from the previous construction authorization for Phases MI-1 and MI-2/3 to this phase of the project.**

Phase VE-1: Velva Bridge Design

Like Sawyer, the city of Velva is surrounded by an existing federal levee system. In 2011, the city was able to raise its existing levees to keep the Mouse River within its banks. However, the raises were completed in an emergency fashion and evacuations were ordered in order to reduce the risk of life loss due to failure of the emergency levees.

As part of the Mouse River Plan, levees and conveyance improvements are being planned around the city of Velva. One critical component of the system is the bridge on North Dakota Highway 41 over the Mouse River. The current bridge acts as a hydraulic bottleneck on the system. Upgrading the existing bridge from

a 150-foot span to a 250-foot span will reduce the upstream water surface profile by several feet during the design event.

The total estimated design cost for this effort is $400,000. If authorized by the State Water Commission, the funding shift would be utilized to complete the design of the first phase of improvements at Mouse River Park. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $260,000, from the previous construction authorization for Phases MI-1 and MI-2/3 to this phase of the project.**

Phases MI-1 & MI-2/3: Additional Environmental Services

The Environmental Impact Statement for the project was completed over a period of approximately three years. In December 2017, the Record of Decision was issued by the US Army Corps of Engineers, following extensive review, consultation and resolution of comments made by the various state and federal agencies responsible for reviewing the EIS.

The original scope of the EIS was based on the assumption that the document would be completed in 12-18 months. The Record of Decision was achieved approximately 36 months after the start of the EIS. As a result, the efforts associated with the responses to agency comments was higher than anticipated.

A major factor in the scope adjustment was the requirement put in place by the US Army Corps of Engineers Regulatory Office to provide detailed archeological and architectural history surveys of all lands and structures that would eventually be impacted by the phases of the project that constitute the initial Minot milestone. Our belief is that this requirement was put in place out of fear over legal backlash associated with the Dakota Access Pipeline incident that occurred in 2016 and 2017.

It is estimated that the additional environmental work totaled approximately $1 million more than originally anticipated. The design work for the projects, however, was completed more efficiently than originally anticipated. Therefore, the cost adjustment necessary to cover the additional effort associated with the EIS is only $300,000. **The SRJB requests that the State Water Commission authorize shifting 60% of the estimated cost adjustment, or $180,000, from the previous construction authorization for Phases MI-1 and MI-2/3 to this project (SWC Project No. 1974-02).**

Flood Specific Emergency Action Plans

The SRJB has been facilitating the development of flood specific emergency action plans for stakeholders throughout the Mouse River basin, including the City of Minot and Ward County. In April 2015, the SRJB facilitated a workshop between basin stakeholders, city and county officials, and flood emergency response professionals from the US Army Corps of Engineers.

As a result, the City of Minot has developed its flood-specific emergency action plan, and Ward County has begun its development as well. The SRJB is intending to facilitate the development of flood-specific emergency action plans for Renville County, McHenry County, and Bottineau County. These would be developed independently in conjunction with local emergency management officials from each county. The SRJB would leverage technical data that has been developed by its consultants and by the State Water Commission.

The total estimated cost for this effort (Renville, McHenry and Bottineau Counties) is $200,000. If authorized by the State Water Commission, the funding shift would be utilized to complete flood-specific emergency action plans for the entire reach of the Mouse River in North Dakota. **The SRJB requests that the State Water Commission authorize shifting 65% of the estimated project cost, or $130,000, from the previous construction authorization for Phases MI-1 and MI-2/3 to this project.**

City of Minot Acquisitions

Acquisitions are being completed by the City of Minot for project right of way within Minot city limits. It is critical that acquisitions continue. The City of Minot has determined that its short term need for acquisition funding (i.e. to complete acquisitions within the initial milestone in Minot) from the State of North Dakota is $12 million. The SRJB has prioritized its actions based on the need to provide basin-wide benefits while supporting other critical activities. As a result, the SRJB is requesting that the State Water Commission authorize the balance of the cost savings not previously identified for projects to be shifted to the City of Minot for continued acquisitions. **The SRJB requests that the State Water Commission authorize shifting $2,835,191 from the previous construction authorization for Phases MI-1 and MI-2/3 to City of Minot acquisitions.**

When the legislature acted on House Bill 1020 – the State Water Commission's appropriations bill – it included $136 million for flood control activities statewide. During the hearing process and work of the two appropriations committees, it was discussed by legislators that the two projects that would likely consume the $136 million were Mouse River and the Fargo-Moorhead Diversion. Previous legislative actions included intent language to fund the FM Diversion at $66.5 million in the current biennium. That would leave $69.5 million available for other flood control projects statewide. During hearings and committee work, it was discussed by legislators that the amount budgeted for Mouse River was $70 million. This was also the amount included in the executive budget proposed by Governor Dalrymple.

In its August 2017 meeting, the State Water Commission approved $62,781,034 (65% of the total) for Mouse River flood control work. In its December 2017 meeting, the State Water Commission approved Valley City's cost share request of $2,171,925 (85% of the total) for flood control related work.

To date, the total amount of funding approved by the State Water Commission for flood control projects throughout the state is $64,952,959. Based on the legislative intent of providing $66.5 million for the FM Diversion, there would be $4,547,041 remaining within the flood control purpose of the current biennium's legislative appropriation, as summarized below.

Description	**Amount**
August 2017 Mouse River Authorization	$62,781,034
December 2017 Valley City Authorization	$2,171,925
Fargo-Moorhead Diversion Intent	$66,500,000
Unencumbered Balance	$4,547,041
Total	**$136,000,000**

The SRJB requests that the State Water Commission authorize $4,547,041 from the unencumbered flood control purpose funds for City of Minot acquisitions.

Please contact us with any questions. We thank you for your consideration.

Sincerely,

SOURIS RIVER JOINT WATER RESOURCES BOARD

Ryan Ackerman, PE
Administrator

Encl: Cost Share Request Form – Phase BU-1A Construction
Cost Share Request Form – Phase MI-4 Design
Cost Share Request Form – Phase MC-1 Construction
Cost Share Request Form – Phase WC-1 Design
Cost Share Request Form – Phase MI-5 Design
Cost Share Request Form – Phase RC-1 Design
Cost Share Request Form – Phase SA-1 Design
Cost Share Request Form – Phase VE-1 Design
Cost Share Request Form – Phase MI-1/2/3 Design & Environmental
Cost Share Request Form – Rural Flood Specific Emergency Action Plans

Cc: David Ashley, SRJB Chairman
Dan Jonasson, SRJB Member, City of Minot

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase BU-1A: Burlington Bridge Construction

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Burlington	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Burlington, City of Minot, Ward County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA,

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The design of the Burlington system of the Mouse River Plan is approximately 95% complete. The intent of the SRJB was to complete the design of the entire Burlington system and to construct it beginning in 2019, provided that appropriation was secured in the 2019 legislative session and the construction was authorized by the State Water Commission. With the construction cost reductions, it is possible to construct a portion of the Burlington system in the current biennium. The most logical portion of that system that would provide standalone benefits is the replacement of the Colton Avenue (County Road 10) Bridge in Burlington. The Colton Avenue Bridge in Burlington represents a hydraulic bottleneck on the Mouse River system. The Mouse River Plan calls for this 120-foot bridge to be replaced with a structure that spans 280 feet. The roadway immediately adjacent to the structure will be raised to an elevation commensurate with the flood of record water surface elevation. As a result, the bridge will be open during large floods. This is an important feature in the basin for emergency operational logistics. The closest resilient crossing downstream of Colton Avenue is at the Highway 83 Bypass in Minot (6 miles away), and the closest resilient crossing upstream is the Lake Darling Dam (18 miles away).

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, USACE, FEMA, and an Independent External Peer Review by an outside consultant.

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	$ 2,535,000	$	$ 2,535,000	$
Other State	$	$	$	$
Local	$ 1,365,000	$	$ 1,365,000	$
Total	$ 3,900,000	$ 0	$ 3,900,000	$ 0

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

Construction is expected to begin in summer 2018.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By: Souris River Joint Board			Date: 3 March 2018
Address: 1605 E. Capitol Avenue	City: Bismarck	State: ND	ZIP Code: 58501
Telephone Number: (701) 857-9113	Sponsor Email: dwashley56@gmail.com	Engineer Email: ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature: Ryan Ackerman, Administrator	Date: 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase MI-4: Maple Diversion Design

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Minot	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, Ward County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA

Description Of Problem Or Need And How Project Addresses That Problem Or Need
Phase MI-4, the Maple Diversion, is the current focus of the US Army Corps of Engineers Feasibility Study. As part of the feasibility study, the design of the Maple Diversion is being advanced to an approximate completion level of 20%.
The design of the Maple Diversion needs to be advanced to completion in order to permit and construct the project. It is estimated that the total remaining design effort is approximately $8 million. The intent of the SRJB was to fund the design of the Maple Diversion beginning in 2019, subject to legislative appropriation and State Water Commission approval.
If authorized by the State Water Commission, the funding shift would be utilized to advance the design of the Maple Diversion to an approximate completion level of 50%.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, USACE, FEMA, and an Independent External Peer Review by an outside consultant.

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	$ 1,495,000	$	$ 1,495,000	$
Other State	$	$	$	$
Local	$ 805,000	$	$ 805,000	$
Total	$ 2,300,000	$ 0	$ 2,300,000	$ 0

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

This authorization is intended to fund the design of this phase of the project through June 2019. The design will be complete by June 2020, subject to appropriation and SWC approval.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By Souris River Joint Board			Date 3 March 2018
Address 1605 E. Capitol Avenue	City Bismarck	State ND	ZIP Code 58501
Telephone Number (701) 857-9113	Sponsor Email dwashley56@gmail.com	Engineer Email ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Ryan Ackerman, Administrator	Date 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase MC-1: Outlaw Creek Construction

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
McHenry	N/A	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☑ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, McHenry County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service

Description Of Problem Or Need And How Project Addresses That Problem Or Need
Phase MC-1, Outlaw Creek Construction, is a rural flood risk reduction system located at the downstream end of McHenry County near the southern boundary of the J. Clark Salyer National Wildlife Refuge, where the Mouse River conveyance is impeded by a combination of US Fish and Wildlife Service dams, flat topography, and propagation of cattails.
The previous federal flood control project constructed by the US Army Corps of Engineers within the basin established wetland mitigation areas in J. Clark Salyer NWR. These mitigation areas were established to compensate for wetland impacts in the upstream communities, most notably Minot. Local residents in the area of Outlaw Creek have vocalized their opposition to the wetland mitigation and to the impacts that the dams within J. Clark Salyer NWR have had on adjacent agricultural lands.
The hydraulic behaviors in this area have been studied by the ND State Water Commission staff and the SRJB. The improvements being contemplated by the SRJB would establish increased conveyance in this reach of the river, thereby reducing the impacts of flooding due to depths and duration of high water.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB and the McHenry County Water Resources Board.

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	$ 1,397,500	$	$ 1,397,500	$
Other State	$	$	$	$
Local	$ 752,500	$	$ 752,500	$
Total	$ 2,150,000	$ 0	$ 2,150,000	$ 0

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

Design would be complete by summer 2018. Construction would begin in fall 2018.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By: Souris River Joint Board			Date: 3 March 2018
Address: 1605 E. Capitol Avenue	City: Bismarck	State: ND	ZIP Code: 58501
Telephone Number: (701) 857-9113	Sponsor Email: dwashley56@gmail.com	Engineer Email: ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature: Ryan Ackerman, Administrator	Date: 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase WC-1: Tierrecita Vallejo Levee Design

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Minot	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, Ward County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA, ND Department of Transportation

Description Of Problem Or Need And How Project Addresses That Problem Or Need
Phase WC-1, the Tierrecita Vallejo levee, is located on the western edge of Minot. As the western tieback for the Minot portion of the system, it is an integral portion of the initial milestone in Minot, which would remove approximately 60% of Minot's valley residents from the floodplain.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, and FEMA.

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	$ 1,170,000	$	$ 1,170,000	$
Other State	$	$	$	$
Local	$ 630,000	$	$ 630,000	$
Total	$ 1,800,000	$ 0	$ 1,800,000	$ 0

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

Design would be complete by June 2019. Construction would begin in July 2019, dependent on appropriation from the legislature and authorization by the SWC.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By: Souris River Joint Board			Date: 3 March 2018
Address: 1605 E. Capitol Avenue	City: Bismarck	State: ND	ZIP Code: 58501
Telephone Number: (701) 857-9113	Sponsor Email: dwashley56@gmail.com	Engineer Email: ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature: Ryan Ackerman, Administrator	Date: 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase MI-5: Rodeo Road Levee Design

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Minot	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, Ward County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA, BNSF Railroad

Description Of Problem Or Need And How Project Addresses That Problem Or Need
Phase MI-5, the Rodeo Road levee, is located in northeast Minot and serves as the interim eastern tieback for the initial milestone in Minot, which would remove approximately 60% of Minot's valley residents from the floodplain.
The SRJB previously requested funding to advance the design of this phase of the project, and the State Water Commission has previously authorized $1.3 million for the design of Phase MI-5. The scope of the project has expanded to include significant work across the Burlington Northern Santa Fe railroad, which was not originally anticipated.
Additionally, the original intent of the SRJB was to implement the 4th Avenue Northeast tieback to a protection level of 10,000 cfs plus an allowance for freeboard. Instead, the SRJB is moving forward with a full-height design to the flood of record (27,400 cfs), since the full-height design will ultimately result in lower costs and fewer acquisitions.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☑ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, FEMA and an Independent External Peer Review consultant

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	$ 390,000	$	$ 390,000	$
Other State	$	$	$	$
Local	$ 210,000	$	$ 210,000	$
Total	$ 600,000	$ 0	$ 600,000	$ 0

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

Design would be complete by June 2019. Construction would begin in July 2019, dependent on appropriation from the legislature and authorization by the SWC.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By Souris River Joint Board			Date 3 March 2018
Address 1605 E. Capitol Avenue	City Bismarck	State ND	ZIP Code 58501
Telephone Number (701) 857-9113	Sponsor Email dwashley56@gmail.com	Engineer Email ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Ryan Ackerman, Administrator	Date 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase RC-1: Mouse River Park Bridge & Gatewell Design

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Renville	N/A	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, Renville County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The Mouse River Plan includes improvements at the existing federal project that surrounds Mouse River Park in Renville County. The SRJB intends to implement improvements to Mouse River Park in a phased approach. The most critical element for Mouse River Park stakeholders is the western access into Mouse River Park and the current condition of the gatewell structures on the system.
The western access into Mouse River Park becomes inundated during fairly frequent events (approximately 1 in 5 year chance). Additionally, the current box culvert configuration is inadequate to pass the deadfall that is carried by Mouse River flows. As a result, timber deadfall accumulates at the existing box culvert structure and causes upstream water surface profile impacts and operation and maintenance expense.
This phase of the project would replace the box culvert structure with a bridge, establish a more resilient western roadway access to the park, and construct new gatewell structures designed to the flood of record (27,400 cfs).

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, FEMA and an Independent External Peer Review consultant

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	$ 390,000	$	$ 390,000	$
Other State	$	$	$	$
Local	$ 210,000	$	$ 210,000	$
Total	$ 600,000	$ 0	$ 600,000	$ 0

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

Design would be complete by June 2019. Construction would begin in July 2019, dependent on appropriation from the legislature and authorization by the SWC.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By Souris River Joint Board			Date 3 March 2018
Address 1605 E. Capitol Avenue	City Bismarck	State ND	ZIP Code 58501
Telephone Number (701) 857-9113	Sponsor Email dwashley56@gmail.com	Engineer Email ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Ryan Ackerman, Administrator	Date 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase SA-1: Sawyer Bridge Design

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Sawyer	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, City of Sawyer, Ward County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The city of Sawyer is surrounded by an existing federal levee system. In 2011, the city was able to raise its existing levees to keep the Mouse River within its banks. However, the raises were completed in an emergency fashion and evacuations were ordered in order to reduce the risk of life loss due to failure of the emergency levees.
As part of the Mouse River Plan, levees and conveyance improvements are being planned around the city of Sawyer. One critical component of the system is the bridge on Ward County Road 23 over the Mouse River. The current bridge acts as a hydraulic bottleneck on the system. Upgrading the existing bridge from a 150-foot span to a 275-foot span will reduce the upstream water surface profile by several feet during the design event.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, FEMA and an Independent External Peer Review consultant

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	$ 260,000	$	$ 260,000	$
Other State	$	$	$	$
Local	$ 140,000	$	$ 140,000	$
Total	$ 400,000	$ 0	$ 400,000	$ 0

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

Design would be complete by June 2019. Construction would begin in July 2019, dependent on appropriation from the legislature and authorization by the SWC.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By Souris River Joint Board			Date 3 March 2018
Address 1605 E. Capitol Avenue	City Bismarck	State ND	ZIP Code 58501
Telephone Number (701) 857-9113	Sponsor Email dwashley56@gmail.com	Engineer Email ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Ryan Ackerman, Administrator	Date 3 March 2018

MAIL TO:

ND State Water Commission ● ATTN: Cost-Share Program
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COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phase VE-1: Velva Bridge Design

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
McHenry	Velva	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, City of Velva, McHenry County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The city of Velva is surrounded by an existing federal levee system. In 2011, the city was able to raise its existing levees to keep the Mouse River within its banks. However, the raises were completed in an emergency fashion and evacuations were ordered in order to reduce the risk of life loss due to failure of the emergency levees.
As part of the Mouse River Plan, levees and conveyance improvements are being planned around the city of Velva. One critical component of the system is the bridge on North Dakota Highway 41 over the Mouse River. The current bridge acts as a hydraulic bottleneck on the system. Upgrading the existing bridge from a 150-foot span to a 250-foot span will reduce the upstream water surface profile by several feet during the design event.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☑ No	☐ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, FEMA and an Independent External Peer Review consultant

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	$ 260,000	$	$ 260,000	$
Other State	$	$	$	$
Local	$ 140,000	$	$ 140,000	$
Total	$ 400,000	$ 0	$ 400,000	$ 0

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

Design would be complete by June 2019. Construction would begin in July 2019, dependent on appropriation from the legislature and authorization by the SWC.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By Souris River Joint Board			Date 3 March 2018
Address 1605 E. Capitol Avenue	City Bismarck	State ND	ZIP Code 58501
Telephone Number (701) 857-9113	Sponsor Email dwashley56@gmail.com	Engineer Email ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Ryan Ackerman, Administrator	Date 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Phases MI-1 & MI-2/3 Design & Env. Adjustment

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Minot	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☐ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, Ward County, Souris River Joint Board, US Army Corps of Engineers, US Fish & Wildlife Service, FEMA

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The Environmental Impact Statement for the project was completed over a period of approximately three years. In December 2017, the Record of Decision was issued by the US Army Corps of Engineers, following extensive review, consultation and resolution of comments made by the various state and federal agencies responsible for reviewing the EIS.
The original scope of the EIS was based on the assumption that the document would be completed in 12-18 months. The Record of Decision was achieved approximately 36 months after the start of the EIS. As a result, the efforts associated with the responses to agency comments was higher than anticipated.
A major factor in the scope adjustment was the requirement put in place by the US Army Corps of Engineers Regulatory Office to provide detailed archaeological and architectural history surveys of all lands and structures that would eventually be impacted by the phases of the project that constitute the initial Minot milestone. Our belief is that this requirement was put in place out of fear over legal backlash associated with the Dakota Access Pipeline incident that occurred in 2016 and 2017.

Has Feasibility Study Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☑ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Have You Applied For Any State Permits?	☑ Yes	☐ No	☐ Not Applicable

If Yes, Please Explain
All permits have been granted

Have You Been Approved For Any State Permits?	☑ Yes	☐ No	☐ Not Applicable

If Yes, Please Explain
All permits have been granted

Have You Applied For Any Local Permits?	☑ Yes	☐ No	☐ Not Applicable

If Yes, Please Explain
All permits have been granted

Have You Been Approved For Any Local Permits?	☑ Yes	☐ No	☐ Not Applicable

If Yes, Please Explain
All permits have been granted

Briefly Explain The Level Of Review The Project Or Program Has Undergone
Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, FEMA and an Independent External Peer Review consultant

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	$ 180,000	$	$ 180,000	$
Other State	$	$	$	$
Local	$ 120,000	$	$ 120,000	$
Total	$ 300,000	$ 0	$ 300,000	$ 0

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
This work has been completed but the effort remains unpaid.

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Submitted By Souris River Joint Board	Date 3 March 2018

Address 1605 E. Capitol Avenue	City Bismarck	State ND	ZIP Code 58501

Telephone Number (701) 857-9113	Sponsor Email dwashley56@gmail.com	Engineer Email ryan.ackerman@ackerman-estvold.com

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature Ryan Ackerman, Administrator	Date 3 March 2018

MAIL TO:

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

COST-SHARE REQUEST FORM

NORTH DAKOTA STATE WATER COMMISSION
DEVELOPMENT DIVISION
SFN 60439 (3/2017)

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.

Project, Program, Or Study Name
Mouse River Enhanced Flood Protection Project (Mouse River Plan), Rural Area Flood Specific Emergency Action Plans

Sponsor(s)
Souris River Joint Board

County	City	Township/Range/Section
Ward	Minot	N/A

Description Of Request ☑ New ☐ Updated (previously submitted)

Specific Needs Addressed By The Project, Program, Or Study
Reduced Flood Risk to Mouse River basin residents

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☑ Flood Control	☐ Multi-Purpose	☐ Bank Stabilization	☑ Dam Safety/EAP
☐ Recreation	☐ Water Supply	☐ Snagging & Clearing	☐ Property Acquisition
☐ Irrigation	☐ Water Retention	☐ Rural Flood Control	☐ Other

Jurisdictions/Stakeholders Involved
City of Minot, Ward County, Renville County, Bottineau County, McHenry County, Souris River Joint Board, US Army Corps of Engineers, City of Velva, City of Sawyer, City of Towner, City of Burlington

Description Of Problem Or Need And How Project Addresses That Problem Or Need
The SRJB has been facilitating the development of flood specific emergency action plans for stakeholders throughout the Mouse River basin, including the City of Minot and Ward County. In April 2015, the SRJB facilitated a workshop between basin stakeholders, city and county officials, and flood emergency response professionals from the US Army Corps of Engineers. As a result, the City of Minot has developed its flood-specific emergency action plan, and Ward County has begun its development as well. The SRJB is intending to facilitate the development of flood-specific emergency action plans for Renville County, McHenry County, and Bottineau County. These would be developed independently in conjunction with local emergency management officials from each county. The SRJB would leverage technical data that has been developed by its consultants and by the State Water Commission.

Has Feasibility Study Been Completed?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☑ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☐ Ongoing	☑ Not Applicable

Have You Applied For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☑ Not Applicable
If Yes, Please Explain			

Briefly Explain The Level Of Review The Project Or Program Has Undergone

Extensive review by the SRJB, the City of Minot, the USACE, US Fish and Wildlife Service, FEMA and an Independent External Peer Review consultant

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	$ 130,000	$	$ 130,000	$
Other State	$	$	$	$
Local	$ 70,000	$	$ 70,000	$
Total	$ 200,000	$ 0	$ 200,000	$ 0

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

If authorized, this work would be completed by spring 2019.

Have Assessment Districts Been Formed? ☐ Yes ☐ No ☐ Ongoing ☑ Not Applicable

Submitted By: Souris River Joint Board			Date: 3 March 2018
Address: 1605 E. Capitol Avenue	City: Bismarck	State: ND	ZIP Code: 58501
Telephone Number: (701) 857-9113	Sponsor Email: dwashley56@gmail.com	Engineer Email: ryan.ackerman@ackerman-estvold.com	

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature: Ryan Ackerman, Administrator	Date: 3 March 2018

MAIL TO:

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

APPENDIX P

FM AREA DIVERSION PROJECT

FM Diversion Plan B Update

ND State Water Commission (April 12, 2018)

Why did the Project change?

- The Richland/Wilkin County JPA filed a lawsuit against the U.S. Army Corps of Engineers in 2013. The lawsuit was later joined by the Fargo-Moorhead Diversion Authority and by the State of Minnesota.
- While the majority of claims were dismissed, an injunction stopping construction was ordered in Sept., 2017

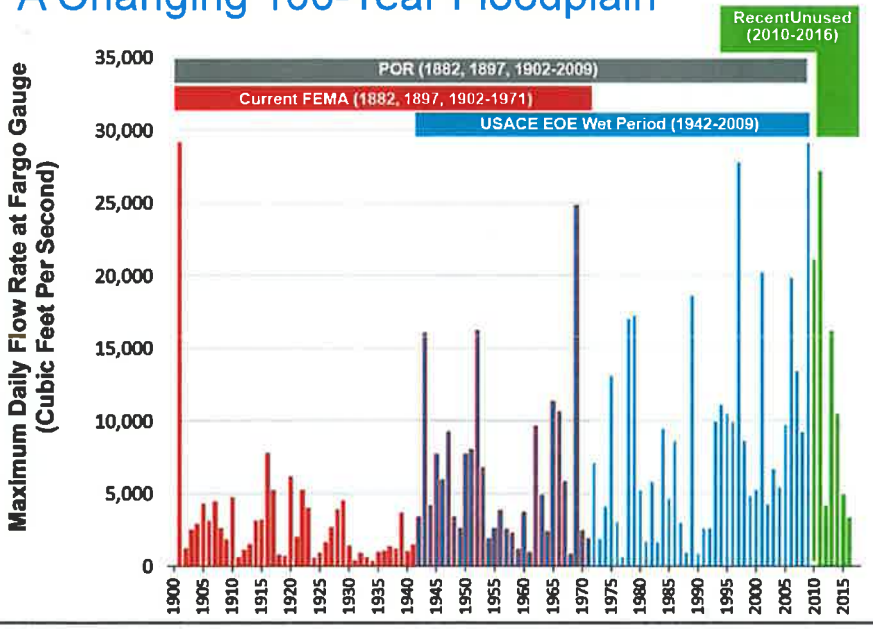
"It is time for all parties to work together to find common ground."

- Chief Judge John A. Tunheim

Governors' Task Force

- **Purpose**: To develop design principles and concept-level engineering solutions to achieve balanced flood risk management
- **Key Parameters for the Task Force**
  1. Find solutions within the parameters established by applicable Minnesota, North Dakota and local law.
  2. Maintain federal authorization and associated funding for permanent flood protection…

A Changing 100-Year Floodplain



Governors' Flood Task Force

Thank you for your service

Front Row (L to R): Bernie Dardis – Greater North Dakota Chamber Board Chair, Tami Norgard – Natural resources attorney, Tim Fox – Former Wilkin County Attorney, Jenny Mongeau – Clay County Commissioner, Del Rae Williams – Mayor of Moorhead, MN, Gov. Mark Dayton – Governor of Minnesota, Gov. Doug Burgum – Governor of North Dakota, , Heidi Durand – Moorhead City Council member, Barb Naramore – Minnesota Department of Natural Resources Assistant Commissioner, Mark Anderson – Treasurer of Buffalo-Red Watershed District
Back Row (L to R): Curt Johannsen – Mayor of Hendrum, MN, Ken Vein – Grand Forks City Council member, Craig Hertsgaard – Richland County farmer, John Strand– Fargo City Commissioner, Tom Landwehr – Minnesota Department of Natural Resources Commissioner , Jason Benson – Cass County Engineer, Steve Jacobson – Norman County Commissioner, Nathan Berseth – Richland County Commissioner , Joel Paulsen – Moorhead City Council member, Ron Bergan – Fargo business leader and entrepreneur

"My office will continue to work in partnership with Governor Dayton toward finalizing a permittable project…"

- Governor Burgum (ND)

"The Diversion Authority now has the responsibility to take all of these views and recommendations and combine them into a permittable application to the Minnesota DNR."

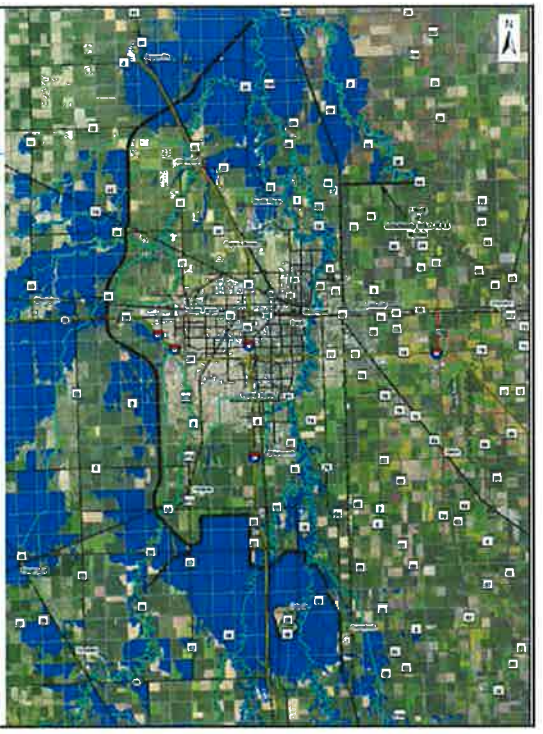
- Governor Dayton (MN)

Existing Conditions

- 100-year floodplain shown in Blue

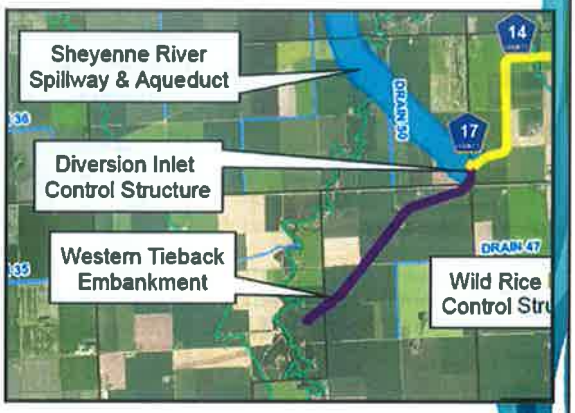
With Project

- 100-year floodplain with project shown in Blue



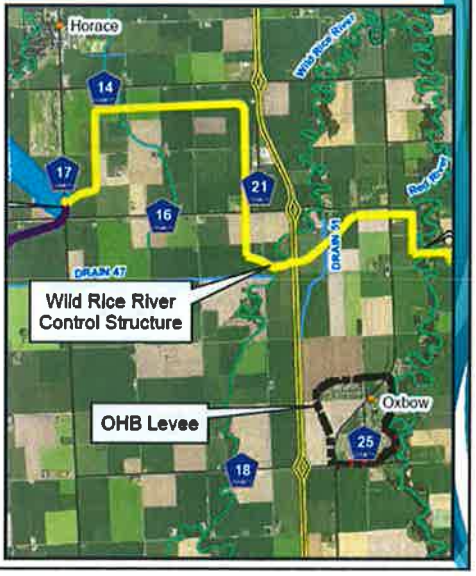
Revised Western Tie-Back Levee

- Shifts the western tie-back levee south and west from Horace
- Helps balance the impacts between North Dakota and Minnesota
- Reduces the impacts to Richland and Wilkin counties



Moving the Southern Embankment North

- Move the southern embankment north in balances the impacts between ND and MN
- Reduces the impacts to Richland and Wilkin counties
- Removes 4 of 11 cemeteries from the impacted area



Community Outreach

Plan B Presentations and Information Distribution

- Clay, Cass, Richland, and Wilkin Counties
- Cities of Fargo, Harwood, Horace, Oxbow, Reiles Acres, and West Fargo in ND
- Cities of Moorhead, Dilworth, and Comstock in MN
- Townships:
  - Barnes, Berlin, Harwood, Mapleton, Pleasant, Raymond, Reed, Stanley, and Wiser in ND
  - Holy Cross in MN
- Buffalo Red River Watershed District
- Cass County Joint Water Resource District

What's Next

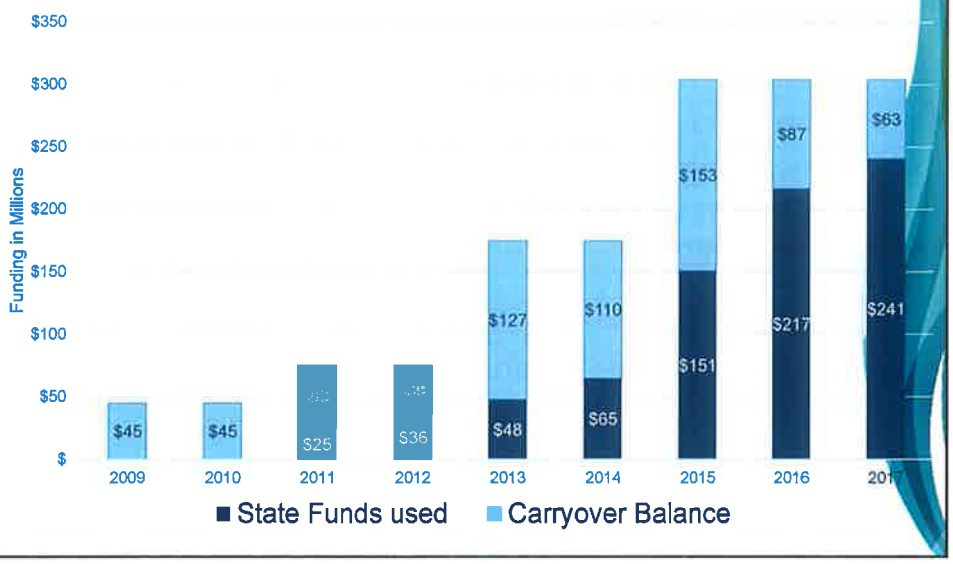
Process

- September 2017
- Task Force assembled
- Technical Advisory Group
- Policy Group
- Permit Submittal
- Community Outreach
- Public Comment period as part of Permit

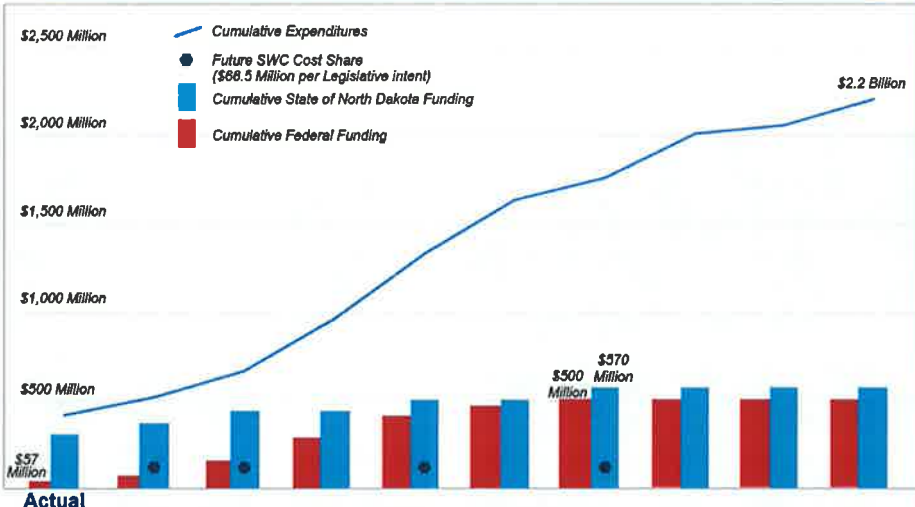
Technical & Financial

- Permit and Mitigation Plan Review
- New Cost Estimate
- Funding and Financial Planning
- Flowage Easement Valuation Study
- "Micro-siting" of Alignment

State Funding Utilization and Carry-Over



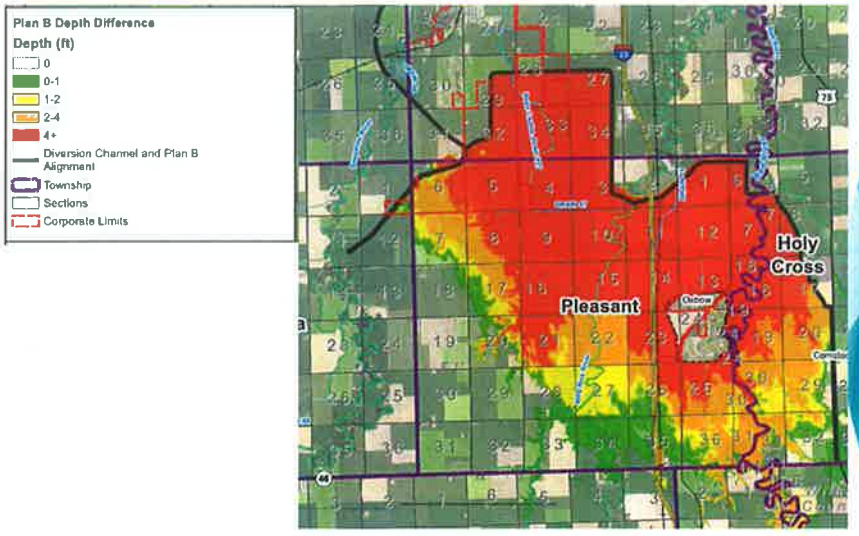
Forecasted Cumulative Expenditures and State Funding



End of Presentation

Supplemental Slides

Cass County Impacts (100-yr flood)



Cass County Impacts (100-yr flood)

	Pre-Task Force Project Impacts	Plan B Impacts	Change
Staging Area Total Area (Acres)	16,290	19,802	+3,512
Staging Area Additional Area (Acres)	5,964	7,155	+1,191
Total Impacted Residential Structures in Staging Area	41	58	+17
Newly Impacted Residential Structures in Staging Area	32	42	+10

Flowage Easement Parcel (SAMPLE)

- State and Federal Regulations require property rights to the Spillway Elevation
  - Estimated elevation = 923.5'
  - Easement applied to parcel areas below 923.5'
- Development allowed in accordance with floodplain rules
- Study underway with Crown Appraisal to value easements

FM AREA DIVERSION PROJECT

Other Alternatives Considered (NOT IN PLAN B)

APPENDIX Q

North Dakota State Water Commission

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

MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele P.E., Chief Engineer – Secretary
SUBJECT: Devils Lake Hydrologic and Outlet Updates
DATE: March 21, 2018

Hydrologic Update

The March 21st Devils Lake water surface elevation is 1449.65 feet which is approximately 0.6 ft below the lake level one year ago. March precipitation has been near average in the basin and the long-range outlook for Apr-May-Jun is currently indicating chances for above normal precipitation. The most recent National Weather Service lake rise probability forecast was released on March 20th and the results are summarized in the following table. In 2018, the lake is expected to rise between 0.5 and 1.0 feet from spring runoff.

Devils Lake at Creel Bay	80% Chance (1450.1 ft)	50% Chance (1450.3 ft)	10% Chance (1450.7 ft)
Total Elevation	+ 0.45 ft	+ 0.65 ft	+ 1.05 ft
Total Volume	+ 72,700 ac-ft	+ 105,700 ac-ft	+ 172,700 ac-ft
Total Area	+ 4,000 ac	+ 5,800 ac	+ 9,500 ac

Outlet Update

Additional holes were added to the Round Lake stand pipe center column in February. These holes are expected to provide additional foam suppression and improve West Outlet reliability.

A repair at the East Outlet terminal structure is being planned for the upcoming spring. Over time, the impact from the discharge falling onto the articulated concrete block has displaced the block and allowed erosion to begin occurring. The repair will fill the void caused by the erosion and reinforce the outfall surface of the structure so additional erosion cannot occur.

Tolna Coulee Control Structure

As the water level changes in Stump Lake, additional stop logs will be added or removed from the control structure to keep the stop logs approximately 1 foot below the water surface elevation. The natural outlet spill elevation of Stump Lake through Tolna Coulee is approximately 1458 ft. Currently, the stop logs are at set at an elevation of 1449.0 ft.

GE:JK:TD:ph/416-10

North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer-Secretary
SUBJECT: Missouri River Update
DATE: March 12, 2018

System/Reservoir Status

Total System

System volume on March 12 in the six mainstem reservoirs was 56.6 million acre-feet (MAF), 0.5 MAF above the base of flood control. This is 3.6 MAF above the average system volume for the end of February and 0.8 MAF less than a year ago.

Lake Sakakawea

On March 12, Lake Sakakawea was at an elevation of 1837.6 feet msl, 0.1 feet above the base of flood control. This is 1.4 feet lower than a year ago and 6.3 feet above its average end of February elevation. The lowest recorded end of February elevation was 1806.9 feet msl in 2007, and the highest recorded end of February elevation was 1842.8 feet msl in 1973.

Lake Oahe

On March 12, the elevation of Lake Oahe was 1607.9 feet msl, 0.4 feet above the base of flood control. This is 0.4 feet lower than a year ago and 7.0 feet higher than the average end of February elevation. The lowest recorded end of February elevation was 1572.3 feet msl in 2007, and the highest recorded end of February elevation was 1611.1 feet msl in 1996.

Fort Peck

On March 12, the elevation of Fort Peck was 2233.8 feet msl, which is 0.2 feet below the base of flood control. This is 1.4 feet lower than a year ago and 6.7 feet higher than the average end of February elevation. The lowest recorded end of February elevation was 2196.3 feet msl in 2007, and the highest recorded end of February elevation was 2243.5 feet msl in 1976.

Runoff and Reservoir Forecasts

On March 5, mountain snowpack in the "Above Fort Peck" reach was 130% of average. In the "Fort Peck to Garrison" reach it was 136% of average. Typically, 79% of the peak mountain snowpack has accumulated by March 1, and it normally peaks in mid-April.

According to the March reservoir forecast, releases from Garrison Dam are predicted to be 22,000 cfs in March and 26,000 cfs in April. Due to the snowpack in Montana and Wyoming, summer flows (June – August) are forecasted to be 35,000 cfs, similar to the flows seen during the summer of 2017. The March runoff forecast predicts runoff above Sioux City for this year to be 29.0 MAF or 115% of average.

Ice-Affected Flow on Missouri River

The risk of ice jam related flood events on the Missouri River is increased during the spring thaw as the larger ice sheets break up and begin to flow downstream. SWC staff will monitor the river closely during this period in order to be as proactive as possible, should an ice jam occur.

Missouri River Recovery Implementation Committee (MRRIC)

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

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

A draft of the Biological Opinion (BiOp) was delivered to the USACE in early February and to MRRIC on February 12, 2017. The draft BiOp has been reviewed by SWC staff.

The updated tentative schedule for compliance with the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA) is as follows:

- March 2018: USFWS to release Final Biological Opinion (BiOp)
- Summer/Fall 2018: Issue Final EIS & Record of Decision

Water Supply Rule

The comment period for the Corps' proposed Water Supply Rule ended on November 17, 2017. Currently, the Corps intends to finalize the Water Supply Rule in September 2018, with it becoming effective in November 2018.

The proposed rule pertains to the use of water from Corps' reservoirs for domestic, municipal, and industrial water supply. It attempts to define how the Corps would require users to enter into storage contracts and be charged for the use of water for those purposes. The state submitted comments that primarily center around the issue that the proposed rule is fundamentally flawed because of the Corps' misunderstanding of state versus federal jurisdictions with respect to water appropriation and western water law and its interpretation of the 1944 Flood Control Act. The proposed rule does not recognize states' rights to allocate water and interferes with states' sovereign rights.

GE:JGK:pdh/1392

North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer/Secretary
SUBJECT: NDSWC– Mouse River Update
DATE: March 12, 2018

Mouse River Enhanced Flood Protection Project

The Souris River Joint Board (SRJB) sponsored Mouse River Enhanced Flood Protection Project (MREFPP) is a basin wide project looking to reduce flood risk in the Mouse River Basin within North Dakota. The United States Army Corps of Engineers' (Corps) Section 404 permit for the first stage of the project was signed on February 16, 2018. The Section 404 permit was the final state/federal permit needed for the first stages of the flood control project in Minot. With the acquisition of all state/federal permits, the SRJB has scheduled the official ground breaking for the first three phases of the project on March 28th, 2018 at 1:30 p.m.

Integrated Feasibility Study

The Integrated Feasibility Study with the Corps is being conducted to determine if the federal government has interest in the MREFPP. The Corps has selected a Tentatively Selected Plan, the Maple Diversion, which ties into the MREFPP. The SRJB has submitted preliminary designs and cost estimates for the Tentatively Selected Plan to the Corps in order to speed up the preparation of the final report, known as the Chief's Report. The SRJB hopes to have the Chief's Report completed by the end of the year. This shortened timeline may allow the Tentatively Selected Plan to be considered for funding in Congress' next Water Resource Development Act.

Plan of Study

The International Joint Commission's Plan of Study will review and update the operating agreements for Rafferty, Grant Devine, Boundary, and Darling Dams. An appointed Study Board, which manages the review and update process, released their draft work plan for public comment. Public comments were due on March 12, 2018, and the Study Board is currently reviewing them.

The Study Board is also currently working on developing a modeling framework to complete the Plan of Study. The modeling framework will include a series of advanced hydrologic and hydraulic models that have been or need to be developed as part of the study.

System/Reservoir Status Above Minot

Total System

System volume on March 13 in the four reservoirs above Minot was approximately 530,000 acre-feet, with an available flood storage volume of nearly 330,000 acre-ft. The normal end of February storage (for flood and non-flood years) is approximately 540,000 acre-ft.

Boundary Reservoir (Saskatchewan)

On March 13, Boundary Reservoir was at an elevation of 1834.64 feet msl, 5.35 feet below the full supply level. The maximum allowable flood level, full supply level, and normal draw down level is 1840 feet msl.

Rafferty Reservoir (Saskatchewan)

On March 13, Rafferty Reservoir was at an elevation of 1802.82 feet msl, 3.28 feet below the full supply level. The normal end of February elevation (for flood and non-flood years) is 1802.82 feet, and the maximum allowable flood level is 1871.59 feet msl.

Grant Devine Reservoir (Saskatchewan)

On March 13, Grant Devine Reservoir was at an elevation of 1840.55 feet msl, 3.28 feet below the full supply level. The normal end of February elevation (for flood and non-flood years) is 1840.55 feet msl, and the maximum allowable flood level is 1860.24 feet msl.

Darling Reservoir (North Dakota)

On March 13, Darling Reservoir was at an elevation of 1596.00 feet msl, one foot below the full supply level. The normal end of February elevation (for flood and non-flood years) is 1596.00 feet, and the maximum allowable flood level is 1601.00 feet msl.

GE:CK:ph/1974

North Dakota State Water Commission

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer-Secretary
SUBJECT: NAWS – Project Update
DATE: March 22, 2018

Manitoba & Missouri Lawsuit

Summary judgement was granted to North Dakota on August 10, 2017. Both plaintiffs filed appeals in October and initial filings were due November 27, 2017. The court issued a briefing schedule January 3, 2018 with appellant's briefs due February 12, 2018, appellee's briefs due March 14, 2018, and appellant's reply briefs due March 28, 2018. A joint motion was filed and approved by the court to hold the case in abeyance for 90 days to allow settlement negotiations between appellant Manitoba and the appellees. Discussions amongst the legal counsels suggest both sides are in general agreement and efforts are underway to work out the details. Briefing will resume May 14, 2018 and be complete by July 19, 2018. Appellant Missouri is not part of the settlement negotiations. We anticipate oral arguments in the fall of 2018.

Biota Water Treatment Plant Design

A pre-design meeting for the Biota WTP has held May 23, 2017 at Reclamation's office in Bismarck with the intent of establishing the guidelines for the design to ensure compliance with the Final SEIS and ROD. Multiple treatment technologies were examined. Discussions were held with legal counsel for the State and the Department of Interior regarding the flexibility of design allowed by the environmental documents. It was determined that there was little flexibility allowed by the Record of Decision so design is proceeding on a conventional water treatment plant utilizing dissolved air floatation as the sedimentation process and dual media filtration. Preparations are being made to pilot the treatment processes this summer and fall. The estimated cost of this design is roughly $5.5 million. As this is a federal facility, it is 100 percent eligible for federal reimbursement for design, construction, and operations and maintenance.

NAWS Contract 7-1B

NAWS Contract 7-1B was awarded by the State Water Commission at its February 8, 2018 meeting to PKG Contracting and generally consists of construction of a new primary treatment building at the Minot water treatment facility to replace the aging softening basins, chemical storage and feed systems, a new laboratory, break room, and IT facilities. All contract documents have been executed and the notice to proceed was signed March 21, 2018. A preconstruction conference was held that same day in Minot. The contractor plans to accomplish as much of the work inside the existing plant as possible during low water use periods. The substantial completion date for this contract is December 20, 2019.

US 83 Bypass Infrastructure Impacts

The NDDOT plans to continue to widen US 83 bypass around Minot to 4 lanes in 2019. We already have modified NAWS infrastructure near the Mouse River to accommodate the road expansion in 2016 and now will have to relocate the meter vault serving Minot's North hill connection, extend a bore casing to accommodate the new driving lane, and extend the piping.

GE:TJF:pdh/237-04

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MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Garland Erbele, P.E., Chief Engineer - Secretary
SUBJECT: SWPP – Project Update
DATE: March 16, 2018

Oliver, Mercer, North Dunn (OMND) Regional Service Area
Rural Distribution Contracts 7-9E, 7-9G Bid Schedule 1 and 2:
Final administrative items remain before final payments can be made on Contract 7-9E and Contracts 7-9G Bid Schedules 1 and 2.

Contract 5-17 Dunn Center Elevated Reservoir:
This contract has been closed out.

Other Contracts
Contract 8-1A New Hradec Reservoir:
This contract involves furnishing and installing a 296,000-gallon fusion powder coated bolted steel reservoir. Olander Contracting Company is the contractor. The contract documents were executed on May 16, 2013, and the Notice to Proceed was issued on June 3, 2013. The substantial completion date on this contract was September 15, 2013. The tank was put into service on February 20, 2014. The contractor disputes the liquidated damages withheld. The contractor has not provided any justification for the delays. The contractor has filed a lawsuit against us and their tank sub-contractor. Our legal counsel has filed an answer to their lawsuit. We have not heard anything regarding the lawsuit for many months.

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

The water treatment plant started producing finished water on February 7, 2018. The contractors have completed the outstanding items necessary to obtain the occupancy permit from the City of Dickinson. An issue with the concrete floor has been identified and solutions for remedying it have been proposed to the General contractor. Discussion with the General contractor with regards to responsibility of heat and power costs when the process systems were partially operational is ongoing. To date, four change orders totaling $225,726.24 (1 percent of the contract amount) have been signed by all parties.

In the Electrical contract, a change order for $25,408.92 (1 percent of the contract amount) is currently being processed.

In the Mechanical contract, one change order for $46,272.62 (2 percent of the contract amount) has been signed by all parties.

All three contractors are working on punch list items identified by the engineer.

Contract 3-2E Residual Handling Building at Dickinson WTP:

The preconstruction conference for this contract was held on October 5, 2017 with all three contractors, Rice Lake Construction Group, Central Mechanical, Inc. and Edling Electric. The General Contractor, Rice Lake Construction Group, mobilized to site on October 16, 2017 and has completed the base slab pours and wall pours in the basement. The General contractor is currently working on decking and shoring for the first-floor slab pour. Both the Electrical and Mechanical contractors are coordinating the placement of conduits and wall sleeves with the concrete pours.

During the overnight hours on December 18, 2017, the construction site flooded because of a malfunctioning raw water control valve in the Water Treatment Plant site. This caused a week delay for this contract. The contractor has filed claims with the Builder's Risk insurance policy.

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

The State Water Commission (SWC), at its October 12, 2016 meeting, awarded Contract 5-2A, 2nd Dickinson Reservoir, to John T. Jones Construction Company. Preconstruction conference for this contract was held on March 30, 2017. The construction of the reservoir walls is complete. The leak test of the reservoir walls is complete. The contractor completed installation of the top three rings of the dome on the ground before ceasing construction because of unfavorable weather conditions. The contract completion date on this contract is November 1, 2017. One change order for $19,475 (0.5 percent of the contract amount) has been executed by all parties.

The SWC at its December 9, 2016 meeting awarded Contract 5-1A, 2nd Richardton Reservoir, to Engineering America, Inc. A preconstruction conference for this was held on June 7, 2017. The tank panel installation is mostly complete. The contract has a milestone completion date of November 15, 2017 for the work on the new reservoir. The contractor sent in a letter requesting extension through January 5, 2018. BW/AECOM has responded to their request agreeing to 17 out of the 31 days requested which extended the completion date to December 11, 2017. The inlet piping to the reservoir has not passed the pressure test. Because of the unfavorable weather conditions for completing the remaining work, extension of the contract completion date is being considered with the contractor being asked to reimburse the State Water Commission for the additional field inspection costs. One change order for $21,487.78 (1 percent of the contract amount) has been executed by all parties.

Contract 2-1B Raw Water Line Capacity Upgrade from intake to OMND WTP:

The scope of work for Contract 2-1B generally consists of furnishing and installing 19,026 lineal feet of 30" diameter steel pipeline. This construction season, the contractor planned on completing all three jack and bore crossings on the contract. Currently the contractor has completed two out of the three crossings and is expected to return this spring to resume construction on this Contract. Alignment changes because of observed field conditions are being incorporated in the construction design.

Contract 1-2A Supplemental Raw Water Intake:

The contractor, J.W.Fowler Company (JWF), launched the Microtunneling Boring Machine (MTBM) along the current alignment on August 2017. On October 5, 2017, JWF had installed approximately 1000 feet of intake pipe when employees observed some cracks on pipe no. 58 located approximately 500 feet from the caisson. After pushing a few additional pipes, the cracks

worsened. On October 18, 2017, JWF informed that the best course of action to remediate the incident was to leave the installed pipe string in place and pursue other options to complete the intake pipe to the screen location.

JWF's initial plan was to install a rescue shaft 65 feet X 25 feet on top of the MTBM to retrieve the machine and relaunch the machine from the rescue shaft. This information was conveyed to the United States Army Corps of Engineers (USACE) to get permission for performing geotechnical exploration. USACE's review indicated that the rescue shaft is located on an established culturally significant site. USACE's ability to allow a rescue shaft at the location would depend on consultation and review by other agencies and tribes and will involve a significant amount of time. JWF is evaluating other options which include constructing an emergency rescue shaft on the shoreline approximately 150' lake side of the MTBM location or installing the intake pipe by using Direct Pipe® option from near the existing shaft to the proposed screen location. JWF is exploring both the options at this point and working with the builder's risk to secure coverage. An application for completing the geotechnical exploration bore holes at the emergency rescue shaft location has been submitted to the Corps of Engineers.

Upgrades at the Dodge and Richardton pump stations:

Design of the upgrades at the Dodge and Richardton pump stations to increase the raw water transmission capacity to Dickinson from 9,150 gpm to 13,200 gpm is currently underway.

Transfer of Service Agreements:

At the December 12, 2015 SWC meeting, the Commission approved the Transfer of Service agreement between the City of Killdeer, the SWA and the SWC. This was the first annexation agreement negotiated between a city served by Southwest Pipeline Project and the SWA. In early January 2016, the SWA mailed similar agreements to 33 communities within the SWPP service area except for the City of Dickinson using the same template as used for the City of Killdeer. The SWA has been negotiating different terms with the City of Dickinson, but now the City of Dickinson is agreeable to the same terms as the other communities. Some communities executed the agreement, while many communities expressed concerns about terms of the annexation agreement that was mailed to them. The SWA continues to meet with the communities to negotiate the terms. Twenty-nine communities out of the total 35 communities have executed the agreement.

GE:SSP:pdh/1736-99

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MEMORANDUM

TO: Governor Doug Burgum
State Water Commissioners

FROM: Garland Erbele, PE, Chief Engineer-Secretary

SUBJECT: Drought Disaster Livestock Water Supply Program Update

DATE: March 23, 2018

Background

The State Water Commission (Commission) reactivated the Drought Disaster Livestock Water Supply Program (Program) on June 23, 2017, in response to the severe drought impacting North Dakota and its' livestock producers.

The Program provides 50% cost-share, up to $3,500 per project, with up to three projects per eligible livestock producer, for financial assistance in the development of long-term and reliable water supply sources that can mitigate water shortages caused by drought.

Program Updates

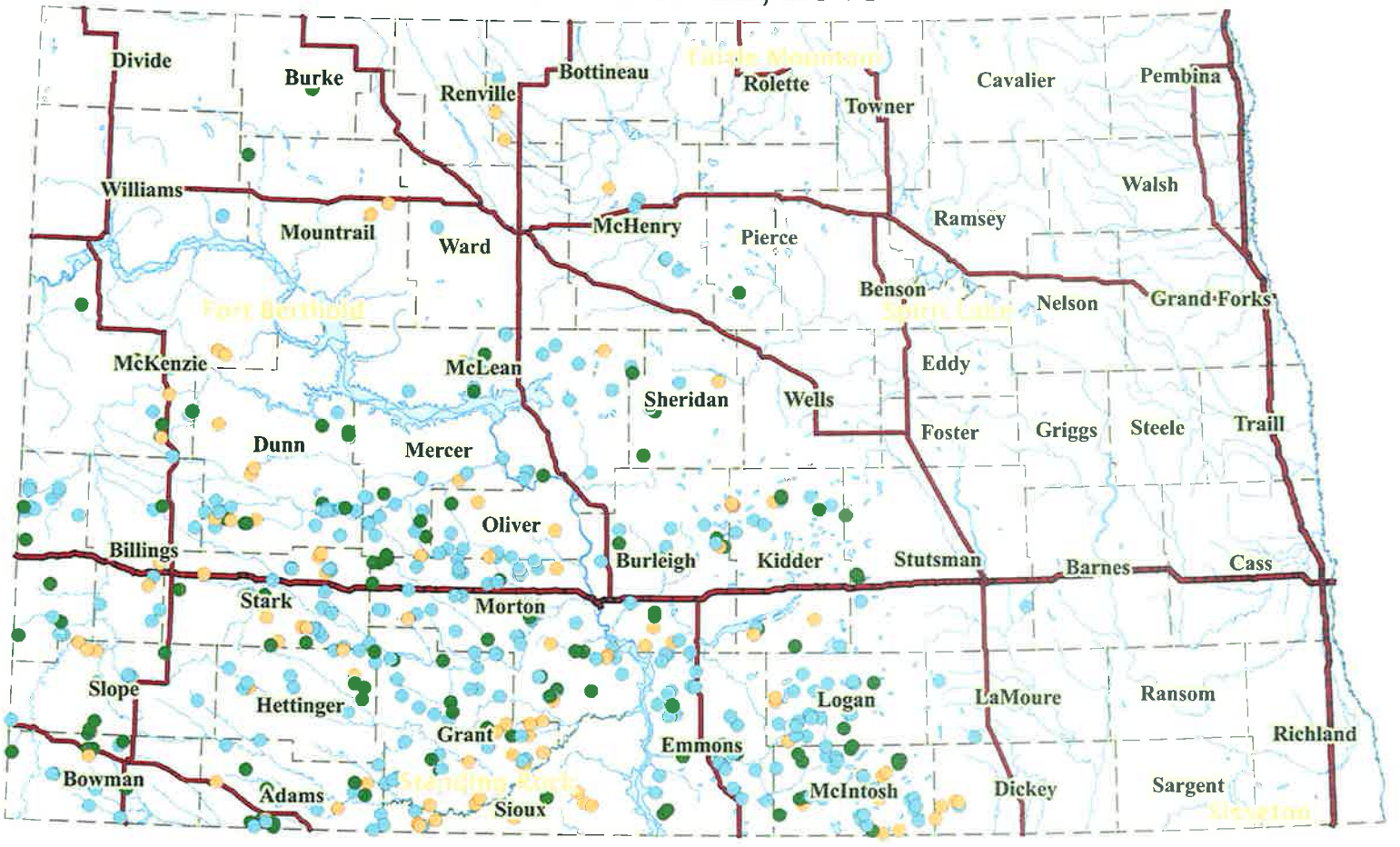
The Program has received $2.025 million in funding from the Commission through multiple allocations. To date, approximately $1.5 million has been approved for 518 eligible projects, involving 367 producers. Thus far, 292 projects have been completed, and 99 projects have received completion deadline extensions. Approximately $920,000 has been reimbursed to producers for completed projects (see attached), and approximately $540,000 currently remains unobligated.

The administrative code changes that were approved by the Commission at their February meeting, to provide clarity for future administration of the program, were approved by the Legislature's Administrative Rules Subcommittee, and became effective on April 1, 2018.

Drought conditions persist throughout the state, and new requests for financial assistance through the Program continue to come in. Commission staff have been continuing to approve eligible projects.

GE/pf/mn/dm:1851

Drought Disaster Livestock Water Supply Project Assistance Program
As of March 22, 2018



Approved
Completed
Extension

518 Projects By 367 Applicants, Approved For Approx $1,480,000

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MEMORANDUM

TO: Governor Doug Burgum
State Water Commission Members

FROM: Garland Erbele, P.E., Chief Engineer-Secretary

DATE: March 21, 2018

SUBJECT: SWC Economic Analysis and Life Cycle Cost Analysis Process Development

Background

Legislation passed by the North Dakota Legislature in 2017 created NDCC 61-03-21.4 - requiring the State Engineer to: *"develop an economic analysis process for water conveyance projects and flood-related projects expected to cost more than one million dollars, and a life cycle analysis process for municipal water supply projects. When the State Water Commission is considering whether to fund a water conveyance project, flood-related project, or water supply project, the State Engineer shall review the economic analysis or life cycle analysis, and inform the State Water Commission of the findings from the analysis and review."*

To comply with the 2017 legislation, the Water Commission has contracted with HDR to assist the agency in drafting economic analysis and life cycle cost analysis guidelines. In addition, the agency and HDR are also working on fillable platforms that project sponsors and the agency will be able to access to assist with more efficient assessments of projects.

Project Update

Since February 8, when the SWC was provided with an overview of both processes, HDR has solicited and received comments on the draft products from workshop attendees, and the agency. Currently, HDR is in the process of developing final drafts of the guidance documents and models for SWC consideration.

GE:pf/322

North Dakota Rural Water Systems
February 27, 2018

Water System	Year Organized	
Grand Forks-Traill Water District	1972	
Agassiz Water Users District	1973	
Walsh Rural Water District	1973	
North Prairie Rural Water District	1974	
Tri-County Rural Water District	1975	
All Seasons Water Users District	1976	
Cass Rural Water Users District	1976	
Northeast Regional Water District (North Valley Water District)	1976	Merged with Langdon Rural Water District in 2014
Traill Rural Water District	1976	
Dakota Rural Water District	1977	
Barnes Rural Water District	1978	
Northwest Rural Water District	1978	Formerly Williams Rural Water District
Southeast Water Users District	1978	
Upper Souris Water District	1980	
South Central Regional Water District	1981	
Belcourt Public Utilities	1982	
R & T Water Supply Association	1983	
Central Plains Water District	1986	
State Line Water Cooperative	1986	
Stutsman Rural Water District	1987	
Standing Rock Rural Water System	1987	
Fort Berthold Rural Water Supply System	1987	
Northeast Regional Water District (Langdon Rural Water District)	1988	Merged with North Valley Rural Water District in 2014
McLean-Sheridan Rural Water District	1989	
Southwest Pipeline Project	1991	
Greater Ramsey Water District	1992	
Garrison Rural Water District	1993	
Missouri West Water System	1993	
Spirit Lake Water Resource Management	1995	
Dickey Rural Water Users Association	1996	Merged with Southeast Water Users District in 2006
Ransom-Sargent Water Users District	1999	Merged with Southeast Water Users District in 2006
North Central Regional Water District	2002	
McKenzie County Water Resource District	2003	
Western Area Water Supply Authority	2011	