

MINUTES

North Dakota State Water Commission Bismarck, North Dakota

August 23, 2017

The North Dakota State Water Commission (State Water Commission or Commission) held a meeting at the State Office Building, Bismarck, North Dakota, on August 23, 2017. Governor Doug Burgum, Chairman, called the meeting to order at 9:00 a.m., and requested Garland Erbele, State Engineer, and Chief Engineer-Secretary to the State Water Commission, call the roll. Governor Burgum announced a quorum was present.

STATE WATER COMMISSION MEMBERS PRESENT:

Governor Doug Burgum, Chairman
Doug Goehring, Commissioner, North Dakota Department of Agriculture, Bismarck
Katie Andersen - Jamestown
Michael Anderson - Hillsboro
Richard Johnson – Devils Lake
Leander McDonald - Bismarck
Mark Owan - Williston
Matthew Pedersen – Valley City
Jason Zimmerman - Minot

OTHERS PRESENT:

Lieutenant Governor Brent Sanford
Leslie Oliver, General Counsel, Governor's Office
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 welcomed Cheryl Fitzgerald, State Water Commission Executive Assistant, to the Commission.

Governor Burgum recognized former State Water Commissioners Arne Berg, 11 years of service; Maurice Foley, 11 years of service; Larry Hanson, 18 years of service; George Nodland, four years of service; Harley Swenson, 24 years of service; Robert Thompson, 24 years of service; and, Douglas Vosper, nine years of service. Governor Burgum expressed his gratitude and appreciation to the Commissioners' dedication and

service to the State Water Commission and citizens of North Dakota. Governor Burgum requested Resolution Nos. 2017-08-533 through 2017-08-539 be attached to the meeting minutes. **SEE APPENDIX A.**

Governor Burgum introduced State Water Commissioners, welcomed them to the board, and thanked them for bringing their knowledge, expertise, and willingness to serve to the State Water Commission.

Jennifer Verleger, Assistant Attorney General, provided general guidance on conflicts of interest and the need to recuse oneself if monies are involved.

CONSIDERATION OF AGENDA:

The agenda for the August 23, 2017, State Water Commission meeting was presented; there were no modifications.

CONSIDERATION OF DRAFT MINUTES OF JUNE 22, 2017:

The draft minutes of the June 22, 2017, State Water Commission meeting were reviewed; there were no modifications.

It was moved by Commissioner Goehring, seconded by Governor Burgum, and unanimously carried, that the minutes of June 22, 2017, be approved as presented.

CONSIDERATION OF DRAFT MINUTES OF STATE WATER COMMISSION CONFERENCE CALL MEETING OF JULY 20, 2017:

Governor Burgum requested this item moved to discussion under Drought Disaster Livestock Water Supply Project Assistance Program funding.

STATE WATER COMMISSION FINANCIAL REPORTS:

The Allocated Program Expenditures for the period ending June 30, 2017, were presented and discussed by David Laschkewitsch, State Water Commission's Director of Administrative Services. The expenditures, in total, are within the authorized budget amounts. **SEE APPENDIX B.**

The Project Summary for the 2015-2017 Biennium, **APPENDIX C**, 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 \$919,958,288 with expenditures of \$526,889,302. The Commission will carry over \$384,058,619 of committee projects into the 2017-2019 biennium.

The oil extraction tax deposits into the Resources Trust Fund total \$240,564,950 through June 2017 and ended the biennium \$27,894,321 or 10.4 percent below originally budgeted revenues.

Deposits into the Water Development Trust Fund total \$18,208,436 through May 2017 and ended the biennium \$298,436 or 1.7 percent above budgeted revenues.

CITY OF GRAND FORKS, WATER TREATMENT PLANT – \$30,000,000
(SWC Project No. 2050GRF):

A request from the city of Grand Forks was presented for an additional \$30 million dollars for construction of their water treatment plant to provide water supply capacity to meet population and demand projections through 2050. The project will expand the capacity from 16.5 to 20 million gallons per day with expandability to 40 million gallons per day. The City of Grand Forks Regional Water Treatment Plant Update dated August 23, 2017, is attached as **APPENDIX D**.

Section 13 of the State Water Commission's 2015-2017 biennium appropriation bill, Senate Bill No. 2020, appropriated the sum of \$30,000,000 to this project, and expressed the intent to provide an additional \$30 million in the 2017-2019 biennium.

The State Water Commission obligated the 2015-2017 funding of \$30 million on October 12, 2016. Also, the Commission approved on October 7, 2013, \$4.99 million for design, bringing the total obligated to date to \$34.99 million. The 2017-2019 additional \$30 million would bring the total to \$64.99 million.

It was the recommendation of Secretary Erbele that the State Water Commission approve the additional cost-share of \$30,000,000 paid on 50 percent of eligible costs for the water treatment plant to the city of Grand Forks, contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission approve additional state cost-share of \$30,000,000, paid on 50 percent of eligible costs for construction from the funds appropriated to the State Water Commission in the 2017-2019 biennium, to the city of Grand Forks. This action is contingent upon the availability of funds.

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

CITY OF MERCER, CONNECT TO MCLEAN SHERIDAN WATER DISTRICT – \$166,950

(SWC Project No. 2050MER):

A request from the city of Mercer was presented for the State Water Commission's consideration for state cost participation for the construction of 3,000 feet of 8-inch water transmission line to connect the city to McLean Sheridan Water District to provide a bulk water supply to address current and future water demands of the city. The city's current supply is poor quality and inadequate quantity. The estimated eligible cost is \$232,627. Cost-share of 35 percent (\$6,580) on pre-construction costs and 75 percent on construction costs (\$160,370) provides total funding of \$166,950.

It was the recommendation of Secretary Erbele that the State Water Commission approve the total cost-share of 35 percent pre-construction and 75 percent construction in the amount of \$166,950. The funding is in the form of 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 total state cost-share of \$166,950, paid on eligible costs for 35 percent pre-construction and 75 percent construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds.

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

CITY OF NEW TOWN, WATER TRANSMISSION/STORAGE – \$1,040,000
(SWC Project No. 2050NEW):

A request from the city of New Town was presented for the State Water Commission's consideration for state cost participation for the construction of a 250,000-gallon elevated water tower and new water main to address current and future demands of the city. The existing system does not have adequate pressure zones to serve the growth areas of the northwestern area of the community. These growth areas are at higher elevations and require modifications to the existing distribution system to ensure adequate pressures and fire flows. The estimated eligible cost is \$2,060,000. The cost-share of 35 percent (\$52,500) on pre-construction costs and 60 percent (\$987,500) on construction costs provides total funding of \$1,040,000.

It was the recommendation of Secretary Erbele that the State Water Commission approve the total cost-share of 35 percent pre-construction and 60 percent construction in the amount of \$1,040,000. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission approve total state cost-share of \$1,040,000, paid on eligible costs for 35 percent pre-construction and 60 percent construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds.

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

**CITY OF WEST FARGO, BROOKS HARBOR WATER TOWER - \$1,950,000;
CITY OF WEST FARGO, NORTH LOOP CONNECTION - \$510,000;
CITY OF WEST FARGO, WEST LOOP CONNECTION - \$1,110,000;
TOTAL - \$3,570,000
(SWC Project No. 2050WES):**

West Fargo Brooks Harbor Water Tower - A request from the city of West Fargo was presented for the State Water Commission's consideration for state cost participation for the construction a of new 1,000,000-gallon elevated water tower on the southwest side of the city to address current and future demands in that area. West Fargo intends to complete the final design, bid the project, and begin construction by the fall of 2017. The estimated eligible cost is \$3,250,000. Cost-share of 60 percent on construction costs provides total funding of \$1,950,000.

West Fargo North Loop Connection - A request from the city of West Fargo was presented for the State Water Commission's consideration for state cost participation for the construction of 5,500 feet of 16-inch water transmission line on the north side of the city to address current and future demands of the city. West Fargo intends to complete the final design, bid the project, and begin construction by the fall of 2017. The estimated eligible cost is \$850,000. Cost-share of 60 percent on construction costs provides total funding of \$510,000.

West Fargo West Loop Connection - A request from the city of West Fargo was presented for the State Water Commission's consideration for state cost participation for the construction of 12,500 feet of 16-inch water transmission line on the west side of the city to address current and future demands of the city. West Fargo intends to complete the final design, bid the project, and begin construction by the fall of 2017. The

estimated eligible cost is \$1,850,000. Cost-share of 60 percent on construction costs provides total funding of \$1,110,000.

It was the recommendation of Secretary Erbele that the State Water Commission approve the total cost-share of 60 percent construction in the total amount of \$3,570,000 for the above projects. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioner Andersen that the State Water Commission approve state cost-share amounts of \$1,950,000 for Brooks Harbor Water Tower; \$510,000 for North Loop Connection; and, \$1,110,000 for West Loop Connection for a total state cost-share of \$3,570,000, paid on eligible costs for 60 percent construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds.

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

CITY OF WILLISTON, US HIGHWAY 2 WATER MAIN - \$434,000
(SWC Project No. 2050WLL):

A request from the city of Williston was presented for the State Water Commission's consideration for state cost participation for the construction of water main crossings of US Hwy 2, an upgrade to the existing rural water line in a frontage road to provide increased service and establish an additional interconnection between the existing Williams rural water line and the city's transmission line on the west side of the city. The City intends to complete construction in 2018. The estimated eligible cost is \$724,000. Cost-share of 60 percent on construction costs provides total funding of \$434,400. Bob Hanson, City Engineer, Williston, provided a project map, and attached as **APPENDIX E**.

It was the recommendation of Secretary Erbele that the State Water Commission approve the cost-share of 60 percent construction in the total amount of \$434,000. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioner Zimmerman that the State Water Commission approve total state cost-share of \$434,000, paid on eligible costs for 60 percent construction, from the funds appropriated to the State Water

Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds.

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

GREATER RAMSEY WATER DISTRICT, EXPANSION PHASE II - \$599,000
(SWC Project No. 2050RAM):

A request from the Greater Ramsey Water District (Greater Ramsey) was presented for the State Water Commission's consideration for state cost participation for assistance to purchase permanent water capacity from the city of Devils Lake water system to supply water to the northern portion of the Greater Ramsey's system. Greater Ramsey has experienced tremendous growth during the past 15 years with membership increasing from 700 to over 2,300 water users. Greater Ramsey's existing water treatment plant capacity is fully utilized. The project provides Greater Ramsey with 13.8 percent (400 gallons per minute) of the Devils Lake's water treatment plant (2,900 gallons per minute) and 19.1 percent (400 gallons per minute) of the water supply system (2,100 gallons per minute). The Devils Lake's non-grant water system cost was \$4,689,144. The estimated eligible cost is \$798,700. Cost-share of 75 percent on construction costs provides total funding of \$599,000.

It was the recommendation of Secretary Erbele that the State Water Commission approve the cost-share for the project of 75 percent construction in the total amount of \$599,000. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

Commissioner Johnson declared for the record that he is mayor of Devils Lake.

It was moved by Commissioner Pedersen and seconded by Commissioner Anderson that the State Water Commission approve total state cost-share of \$599,000, paid on eligible costs for 75 percent construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds and the final buy in of bulk water use agreement between Greater Ramsey and Devils Lake.

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

NORTH CENTRAL DISTRICT, MOUNTRAIL PHASE II (SUPPLY) – \$3,086,000;
NORTH CENTRAL DISTRICT, MOUNTRAIL PHASE III (EXPANSION) – \$3,430,000;
TOTAL - \$6,516,000
(SWC Project No. 2050NOC):

North Central Regional Water District Mountrail Phase II - A request from the North Central Regional Water District (North Central) was presented for the State Water Commission's consideration for state cost participation for the second phase of the project to supply the southeast corner of Mountrail County, Plaza, and western Ward County. Phase I provided a temporary supply to the city of Plaza and the western edge of Ward County in 2014 to meet the current needs of the area, but could not meet the future growth of the area. Phase II allows growth for Plaza and western Ward County along with the construction of Mountrail Phase III rural expansion. North Central intends to complete the final design, bid the project, and begin construction by the spring of 2018. The estimated eligible cost is \$4,235,467. Cost-share of 35 percent (\$79,275) on pre-construction costs and 75 percent (\$3,006,725) on construction costs provides total funding of \$3,086,000.

North Central Regional Water District Mountrail Phase III - A request from North Central was presented for the State Water Commission's consideration for state cost participation for the third phase of the project to expand a rural water system into southeast Mountrail County and western Ward County. North Central intends to complete the final design, bid the project, and begin construction by the spring of 2018. The estimated eligible cost is \$4,695,467. Cost-share of 35 percent (\$80,150) on pre-construction costs and 75 percent (\$3,349,850) on construction costs provides total funding of \$3,430,000.

It was the recommendation of Secretary Erbele that the State Water Commission approve the total cost-share for the two above projects of 35 percent on pre-construction costs and 75 percent on construction costs in the amount of \$6,516,000. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

It was moved by Commissioner Owan and seconded by Commissioner Goehring that the State Water Commission approve state cost-share amounts of \$3,086,000 for Mountrail Phase II; and, \$3,430,000 for Mountrail Phase III for a total state cost-share of \$6,516,000, paid on eligible costs for 35 percent pre-construction, and 75 percent construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

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

SOUTHEAST WATER USERS DISTRICT, SYSTEM WIDE EXPANSION - \$2,749,000
(SWC Project No. 2050SOE):

A request from Southeast Water Users District was presented for the State Water Commission's consideration for state cost participation for additional cost-share to add 130 users in a system wide expansion project. The overall expansion project will provide water service for 480 rural users throughout the currently unserved areas in Dickey, LaMoure, Logan, Ransom, Richland, and Sargent counties and capacity for service to the city of Walcott. The previously approved cost-share was \$11,826,000. The additional eligible cost is \$3,682,530. Cost-share of 35 percent (\$11,285) on pre-construction costs and 75 percent (\$2,737,715) on construction costs provides total additional funding of \$2,749,000.

Brian Bergantine and Chase Julson, AE2S, Fargo, provided updates on the system wide expansion project. A summary of the presentation dated August 17, 2017, is included as **APPENDIX F**.

It was the recommendation of Secretary Erbele that the State Water Commission approve the cost-share for the project of 35 percent of pre-construction costs and 75 percent construction in the total amount of \$2,749,000. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioners Andersen and McDonald that the State Water Commission approve additional total state cost-share of \$2,749,000, paid on eligible costs for 35 percent pre-construction, and 75 percent construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds.

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

RURAL WATER DISTRICTS, PRE-CONSTRUCTION - \$308,155

Requests from the following water districts were presented for the State Water Commission's consideration for state cost participation for pre-construction costs. The major steps in the development of any project include final project planning, the local sponsor obtaining the local match, and completing plans and specifications for bidding the project. The project construction funding will be considered later in the biennium when revenues for the biennium are better known. The project cost-share funding is summarized with each project description below:

CASS RURAL WATER USERS DISTRICT, HORACE STORAGE TANK - \$91,000
(SWC Project No. 2050CAS):

The funding request is for construction of a 500,000-gallon Horace area storage tank to address current and future demands of the system in the area along Cass County Road 17, between West Fargo and Horace. The estimated eligible cost is \$2,600,000, including pre-construction cost of \$260,000. Cost-share of 35 percent on pre-construction costs provides funding of \$91,000.

GRAND FORKS TRAILL WATER DISTRICT, EXPANSION/INTERCONNECT - \$51,000
(SWC Project No. 2050GFT):

The funding request is for adding new users, upsizing pipelines for system capacity, and interconnection with Trail Rural Water District to address current and future demands in the southern and eastern area of the system. The estimated eligible cost is \$5,992,533, including pre-construction cost of \$360,000. The previously approved cost-share on pre-construction was \$75,000. Cost-share of 35 percent on pre-construction costs provides \$126,000 or an additional \$51,000.

NORTH PRAIRIE RURAL WATER DISTRICT, RESERVOIR 9 WATER SUPPLY- \$26,950
(SWC Project No. 2050NOR):

The funding request is for construction of 8-inch water transmission line southwest of Minot to address current and future demands of the system. The estimated eligible cost is \$1,468,000, including pre-construction cost of \$77,000. Cost-share of 35 percent on pre-construction costs provides funding of \$26,950.

NORTH PRAIRIE RURAL WATER DISTRICT, SURREY SILVER SPRING - \$5,950
(SWC Project No. 2050NOC):

The funding request is for construction of a 12-inch water transmission line to the city of Surrey's Silver Springs Development to address current and future demands. Surrey receives bulk water from North Prairie. The estimated eligible cost is \$269,000, including pre-construction cost of \$17,000. Cost-share of 35 percent on pre-construction costs provides funding of \$5,950.

TRAILL RURAL WATER DISTRICT, EXPANSION/INTERCONNECT - \$75,880
(SWC Project No. 2050TRA):

The funding request is for adding new users, upsizing pipelines in the northwestern portion for system capacity, and interconnection with Grand Forks Trail Rural Water District to address current and future demands of the system. The estimated eligible cost is \$2,223,427, including pre-construction cost of \$216,800. Cost-share of 35 percent on pre-construction costs provides funding of \$75,880.

WALSH RURAL WATER DISTRICT, SYSTEM EXPANSION - \$57,375
(SWC Project No. 2050WAL):

The funding request is for adding new users, upsizing pipelines in the southern and eastern portion for system capacity to address current and future demands of the system. The estimated eligible cost is \$1,876,676, including pre-construction cost of \$163,929. Cost-share of 35 percent on pre-construction costs provides funding of \$57,375.

It was the recommendation of Secretary Erbele that the State Water Commission approve the cost-share funding for the above water districts projects for 35 percent of pre-construction costs in the total amount of \$308,155. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

Commissioner Anderson declared for the record that he is a member of the Traill Rural Water District Board of Directors.

It was moved by Commissioner Goehring and seconded by Commissioners Johnson and Owan that the State Water Commission approve state cost-share amounts of \$91,000 for Cass Rural Water Users District Horace Storage Tank; an additional \$51,000 for Grand Forks Traill Water District Expansion/Interconnect; \$26,950 for North Prairie Rural Water District Reservoir 9 Water Supply; \$5,950 for North Prairie Rural Water District Surrey Silver Spring; \$75,880 for Traill Rural Water District Expansion/Interconnect; and, \$57,375 for Walsh Rural Water District System Expansion for a total state cost-share of \$308,155, paid on eligible costs for 35 percent pre-construction, for construction from the funds appropriated to the State Water Commission in the 2017-2019 biennium. The funding is in the form of cost-share towards eligible costs and contingent on available funding.

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

CITY OF LISBON PERMANENT FLOOD CONTROL PROJECT,
LEVEE D CONSTRUCTION (LOAN) - \$900,000
(SWC Project No. 1991-09)

A request from City of Lisbon (City) was presented for the State Water Commission's consideration for state cost participation for their Permanent Flood Protection Phase 1 - Levee D Loan.

In 2014, City began construction of Phase I – Levee A. In 2015, City began construction of Phase I – Levee C. In 2016, City began construction of Phase I – Levee E. Cost-share for Levee D Construction was approved by the State Water Commission for \$3,600,000 (80 percent) on March 29, 2017. This project included approximately 1,200 LF of earthen levee, 585 LF of concrete floodwall, and 64 LF of removable stop logs on the east side of the Sheyenne River. City is requesting a 30-year loan at 1.5 percent interest for the remaining 20 percent, not to exceed \$900,000. This loan was requested as part of the original cost-share request, but there was inadequate funding remaining in our loan fund until the cap was increased during the recent legislative session.

It was the recommendation of Secretary Erbele that the State Water Commission approve the 30-year loan from the State Water Commission to cover the remaining cost of the project at 1.5 percent interest, not to exceed \$900,000. The funding is subject to the entire contents of the recommendation contained herein and contingent on available funding.

It was moved by Commissioner Goehring and seconded by Commissioner Anderson that the State Water Commission approve the 30-year loan from the State Water Commission to cover the remaining cost of the project at 1.5 percent interest, not to exceed \$900,000, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the entire contents of the recommendation and availability of funds.

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

SOUTHWEST PIPELINE PROJECT, CONTRACT 3-2E, RESIDUAL HANDLING FACILITY - \$6.3 MILLION
(SWC Project No. 1736-99):

Bids for Contract 3-2E were opened on July 20, 2017. The scope of work for this project generally consists of the construction of a 65 ft. by 80 ft. reinforced concrete and pre-cast concrete building and the installation of pumping, piping, dewatering equipment, mechanical, electrical and instrumentation systems.

As required by North Dakota Century Code §48-01.2-06, the contract was divided into separate prime bids for the General, Mechanical, and Electrical portions of the work. A combined single bid was also provided to encompass all individual scopes of work.

The Southwest Pipeline Project's (SWPP) existing 12 Million Gallons per Day (MGD) Water Treatment Plant (WTP) and the supplemental 6 MGD WTP under construction in

Dickinson, use a lime softening treatment process. The lime sludge produced from the existing WTP is disposed of in the sludge ponds located directly south of the WTP location across the Heart River. The sludge ponds are very close to their design capacity, and discharge of lime sludge to the sludge ponds within city limits is not very desirable. Disposal of sludge accumulated at the sludge ponds for cleaning the ponds is difficult and expensive. The proposed Residual Handling Facility (RHF) will process the lime sludge and backwash water produced from the existing and the supplemental WTP which can then be disposed of in a landfill or used for other purposes.

The single combined prime bid from Rice Lake Construction Group was \$28,600 higher than the summation of the low individual bids. There would be advantages from having one contract versus three in terms of administrative costs, communication, coordination, and scheduling. However, North Dakota Century Code §48-01.2-06 states "A governing body may not accept the single prime bid unless that bid is lower than the combined total of the lowest responsible multiple bids for the project." Therefore, the contract should be awarded to the lowest individual bids for each section.

Bid Alternates were included under the General and Electrical sections of the contract. Bid Alternate 1 under the General Construction Contract, provided a backup capacity in the case of Filter Press No. 1 was down for scheduled or emergency maintenance. The bid price for Bid Alternate (\$642,000) was less than estimated and was less than other back up options. It was recommended to award the contract including Bid Alternate 1 for General Construction.

Bid Alternate 1 under the Electrical Construction Contract was for wiring the Filter Press No. 2 included in Bid Alternate 1 under the General Construction Contract. Bid Alternate 2 was for a larger standby generator that would allow operation of a filter press in addition to heat and lights at the facility. Bid price for Bid Alternate 2 was \$24,800. Because of the small cost difference to provide the larger generator, it was recommended to award the contract including Bid Alternates 1 and 2 for Electrical Construction.

Reference checks on Rice Lake Construction Group were good and they were considered a responsible bidder. Bartlett & West/AECOM recommended award of SWPP Contract 3-2E – General Construction, based on Section I – General Construction Contract, with Alternate Bid Item No. 1, in the amount of \$7,506,300 to Rice Lake Construction Group.

Central Mechanical, Inc. has completed several projects successfully for SWPP and were considered a responsible bidder. Bartlett & West/AECOM recommended award of SWPP Contract 3-2E – Mechanical Construction, based on Section II – Mechanical Construction Contract, in the amount of \$619,900 to Central Mechanical, Inc.

Edling Electric, Inc. has completed several projects successfully for SWPP and are considered a responsible bidder. Bartlett & West/AECOM recommended award of SWPP Contract 3-2E – Electrical Construction, based on Section III – Electrical

Construction Contract, with Alternate Bid Items No. 1 and 2 in the amount of \$862,600 to Edling Electric, Inc.

There was general discussion on the overall bidding and contract award process.

The total bid price of the above three contracts is \$8,988,800 and the estimated project cost \$11.5 million. Approximately \$5.2 million in uncommitted funding is available in carry-over funding allocated to SWPP in 2015-2017 biennium; an allocation of an additional \$6.3 million to SWPP from the 2017-2019 biennium is recommended.

It was the recommendation of Secretary Erbele that the State Water Commission authorize the secretary to the State Water Commission to award the contracts for Southwest Pipeline Project contract 3-2E as recommended by the project engineer.

It was moved by Commissioner Owan and seconded by Commissioner McDonald authorize that the State Water Commission authorize the secretary to the State Water Commission to:

- 1. Award SWPP Contract 3-2E – General to Rice Lake Construction Group. in the amount of \$7,506,300 based on Bid Section I with Alternate Bid Item No. 1;**
- 2. Award SWPP Contract 3-2E – Mechanical to Central Mechanical, Inc. in the amount of \$619,900 based on Bid Section II; and,**
- 3. Award SWPP Contract 3-2E – Electrical to Edling Electric, Inc. in the amount of \$862,600 based on Bid Section III with Alternate Bid Items 1 and 2.**
- 4. Approve \$6.3 million dollars to the Southwest Pipeline Project from the funds appropriated for the 2017-2019 biennium.**

The award of the contracts is dependent upon legal review of the contract documents and concurrence from the Garrison Diversion Conservancy District.

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

NORTHWEST AREA WATER SUPPLY (NAWS) PROJECT – INTERIM WATER RATES (SWC Project No. 237-05):

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

The following NAWS current water rates for the city of Minot and the NAWS region cities for 2017 and proposed interim water rates for 2018 were discussed:

	<u>2017</u>	<u>2018</u>
<u>Capital Costs:</u>	\$0.00 per 1,000 gallons	No recommended change
<u>Supply and Treatment Costs:</u>	City of Minot: \$0.00 per 1,000 gallons NAWS region: \$1.42 per 1,000 gallons	No recommended change No recommended change
<u>Operation and Maintenance Costs:</u>	City of Minot: \$0.26 per 1,000 gallons NAWS region: \$1.18 per 1,000 gallons	No recommended change Possible increase to \$1.26
<u>Replacement and Extraordinary Maintenance:</u>	\$0.15 per 1,000 gallons	No recommended change

Current water rates for City of Minot is \$0.41 per 1,000 gallons with no increase recommended, and NAWS region is \$2.75 per 1,000 gallons which may increase slightly.

It was the recommendation of Secretary Erbele that the State Water Commission approve the NAWS interim water rates for the 2018 calendar year when the amounts are determined.

Commissioner Zimmerman declared for the record that he is a member of the Ward County Water Resource Board.

It was moved by Commissioner Goehring and seconded by Commissioner Johnson that the State Water Commission authorize Secretary Erbele to approve the Northwest Area Water Supply project interim water rates for the 2018 calendar year when the amounts are determined.

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

**MOUSE RIVER ENHANCED FLOOD PROTECTION PROJECT –
PHASES MI-1, MI-2, and M-3 CONSTRUCTION - \$62,781,034;
CORPS OF ENGINEERS SECTION 408 REVIEW THROUGH SECTION 2145 - \$74,750
(SWC Project Nos. 1974 and 1974-11):**

A request from Souris River Board was presented for the State Water Commission's consideration for state cost participation for construction of Phases MI-1 through MI-3 of their Mouse River Enhanced Flood Protection Project, and cost share for a Section 214 Agreement with the United States Army Corps of Engineers (Corps), which guarantees a timely review of the Corps Section 408 permit.

The Souris River Joint Board requested approval to move forward with bidding for three phases of the Mouse River Enhanced Flood Protection Project. Phase MI-1 consists of approximately 3,000 linear feet of floodwall from US Highway 83 to 3rd Street Northeast in Minot. Phase MI-2 and MI-3 consist of approximately 9,000 linear feet of earthen levee from the US Highway 83 Bypass to the Canadian Pacific Railroad's crossing of the Mouse River west of Minot. Small (6,000 gallons per minute) and moderate (40,000 gallons per minute) storm water pump stations, and a road closure structure on the north side of the Mouse River at 16th Street Southwest are also included in Phase MI-2 and MI-3. A detailed map of Phase MI1-MI3 is attached as **APPENDIX G**.

The Souris River Joint Board requested cost share for timely review of the project's Section 408 permit with the Corps. To guarantee a timely review of the Section 408 permit, the Souris River Joint Board entered into a Section 214 agreement with the Corps to essentially pay for the federal government's review of the project. As design progresses with future phases, it is important that an adequate budget be established for timely review by the Corps.

On September 21, 2016, the policy committee of the State Water Commission was in consensus that the cost share percentage for the Mouse River Enhanced Flood Protection Project be increased to 65 percent. On October 12, 2016, the State Water Commission approved the percentage as an amendment to the commission's cost share policy. The total estimated cost of construction of phases MI-1, MI-2, and MI-3 is \$96,586,206, or a total of \$62,781,034 at 65 percent cost share. The total cost requested by the Corps for review services related to the Section 214 Agreement is \$115,000, or a total of \$74,750 at 65 percent cost share.

It was the recommendation of Secretary Erbele that the State Water Commission approve the request by the Souris River Joint Board for state cost share at 65 percent for the Mouse River Enhanced Flood Protection Project's Phases MI-1, MI-2, and MI-3 at an amount not to exceed \$62,781,034.

It was the further recommendation of Secretary Erbele that the State Water Commission approve the request by the Souris River Joint Board for state cost share at 65 percent for the Mouse River Enhanced Flood Protection Project's Section 408 permit review at an amount not to exceed \$74,750.

The approvals are subject to the entire contents of the recommendation contained herein, obtaining all applicable permits and the availability of funds.

Commissioner Zimmerman declared for the record that he is a member of the Ward County Water Resource Board.

It was moved by Commissioner Goehring and seconded by Commissioner Zimmerman approve:

- 1. State cost share at 65 percent for the Mouse River Enhanced Flood Protection Project's Phases MI-1, MI-2, and MI-3 at an amount not to exceed \$62,781,034; and,**
- 2. State cost share at 65 percent for the Mouse River Enhanced Flood Protection Project's Section 408 permit review at an amount not to exceed \$74,750.**

The approvals are 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 Governor Burgum voted aye. There were no nay votes. Governor Burgum announced the motion unanimously carried.

2017 NORTH DAKOTA CLOUD MODIFICATION PROJECT OVERVIEW:

The 2017 North Dakota Cloud Modification Project Overview was presented, which is detailed in the staff memorandum dated August 23, 2017, and attached as **APPENDIX H.**

There was general discussion of funding further cloud modification studies and compiling more data.

WESTERN AREA WATER SUPPLY AUTHORITY, PHASE V - \$8,750,000 (SWC Project No. 1973)

Due to time constraints, this agenda item was presented earlier than listed on agenda, and to accommodate the future departure of Commissioner Goehring.

A request from Western Area Water Supply Authority (WAWSA) was presented for the State Water Commission's consideration for state cost participation for construction of Phase V projects. The three projects are continuations of projects that either the

Authority has currently under construction or have completed through prior funding. The projects add transmission and distribution pipeline within the region of the rural water systems. The local rural water systems will cover the local project costs. The projects are MCWRD System I/IV with estimated eligible cost of \$1,910,000; R&TWSCA Stanley Part I Alternate with estimated eligible cost of \$7,781,599; and R&TWSCA White Earth West Alternate with estimated eligible cost of \$2,521,200. Cost-share of 35 percent (\$358,400) on pre-construction costs and 75 percent (\$8,391,600) on construction costs provides total funding of \$8,750,000. The projects are listed with detail in the attached State Water Commission staff memorandum dated July 28, 2017, and request letter dated July 24, 2017, and attached as **APPENDIX I**.

It was the recommendation of Secretary Erbele that the State Water Commission approve the request by WAWSA for the overall Phase V plan for cost-share with pre-construction funded at 35 percent and construction funded at 75 percent of eligible costs. The approval is contingent on available funding.

Commissioner Owan declared for the record that he is chairman of the Western Area Water Supply Authority.

It was moved by Commissioner Goehring and seconded by Commissioner Andersen that the State Water Commission approve total State cost-share of \$8,750,00, paid on eligible costs for 35 percent pre-construction and 75 percent construction from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the availability of funds.

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

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

Dr. Tim Mahoney, mayor of Fargo, provided updates on the local, state and federal efforts currently underway relating to the Fargo Moorhead Area Diversion project. A summary of the presentation is included as **APPENDIX J**.

GARRISON DIVERSION CONSERVANCY DISTRICT PROJECT UPDATE:

Duane DeKrey, Garrison Diversion Conservancy District (District) general manager, and Ken Royse, Chairman, provided a project update on the District's activities relating to the MR&I Water Supply program federal funding process, the Red River Valley Water

Supply project, and operations and maintenance efforts. The project update is attached as **APPENDIX K**.

RED RIVER VALLEY WATER SUPPLY PROJECT - \$17,000,000
(SWC Project No. 237):

A request from Garrison Diversion Conservancy District (District) was presented for the State Water Commission's consideration for state cost participation in the form of a grant of \$17,000,000 for the completion of the planning and permitting process of the Red River Valley Water Supply Project. The request and funding history dated August 7, 2017, is attached as **APPENDIX L**.

It was the recommendation of Secretary Erbele that the State Water Commission approve the request by the District for transfer of \$17,000,000 state grant to the District for the purpose of planning and permitting the Red River Water Supply Project. The approval is subject to availability of funds.

Commissioner Goehring left the meeting for previous commitment.

It was moved by Commissioner Owan and seconded by Commissioner Pedersen that the State Water Commission authorize Secretary Erbele to approve the transfer of \$17,000,000 state grant to the Garrison Diversion Conservancy District for the purpose of planning and permitting the Red River Water Supply Project. The approval is subject to availability of funds.

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

GARRISON DIVERSION UNIT, MILE MARKER 42 - \$937,207
(SWC Project No. 1968):

A request from Garrison Diversion Conservancy District (District) was presented for the State Water Commission's consideration for state cost participation for the Mile Marker 42L Irrigation Project.

The request is for cost share of 50 percent of the central supply works including the intakes, pump stations, controls, main transmission pipelines and power grids as well as 35 percent of the pre-construction engineering. The remaining 50 percent of the central supply works, pivots, and connection to the water delivery system will be paid for by the irrigator with personal financing. The District will acquire and hold easements for the

central supply works. With the requested cost share, the cost of the project for the proposed irrigator is reduced to approximately \$1,731.87 per acre.

The estimated total cost of the central supply works for the MM 42L Irrigation Project is \$1,825,415, which is eligible for state cost-share assistance at 50 percent (\$912,707), and \$70,000 pre-construction cost is eligible at 35 percent (\$24,500) for an amount not to exceed \$937,207 in state funds.

It was the recommendation of Secretary Erbele that the State Water Commission approve the request by the District state cost participation in the MM 42L Irrigation Project at an amount not to exceed \$937,207. 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 Zimmerman and seconded by Commissioner Anderson that the State Water Commission approve total state cost-share of \$937,207, 35 percent pre-construction and 75 percent of eligible costs for construction, from the funds appropriated to the State Water Commission in the 2017-2019 biennium. This action is contingent upon the issuance of needed permits and availability of funds.

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

DROUGHT DISASTER LIVESTOCK WATER SUPPLY PROJECT ASSISTANCE PROGRAM - \$500,000
(SWC Project No. 1851):

A program update was presented by Pat Fridgen, Director of Planning and Education. The reactivation of the program and initial funding of \$250,000 was approved by the State Water Commission on June 22, 2017. On July 12, 2017, an additional \$75,000 was approved by the State Engineer at the request of the Governor, bringing the total funds to \$325,000.

On July 20, 2017, the State Water Commission approved an additional \$500,000 of funding. After review from an Assistant Attorney General, there was a question of whether a quorum was present to approve the additional \$500,000.

At the August 23, 2017, meeting, a request was made to ratify the \$500,000 approved on July 20, 2017, and to allocate an additional \$500,000, bringing the total funding of the program to \$1,325,000.

It was the recommendation of Secretary Erbele that the State Water Commission approve the request to ratify the \$500,000 that was approved during the July 20, 2017, State Water Commission meeting for the Drought Disaster Livestock Water Supply Assistance Program, and to allocate an additional \$500,000, bringing the total allocation of funds to \$1,325,000. This approval is contingent on the availability of funds.

It was moved by Commissioner Anderson and seconded by Commissioner Owan that the State Water Commission ratify the \$500,000 that was approved during the July 20, 2017, State Water Commission meeting for the Drought Disaster Livestock Water Supply Assistance Program, and to allocate an additional \$500,000. This action is contingent upon the availability of funds.

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

NORTH DAKOTA DEPARTMENT OF HEALTH NONPOINT SOURCE POLLUTION - \$200,000

(SWC Project No. 1859):

A request from the North Dakota Department of Health was presented for the State Water Commission's consideration for state cost participation for their Nonpoint Source Pollution Project. Details of the request is summarized in the State Water Commission staff memorandum dated August 21, 2017, attached as **APPENDIX M**.

The estimated total cost of the project is \$200,000, of which all is eligible for state cost-share participation.

It was the recommendation of Secretary Erbele that the State Water Commission approve the request of the North Dakota Department of Health for state cost participation in the Nonpoint Source Pollution Project at an amount not to exceed \$200,000. This approval is subject to the entire contents of the recommendation contained herein, and the availability of funds.

It was moved by Commissioner McDonald and seconded by Commissioner Zimmerman that the State Water Commission approve the request of the North Dakota Department of Health for state cost participation in the Nonpoint Source Pollution Project at an amount not to exceed \$200,000. This action is contingent to the entire contents of the recommendation contained herein, and the availability of funds.

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

Governor Burgum expressed his appreciation and gratitude to the new members of the State Water Commission for their service. Governor Burgum also thanked the State Water Commission staff for their work and preparation of the material presented, and visitors that traveled from across the state for their attendance.

There being no further business to come before the State Water Commission, Governor Burgum adjourned the August 23, 2017, meeting at 2:20 p.m.



Doug Burgum, Governor
Chairman, State Water Commission

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

RESOLUTION NO. 2017-08-533

In Appreciation To

Arne Berg

WHEREAS, Arne Berg was appointed as a member of the State Water Commission in 2006 and has admirably served the people of North Dakota until 2017; and

WHEREAS, Arne has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction concerning the Devils Lake outlets; and

WHEREAS, Arne's exceptional knowledge of the Devils Lake Basin and its complexities, has been immensely valuable in working to mitigate the basin's ongoing flood-related challenges. His advice and insight have been markedly important to the Devils Lake outlets, water management of the upper basin, and infrastructure protection in the Devils Lake region; and

WHEREAS, Because of Arne's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety, prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, Arne has served with great devotion and distinction on several boards, including townships, county, school district, Farm Bureau, and Farmers Union organizations throughout the years. Arne has also owned and operated his family farm for more than 40 years; and

WHEREAS, Arne's esteemed service on the State Water Commission spanned a period of more than 11 years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to Arne Berg for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish Arne, his wife Kris, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

RESOLUTION NO. 2017-08-534

In Appreciation Of

Maurice Foley

WHEREAS, Maurice Foley was appointed as a member of the State Water Commission in 2006 and has admirably served the people of North Dakota until 2017; and

WHEREAS, Maurice has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction concerning the Souris River Basin; and

WHEREAS, Maurice's exceptional knowledge of the Souris River Basin has been immensely valuable in making progress toward long-term flood-related solutions. His advice and insight were markedly exhibited during the historic Mouse River flood of 2011 and continued throughout the efforts of the Mouse River Enhanced Flood Protection Project; and

WHEREAS, Because of Maurice's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety and prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, Maurice has served with great devotion and distinction on several organizations at the national and state level. He admirably served four years in the United States Air Force, was employed by the North Dakota Highway Patrol for six years, worked in the farm implementation business for more than 30 years, was a District Representative for 15 years, and continues to be a representative of the Ward County Water Resource District after 20 years; and

WHEREAS, Maurice's esteemed service on the State Water Commission spanned a period of more than 11 years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to Maurice Foley for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish Maurice, his wife Lynn, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

RESOLUTION NO. 2017-08-535

In Appreciation To

Larry Hanson

WHEREAS, Larry Hanson was appointed as a member of the State Water Commission in 1999 and has admirably served the people of North Dakota until 2017; and

WHEREAS, Larry has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction in the Missouri River Basin; and

WHEREAS, Larry's exceptional knowledge of the Missouri River Basin and its complexities, has been immensely valuable in the basin's ongoing challenges. He has displayed endless support of the Missouri River and its beneficial uses to North Dakota and other states; and

WHEREAS, Because of Larry's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety, prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, Larry has served with great devotion and distinction on several organizations at the national and state level. He admirably reached the rank of Captain in the United States Army and is a proud recipient of the Distinguished Flying Cross. He was a business owner in Williston for 30 years, proudly served as the mayor of the city for four years, and spent seven years on the Williams County Commission; and

WHEREAS, Larry's esteemed term on the State Water Commission spanned a period of more than 18 years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to Larry Hanson for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish Larry, his wife Patti Ann, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

RESOLUTION NO. 2017-08-536

In Appreciation To

George Nodland

WHEREAS, George Nodland was appointed as a member of the State Water Commission in 2013 and has admirably served the people of North Dakota until 2017; and

WHEREAS, George has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction in the Missouri River Basin; and

WHEREAS, George's exceptional knowledge of the Missouri River Basin and its challenges, has been immensely valuable in North Dakota's efforts to more effectively utilize the waters of the Missouri River system for the benefit of the citizens of this great state. And George's pivotal leadership and input has greatly benefited and impacted the Southwest Pipeline Project; and

WHEREAS, Because of George's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety, prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, George has served with great devotion and distinction on several boards and organizations at the national and state level, including the United States Army, the Stark County Commission, Dickinson Public School Board, DSU Heritage Foundation, and is a lifetime member of the VFW. George was also elected to the North Dakota Senate in 2008 and served as a member of the North Dakota Legislative Assembly for one term; and

WHEREAS, George was also employed as a Senior Vice President bank officer until his retirement. This financial expertise was extremely valuable to the Commission's efforts to make sound decisions regarding the prioritization and funding of critical water projects throughout the state; and

WHEREAS, George's esteemed term on the State Water Commission spanned a period of more than four years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to George Nodland for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish George, his wife Kayleen, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

RESOLUTION NO. 2017-08-537

In Appreciation To

Harley Swenson

WHEREAS, Harley Swenson was appointed as a member of the State Water Commission in 1993 and has admirably served the people of North Dakota until 2017; and

WHEREAS, Harley has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction in the Missouri River Basin; and

WHEREAS, Harley's exceptional knowledge of the Missouri River Basin and its challenges, has been immensely valuable in North Dakota's efforts to promote improved management and development of the Missouri River System. His advice and insight was markedly exhibited during the historic Missouri River flood of 2011, and he has displayed endless support of the Missouri River and its beneficial and economic uses to North Dakota; and

WHEREAS, Because of Harley's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety, prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, Harley has worked with great devotion and distinction on several water projects in this great state. He is a registered Professional Engineer and licensed land surveyor, co-founder and former president of Swenson, Hagen & Co., has facilitated countless water development projects since 1967, and has been involved in various property development ventures in Bismarck; and

WHEREAS, Harley's esteemed term on the State Water Commission spanned a period of more than 24 years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to Harley Swenson for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish Harley, his wife Margaret, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

RESOLUTION NO. 2017-08-538

In Appreciation To

Robert Thompson

WHEREAS, Robert Thompson was appointed as a member of the State Water Commission in 1993 and has admirably served the people of North Dakota until 2017; and

WHEREAS, Robert has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction concerning the Red River Basin; and

WHEREAS, Robert's exceptional knowledge of the Red River Basin, has been immensely valuable in that region's efforts to address ongoing flood-related challenges. His advice and insight have been exhibited during past flood events, and he has demonstrated unwavering support of the Red River Valley Water Supply Project, and other infrastructure protection in the Red River basin; and

WHEREAS, Because of Robert's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety, prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, Robert has served with great devotion and distinction on several organizations in this great state. He was an original member of the North Cass Water Resource District, the first Chairman of the Red River Joint Water Resource Board, the first President of the North Dakota Grain Growers Association, also serving as the National Director and National Treasurer of the Corn Growers Association, has served on numerous national-level policy committees, and is the founder of Thompson Supply, Inc.; and

WHEREAS, Robert's esteemed term on the State Water Commission spanned a period of more than 24 years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to Robert Thompson for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish Robert, his wife Mary, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

RESOLUTION NO. 2017-08-539

In Appreciation To

Douglas Vosper

WHEREAS, Doug Vosper was appointed as a member of the State Water Commission in 2008 and has admirably served the people of North Dakota until 2017; and

WHEREAS, Doug has demonstrated a profound commitment to promoting water resource management, addressing flood protection, providing valuable input in water supply and other water development projects, and contributing influential direction concerning the Red River Basin; and

WHEREAS, Doug's exceptional knowledge of the Red River Basin and its complexities, has been immensely valuable in that region's efforts to address ongoing flood-related challenges. His advice and insight have been exhibited during historic flood events, along with his endless support of the Red River Valley Water Supply Project, and infrastructure protection in the Red River region; and

WHEREAS, Because of Doug's expertise and guidance as a valued commission member, North Dakota has seen great success in the management and development of our water resources that will ensure health, safety, prosperity, and balance the needs of generations to come; and

WHEREAS, With the admiration and respect of his peers, Doug has served with great devotion and distinction on several organizations. He served on the Neche Public School Board, was a member on the Board of Directors for Citizens State Bank out of Cavalier, served as a member of the Pembina River Basin Advisory Board, and operated a family farm near Neche, ND until his retirement; and

WHEREAS, Doug's esteemed term on the State Water Commission spanned a period of more than nine years.

NOW, THEREFORE, BE IT RESOLVED that Governor Doug Burgum, other members of the North Dakota State Water Commission, and the Water Commission staff, assembled this 23rd day of August, 2017, in Bismarck, North Dakota, hereby convey their gratitude and appreciation to Douglas Vosper for his admirable and dedicated service to the people of the Great State of North Dakota as a commission member of the North Dakota State Water Commission; and

BE IT FURTHER RESOLVED that we wish Doug his wife Deborah, and their family the best of health and happiness in the future.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Doug Burgum, Governor-Chairman

Garland Erbele, State Engineer

STATE WATER COMMISSION
 ALLOCATED PROGRAM EXPENDITURES
 FOR THE PERIOD ENDED JUNE 30, 2017
 BIENNium COMPLETE: 100%

APPENDIX B
August 23, 2017

PROGRAM	SALARIES/ BENEFITS	OPERATING EXPENSES	GRANTS & CONTRACTS	4-AUG-17 PROGRAM TOTALS
ADMINISTRATION				
Allocated	2,729,489	2,806,129		5,535,618
Expended	2,680,580	2,038,095		4,718,675
Percent	98%	73%		85%
			General Fund:	0
			Federal Fund:	92,371
			Special Fund:	4,626,305
PLANNING AND EDUCATION				
Allocated	1,472,573	352,990		1,825,563
Expended	1,450,352	224,538		1,674,890
Percent	99%	64%		92%
			General Fund:	0
			Federal Fund:	234,119
			Special Fund:	1,451,271
WATER APPROPRIATION				
Allocated	5,762,691	1,185,300	1,372,844	8,320,835
Expended	5,528,119	899,011	1,106,231	7,535,362
Percent	96%	76%	81%	91%
			General Fund:	0
			Federal Fund:	59,429
			Special Fund:	7,475,933
WATER DEVELOPMENT				
Allocated	4,713,717	10,742,500	1,562,500	17,018,717
Expended	4,462,886	8,037,924	865,457	13,366,267
Percent	95%	75%	55%	79%
			General Fund:	0
			Federal Fund:	200,373
			Special Fund:	13,165,894
STATEWIDE WATER PROJECTS				
Allocated			959,003,567	959,003,567
Expended			436,312,039	436,312,039
Percent			45%	45%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	436,312,039
REGULATORY DIVISION				
Allocated	2,828,565	2,947,500	15,000	5,791,065
Expended	2,352,848	1,536,552	0	3,889,401
Percent	83%	52%	0%	67%
			General Fund:	0
			Federal Fund:	1,760,871
			Special Fund:	2,128,529
ATMOSPHERIC RESOURCE				
Allocated	1,107,158	743,382	4,885,212	6,735,752
Expended	1,044,626	459,120	1,659,258	3,163,004
Percent	94%	62%	34%	47%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	3,163,004
SOUTHWEST PIPELINE				
Allocated	512,995	10,461,744	97,502,498	108,477,237
Expended	635,318	10,144,105	58,576,773	69,356,195
Percent	124%	97%	60%	64%
			General Fund:	0
			Federal Fund:	3,000,000
			Special Fund:	66,356,195
NORTHWEST AREA WATER SUPPLY				
Allocated	705,632	13,910,277	31,611,573	46,227,482
Expended	600,805	4,195,222	1,551,604	6,347,632
Percent	85%	30%	5%	14%
			General Fund:	0
			Federal Fund:	0
			Special Fund:	6,347,632
PROGRAM TOTALS				
Allocated	19,832,820	43,149,822	1,095,953,194	1,158,935,836
Expended	18,766,035	27,534,568	500,073,362	546,373,964
Percent	95%	64%	46%	47%

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 BIENNIUM

Jun-17

	BUDGET	SWC/SE APPROVED	OBLIGATIONS EXPENDITURES	REMAINING UNOBLIGATED	REMAINING UNPAID
FLOOD CONTROL					
FARGO	228,506,200	228,506,200	150,130,113	0	78,376,087
GRAFTON	33,925,000	33,925,000	1,750,000	0	32,175,000
MOUSE RIVER FLOOD CONTROL	42,533,741	42,533,741	13,714,549	0	28,819,192
VALLEY CITY	28,458,354	27,312,537	10,619,078	1,145,817	16,693,459
LISBON	15,494,752	15,494,752	6,494,742	0	9,000,010
FORT RANSOM	225,000	0	0	225,000	0
WILLISTON	6,732,435	3,655,517	0	3,076,918	3,655,517
RENWICK DAM	21,154	7,117	7,117	14,037	0
MISSOURI RIVER FLOOD CONTROL	4,000,000	4,000,000	4,000,000	0	0
FLOODWAY PROPERTY ACQUISITIONS					
MINOT	27,858,972	27,858,972	19,915,743	0	7,943,229
WARD COUNTY	6,046,590	6,046,590	31,243	0	6,015,347
VALLEY CITY	4,017,403	4,017,403	1,868,206	0	2,149,197
BURLEIGH COUNTY	232,649	(114,552)	(114,552)	347,201	0
SAWYER	184,260	184,260	48,416	0	135,844
LISBON	626,250	626,250	22,950	0	603,300
BURLINGTON	45,516	45,516	43,350	0	2,166
STATE WATER SUPPLY					
REGIONAL & LOCAL WATER SYSTEMS	184,401,734	182,563,918	86,016,498	1,837,816	96,547,420
FARGO WATER TREATMENT PLANT	22,768,775	22,768,775	22,768,775	0	0
SOUTHWEST PIPELINE PROJECT	105,120,160	105,120,160	66,431,752	0	38,688,408
NORTHWEST AREA WATER SUPPLY	15,754,482	15,754,482	3,246,020	0	12,508,462
WESTERN AREA WATER SUPPLY AUTHORITY	82,201,384	82,201,384	73,156,958	0	9,044,426
RED RIVER VALLEY WATER SUPPLY	12,521,328	12,521,328	12,391,845	0	129,483
CENTRAL NORTH DAKOTA WATER SUPPLY	70,070,800	70,800	69,804	70,000,000	997
UNOBLIGATED STATE WATER SUPPLY	2,156,155			2,156,155	
GENERAL WATER MANAGEMENT					
OBLIGATED	57,138,016	57,138,016	25,594,904	0	31,543,112
UNOBLIGATED GENERAL WATER	15,787,990			15,787,990	
DEVILS LAKE					
OUTLET	870,802	870,802	0	0	870,802
OUTLET OPERATIONS	18,534,211	18,534,210	8,506,237	0	10,027,973
DL EAST END OUTLET	2,774,011	2,774,011	505,355	0	2,268,656
REVOLVING LOAN FUND					
GENERAL WATER PROJECTS	11,000,000	10,574,214	5,892,314	425,786	4,681,900
WATER SUPPLY	25,000,000	14,966,885	13,777,885	10,033,115	1,189,000
TOTALS	1,025,008,125	919,958,288	526,889,302	105,049,837	393,068,986

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium

PROGRAM OBLIGATION

Approved BYC By No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Jan-17 Balance	
Flood Control:								
SB 2020	1928-01	5000	City of Fargo	Fargo Flood Control Project	8/23/2009	99,509,200	79,505,069	20,004,131
SB 2020	1928-02	5000	City of Fargo	Interior Flood Control Project	12/11/2015	30,000,000	30,000,000	0
SB 2020	1928-03	5000	City of Fargo	Interior Disaster Relief Fund	12/11/2015	30,000,000	30,000,000	0
SB 2020	1928-05	5000	Metro Flood Diversion Authority	Fargo Metro Flood Diversion Authority 2015-2017	7/6/2016	69,000,000	10,625,044	58,374,955
	1771-01	5000	City of Grafton	Grafton Flood Control Project	10/12/2016	32,175,000	0	32,175,000
	1771-02	5000	City of Grafton	Grafton Flood Risk Reduction Project	12/5/2014	1,750,000	1,750,000	0
	1974-05	5000	Souris River Joint WRD	Development of 2011 Flood Inundation Maps	12/18/2015	5,600	4,078	1,522
SB 2371	1974-08	5000	Souris River Joint WRD	Mouse River Reconnaissance Study to Meet Fed Guid	2/15/2013	0	0	0
	1974-09	5000	Souris River Joint WRD	Mouse River Flood Control Design Engineering	8/8/2016	7,317,512	7,220,816	96,696
	1974-11	5000	Souris River Joint WRD	Funding of 214 agreement between SRJB & USACE	12/5/2014	106,360	75,000	31,360
	1974-14	5000	Souris River Joint WRD	SIARR Program (Structure Acquisition, Relocation, or F	3/9/2016	7,200,000	1,304,025	5,895,975
	1974-15	5000	Souris River Joint WRD	Perkath Ditch Improvements	12/2/2016	2,188,592	1,783,959	404,633
	1974-18	5000	Souris River Joint WRD	Corps of Engineers Feasibility Study MREFFP	12/9/2016	750,000	394,454	355,546
	1974-18	5000	Souris River Joint WRD	Rural Reaches, Preliminary Engineering	10/12/2016	250,000	23,059	226,941
	1974-19	5000	Souris River Joint WRD	4th Avenue Tieback Levee & Burlington Levee - Design	10/12/2016	3,500,000	1,607,659	2,292,331
	1974-20	5000	Souris River Joint WRD	Utility Relocations	10/12/2016	467,057	45,023	422,034
	1574-21	5000	Souris River Joint WRD	Highway 83 Bypass & Bridge Replacement	10/12/2016	1,983,823	0	1,983,823
	1374-22	5000	Souris River Joint WRD	Breakway Pump Station	3/29/2017	15,197,500	0	15,197,500
	1374-23	5000	Souris River Joint WRD	Peterson Outlet	3/29/2017	1,427,022	0	1,427,022
	1374-24	5000	Souris River Joint WRD	Independent Peer Review Phases BU-1 & BU-3	3/29/2017	171,609	0	171,609
	1753	5000	Souris River Joint WRD-no agreement	International Joint Commission Study Bosc	5/29/2014	302,500	0	302,500
	1993-01	5000	City of Minot	Downtown Infrastructure Improvements	9/15/2014	1,258,428	1,258,428	0
SB 2371	1344-01	5000	Valley City	Sheyenne River Valley Flood Control Project	12/5/2015	158,993	158,993	0
	1344-04	5000	Valley City	Sheyenne River Valley Flood Control Project PHII	8/29/2016	1,147,500	1,068,066	58,434
	1504-01	5000	Valley City	Permanent Flood Protection Project	12/5/2014	9,650,444	9,372,999	277,445
	1504-02	5000	Valley City	Permanent Flood Protection Project (LOAN)	12/5/2014	3,000,000	0	3,000,000
	1504-03	5000	Valley City	Permanent Flood Protection PH II	12/9/2016	13,157,600	0	13,157,600
SB 2371	1344-02	5000	City of Lisbon	Sheyenne River Valley Flood Control Project	8/8/2016	2,281,810	1,281,028	1,000,782
	1991-01	5000	City of Lisbon	Permanent Flood Protection Project	5/29/2014	561,702	414,733	146,969
	1991-03	5000	City of Lisbon	Permanent Flood Protection - Levee C Project	3/11/2015	3,153,440	2,775,641	377,799
	1991-06	5000	City of Lisbon	Permanent Flood Protection - Levee E Project	3/9/2016	2,068,000	2,013,875	54,125
	1991-08	5000	City of Lisbon	Permanent Flood Protection - Levee D Project	3/29/2017	3,600,000	9,465	3,590,535
	1991-10	5000	City of Lisbon	Permanent Flood Protection - Levee F Project	6/22/2017	3,800,000	0	3,800,000
SB 2371	1344-03	5000	Fort Ransom	Sheyenne River Valley Flood Control Project	6/19/2013	0	0	0
	849	5000	Pembina Co. WRD	Ranwick Dam Rehabilitation	6/26/2014	7,117	7,117	0
SB 2020	1992-02	5000	Burleigh Co. WRD	Missouri River Correctional Center	9/21/2015	1,200,000	1,200,000	0
SB 2020	1992-03	5000	Burleigh Co. WRD	Fox Island Flood Control Funding Update	9/21/2015	2,800,000	2,800,000	0
	2079	5000	City of Williston	West Williston Flood Control	12/9/2016	3,655,517	0	3,655,517
Subtotal Flood Control						355,434,884	188,715,599	166,719,285
Floodway Property Acquisitions:								
	1993-05	5000	City of Minot	Minot Phase 2 - Floodway Acquisitions	3/29/2017	27,858,972	19,915,743	7,943,229
SB 2371	1523-05	5000	Ward County	Ward County Phase 1, 2 & 3 - Floodway Acquisitions	1/27/2012	6,046,590	31,243	6,015,347
SB 2371	1504-05	5000	Valley City	Valley City Phase 1 - Floodway Acquisitions	8/29/2016	4,017,403	1,868,206	2,149,197
SB 2371	1992-05	5000	Burleigh Co. WRD	Burleigh Co. Phase 1 - Floodway Acquisitions	3/7/2012	(114,552)	(114,552)	0
SB 2371	2000-05	5000	City of Sawyer	Sawyer Phase 1 - Floodway Acquisitions	6/13/2012	184,266	48,416	135,844
	1991-05	5000	City of Lisbon	Lisbon - Floodway Acquisition	12/9/2016	626,250	22,950	603,300
	1987-05	5000	City of Burlington	Mouse River Enhanced Flood Plan Property Acquisition	5/10/2017	45,516	43,350	2,166
Subtotal Floodway Property Acquisitions						38,664,439	21,815,358	16,849,083
State Water Supply Grants:								
	2373-35	5000	Grand Forks - Traill RWD	Grand Forks - Traill County WRD	6/13/2012	303,715	303,715	0
	2373-36	5000	Stutsman Rural RWD	Stutsman Rural Water System - Phase IIB, III	2/27/2013	4,443,172	4,443,172	0
	2373-38	5000	Stutsman Rural RWD	Kidder Co & Carrington Area Expansion	7/23/2013	1,287,861	1,287,861	0
	2373-39	5000	North Central Rural Water Consortium	Carpio Berthold Phase 2	5/29/2014	2,970,141	544,974	2,425,167
	2373-41	5000	North Central Rural Water Consortium	Granville-Deering Area	10/24/2016	5,940,102	4,108,582	1,831,520
	2050-01	5000	Missouri West Water System	South Mandan	3/17/2014	168,606	168,606	0
	2050-02	5000	Grand Forks Traill RWD	Improvements	3/11/2015	4,369,058	4,330,519	38,539
	2050-03	5000	Northeast Regional WD	Langdon RWD - ABM Pipeline Phase 1	10/7/2013	540,437	540,437	0
	2050-04	5000	Northeast Regional WD	Langdon RWD - North Valley Nekoma	3/11/2015	859,341	859,341	0
	2050-05	5000	Northeast Regional WD	North Valley WD - ABM Pipeline Phase 1	3/11/2015	240,672	240,672	0
	2050-06	5000	Northeast Regional WD	North Valley WD - 93 Street	3/11/2015	937,870	937,870	0
	2050-07	5000	Northeast Regional WD	North Valley WD - Rural Expansion	5/29/2014	1,657,591	1,657,591	0
	2050-08	5000	Walsh RWD	Ground Storage	10/7/2013	169,977	169,977	(0)
	2050-09	5000	City of Park River	Water Tower	3/11/2015	571,225	571,225	0
	2050-10	5000	City of Sully	Water Supply Improvements	10/7/2013	1,117,800	1,117,800	0
	2050-11	5000	Cass RWD	Phase 2 Plant Improvements	10/7/2013	3,951,363	3,951,363	0
	2050-13	5000	City of Mandan	New Raw Water Intake	10/7/2013	1,567,676	52,904	1,515,672
	2050-14	5000	City of Mandan	Water Treatment Plant Improvements	10/7/2013	226,762	226,762	0
	2050-15	5000	City of Washburn	New Raw Water Intake	10/7/2013	2,334,250	52,323	2,281,927
	2050-16	5000	Tri-County RWD	Improvements	10/7/2013	845,000	845,000	0
	2050-17	5000	Barnes Rural RWD	Improvements	3/11/2015	6,894,412	5,797,778	1,096,634
	2050-18	5000	City of Grafton	Water Treatment Plant Phase 3	10/7/2013	3,381,148	2,564,805	816,343
	2050-19	5000	City of Grand Forks	Water Treatment Plant Improvements	10/7/2013	3,849,151	3,849,151	0
	2050-20	5000	City of Dickinson	Capital Infrastructure	10/6/2015	9,516,065	7,722,356	1,793,707
	2050-21	5000	Watford City	Capital Infrastructure	2/27/2014	1,897,040	1,360,413	536,627
	2050-22	5000	City of Williston	Capital Infrastructure	2/27/2014	2,281,794	2,281,794	0
	2050-23	5000	Greater Ramsey WRD	SW Nelson County Expansion	3/17/2014	4,199,547	3,433,753	765,794
	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	BoTineau County Extension, Phase I	7/29/2015	896,000	596,642	299,358
	2050-26	5000	City of Fargo	Fargo Water System Regionalization Improvements	7/29/2015	6,841,750	2,709,562	4,131,788
	2050-27	5000	City of Tioga	Tioga Water Supply Improvement Project	7/29/2015	2,190,000	2,058,391	131,609
	2050-28	5000	City of Mandan	Water Systems Improvement Project	10/6/2015	2,582,535	576,770	2,005,765
	2050-29	5000	City of Minot	Water Systems Improvement Project	10/6/2015	3,634,000	155,353	3,478,647
	2050-30	5000	Watford City	Water Systems Improvement Project	10/6/2015	5,435,087	60,448	5,374,639
	2050-31	5000	City of West Fargo	Water Systems Improvement Project	10/6/2015	3,426,210	2,339,508	1,086,702
	2050-32	5000	City of Williston	Water Systems Improvement Project	10/6/2015	10,890,472	3,033,462	7,857,010
	2050-33	5000	Stutsman RWD	Phase V Storage & Pipeline Expansion Project	10/6/2015	4,170,100	2,997,340	1,172,760
	2050-34	5000	North Prairie RWD	Storage and Water Main	10/6/2015	3,459,837	1,491,751	1,968,086
	2050-35	5000	Southeast Water Users Dist	System Wide Expansion Feasibility Study	10/6/2015	11,826,000	1,415,855	10,410,145
	2050-36	5000	City of Dickinson	Water Systems Improvement Project	10/6/2015	1,042,500	367,619	674,881
	2050-37	5000	City of Dickinson	Dickinson State Avenue South Water Main	12/11/2015	965,000	1,080	963,920
	2050-38	5000	Dakota Rural Water District	Reservoir C Expansion	12/11/2015	901,500	810,859	90,641
	2050-39	5000	Missouri West Water System	Crown Butte Service Area Expansion Phase II	12/11/2015	308,000	146,094	161,906
	2050-41	5000	Northeast Regional WD	City of Devils Lake Water Supply Project	12/11/2015	15,543,750	2,754,730	12,789,020
	2050-42	5000	Walsh RWD	Phase 1 & 2 System Expansion	12/11/2015	2,093,350	453,597	1,639,753
	2050-43	5000	All Seasons Water District	System 4 Connection to System 1	12/11/2015	4,900,000	0	4,900,000
	2050-44	5000	City of Beulah	Water Treatment Plant	3/9/2016	2,640,000	1,000,187	1,639,813
	2050-45	5000	Garrison Rural Water District	System Expansion Project	3/9/2016	2,003,550	272,440	1,731,110
	2050-49	5000	City of Grand Forks	Grand Forks Water Treatment Plant	10/12/2016	30,000,000	9,354,480	20,645,520
Subtotal State Water Supply						182,563,918	88,018,498	94,547,420

STATE WATER COMMISSION
PROJECT SUMMARY
2015-2017 Biennium

PROGRAM OBLIGATION

Approved SWC By	No	Dept	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Jun-17 Balance
	1984-02	5000	City of Fargo	Fargo Water Treatment Plant	3/17/2014	22,768,775	22,768,775	0
	1736-05	8000	SWPP	Southwest Pipeline Project	7/1/2013	105,120,180	66,431,752	38,688,408
	2374	9000	NAWS	Northwest Area Water Supply	7/1/2013	15,754,482	3,246,020	12,508,462
	1973-02	5000	WAWSA	WAWSA - (GRANT)	10/6/2015	12,061,808	11,908,202	155,603
	1973-05	5000	WAWSA	WAWSA - (GRANT)	10/6/2015	60,000,000	51,111,177	8,888,823
	1973-03	5000	Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,139,578	10,139,578	0
	325-102	5000	RRVWSP	Red River Valley Water Supply - Intake Design Study	5/29/2014	162,329	32,845	129,483
SB 2020	325-104	5000	Garrison Diversion	Red River Valley Water Supply Project	7/29/2015	12,359,000	12,359,000	0
	2051-101	5000	Central ND Water Supply	Black and Veatch investigation	1/27/2015	70,800	69,804	997
<i>Subtotal State Water Supply</i>						338,438,929	170,055,153	80,371,773
<i>General Water Management Hydrologic Investigations:</i>						1,125,267		
2041	3000	US Geological Survey	USGS Stream Gage Joint Funding Agreement	3/9/2016	529,075	529,075	0	
2041	3000	US Geological Survey	USGS Stream Gage Joint Funding Agreement	10/12/2015	544,110	408,083	136,028	
1400	3000	Fireside Office Solutions	Document Conversion (Water Permit Scanning)	2/23/2016	53,875	53,875	0	
<i>Hydrologic Investigations Obligations Subtotal</i>						1,127,061	991,033	136,028
<i>Remaining Hydrologic Investigations Authority</i>						(1,794)		
<i>Hydrologic Investigations Authority Less Payments</i>								
<i>General Projects Obligated</i>						33,184,544	7,912,345	27,272,198
<i>General Projects Completed</i>						20,829,206	16,691,525	4,136,679
<i>Subtotal General Water Management</i>						57,133,016	25,594,904	31,543,112
<i>Devils Lake Basin Development:</i>								
416-07	5000	Multiple	Devils Lake Outlet	7/1/2013	870,802	0	870,802	
416-10	4700	Operations	Devils Lake Outlet Operations	3/9/2016	18,534,210	8,506,237	10,027,973	
416-15	5000	Multiple	DL East End Outlet	7/1/2013	2,774,011	505,355	2,268,656	
<i>Devils Lake Subtotal</i>						22,179,023	9,011,592	13,167,431
<i>Revolving Loan Fund:</i>								
<i>(General Water)</i>								
2077-02	1050	City of Lisbon	Permanent Flood Protection - Levee C (LOAN)	3/11/2015	886,500	886,500	0	
2077-03	1050	City of Lisbon	Sheyenne River Flood Protection - Levee E (LOAN)	3/9/2016	527,000	527,000	0	
2077-09	1050	City of Lisbon	Permanent Flood Protection - Levee D & F (LOAN)	7/6/2016	243,200	243,200	0	
2077-08	1050	City of Grafton	Grafton Flood Risk Reduction (LOAN)	10/12/2016	3,375,000	3,375,000	0	
2077-06	1050	City of Valley City	Permanent Flood Protection Project (LOAN)	12/28/2016	860,614	860,614	0	
2077	1050	City of Valley City	Valley City Flood Protection - Phase II Construction (LC)	12/9/2016	3,289,400	0	3,289,400	
2077	1050	City of Valley City	Valley City Pre Design & Eng & Phase III Buyouts (LOA	12/9/2016	1,392,500	0	1,392,500	
<i>(Water Supply)</i>								
2077-01	1050	Bank of North Dakota	WAWSA - (LOAN)	10/6/2015	10,000,000	10,000,000	0	
2077-04	1050	North Prairie Rural Water District	Storage & Water Mains (LOAN)	12/11/2015	239,475	239,475	0	
2077-10	1050	City of Beulah	Water Treatment Plant (LOAN)	3/9/2016	880,000	880,000	0	
2077-05	1050	Northeast Regional WD	City of Devils Lake Water Supply Project (LOAN)	3/9/2016	1,686,920	1,686,920	0	
2077-11	1050	Walsh Rural WD	Phase 1, 2, & 3 System Expansion Project (LOAN)	3/9/2016	250,490	250,490	0	
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	Carpio Berhold Phase 2 (LOAN)	10/12/2016	215,000	0	215,000	
2077-12	1050	North Central Rural Water Consortium	Granville-Surrey-Deering Water Supply Project (LOAN)	10/12/2016	139,000	0	139,000	
2077-07	1050	Stutsman Rural Water District	Phase 3 Expansion (LOAN)	10/12/2016	721,000	721,000	0	
<i>Revolving Loan Fund Subtotal</i>						25,541,099	19,670,199	5,870,900
TOTAL						919,958,288	526,889,302	393,068,986

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

GENERAL PROJECT OBLIGATIONS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Jun-17 Balance
SE	274	5000	2015-17	City of Neche	Neche Levee Certification Project	3/21/2016	54,000	0	54,000
SWC	322	5000	2009-11	ND Water Education Foundati	ND Water: A Century of Challenge	2/22/2010	36,800	0	36,800
SWC	346	5000	2015-17	Williams County WRD	Epping Dam Spillway Reconstruction	3/29/2017	846,134	826,635	19,499
SWC	347	5000	2009-11	City of Velva	City of Velva's Flood Control Levee System Certificati	3/28/2011	102,000	69,503	32,497
SE	390	5000	2015-17	Logan County WRD	Beaver Lake Dam Rehabilitation Feasibility Study	6/8/2016	16,076	0	16,076
SE	394	5000	2015-17	Golden Valley Co WRD	Odland Dam Rehabilitation Feasibility Study	10/13/2016	13,220	0	13,220
SE	399	5000	2013-15	Barnes Co WRD	Kathryn Dam Feasibility Study	9/19/2014	21,250	8,508	12,742
SE	420	5000	2015-17	Hettinger Park Board	Mirror Lake Dam Emergency Action Plan	12/2/2015	24,400	0	24,400
SE	460	5000	2015-17	Griggs Co. WRD	Ueland Dam Rehabilitation Feasibility Study	5/20/2016	17,500	0	17,500
SE	477	5000	2015-17	Valley City	Mill Dam Rehabilitation Feasibility Study	6/8/2015	15,073	0	15,073
SE	512	5000	2015-17	Emmons County WRD	Nieuwsma Dam Emergency Action Plan	11/28/2015	12,000	4,462	7,532
SE	531	5000	2015-17	Benson Co WRD	Bouret Dam Rehabilitation Feasibility Study	10/11/2015	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	588	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches i	12/11/2015	99,000	25,068	73,902
SWC	582	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches ii	12/11/2015	105,000	77,065	27,905
SWC	583	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches iii	12/11/2015	90,000	2,965	87,035
SWC	588	5000	2015-17	Southeast Cass WRD	Sheyenne River Snagging & Clearing Reaches i,ii,iii	12/9/2016	294,000	143,927	150,073
SE	571	5000	2013-15	Oak Creek WRD	Oak Creek Snagging & Clearing Project	3/30/2015	3,872	2,565	1,107
SWC	620	5000	2007-09	Lower Heart WRD	Mandan Flood Control Protective Works (Levees)	6/22/2017	15,000	0	15,000
SE	662	5000	2015-17	Walsh Co. WRD	Park River Snagging & Clearing	2/17/2017	55,385	3,950	51,435
SWC	710	5000	2015-17	Maple River WRD	Upper Swan Creek Channel Improvement Project	10/6/2015	171,763	109,702	62,061
SE	841	5000	2013-15	Maple River WRD	Garsteig Dam Repair Project	1/26/2015	40,163	21,502	18,661
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-1-A (Brummond-Lubke) Dam EAP	12/18/2015	20,000	7,964	12,016
SE	848	5000	2015-17	Sargent Co WRD	Tewaukon WS-T-7 (Nelson) Dam EAP	12/18/2015	20,000	7,820	12,180
SE	849	5000	2015-17	Pembina Co. WRD	Renwick Dam Emergency Action Plan	9/29/2015	63,680	61,468	2,212
SWC	980	5000	2015-17	Cass Co. Joint WRD	Rush River Watershed Detention Study	1/7/2016	154,000	26,303	127,697
SWC	980	5000	2013-15	Cass Co. Joint WRD	Swan Creek Watershed Detention Study PHII	3/11/2015	154,000	31,334	122,666
SWC	980	5000	2015-17	Cass Co. Joint WRD	Upper Maple River Watershed Detention Study	1/11/2016	154,000	25,961	128,039
SWC	1056	5000	2015-17	Bottineau Co. WRD	Tacoma Bitz Legal Drain	7/6/2016	312,105	101,533	210,572
SE	1056	2000	2015-17	Bottineau Co. WRD	Stead Legal Drain	2/16/2017	19,142	4,404	14,738
SWC	1064	5000	2013-15	Rush River WRD	Cass County Drain No. 2 Channel Improvements Proj	3/11/2015	106,989	65,306	41,683
SWC	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	296,562	14,001	282,561
SWC	1088	5000	2015-17	Maple River WRD	Cass Drain #37 Channel Improvements	3/9/2016	230,326	15,169	215,157
SWC	1089	5000	2015-17	Maple River WRD	Cass County Drain #39 Channel Improvements	3/9/2016	221,871	11,303	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	12/11/2015	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	535,500	311,269	224,231
SWC	1179	5000	2015-17	Richland Co. WRD	Legal Drain #5 (Lateral 27) Reconstruction	3/9/2016	531,000	350,647	180,353
SWC	1222	5000	2015-17	Sargent Co WRD	Drain No 11 Channel Improvements	10/12/2016	1,417,967	39,591	1,378,376
SWC	1227	5000	2011-13	Trall Co. WRD	Mergenthal Drain No. 5 Reconstruction	9/15/2014	18,502	6,277	12,225
SWC	1231	5000	2015-17	Trall Co. WRD	Carson Drain No. 10 Channel Improvements	10/12/2016	152,328	11,006	141,322
SWC	1236	5000	2015-17	Trall Co. WRD	Murray Drain No. 17 Channel Improvements	10/12/2016	138,450	10,691	127,759
SE	1264	5000	2013-15	Barnes Co WRD	Little Dam Repurposing Feasibility Study	6/17/2015	16,100	3,715	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	1287	5000	2013-15	McHenry Co. WRD	Souris River Snagging & Clearing Project	2/3/2015	15,000	4,500	10,500
SE	1289	5000	2015-17	McKenzie Co. Weed Board	Control of Noxious Weeds on Sovereign Land	4/10/2017	44,010	0	44,010
SE	1296	5000	2013-15	Pembina Co. WRD	Bathgate-Hamilton & Carlisle Watershed Study	10/17/2013	45,226	38,500	6,726
SWC	1301	5000	2015-17	Richland Co. WRD	North Branch Antelope Creek NRCS Small Watershed	3/9/2016	113,400	0	113,400
SE	1303	5000	2013-15	Sargent Co WRD	Gwinner Dam Improvement Feasibility Study Program	4/17/2015	42,844	22,663	20,181
SE	1303	5000	2015-17	Sargent Co WRD	Gwinner Dam Breach Project	2/20/2017	31,125	0	31,125
SWC	1303	5000	2015-17	Sargent Co WRD	Shortfoot Creek Watershed Planning Program	3/9/2016	154,000	44,953	109,047
SWC	1311	5000	2015-17	Trall Co. WRD	Buxton Township Improvement District No. 68	3/9/2016	512,090	401,672	110,418
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	5,775	4,854	921
SWC	1328	5000	2015-17	North Cass Co. WRD	Drain #23 Channel Improvements	3/9/2016	137,181	55,569	81,612
SWC	1331	5000	2015-17	Richland Co WRD	Drain #14 Reconstruction	12/9/2016	315,000	62,262	252,738
SWC	1389	5000	2013-15	Bank of ND	BND AgPace Program	12/13/2013	180,316	9,951	170,365
SWC	1401	5000	2015-17	Pembina Co. WRD	International Boundary Roadway Dike Pembina	12/11/2015	786,032	491,504	294,528
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	75,000	73,343	1,657
SE	1453	5000	2015-17	Hettinger County WRD	Karey Dam Rehabilitation Feasibility Study	5/23/2016	13,550	6,697	6,853
SWC	1486	5000	2015-17	Griggs Co. WRD	Thompson Bridge Outlet No. 4 Project	10/6/2016	621,661	0	621,661
SWC	1520	5000	2015-17	Walsh Co. WRD	Walsh County Drain 30-1	3/29/2017	282,307	0	282,307
SWC	1520	5000	2015-17	Walsh Co. WRD	Drain 87/McLeod Drain	3/29/2017	5,238,586	0	5,238,586
SWC	1523	5000	2015-17	Ward Co. WRD	Robinwood Bank Stabilization Project	10/6/2015	256,449	157,801	98,648
SE	1625	5000	2015-17	Carlson McCain, Inc.	Ordinary High Water Mark Delineations Left Bank of N	12/2/2016	23,800	21,800	2,000
SWC	1638	5000	2009-11	Multiple	Red River Basin Non-NRCS Rural/Farmstead Ring Di	6/23/2009	177,864	0	177,864
SE	1667	5000	2015-17	Trall Co. WRD	Goose River Snagging & Clearing	8/21/2017	47,500	0	47,500
SWC	1705	5000	2011-13	Red River Joint Water Resour	Red River Joint WRD Watershed Feasibility Study - Pl	9/21/2011	60,000	40,782	19,218
SE	1808	5000	2015-17	Steele Co WRD	Beaver Creek Dam Safety Inspection	5/23/2016	2,625	0	2,625
SWC	1851	5000	2015-17	ND State Water Commission	Drought Disaster Livestock Water Supply Assistance	7/20/2017	250,000	0	250,000
SWC	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement	7/6/2016	411,773	409,174	2,599
SWC	1932	5000	2015-17	Nelson Co. WRD	Michigan Spillway Rural Flood Assessment	3/9/2016	1,214,256	1,188,406	25,850
SE	1934	5000	2015-17	Trall Co. WRD	Elm River Snagging & Clearing	6/21/2017	47,500	0	47,500
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	63,788	40,376	23,412
SWC	1968	5000	2013-15	Garrison Diversion	McClusky Canal Mile Marker 10 & 49 Irrigation Project	3/17/2014	256,321	204,707	51,614
SWC	1968	5000	2015-17	Garrison Diversion	MM 15 Irrigation Project	3/29/2017	321,781	0	321,781
SE	1974	5000	2015-17	USGS	Regulated Streamflow Frequency for the Upper Souris	12/16/2016	37,100	24,733	12,367

STATE WATER COMMISSION
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GENERAL PROJECT OBLIGATIONS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial	Total Approved	Total Payments	Jun-17
						Approved Date			Balance
SE	1974	5000	2015-17	USGS	Installation of 5 Rapid Deployment Gages in the Mous-	3/23/2017	23,200	0	23,200
SWC	1975	5000	2015-17	Walsh Co. WRD	Drain 31-1	10/12/2016	111,543	0	111,543
SWC	1977	5000	2011-13	Dickey-Sargent Co WRD	Jackson Township Improvement Dist. #1	5/20/2015	1,601,325	1,153,872	447,853
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
SWC	1991	5000	2013-15	City of Lisbon	Sheyenne Riverbank Stabilization Project	9/15/2014	163,720	115,952	47,768
SWC	2008	5000	2013-15	City of Mapleton	Recertification of Flood Control Levee System Project	3/17/2014	101,100	0	101,100
SE	2018	5000	2015-17	Pembina Co. WRD	Establishment of Pembina County Drain No. 80	4/10/2017	74,965	0	74,965
SWC	2042	5000	2015-17	Bottineau Co. WRD	Heas Coulee Legal Drain Phase II	6/22/2017	86,361	0	86,361
SWC	2048	5000	2015-17	Grand Forks Co. WRD	Grand Forks Legal Drain No. 58	3/29/2017	1,481,850	0	1,481,850
SE	2050-50	5000	2015-17	Grand Forks Trail WRD	Eastern Expansion & TRWD Interconnect Feasibility &	11/15/2016	75,000	0	75,000
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 Crafton	Crafton 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	2090	5000	2015-17	Walsh Co. WRD	Forest River Watershed Study	4/10/2017	154,012	0	154,012
SWC	2062	5000	2015-17	Trail Co. WRD	Trail Co. Drain #54	7/6/2016	118,558	97,009	19,549
SWC	2065	5000	2015-17	Cass Co. Joint WRD	Lake Bertha Flood Control Project No. 75	3/9/2016	201,350	0	201,350
SWC	2066	5000	2015-17	Southeast Cass WRD	Sheyenne-Maple Flood Control Dist #1 Mitigation Impr	3/9/2016	198,023	28,822	169,201
SWC	2068	5000	2015-17	Trail Co. WRD	Stavanger-Belmont Drain No. 52 Channel Impr	10/12/2016	435,015	20,383	414,632
SE	2069	5000	2015-17	Center Township	Wild-Rice River Bank Stabilization	4/19/2016	45,038	42,092	954
SE	2070	5000	2015-17	Garrison Diversion Conserva	Mile Marker 42 Irrigation Project	5/20/2016	29,741	0	29,741
SE	2071	5000	2015-17	Foster County WRD	Alkali Lake High Water Feasibility Study	4/19/2016	5,250	420	4,830
SE	2072	5000	2015-17	Barnes Co WRD	Ten Mile Lake Flood Risk Reduction Project	6/8/2016	37,800	988	36,812
SWC	2073	5000	2015-17	Walsh Co. WRD	Oslo Area Ag Levee Feasibility Study	7/6/2016	187,000	115,299	71,701
SWC	2074	5000	2015-17	City of Wahpeton	Flood Control - Levee Certification	7/6/2016	247,500	0	247,500
SWC	2074	5000	2015-17	City of Wahpeton	Toe Drain & Encroachment Project	7/6/2016	1,125,482	0	1,125,482
SWC	2074	5000	2015-17	City of Wahpeton	Breakout Easements	7/6/2016	265,000	0	265,000
SWC	2075	5000	2015-17	Ward Co. WRD	Second Larson Coulee Detention Pond	7/6/2016	602,307	0	602,307
SE	2076	5000	2015-17	Elm River Joint WRD	Elm River Dam #1 Modification Study	7/6/2016	9,503	0	9,503
SE	2079	5000	2015-17	City of Williston	West Williston Flood Control	10/24/2016	39,900	0	39,900
SWC	2080	5000	2015-17	Walsh Co. WRD	Sam Berg Coulee Drain	10/12/2016	401,005	218,230	182,775
SWC	2081	5000	2015-17	Walsh Co. WRD	Drain #70	10/12/2016	898,866	336,437	562,429
SWC	2083	5000	2015-17	Pembina Co. WRD	Herzog Dam Gate & Catwalk Retrofit - Construction	10/12/2016	117,000	2,368	114,632
SE	2085	5000	2015-17	Adams Co WRD	Orange Dam Rehabilitation Feasibility Study	10/13/2016	10,770	0	10,770
SWC	2088	5000	2015-17	Pembina Co. WRD	Drain No. 79	12/9/2016	875,428	0	875,428
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	0	24,150
SE	2094	5000	2015-17	McLean Co WRD	Lower Buffalo Creek Flood Management Feasibility	6/7/2017	7,539	0	7,539
SE	2095	5000	2015-17	Nelson Co WRD	Sheyenne River Snagging & Clearing	4/10/2017	19,700	0	19,700
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
SWC	2104	5000	2015-17	City of Minot	Levee Repair & Bank Stabilization Project	6/22/2017	950,254	0	950,254
SWC	2108	5000	2015-17	Walsh Co. WRD	Walsh Co Drain #22	6/22/2017	266,086	0	266,086
SE	2110	5000	2015-17	Ward Co. WRD	Meadowbrook Snagging & Clearing	6/21/2017	33,000	0	33,000
SE	2093/1427	5000	2015-17	Bottineau Co. WRD	Moen Legal Drain	9/6/2016	63,458	44,916	18,542
SE	1396-01	5000	2013-15	Trout, Raley, Montano, Witwe	Missouri River Recovery Program	11/17/2015	75,000	28,215	46,785
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/WRD	5000	2015-17	ND Water Resource Districts	ND Water Managers Handbook	6/21/2017	24,750	0	24,750
SWC	PS/WRD/ELM	5000	2013-15	Elm River Joint WRD	Dam #3 Safety Improvements Project	9/15/2014	7,297	1,625	5,672
SE	PS/WRD/LOW	5000	2015-17	Lower Heart WRD	Lower Heart Flood Control	5/10/2017	21,140	0	21,140
TOTAL							35,184,544	7,912,345	27,272,198

STATE WATER COMMISSION
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COMPLETED GENERAL PROJECTS

Approved SWC By	No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Jun-17 Balance
SWC	228	5000	2013-15	U.S. Geological Survey	(USGS) Operation & Maint of Gaging Station on the Missouri R	12/8/2014	8,970	8,970	0
SWC	240	5000	2011-13	Eddy County WRD	Warwick Dam Repair Project	12/7/2012	110,150	110,150	0
SE	274	5000	2013-15	City of Neche	FEMA Levee Certification Feasibility Study	10/17/2014	37,500	37,500	0
SWC	281	5000	2009-11	Three Affiliated Tribes	Three Affiliated Tribes/Fort Berthold Irrigation Study	10/26/2010	37,500	0	37,500
SWC	346	5000	2011-13	Williams County WRD	Epping Dam Evaluation Project	2/27/2013	86,200	80,840	5,360
SE	346	5000	2013-15	Williams County WRD	Design Engineering for Epping Dam Safety Repair	7/6/2016	24,558	24,558	0
SE	391	5000	2011-13	Sargent Co WRD	Sargent Co WRD, Silver Lake Dam Emergency Repairs	10/12/2011	2,800	0	2,800
SE	566	5000	2013-15	Barnes Co WRD	Sheyenne River Snagging & Clearing Project	4/17/2015	49,500	49,500	0
SWC	582	5000	2013-15	Southeast Cass WRD	Sheyenne River Reaches Snagging & Clearing Project	12/5/2014	94,238	0	94,238
SE	582	5000	2015-17	Barnes Co WRD	Sheyenne River Snagging & Clearing Reach 1 Proj 2	5/9/2017	74,000	74,000	0
SWC	645	5000	2009-11	City of Fargo	Hickson Dam Recreation Retrofit Project	10/23/2010	44,280	44,280	0
SWC	646	5000	2009-11	City of Fargo	Christine Dam Recreation Retrofit Project	10/26/2010	184,950	139,034	45,916
SE	662	5000	2015-17	Walsh Co. WRD	Park River Snagging & Clearing	5/10/2017	50,223	50,223	0
SWC	829	5000	2011-13	Rush River WRD	Rush River WRD Berlin's Township Improvement District No. 7	10/19/2011	101,317	0	101,317
SWC	841	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #12(Absaraka Dam)	11/15/2016	127,164	121,591	5,603
SWC	841	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #5(Carsteig Dam)	11/17/2016	158,426	154,672	1,754
SE	842	5000	2015-17	Pembina Co. WRD	Renwick Dam Gate Repair	9/4/2015	53,700	50,066	3,634
SWC	980	5000	2011-13	Maple River WRD	Maple River Watershed Flood Water Retention Study/ Maple R	2/19/2015	3,887	3,887	0
SE	1089	5000	2015-17	North Cass & Rush River	Drain #13 Channel Improvements Project	9/29/2015	46,150	12,293	33,857
SWC	1082	5000	2013-15	Rush River WRD	Cass Co. Drain No. 30 Channel Improvement Project	3/17/2014	5,978	5,970	8
SWC	1101	5000	2011-13	Dickey-Sargent Co WRD	Riverdale Township Improvement District #2	9/21/2011	500,000	0	500,000
SWC	1135	5000	2011-13	Pembina Co. WRD	Drain #4 Reconstruction Project	6/19/2013	2,673	0	2,673
SWC	1161	5000	2009-11	Pembina Co. WRD	Drain 55 Improvement Reconstruction	3/28/2011	13,846	0	13,846
SWC	1174	5000	2015-17	Richland Co. WRD	Legal Drain #31 Improvements Project	3/9/2016	161,852	59,374	102,478
SE	1179	5000	2013-15	Richland Co. WRD	Drain #5 (27) Reconstruction Project	3/30/2015	13,543	13,543	0
SWC	1183	5000	2013-15	Richland Co. WRD	Drain No. 15 Reconstruction Project	9/15/2014	80,300	49,055	11,245
SWC	1217	5000	2013-15	Tri-County WRD	Tri-County Drain Reconstruction Project	3/11/2015	911,881	590,679	321,202
SE	1219	5000	2013-15	Sargent Co WRD	Drain No. 8 Channel Improvement Preliminary Engineering Pro	5/7/2015	6,650	6,650	0
SWC	1219	5000	2011-13	Sargent Co WRD	City of Forman Floodwater Outlet	12/13/2016	47,012	47,012	0
SWC	1224	5000	2013-15	Trail Co. WRD	Palace Drain Improvement District No. 80	5/20/2015	149,828	130,947	18,881
SWC	1242	5000	2013-15	Trail Co. WRD	Rust Drain No. 24 Project	12/13/2013	25,152	3,002	22,150
SWC	1270	5000	2013-15	Burlingame Co. WRD	Apple Creek Industrial Park Levee Feasibility Study	10/7/2013	65,180	0	65,180
SE	1289	5000	2011-13	McKenzie Co. Weed Com	Control of Noxious Weeds on Sovereign Lands	9/30/2015	12,514	12,514	0
SE	1290	5000	2015-17	McLean Co. WRD	Painted Woods Lake Flood Mitigation Study	4/1/2016	53,200	53,200	0
SWC	1294	5000	2013-15	Nelson Co. Park Board	Stump Lake Park Bank Stabilization Project	3/11/2015	115,436	79,294	36,142
SE	1301	5000	2009-11	City of Lidgerwood	City of Lidgerwood Engineering & Feasibility Study for Flood Ct	2/4/2011	15,850	0	15,850
SE	1301	5000	2011-13	City of Wahpeton	City of Wahpeton Water Reuse Feasibility Study/Richland Co	9/8/2011	2,500	0	2,500
SE	1303	5000	2013-15	Sargent Co WRD	Upper Wild Rice Watershed Study	6/24/2015	73,500	73,485	15
SE	1311	5000	2013-15	Trail Co. WRD	Buxton Township Improvement District No. 68	6/17/2015	15,745	15,745	0
SE	1312	5000	2011-13	Walsh Co. WRD	Skyrud Dam 2011 EAP	12/15/2011	10,000	8,073	1,927
SE	1312	5000	2011-13	Walsh Co. WRD	Union Dam 2011 EAP	12/15/2011	10,000	8,350	1,650
SWC	1314	5000	2013-15	Wells Co. WRD	Oak Creek Drain Lateral E Reconstruction Project	9/15/2014	73,057	73,057	0
SE	1314	5000	2015-17	Wells Co. WRD	Oak Creek Lateral E Reconstruction	12/29/2015	20,173	20,173	0
SE	1314	5000	2013-15	Wells Co. WRD	Hurdsfield Area Drain Preliminary Engineering Project	6/11/2015	35,000	35,000	0
SWC	1396	5000	2011-13	U.S. Geological Survey	(USGS) Missouri River Geomorphic Assessment	3/7/2012	10,000	10,000	0
SE	1403	5000	2015-17	ND Water Resources Res	(NDWRR) Student Fellowship Program	12/23/2015	18,850	18,850	0
SE	1403	5000	2015-17	ND Water Resources Res	(NDWRR) Student Fellowship Program	1/18/2017	18,850	18,850	0
SWC	1418	5000	2015-17	City of Bisbee	Design & Repair of Big Coulee Dam	4/10/2017	1,090,983	1,079,002	11,981
SWC	1418	5000	2013-15	City of Bisbee	Big Coulee Dam Feasibility Study	5/29/2014	10,963	0	10,963
SWC	1438	5000	2011-13	Cavalier County WRD	Mulberry Creek Phase IV Reconstruction Project	6/19/2013	102,019	2,250	99,769
SWC	1444	5000	2013-15	City of Pembina	2014 Flood Protection System Modification Project	5/29/2014	61,331	61,331	0
SE	1520	5000	2015-17	Walsh Co. WRD	Walsh Co Drain #30-1	8/29/2016	14,000	14,000	0
SWC	1523	5000	2015-17	Ward Co	Flood Control County Road 18	5/29/2015	325,208	325,208	0
SWC	1554	5000	2013-15	McLean Co. WRD	City of Underwood Floodwater Outlet Project	12/13/2013	1,483,268	1,483,268	0
SWC	1577	5000	2013-15	City of Killdeer & Dunn Co	Floodplain Mapping Project	5/29/2014	55,000	55,000	0
SE	1607	5000	2011-13	Ward Co. WRD	Flood Inundation Mapping of Areas Along Souris & Des Lacs R	6/15/2011	13,011	0	13,011
SWC	1613	5000	2013-15	North Cass Co. WRD	Cass County Drain No. 55 Channel Improvements Project	9/15/2014	99,923	48,703	51,220
SWC	1625	5000	2013-15	Houston Engineering	(OHWM) Ordinary High Water Mark Delineations	3/20/2014	4,560	0	4,560
SE	1625	5000	2015-17	Ross Engineering, LLC	Gather infor regarding pipeline waterway crossings	2/9/2016	25,000	8,745	16,255
SE	1625	5000	2015-17	HDR Engineering, Inc	Dakota Access Pipeline Missouri River crossing sour analysis	2/9/2016	25,000	21,315	3,685
SB2020	1625	5000	2015-17	ND Parks & Recreation	Sovereign Lands Recreation Use Grant	1/10/2017	1,000,000	1,000,000	0
SE	1640	5000	2013-15	U.S. Geological Survey	(USGS) Maintenance of gaging station on Missouri River below	9/25/2013	8,710	0	8,710
SE	1650	5000	2015-17	Sargent Co WRD	Drain #7 Channel Improvements Study	1/17/2016	6,214	6,214	0
SWC	1650	5000	2015-17	Sargent Co WRD	Drain #7 Improvement	7/6/2016	202,663	202,663	0
SE	1667	5000	2015-17	Trail Co. WRD	Goose River Snagging & Clearing	12/18/2015	47,500	47,500	0
SE	1667	5000	2015-17	Trail Co. WRD	Goose River Snagging & Clearing	9/2/2016	47,500	47,501	(1)
SE	1701	5000	2013-15	US Army Corps of Engine	Red River of the North Unsteady Flow Model	11/25/2015	17,825	17,825	0
SWC	1705	5000	2011-13	Red River Joint Water Re	Red River Basin Distributed Plan Study	12/7/2012	560,000	451,823	108,177
SWC	1758	5000	2013-15	U.S. Geological Survey	(USGS) Stochastic Model for the Mouse River Basin	12/13/2013	40,000	40,000	0
SWC	1792	5000	2009-11	Southeast Cass WRD	SE Cass Wild Rice River Dam Study Phase II	1/29/2015	32,252	32,252	0
SE	1814	5000	2013-15	Richland Co. WRD	Wild Rice River Snagging & Clearing - Bridge #121-2	5/28/2015	16,000	16,000	0
SE	1815	5000	2013-15	Ransom Co. WRD	Sheyenne River Snagging & Clearing - Fort Ransom Reach	6/11/2015	6,350	6,350	0
SE	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing - Bridge Location Sites	2/3/2015	11,063	0	11,063
SE	1842	5000	2015-17	Southeast Cass WRD	Wild Rice River Snagging & Clearing	7/6/2016	24,948	24,948	0
SE	1842	5000	2013-15	Southeast Cass WRD	Wild Rice River Snagging & Clearing	10/27/2015	57,000	37,334	19,666
SE	1842	5000	2015-17	Southeast Cass WRD	Wild Rice River Snagging & Clearing	12/13/2016	57,000	50,143	6,857
SWC	1859	5000	2015-17	ND Dept of Health	NPS Pollution Project	7/29/2015	200,000	200,000	0
SE	1891	5000	2015-17	Steele Co WRD	Drain No. 8 Channel Improvement Preliminary Engineering Pro	9/29/2015	17,500	17,500	0
SWC	1921	5000	2007-09	Morton Co. WRD	Square Butte Dam No. 6/(Harmon Lake) Recreation Facility	3/23/2009	231,002	65,583	165,419
SE	1934	5000	2015-17	Trail Co. WRD	Elm River Snagging & Clearing	9/2/2016	47,500	47,500	0
SE	1946	5000	2015-17	Walsh Co. WRD	Improvement of Walsh Co Drain #22 Preliminary Engineering	4/19/2016	10,500	10,499	1
SWC	1960	5000	2009-11	Ward Co. WRD	Puppy Dog Coulee Flood Control Diversion Ditch Construction	8/18/2009	796,976	0	796,976

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

COMPLETED GENERAL PROJECTS

Approved SWC By- No	Dept	Approved Biennium	Sponsor	Project	Initial Approved Date	Total Approved	Total Payments	Jun-17 Balance	
HB 2305	1963	5000	2009-11	Emmons County WRD	Beaver Bay Embankment Feasibility Study	8/10/2009	18,078	0	18,078
SE	1967	5000	2009-11	Grand Forks Co. WRD	Grand Forks County Legal Drain No. 55 2010 Construction	11/30/2010	9,652	9,652	0
SWC	1970	5000	2009-11	Walsh Co. WRD	Walsh Co. Construction of Legal Assessment Drain # 72	3/28/2011	39,115	39,115	0
SE	1974	5000	2015-17	USGS	USGS Web-Based Mous River Information Page	1/19/2016	24,700	24,700	0
SWC	1975	5000	2011-13	Walsh Co. WRD	Walsh Co. Drain No. 31 Reconstruction Project	9/21/2011	37,742	37,742	0
SWC	1978	5000	2011-13	Richland & Sargent Joint	Richland & Sargent WRD RS Legal Drain No. 1 Extension & C	7/23/2015	245,250	123,791	75,456
SWC	1983	5000	2011-13	City of Harwood	City of Harwood Engineering Feasibility Study	12/9/2011	62,500	0	62,500
SWC	1989	5000	2011-13	Barnes Co WRD	Hobart Lake Outlet Project	3/7/2012	256,100	0	256,100
SE	1991	5000	2011-13	City of Lisbon	Sheyenne River Snagging & Clearing Project	2/12/2010	5,000	5,000	0
SWC	1992	5000	2011-13	Burling Co. WRD	Zumi Creek Flood Restoration Project	7/29/2015	179,890	179,890	0
SE	1998	5000	2011-13	Grand Forks Co. WRD	Upper Turtle River Dam #1 2012 EAP	8/28/2012	10,000	9,385	615
SE	2002	5000	2011-13	Grand Forks Co. WRD	Turtle River Dam #4 2012 EAP	8/29/2012	10,000	8,659	1,341
SWC	2004	5000	2013-15	Grand Forks Co. WRD	Drain No. 57 Project	10/7/2013	413,578	413,578	0
SE	2005	5000	2011-13	Grand Forks Co. WRD	Turtle River Dam #3 2012 EAP	8/29/2012	10,000	9,069	931
SWC	2007	5000	2011-13	Maple River WRD	Poniac Township Improvement District No. 73 Project	5/11/2015	747,563	584,123	152,910
SWC	2013	5000	2011-13	Richland-Cass Joint WRD	Wild Rice River Watershed Retention Plan	6/8/2015	45,505	45,505	0
SWC	2019	5000	2011-13	Valley City	Sheyenne River Snagging & Clearing Project	12/7/2012	75,000	0	75,000
SWC	2022	5000	2011-13	Pembina Co. WRD	Drain #73 Project	5/19/2013	350,400	120,044	230,356
SWC	2040	5000	2013-15	Walsh Co. WRD	Drain #74 Project	10/7/2013	211,800	0	211,800
SWC	2042	5000	2013-15	Botineau Co. WRD	Haas Coulee Drain Project	9/15/2014	500,000	500,000	0
SWC	2043	5000	2015-17	Pembina Co. WRD	District's Drain 78 Outlet Extension Project	12/9/2016	390,041	372,571	17,370
SE	2045	5000	2013-15	Stark County	Stark County LIDAR Collection Project (FEMA)	7/17/2015	33,584	33,584	0
SWC	2045	5000	2013-15	McKenzie Co. Commissio	LIDAR Collection Project	9/15/2014	262,308	262,308	0
SWC	2045	5000	2013-15	Mercer Co. WRD	LIDAR Collection Project	5/29/2014	10,425	0	10,425
SWC	2046	5000	2013-15	Walsch Co. WRD	North Branch Park River Comprehensive Flood Damage Redu	12/13/2013	134,400	108,772	25,628
SWC	2047	5000	2013-15	LaMoure County	LaMoure Co Memorial Park Streambank Restoration	8/3/2016	91,042	84,240	6,802
SWC	2048	5000	2013-15	City of Marlon	Marion Flood Mitigation & Lagoon Drainage Project	5/29/2014	116,659	116,599	60
SWC	2063	5000	2015-17	Maple River WRD	Swan Buffalo Detention Dam #8(Embden Dam)	11/17/2016	123,087	120,803	2,284
SE	2068	5000	2013-15	Trall Co. WRD	Stavanger-Belmont Drain No. 52 Channel - Study	4/20/2016	18,589	18,589	0
SE	2078	5000	2015-17	Southeast Cass WRD	Raymond-Mapleton Township Improv Dist No. 76	11/15/2016	20,281	20,281	0
SWC	1878-02	5000	2011-13	Maple-Steele Joint WRD	Upper Maple River Dam Construction Phase	12/13/2013	4,702,936	4,415,496	287,440
SB2020	1928-04	5000	2015-17	NDSU	Fargo Moorhead Diversion Agricultural Impact (Study)	1/20/2016	80,000	79,716	284
SB2009	1986-03	5000	2015-17	USDA-APHIS,ND Dept A	USDA Wildlife	9/9/2015	250,000	250,000	0
SWC	2003-02	5000	2011-13	Southeast Cass WRD	Re-Certification of the West Fargo Diversion Levee System	7/23/2015	52,564	32,813	19,751
SWC	2009-02	5000	2011-13	Southeast Cass WRD	Recertification of the Horace to West Fargo Diversion Levee S	9/17/2012	25,504	25,504	0
SWC	AOC/ASS	5000	2015-17	Assiniboine River Basin	Assiniboine River Basin Initiative Funding	7/29/2015	100,000	100,000	0
SWC	AOC/IRA	5000	2015-17	ND Irrigation Association	ND Irrigation Association	10/6/2015	100,000	100,000	0
SWC	AOC/RRBC	5000	2015-17	Red River Basin Commis	Red River Basin Commission Contractor	5/20/2015	200,000	200,000	0
SWC	AOC/WEF	5000	2015-17	ND Water Education Four	ND Water Magazine	5/20/2015	36,000	33,500	2,500
SE	AOC/WEF/TO	5000	2015-17	ND Water Education Four	2017 Summer Water Tours Sponsorship	4/5/2017	2,500	2,500	0
SE	AOC/WUA	5000	2011-13	ND Water Users Associat	Dave Koland Term as WUA President	3/23/2015	9,672	5,772	3,899
SE	ASNDS	5000	2015-17	NDSU	Oaks Irrigation Research Site - New Linear Irrigation System	11/18/2015	25,636	25,636	0
SE	CON/CAR	5000	2015-17	Garrison Diversion	Will and Carlson Consulting Services	11/2/2016	17,500	10,795	6,705
SWC	CON/WIL/CAF	5000	2013-15	Garrison Diversion Conse	Will and Carlson Consulting Contract	12/13/2013	26,451	1,828	24,623
SE	NDAWN	5000	2015-17	NDSU	NDAWN CENTER	2/11/2016	1,500	1,500	0
SE	NDAWN	5000	2015-17	NDSU	NDAWN CENTER	1/31/2017	1,500	1,500	0
SWC	PSWRD/DEV	5000	2015-17	Devils Lake Joint WRB	DL Manager	5/20/2015	60,000	60,000	0
SWC	PSWRD/MRJ	5000	2013-15	Missouri River Joint WRB	Missouri River Coordinator	10/7/2013	37,094	14,327	22,767
SWC	PSWRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board (MRRIC) T. FLECK	5/20/2015	45,000	38,999	6,001
SWC	PSWRD/MRJ	5000	2015-17	Missouri River Joint WRB	Missouri River Joint Water Board, (MRJWB) Start up	5/20/2015	20,000	10,260	9,740
SWC	PSWRD/UPP	5000	2015-17	Upper Sheyenne River Jo	Upper Sheyenne River WRB Administration (USRJWRB)	5/20/2015	12,000	5,315	6,685
SE	PSIRRBUR	5000	2015-17	Buford Trenton Irrigation I	Upgrade to 3-Phase Power	4/19/2016	32,770	32,770	0
SE	PSWRDBUR	5000	2015-17	Burleigh Co. WRD	Pebble Creek Golf Course - Hay Creek Bank Stabilization	10/15/2015	22,782	22,782	0
SE	PSWRDCAS	5000	2015-17	Cass Co. Joint WRD	Red River Watershed Comprehensive Detention Plan Updates	11/19/2015	34,025	34,025	0
TOTAL						20,828,206	16,691,526	4,136,679	



CITY OF GRAND FORKS

REGIONAL WATER TREATMENT PLANT UPDATE

August 23, 2017

Project Summary

The Grand Forks Regional Water Treatment Plant (GFRWTP) Project is well into the construction schedule and on-track towards full completion. The GFRWTP consists of a new 20 million gallons per day hybrid water treatment facility that will include parallel conventional and membrane treatment processes to address key regulatory and water quality challenges, increased water demand, and logistical issues associated with the City's current 60-year-old facility.

Status

Construction of the new GFRWTP began on December 6, 2016 and is well underway. To date, construction progress includes the following:

- **Completed** facility excavation and installed more than 96,000 LF of 12-inch, concrete filled steel pipe piling;
- **Completed** 85 percent of concrete pile caps and associated backfilling between pile caps;
- **Placed** approx. 3,300 CY of structural concrete slabs and walls – when structural concrete work is completed in August 2018, more than 22,000 CY of concrete will have been placed;
- **Prepared** the site with access roads, a construction management complex, parking lot spaces, a 145 foot tall tower crane, laydown and staging areas, and temporary utility and electrical services.

State Grant Funding to Date

Amount	Legislation Enacted	NDSWC Approved	Funds Expended
\$4,990,000	May 1, 2013	October 7, 2013	November 2016
\$30,000,000	April 27, 2015	October 12, 2016	Anticipated March 2018
\$30,000,000	May 18, 2017	Pending August 23, 2017	Anticipated December 2018

Project Costs Incurred to Date

\$28,738,848.28 in total project costs have been incurred since North Dakota State Water Commission (NDSWC) authorization through July 2017 with the NDWSWC reimbursing \$14,344,480.36 in eligible project costs to date.

Project Schedule

The GFRWTP schedule includes the following milestones:

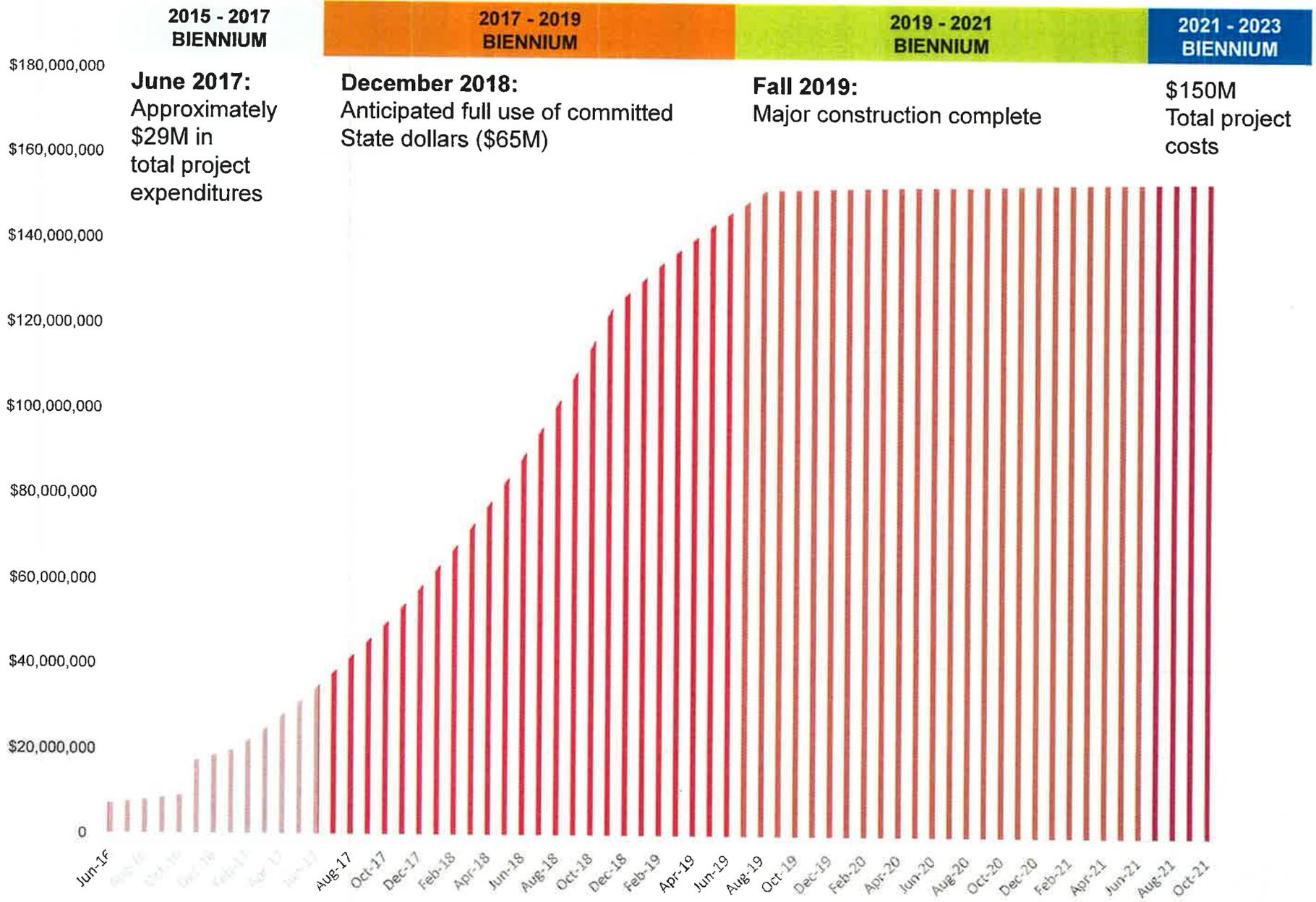
- Structural Concrete Completed: August 1, 2018
- Precast Concrete Completed: September 3, 2018
- Mechanical, Process, & Electrical Completed: March 30, 2019
- Substantial Completion: October 31, 2019
- Final Completion: June 30, 2020



Site as of July 31, 2017

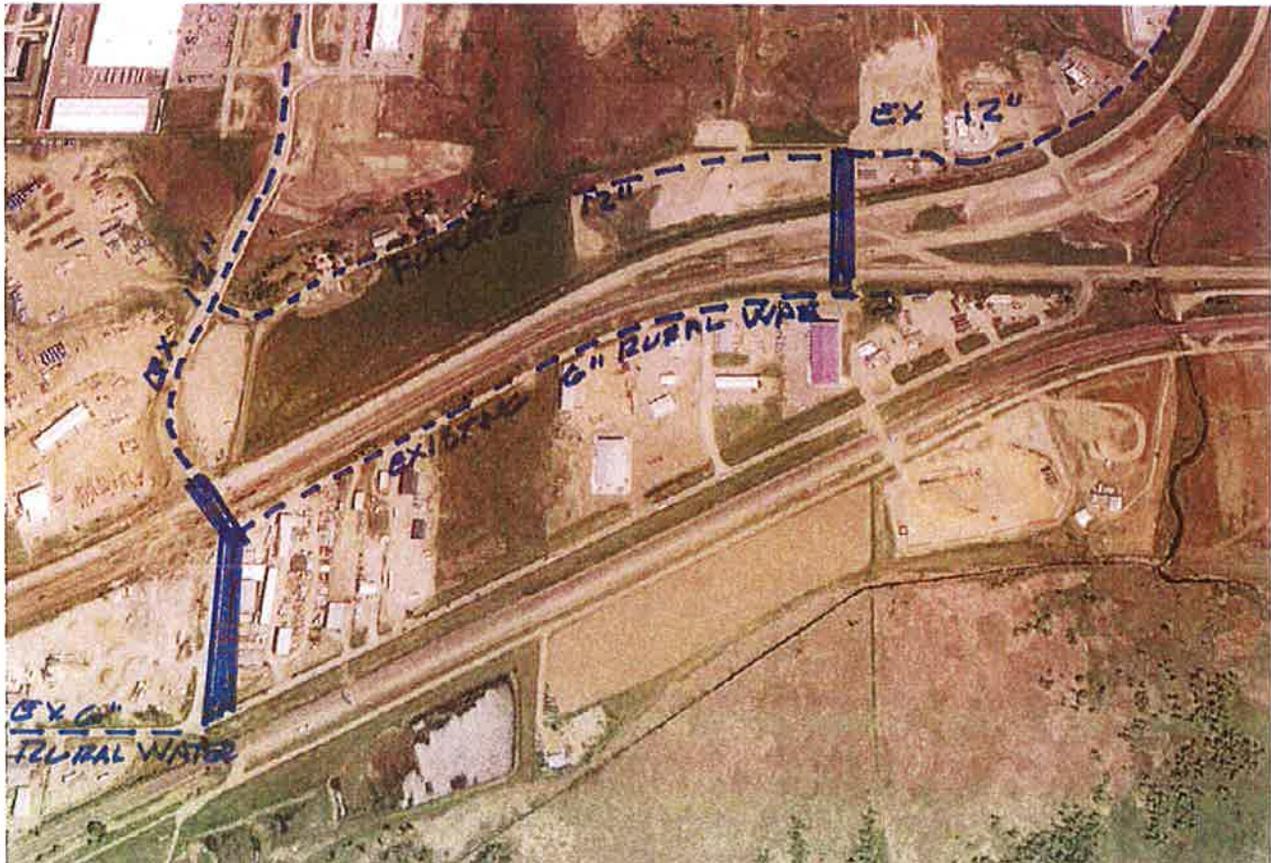
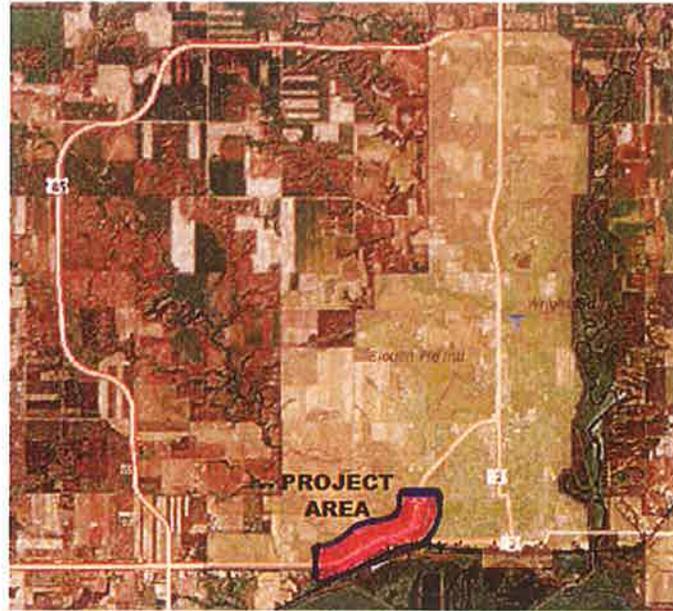


Cumulative Project Expenses



July 31, 2017

US Highway 2 Water Main Crossings





**Construction Phase Services
System Wide Expansion Project
Monthly Report – July 2017
AE2S Project No. P00806-2015-003**

Prepared for
*Southeast Water Users District
North Dakota State Water Commission
North Dakota Department of Health*



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Contact Information

Contact Name	Brian R. Bergantine, PE, Project Manager
Company Name	AE2S
Address	4170 28 th Avenue South
City, State, Zip Code	Fargo, ND 58104
Telephone	701-364-9111
Email	brian.bergantine@ae2s.com

Contact Name	Chase Julson, EIT, Resident Project Representative
Company Name	AE2S
Address	4170 28 th Avenue South
City, State, Zip Code	Fargo, ND 58104
Telephone	701-364-9111
Email	chase.julson@ae2s.com



Original Project Scope and Background

Originally, when SEWUD submitted the feasibility application to the North Dakota State Water Commission (NDSWC) in September 2015, the project team of SEWUD and AE2S were anticipating about 150 rural water user sign-ups. Between January 20, 2016 and April 14, 2016, the project team held nine informational meetings to discuss the proposed project. These informational meetings were held within the communities of Guelph, Walcott, Great Bend, Kulm, Sheldon, McLeod, Cogswell, Lisbon, and Fairmount. Through these public informational meetings, the project team received several testimonials from those attending the meeting about their poor water quality and about water with arsenic concentrations exceeding the 10 parts per billion (ppb) maximum contaminant level (MCL) standard established by the US Environmental Protection Agency (EPA) and North Dakota Department of Health (NDDH). By February 4, 2016, the number of sign-ups had already climbed near 300. For some of these users, this is their first opportunity to sign-up for rural water as their parents did not sign up and now they have ownership of the farmstead. Additionally, SEWUD was contacted by the Mayor of the City of Walcott early in 2016, as they also had concerns with their current water source. The total anticipated costs for the addition of these 300 new users was \$16.5 million in February 2016 dollars.

At this time, the project was anticipated to be constructed in multiple phases with construction extending from the Fall of 2016 through the Summer of 2018 and the warranty phase extending into the Summer of 2019. Maps were submitted as an attachment to the NDSWC Cost Share Request Form in February 2016 presenting locations for 236 of the then 296 potential users that had signed up. Not all of these 296 potential users were included on the maps at the application submission time because many of these potential users lacked enough detail to plot their location on the map. A funding request was approved by the NDSWC in March 2016 for \$11.79 million in grant for a total project estimated to cost \$16.5 million.

However, since this funding request was approved in March 2016, the numbers of users for connection to the SEWUD System Wide Improvements project has continued to grow. In January 2017, the City of Walcott conducted a vote to switch their water source from their current wells to bulk rural water from SEWUD. By a vote of 83-2 (97.6%), the City of Walcott voted in favor of hooking up to SEWUD rural water.

As the design process progressed, the project team recognized that not all of the individual users that signed up for rural water service were going to be deemed feasible for service by SEWUD. Additionally, it was evident that as the project grew, the current available funding was not going to meet the entire project needs. As such, the project team separated the System



Wide Expansion project into two different bid packages: 1) System Wide Expansion – Pipeline Improvements and 2) System Wide Expansion – Facilities Improvements. Additionally, the System Wide Expansion – Pipeline Improvements were divided into a base bid and five alternates to help SEWUD work through the anticipated financial impacts of the project.

The pipeline improvements project was bid in March 2016 with a total of 470 individual rural users plus bulk water service to the City of Walcott. The base bid included pipeline improvements to supply water to 245 individual rural users and the City of Walcott, while the five alternates were arranged by area to meet the remaining 225 individual rural users. Six bidders provided bids for this work. This project was bid as one contract with each bid contacting a base bid with two material options, a PVC Option and/or a POLY Option, and five alternates with both a PVC option and/or a POLY option bid. The bids for the Alternates No. 1, No. 2, No. 3, No. 4, and No. 5 were represented as additions. A summary of each bid alternate with each option is presented in the following paragraphs.

- Alternate No. 1 – This bid alternative consisted of providing and installing approximately 73 miles of pipe ranging in diameter size from 2 inch to 4 inch and providing water service to the 74 new users throughout Dickey, LaMoure, and Logan counties.
- Alternate No. 2 – This bid alternative consisted of providing and installing approximately 64 miles of pipe ranging in diameter size from 2 inch to 4 inch and providing water service to the 61 new users throughout Dickey and Sargent counties.
- Alternate No. 3 – This bid alternative consisted of providing and installing approximately 22 miles of pipe ranging in diameter size from 2 inch to 3 inch and providing water service to the 28 new users throughout LaMoure and Ransom counties.
- Alternate No. 4 – This bid alternative consisted of providing and installing approximately 33 miles of pipe ranging in diameter size from 2 inch to 3 inch and providing water service to the 44 new users throughout Dickey County.
- Alternate No. 5 – Kulm Area: This bid alternative consisted of providing and installing approximately 33 miles of pipe ranging in diameter size from 2 inch to 4 inch and providing water service to the 22 new users throughout Dickey County.

Based on the bid results, the project team, SEWUD general manager, and SEWUD construction committee recommended the award of the pipeline improvements base bid along with Alternates No. 1, No. 2, No. 3, and No. 4 to Eatherly Constructors, Inc. in the amount of \$11,238,674.41. Alternate No. 5 was not recommended for award at this time because of the estimated cost to provide service to these users and the lack of available secured funding.

For the Facilities Improvements project, eight different bids were submitted. Seven of the bids that were submitted met all of the prescribed requirements and were opened and read aloud;



one bid was submitted late and was not accepted. This project was bid in three contracts. Individual bids were received for Contract No. 1 – General Construction and Contract No. 2 – Electrical Construction. Additionally, combined bids for the work under these two individual contracts was bid under Contract No. 3 – Combined General and Electrical Construction. Based on the bid results, the project team, SEWUD general manager, and SEWUD construction committee recommended the award of Contract No. 3 to PKG Contracting, Inc. in the amount of \$2,086,900.00.

SEWUD continues to get requests from rural users who indicated that they would like rural water service. By the end of June 2017, over 30 additional requests had already been received by SEWUD and the number of requests is anticipated to increase as construction continues.



Contract Description

Project Description

Project Title: System Wide Expansion – Pipeline Improvements

Location: Richland, Ransom, Sargent, Dickey, LaMoure, Logan Counties

Contractor: Eatherly Constructors, Inc.
4831 W 136th Street
Leawood, KS 66224

Construction Notice to Proceed Date: May 9, 2017

Substantial Completion Date: September 1, 2019

Final Completion Date: October 31, 2019

Original Contract Amount: \$11,238,674.41 (Base Bid + Alternates No. 1 – No. 4)

Project Title: System Wide Expansion – Facilities Improvements

Location: Richland, Ransom, Sargent, Dickey, LaMoure, Logan Counties

Contractor: PKG Contracting, Inc.
4301 South University Drive
Fargo, ND 58104

Construction Notice to Proceed Date: April 20, 2017

Substantial Completion Date: June 1, 2018

Final Completion Date: June 29, 2018

Original Contract Amount: \$2,086,900.00



Project Stakeholders

Owner: Southeast Water Users District		
<i>General Manager:</i>	<i>Steve Hansen</i>	<i>Phone: (701) 242-7432 Email: Stevehh2o@rrt.net</i>
<i>Controller:</i>	<i>Don Lingen</i>	<i>Phone: (701) 242-7432 Email: dl.sewu@rrt.net</i>

Engineer: AE2S		
<i>Project Manager:</i>	<i>Brian Bergantine</i>	<i>Office: (701) 364-9111 Cell: (701) 866-0620 Email: Brian.Bergantine@ae2s.com</i>
<i>Resident Project Representative:</i>	<i>Chase Julson</i>	<i>Cell: (701) 899-4069 Email: Chase.Julson@ae2s.com</i>

Funding Agency: North Dakota State Water Commission		
<i>Water Development:</i>	<i>Jeffrey Mattern</i>	<i>Phone: (701) 328-4952 Email: jmattern@nd.gov</i>
<i>Water Development:</i>	<i>James Ternes</i>	<i>Phone: (701) 328-2304 Email: jpternes@nd.gov</i>

Funding Agency: North Dakota Department of Health		
<i>State Revolving Fund Program:</i>	<i>Bryan Schmitt</i>	<i>Phone: (701) 328-5299 Email: brSchmitt@nd.gov</i>

Contract No. 1 – Pipeline Improvements

General Contractor – Eatherly Constructions, Inc.		
<i>Project Manager:</i>	<i>Dorothy Ramirez</i>	<i>Office: (605) 244-1485 Cell: (605) 280-0066 Email: eatherlymdr@aol.com</i>
<i>Superintendent:</i>	<i>Martin Ramirez</i>	<i>Cell: (605) 280-9915</i>
<i>Foreman:</i>	<i>Jamie Ramirez</i>	<i>Cell: (605) 280-1589</i>

Contract No. 3 – Combined General and Electrical Construction – Facilities Improvements

General Contractor – PKG Contracting, Inc.		
<i>Project Manager:</i>	<i>David Olsgaard</i>	<i>Office: (701) 232-3878 Cell: (701) 866-1734 Email: david@pkg-inc.com</i>
<i>Superintendent:</i>	<i>Dave French</i>	<i>Cell: (701) 541-0412 Email: davef@pkg-inc.com</i>



Monthly Summary

Pipeline Construction

ECI

Monthly Progress

- Installed approximately 40 miles of total pipeline

2"	3"	4"	6"
26 miles	4 miles	4.5 miles	5.5 miles

- Installed 15 curb stops
- Installed 1 air release valve (ARV)
- Installed 8 gate valves

Total Project Progress

- Installed approximately 61 miles of total pipeline

2"	3"	4"	6"
30.5 miles	10.5 miles	4.5 miles	15.5 miles

- Installed 35 curb stops
- Installed 1 air release valve (ARV)
- Installed 1 Flush/Air Blowoff valve
- Installed 16 gate valves (2 included in special tie-in)

Contract Overview

Original Total Contract Amount – Contract No. 1	
Contract No. 1 (Pipeline Imp.)	\$11,238,674.41
Change Orders To Date	
Contract No. 1 (Pipeline Imp.)	\$0
Revised Total Contract Amount – Contract No. 1	
Contract No. 1 (Pipeline Imp.)	\$11,238,674.41
Earned to Date (including retainage)	\$2,219,457.36
Percent Earned	19.7%

Scheduled Milestones

150 New Users and City of Walcott, ND Substantial Completion	December 31, 2017
150 Additional New Users Substantial Completion	December 31, 2018
Substantial Completion (Base Bid and Alternates No. 1 – No. 4)	September 1, 2019
Final Completion (Base Bid and Alternates No. 1 – No. 4)	October 31, 2019



Facilities Construction

PKG

- Completed pouring the walls for Reservoir P
- Prepared for the elevated deck pour

Subcontractors

- Hi-Line Electric installed copper wires in reservoir walls for lighting protection
- Began placing conduit in the reservoir elevated deck slab

Contract Overview

Original Total Contract Amount – Contract No. 3	
Contract No. 3 (Facilities Imp.)	\$2,086,900.00
Change Orders To Date	
Contract No. 3 (Facilities Imp.)	\$0
Revised Total Contract Amount – Contract No. 3	
Contract No. 3 (Facilities Imp.)	\$2,086,900.00
Earned to Date (including retainage)	\$327,689.68
Percent Earned	15.8%

Scheduled Milestones

Reservoir P, Walcott, and Lisbon WTP Interim Substantial Completion	December 31, 2017
Substantial Completion	June 1, 2018
Final Completion	June 29, 2018



Combined Contract Overview

Original Total Combined Contract Amounts	\$13,325,574.41
Contract No. 1 (Pipeline Imp.)	\$11,238,674.41
Contract No. 3 (Facilities Imp.)	\$2,086,900.00
Change Orders To Date	\$ 0.00
Contract No. 1 (Pipeline Imp.)	\$0
Contract No. 3 (Facilities Imp.)	\$0
Revised Total Combined Contract Amount	\$13,325,574.41
Contract No. 1 (Pipeline Imp.)	\$11,238,674.41
Contract No. 3 (Facilities Imp.)	\$2,086,900.00
Earned to Date (including retainage)	\$2,547,147.04
Contract No. 1 (Pipeline Imp.)	\$2,219,457.36
Contract No. 3 (Facilities Imp.)	\$327,689.68
Percent Earned	10.0%



Critical Issues and Key Coordinating Items

Critical Issues

Owner Items

- No items reported this period.

Engineer Items

- No items reported this period.

Contractor Items – ECI

- No items reported this period.

Contractor Items – PKG

- No items reported this period.

Key Coordinating Items

Owner Items

- Completion of easements.

Engineer Items

- Shop drawing review.
- Permit approval
 - State Highways
 - Railroad Crossing
 - Richland County
 - USFW permits
 - Sheyenne National Grassland permit

Contractor Items – ECI

- Water connection to 6" PVC main line at Reservoir P site for pressure testing, flushing, and bacteriological testing.

Contractor Items – PKG

- Lead time on fabrication of Berlin Booster Station.



Cost Summary and Anticipated Additional Funding Needs

Current Cost Summary

Project: Southeast Water Users District System Wide Expansion
 SWC Project No: 2050-SOE
 Sponsor: Southeast Water Users District
 Estimated Project Cost: \$ 16,500,000

	Amount	Percent	Type	SWC Approved	
State:	\$ 100,000	35%	Cost-Share	10/02/15	Feasibility Study
State:	\$ 1,460,000	35%	Cost-Share	03/09/16	Pre-Engineering Costs
State:	\$ 15,040,000	75%	Cost-Share	03/09/16	Const. Engineering & Construction
Total:	\$ 16,500,000*				

	Feasibility Study	Pre-Engineering	Construction Engineering	Construction Costs Misc.	Construction	Total
Project Cost To Date:	\$ 76,202.07	\$ 1,334,646.01	\$ 163,261.54	\$ 9,739.40	\$ 2,292,432.34	\$ 3,876,281.36
Non-Eligible Cost:	\$ -	\$ 119,557.86	\$ -	\$ -	\$ -	\$ 119,557.86
Eligible Cost:	\$ 76,202.07	\$ 1,215,088.15	\$ 163,261.54	\$ 9,739.40	\$ 2,292,432.34	\$ 3,756,723.50

	Total	SRF Loan	SWC Total
Payment Needed:	\$ 3,876,281.36	\$ 1,575,254.84	\$ 2,301,026.52
Payments Made:	\$ 2,687,511.87	\$ 1,271,657.00	\$ 1,415,854.87
Payment Due:	\$ 1,188,769.49	\$ 303,597.84	\$ 885,171.65
Account Funding Balance:	\$ 12,623,718.64	\$ 3,098,745.16	\$ 9,524,973.48



Anticipated Additional Funding Needs

	<u>Current</u>	<u>Anticipated Additional Funding</u>	<u>Total</u>
<u>Engineering Fees</u>			
Preliminary Design	\$265,000.00	-	\$265,000.00
Final Design	\$1,047,750.00	\$43,500.00	\$1,091,250.00
Bidding Phase Services	\$75,000.00	\$15,000.00	\$90,000.00
Construction Administration	\$391,900.00	\$84,200.00	\$476,100.00
Resident Project Representative	\$528,600.00	\$147,350.00	\$675,950.00
Total	\$2,308,250.00	\$290,050.00	\$2,598,300.00
<u>Easements</u>	\$265,000.00	-	\$265,000.00
<u>Cultural Resource Study</u>	\$67,800.00	\$9,750.00	\$77,550.00
<u>Pipeline Construction</u>			
Base Bid	\$6,526,847.94		\$6,526,847.94
Alternate 1	\$1,737,799.51		\$1,737,799.51
Alternate 2	\$1,594,334.05		\$1,594,334.05
Alternate 3	\$577,935.87		\$577,935.87
Alternate 4	\$130,132.62	\$671,624.42	\$801,757.04
Alternate 5		\$758,968.48	\$758,968.48
Total	\$10,567,049.99	\$1,430,592.90	\$11,997,642.89
<u>Late Hookups</u>			
65 Additional Users	-	\$1,239,823.00	\$1,239,823.00
<u>Facilities Construction</u>			
Combined Construction			
Base	\$1,474,286.90		\$1,474,286.90
Alt 1	\$436,551.19		\$436,551.19
Alt 2	\$93,693.77		\$93,693.77
Alt 3	\$82,368.15		\$82,368.15
Alt 5		\$364,479.06	\$364,479.06
Total	\$2,086,900.01	\$364,479.06	\$2,451,379.07
<u>Well Line @ SEWUD-West</u>	-	\$500,000.00	\$500,000.00
<u>Crop Damage</u>	\$647,000.00	\$42,000.00	\$689,000.00
<u>Contingency</u> Assume 3.50%	\$558,000.00	\$136,000.00	\$694,000.00
Total Project Cost	\$16,500,000.00	\$4,012,694.96	\$20,512,694.96
		Use:	\$20,500,000.00
Current Available Funding	\$16,500,000.00	-	\$16,500,000.00
Anticipated Additional Funding Needs		\$4,000,000.00	\$4,000,000.00
NDSWC Grant (35%/75%)		\$2,749,000.00	\$2,749,000.00
SRF Loan		\$1,251,000.00	\$1,251,000.00

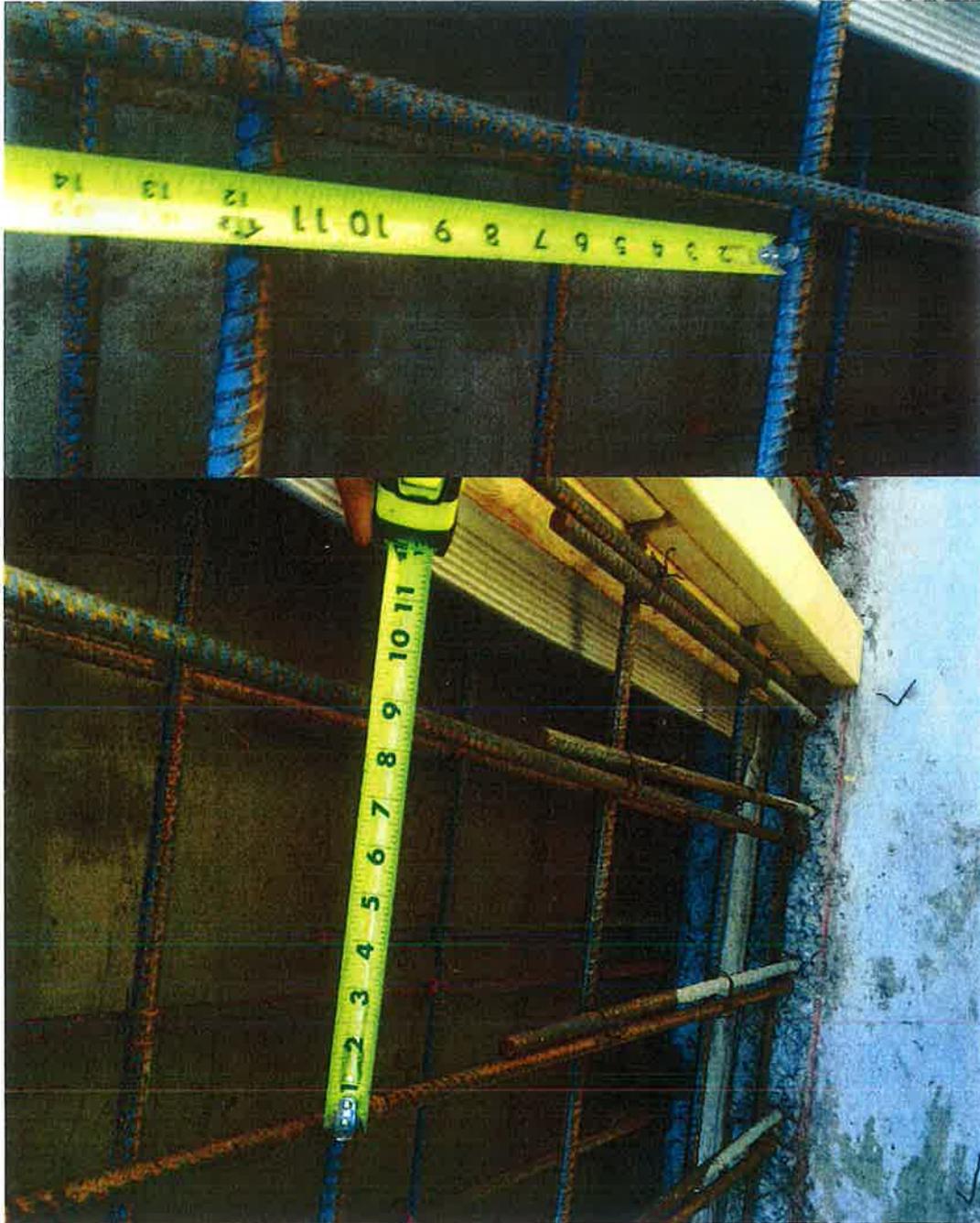


Progress Photographs and Videos

July 2017 Progress Photos



Installing 6" PVC Main Line West of Walcott, ND (July 5, 2017)



Verifying Rebar Spacing on Reservoir P Walls near Walcott, ND (July 10, 2017)



Pouring concrete for Reservoir P Walls near Walcott, ND (July 11, 2017)



Installing Stainless Steel Saddle, 2" Corporation Stop, and 2" PVC Pipe Stub on 6" Main Line in Viking Township, Richland County (July 15, 2017)



July 2017 Video Links

Reservoir P:

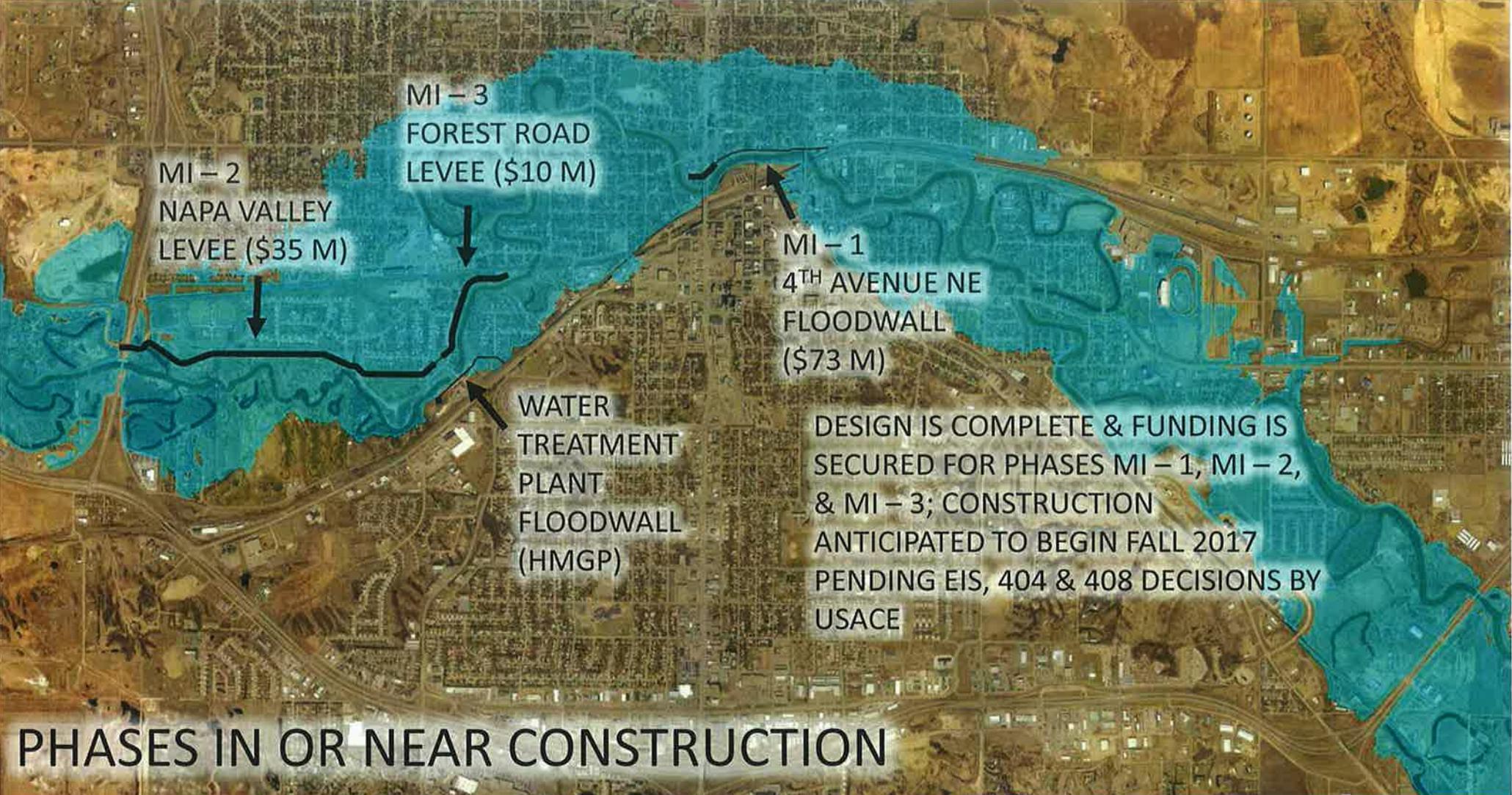
<https://youtu.be/qThpUi3I7b0>

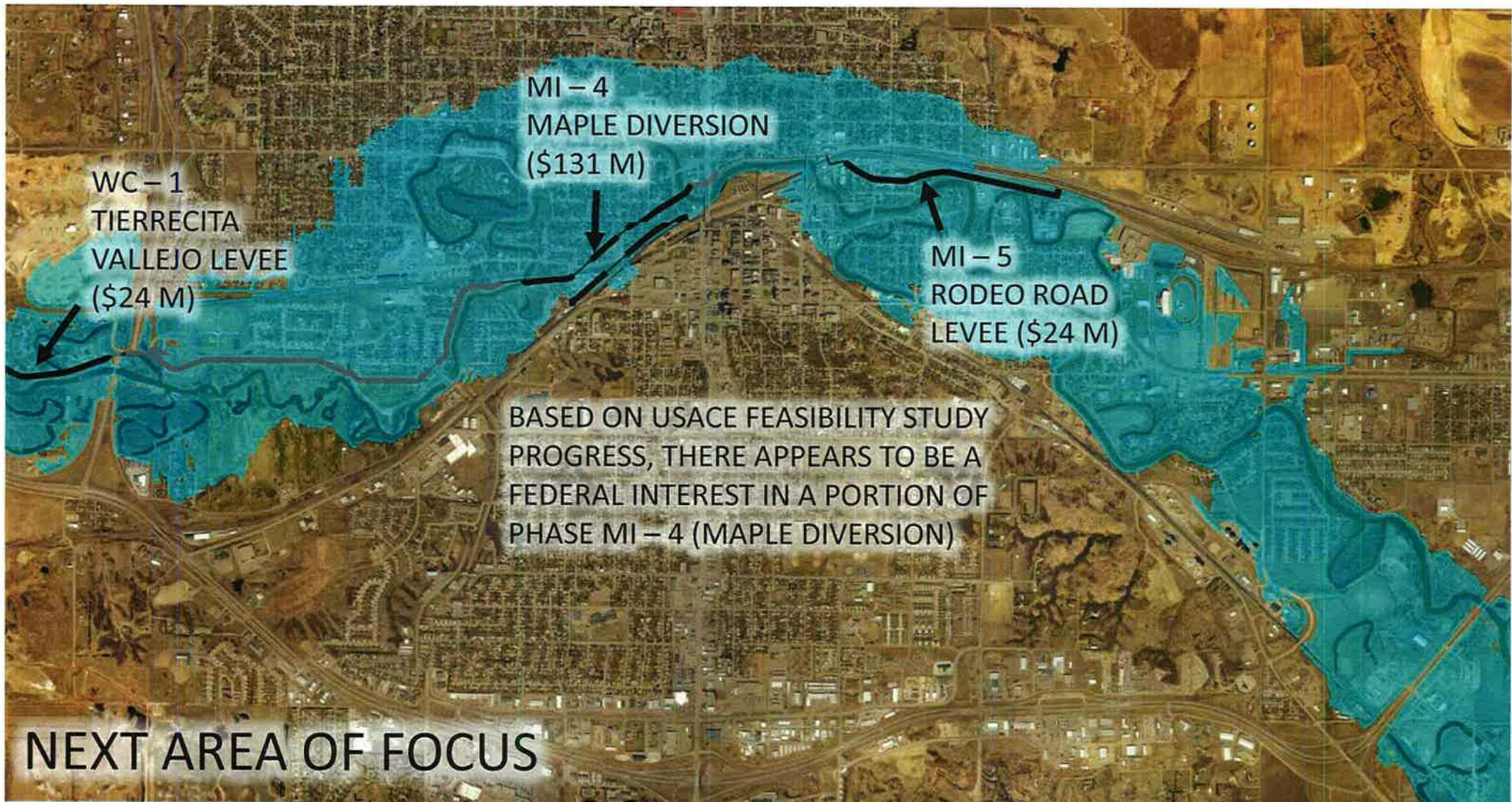
Rural Water Pipeline:

<https://youtu.be/YTK7rvupQyl>

https://youtu.be/IfC4M_gHa7c

<https://youtu.be/mLrrEdmwRgU>







REMOVES APPROX. 60% OF
MINOT RESIDENTS FROM
THE FEMA REGULATORY
FLOODPLAIN

STATE FUNDING HAS BEEN
COMMITTED TO REACH
THIS MILESTONE (\$193
MILLION LEGISLATIVE
INTENT)

FUTURE FEMA FLOODPLAIN (MINOT MILESTONE 1)

North Dakota Cloud Modification Project

MEETING OF THE NORTH DAKOTA STATE WATER COMMISSION
AUGUST 23, 2017
DARIN LANGERUD, DIRECTOR - ARB DIVISION

Outline

- ▶ Brief history of cloud seeding in North Dakota
- ▶ Scientific basis
- ▶ Program structure
- ▶ North Dakota Cloud Modification Project (NDCMP)
- ▶ Budgets
- ▶ Independent evaluations
- ▶ Current research
- ▶ Similar programs

ND's Cloud Seeding History

- ▶ Cloud seeding in North Dakota began as a grass-roots effort in the 1950s. Farmers and ranchers enrolled in the program and paid for the service.
- ▶ Initial efforts used ground-based seeding methods.
- ▶ By 1961, a private company, Weather Modification, Inc., was formed in Bowman and provided airborne seeding operations.
- ▶ In 1975, the Legislature created the North Dakota Weather Modification Board (later renamed the Atmospheric Resource Board) to provide regulatory functions, operational support, conduct research and evaluations and provide state cost share funding.

Scientific Basis

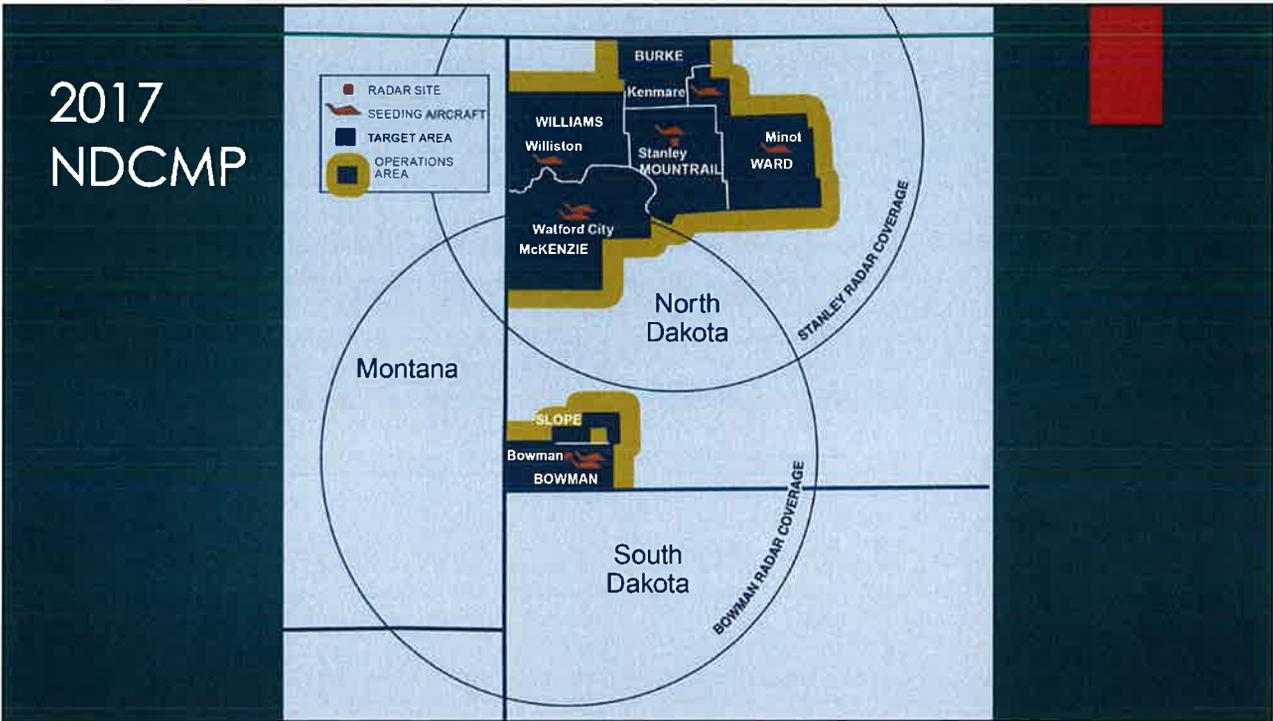
- ▶ ND Pilot Project 1969-72
 - ▶ Randomized (3:1), proof of concept, cloud seeding project in McKenzie County
 - ▶ 67 rain gauges, radar observations
 - ▶ Statistically significant increases in: (1) the number of rainfall events, (2) average rainfall per event, and (3) total rainfall in the target area (~10%). Published in the AMS Journal of Applied Meteorology by Dennis *et. al*, 1975
 - ▶ Analysis of cloud seeding on hail indicated the ratio of average rainfall to hail energy was greater on seeded days and crop-hail insurance losses were lower on seeded days. Due to a smaller data sample, the statistical results were not as significant as for the rainfall analysis. Published in the AMS Journal of Applied Meteorology by Miller *et. al*, 1975

Program Structure

- ▶ County participation is established through 51% petition, 20% petition and public vote, or county commission resolution and public vote, creating a 10-year authority.
 - ▶ Temporary (up to 4 year) authority may be created through public hearing and resolution of the county commission. After term expires the authority must be continued through one of the prior methods.
- ▶ Before a 10-year authority has expired, reauthorization is required by resolution of the county commission. These occur every five years.
- ▶ The county commission appoints 5 members to the "county weather modification authority" which oversees the project in the county and contracts with the state for cloud seeding services.
- ▶ The most recent county ballot measures on cloud seeding passed by an 80-20% margin in Williams County in 2000 and 70-30% margin in Bowman County in 2016.

North Dakota Cloud Modification Project (NDCMP)

- ▶ NDCMP goals are hail suppression and rainfall enhancement
- ▶ Convective clouds (e.g. thunderstorms) are seeded by aircraft in the updraft below cloud base, or directly at cloud top
- ▶ Silver iodide acts as a nucleus for droplets to form and then freeze earlier than what occurs naturally
- ▶ Earlier ice formation induces competition and distributes the water in the cloud over more particles
- ▶ These particles don't grow as large and have greater ability to melt as they fall from the cloud



ARB Division Budget

2017-19	
RTF	\$2,390,281
Special Funds	\$2,809,032
Federal Funds	\$1,500,000
Total	\$6,699,313

- ▶ RTF funds support salaries and wages, state cost-share of cloud seeding, ARBCON precipitation network, radar operations, and research and evaluation activities.
- ▶ Special funds are county revenue for the cloud seeding program
- ▶ Federal funds is an authorization to accept funds for research
 - ▶ Both Special and Federal authorization exceeds actual funds collected
 - ▶ 2015-17 expenditures were \$3,163,000

Program Funding

- ▶ Participating counties provide funding on an annual basis with the state providing cost-share.

2017 NDCMP		
County Funds	\$686,292	66%
State Cost Share	\$350,319	34%
Total	\$1,036,611	

Independent Evaluations

- ▶ Crop insurance analysis over a 13-year period found 45% lower crop-hail losses in the seeded counties versus an immediately adjacent upwind control area. JAM, Smith *et al.*, 1997.
- ▶ Several studies of rainfall, using various datasets, have indicated percentage increases from the low single digits to the low teens, with typical results falling the in 5-10% range. (Eddy & Cooter, 1979, Eddy, 1981, Johnson, 1985, Smith *et al.*, 2004, Wise, 2005.)
- ▶ Wheat yields were found to be 5.9% higher on average in the seeded counties versus an adjacent control area. JAM, Smith *et al.*, 1992.

Independent Evaluations

- ▶ Economic analysis was conducted by Bangsund and Leistritz (NDSU Ag. Econ.) in 2009.
- ▶ Economics were evaluated for rainfall increases of 5 and 10 percent, and crop-hail damage reductions of 45 percent.
- ▶ The analysis included the top eight crops by planted acreage in addition to alfalfa.
 - ▶ In the 5% rainfall scenario, direct benefits through additional agricultural production were estimated to average \$12 million annually, with a B/C ratio of 16:1.
 - ▶ Under the 10% rainfall scenario, direct impacts were estimated to average \$19.7 million annually, with a B/C ratio of 26:1.
 - ▶ Gross economic benefits were estimated at \$37.1-\$60.5 million.
 - ▶ State tax collections were estimated at \$745,000 to \$1,217,000
- ▶ Estimates do not consider any potential reduced impacts to property

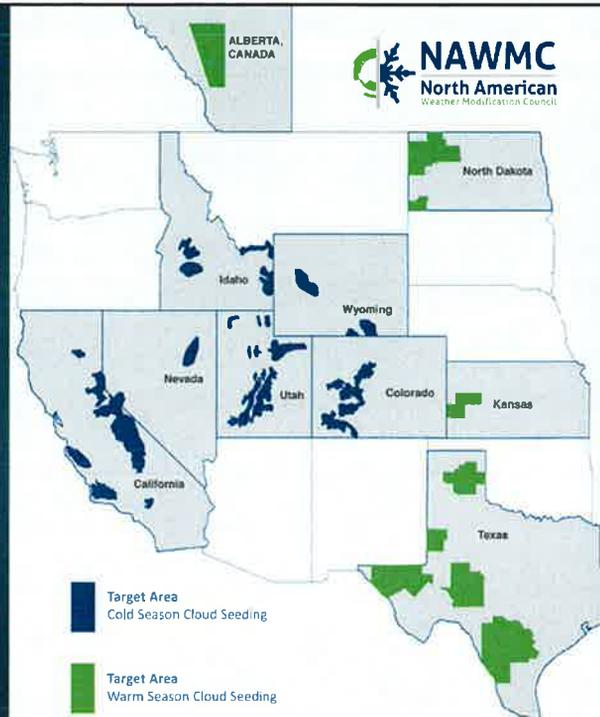
Current Research

- ▶ Polarimetric Cloud Analysis and Seeding Test (POLCAST)
 - ▶ Assessment of the potential of hygroscopic seeding in ND clouds
 - ▶ Collaboration with UND, Weather Modification International, Ice Crystal Engineering and National Center for Atmospheric Research
 - ▶ Seeding was randomized, with clouds selected before seeding decision
 - ▶ 44 cases collected during three field campaigns
 - ▶ Analysis of radar data indicated that seeding enhanced cloud droplet and drizzle formation and boosted liquid water content early in the seeded clouds life cycle
 - ▶ Analysis of airborne microphysical data showed that atmospheric conditions support clouds that are suitable for hygroscopic seeding
 - ▶ UND Master's Thesis on additional statistical evaluation is forthcoming soon

Current Research

- ▶ Development of a polarimetric radar hail detection algorithm
 - ▶ Collaboration with National Center for Atmospheric Research
 - ▶ Software will be developed and tested in the process of hail detection using data from the Minot, ND NEXRAD radar
 - ▶ The software will be applied to radar data collected each year after the convective storm season to analyze hail formation and trends
 - ▶ Algorithm development should be completed by late fall

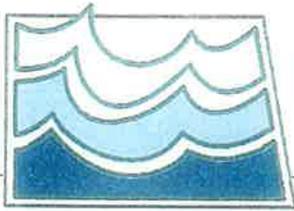
Cloud Seeding in North America



Standards & Guidelines

- ▶ The American Society of Civil Engineers' (ASCE) Environmental Water Resource Institute (EWRI) has published guidelines and standard practice documents on cloud seeding.
 - ▶ Guidelines for Cloud Seeding to Augment Precipitation, Third Edition
 - ▶ Standard Practice for the Design and Operation of Supercooled Fog Dispersal Projects
 - ▶ Standard Practice for the Design, Conduct, and Evaluation of Operational Precipitation Enhancement Projects
 - ▶ Guidelines for Operational Hail Suppression Programs
- ▶ These have also been endorsed as national standards by the American National Standards Institute (ANSI)





North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 326-2750 • TTY 1-800-396-6886 or 711 • FAX (701) 328-3686 • <http://swc.nd.gov>

APPENDIX I
August 23, 2017

MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission

FROM: Garland Erbele, P.E., Chief Engineer-Secretary

SUBJECT: Western Area Water Supply Project Phase V

DATE: August 7, 2017

Funding and Plan Approval

The Western Area Water Supply Authority (WAWSA) is requesting cost-share on Phase V projects. The three projects are continuations of projects that either the Authority has currently under construction or have completed through prior funding. The projects are listed in the attached request letter which includes a table titled "Summary of Initial WAWSA Phase V Projects for SWC Funding Approval". The projects add transmission and distribution pipeline within the region of the rural water systems. The local rural water systems will cover the local share of the project costs.

MCWRD – System I/IV Expansion Part I – The project consists of two parts of prior projects known as the MCWRD System I Improvements Tobacco Gardens Project and the MCWRD System IV Part 3A Project, which included work that was to be completed on Forest Service property. The Authority was not able to obtain the proper Forest Service permits to complete this work within the allotted contract timeframe, so the Authority deleted these portions of the work from both of the construction contracts. The Authority has now obtained the Forest Service permits and is in a position to re-bid the project. Estimated eligible cost is \$1,910,000. Cost-share of 35 percent on pre-construction costs and 75 percent on construction costs provides total funding of \$1,368,500.

R&TWSCA – Stanley Part I Alternates – The project is a continuation of the WAWSA R&T Stanley Rural Distribution Project. The project was bid with base bid and alternates in the fall of 2015. Due to limited funding the Authority only awarded the base bid at that time. This request would provide funding for re-bidding of the alternates. Estimated eligible cost is \$7,781,599. Cost-share of 35 percent on pre-construction costs and 75 percent on construction costs provides total funding of \$5,575,400.

R&TWSCA – White Earth West Alternates – The project is a continuation of the WAWSA R&T West White Earth Distribution Project. The project was bid with base bid and alternates in the fall of 2015. Due to limited funding the Authority only awarded the base bid at that time. This request would provide funding for awarding of the alternates. Estimated eligible cost is \$2,521,200. Cost-share of 35 percent on pre-construction costs and 75 percent on construction costs provides total funding of \$1,806,100.

I recommend the State Water Commission approve the overall Phase V plan for cost-share with pre-construction engineering costs funded at 35 percent and construction funded at 75 percent of eligible costs. The approval is contingent on available funding.

GE:JM:ph/1973
Attachments

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E.
CHIEF ENGINEER-SECRETARY

State Water Supply Cost-Share Funding
 WAWS Construction

Project	Pre-Construction			Construction			Total Cost-Share	Local Cost	Total Project Cost
	Cost	%	Cost-Share	Cost	%	Cost-Share			
MCWRD System I/IV Expansion Part I	\$160,000	35	\$56,000	\$1,750,000	75	\$1,312,500	\$1,368,500	\$541,500	\$1,910,000
R&TWSCA Stanley Part I Alternates	\$652,000	35	\$228,200	\$7,129,600	75	\$5,347,200	\$5,575,400	\$2,206,199	\$7,781,599
R&TWSCA White Earth West Alternates	\$212,000	35	\$74,200	\$2,309,200	75	\$1,731,900	\$1,806,100	\$715,100	\$2,521,200
Total	\$1,035,714		\$358,400	\$11,190,450		\$8,391,599	\$8,750,000	\$6,244,010	\$12,212,799



July 20, 2017

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

Re: WAWSA Cost Share Request for 2017-2019 Biennium

Dear Mr. Erbele:

As you are aware, the Western Area Water Supply Authority (WAWSA) has previously received funding authorizations from the North Dakota Legislature and State Water Commission totaling \$309 million for capital expenditures through the 2015-2017 biennium (Phases I through IV). Today, we are proud to report that 97 percent, or \$299.9M of the \$309M, of the funds allocated to WAWSA are expended and the remaining allocated funds are under contract and will be expended by the end of 2017.

Certainly much has been accomplished over the last three biennia in terms of providing water service to the expanding population of northwest North Dakota; however, much remains to be completed. To that end, the WAWSA Board of Directors has identified its high priority projects for the 2017-2019 biennium as summarized in Table 1. WAWSA is respectfully requesting those projects be approved as eligible projects for up to 75 percent state cost share of eligible project costs using 2017-2019 biennium funding.

Proposed System Improvements/Expansion	2017 – 2019 Funding	Est. State Cost Share	Est. Local Cost Share
MCWRD – System I Expansion – Part 2	\$3,500,000	\$2,348,000	\$1,152,000
MCWRD – System I/IV Expansion – Part I	\$2,000,000	\$1,338,000	\$662,000
R&TWSCA – Stanley Part I Alternates	\$8,150,000	\$5,468,000	\$2,682,000
R&TWSCA – White Earth East Base and Alternates	\$5,820,000	\$3,905,000	\$1,915,000
R&TWSCA – White Earth West Alternates	\$2,640,000	\$1,771,000	\$869,000
R&TWSCA – Tioga to Stanley Trans. Impr. Ph. I	\$1,200,000	\$810,000	\$390,000
WRWD – North 200k Pump Station Service Area	\$3,000,000	\$2,012,000	\$988,000
Williston WTP Pretreatment Expansion & Superstructure	\$3,500,000	\$2,348,000	\$1,152,000
Totals	\$29,810,000	\$20,000,000	\$9,810,000

Table 1: Summary of WAWSA Phase V Projects for SWC Approval

WAWSA is certainly aware of the impacts the slowdown in oil activity is having on the Resources Trust Fund and understands the SWC may not be in a position to allocate funds in the near term for all the funding requests that will be received for the 2017-2019 biennium. Accordingly, WAWSA is seeking funding authorization for the projects summarized in Table 2 at the SWC’s next regularly scheduled meeting so we are in a position to move forward with construction on these projects as soon as possible as they are shovel ready (designed and bid as alternates of base projects, easement acquisition above 90%).

Mr. Garland Erbele, PE

Re: WAWSA Cost Share Request for 2017-2019 Biennium

Date: July 20, 2017

Proposed System Improvements/Expansion	Est. Total Project Cost	Est. State Cost Share	Est. Local Cost Share
MCWRD – System I/IV Expansion – Part I	\$2,000,000	\$1,338,000	\$662,000
R&TWSCA – Stanley Part I Alternates	\$8,150,000	\$5,468,000	\$2,682,000
R&TWSCA – White Earth West Alternates	\$2,640,000	\$1,771,000	\$869,000
Totals	\$12,790,000	\$8,577,000	\$4,213,000

Table 3: Summary of Initial WAWSA Phase V Projects for SWC Funding Approval

We greatly appreciate your assistance in continuing to expand water service in northwest North Dakota. If you have any questions or need additional information on any of the projects, please do not hesitate to contact me at 701-774-6605.

Regards,



Mark Owan, Chairman
Western Area Water Supply Authority

cc: Paczkowski, John, PE, Assistant State Engineer

PROJECT UPDATE
**North Dakota
State Water Commission**

Wednesday, August 23, 2017



FM AREA
DIVERSION
PROJECT



March 2017

At a Glance Fargo-Moorhead Metropolitan Flood Risk Management Project

DESCRIPTION

Permanent flood protection project for 230,000 people, \$16 billion in private property, and 143,000 jobs in the largest city and metropolitan area in North Dakota. Provides protection for the Dept. of Defense's Strategic Rail Corridor Network (STRACNET), which runs through Fargo and is disrupted during extreme floods. This rail network through Fargo transports half of the 1 million barrels a day of oil produced in North Dakota. The region's annual flooding threatens America's energy security; this project protects jobs and the nation's resources.

PROJECT INFORMATION

Authority: U.S. Army Corps of Engineers

Total Investment: \$2.2 Billion

Federal Investment:

\$450 Million (\$70M request for 2017)

State and Local Investment

\$1.75 Billion (approved)

Innovation:

The only U.S. Army Corps of Engineers Public-Private Partnership (P3), through a congressionally-authorized pilot program. The federal taxpayer is saving over \$400 Million.

Over 2,000 Annual Jobs:

1,556 Annual Direct Jobs

523 Annual Indirect Jobs

STATUS

All federal permits and approvals have been granted

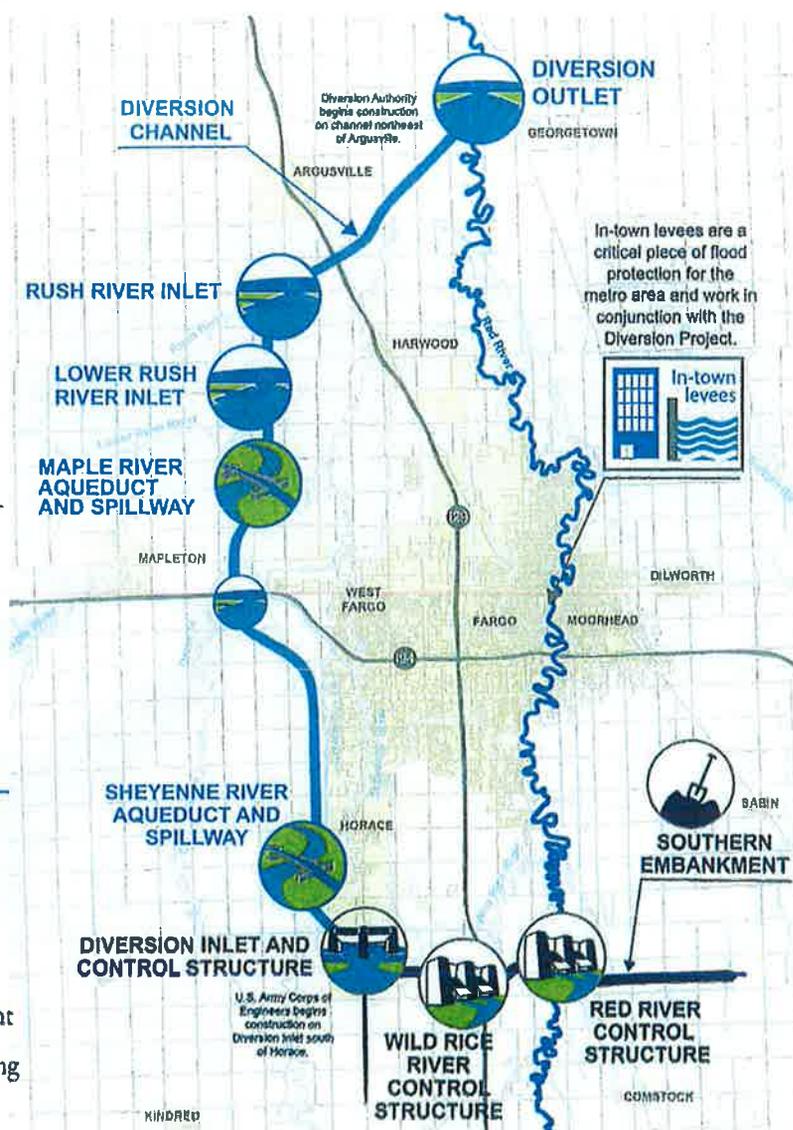
Construction ready to begin in 2017

6-8 years total construction time, but construction is based on the pace of federal appropriations

Engineering 30-100% complete, varies by component

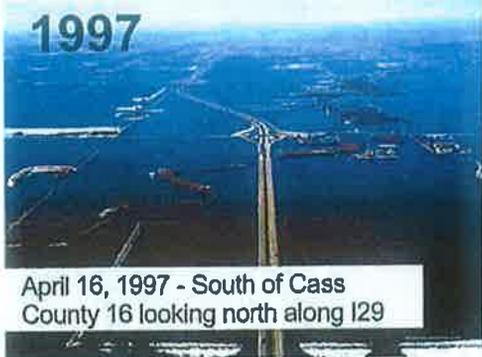
Strongly supported by major local employers including Microsoft, John Deere and Anheuser-Busch

Leveraging public and private financing to build our nation's infrastructure





Informational Sheet Flood Risk facing Fargo and Moorhead



Serious Impacts

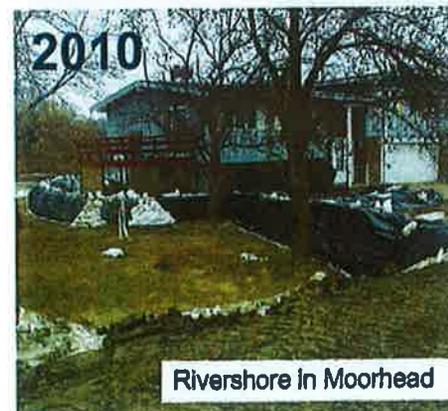
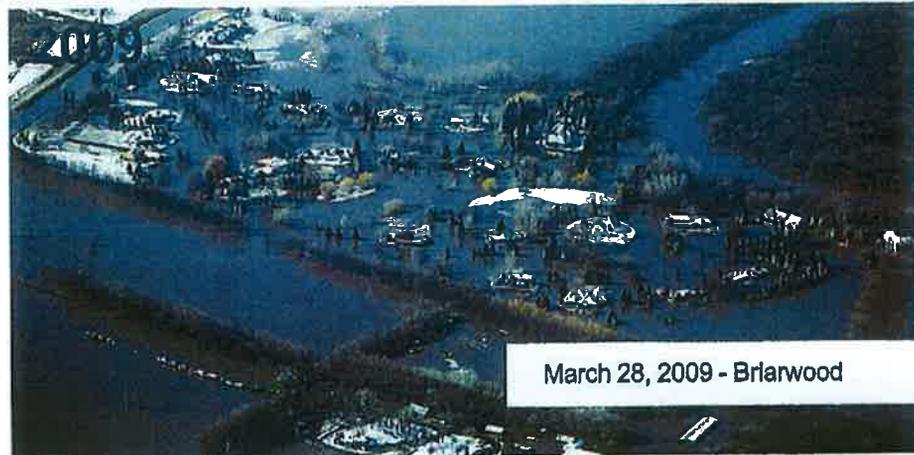
Families & school



Public safety



Transportation





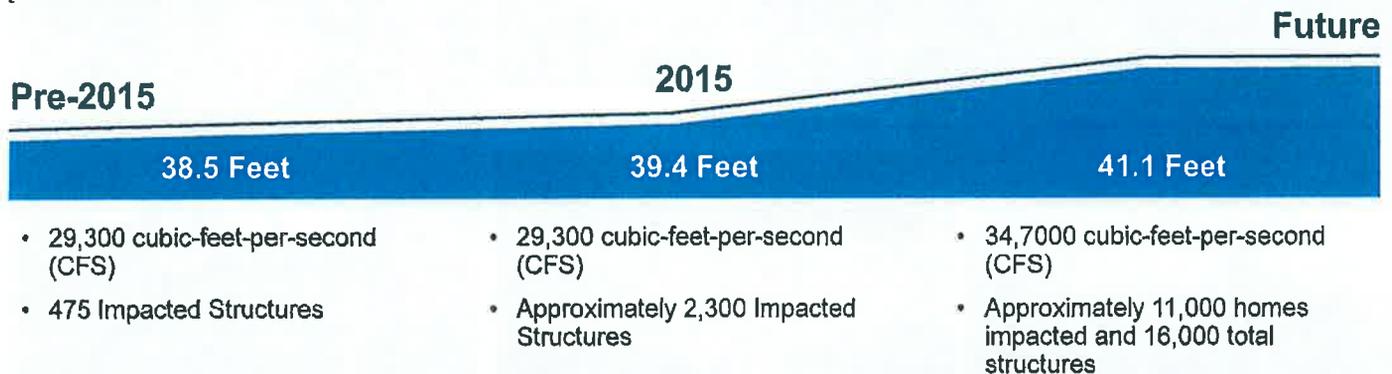
Informational Sheet

Flood Insurance Risk in Fargo

FEMA's Changing 100-year Floodplain

The Federal Emergency Management Agency (FEMA) looks at areas and determines what risk they are at for flooding. This guides the creation of flood maps. Congress requires areas to be looked at for updates every five years.

Homes located within the floodplain may be required to purchase flood insurance.



Fargo's Building Requirements More Strict than Federal and State Regulations

Due to the threat of flooding, requirements set for new building in the city exceed the minimums set by FEMA and the State of North Dakota.

Building regulations in Fargo require new structures to be built to an elevation of FEMA Base Flood Elevation plus 2.0' or 41' water surface elevation plus 1.2', whichever is higher.

Fargo also requires new homes to have flood-proof basements and be at least 450 feet from the River.

Existing Structures

PROTECTED BY THE FM AREA DIVERSION PROJECT

- Average annual flood insurance policy \$3,000 to \$5,000

New Structures

PROTECTED BY REQUIREMENTS

- Strict requirements prevent homes from being built near the river.
- Homes also required to have flood-proof basements.

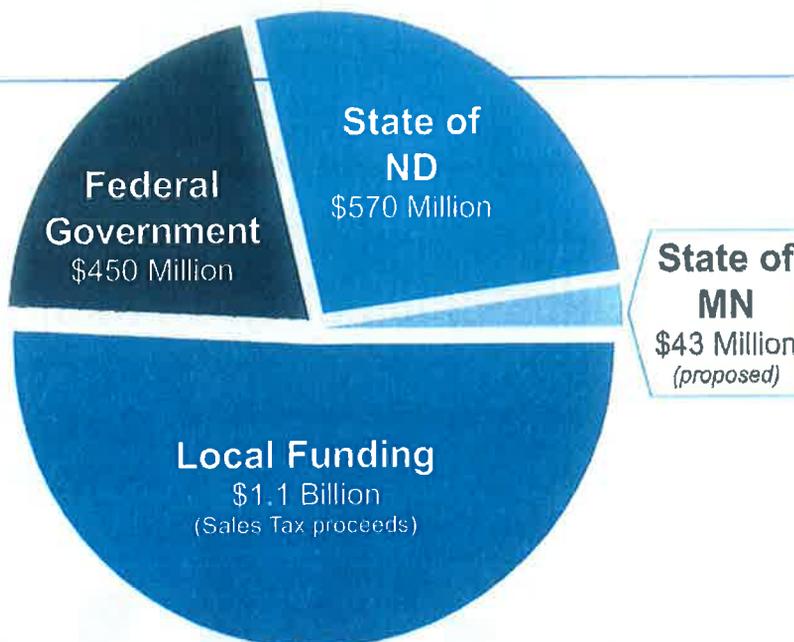


Informational Sheet

Funding and Financing

PROJECT FUNDING

The Diversion Authority has developed a financial model for the Project. The model uses multiple financing tools to achieve a prudent, robust, and cost-effective financial profile. In addition, the model assumes the funding split displayed in the pie graph to the right.



AT A GLANCE

- \$2.2 Billion project cost
- Includes the Diversion Project and In-town Levees
- 50% funding from Federal and State grants
- Local funding from Cass County and Fargo sales tax
- No special assessments needed
- Assessment District utilized to protect credit ratings and secure long-term financing

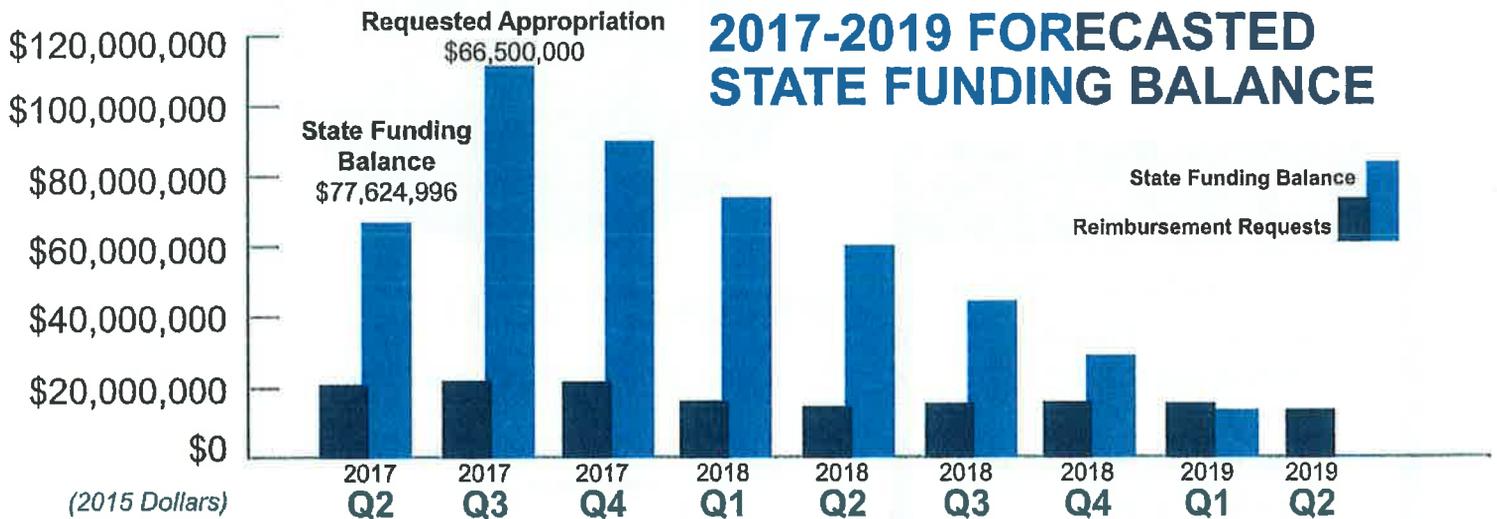
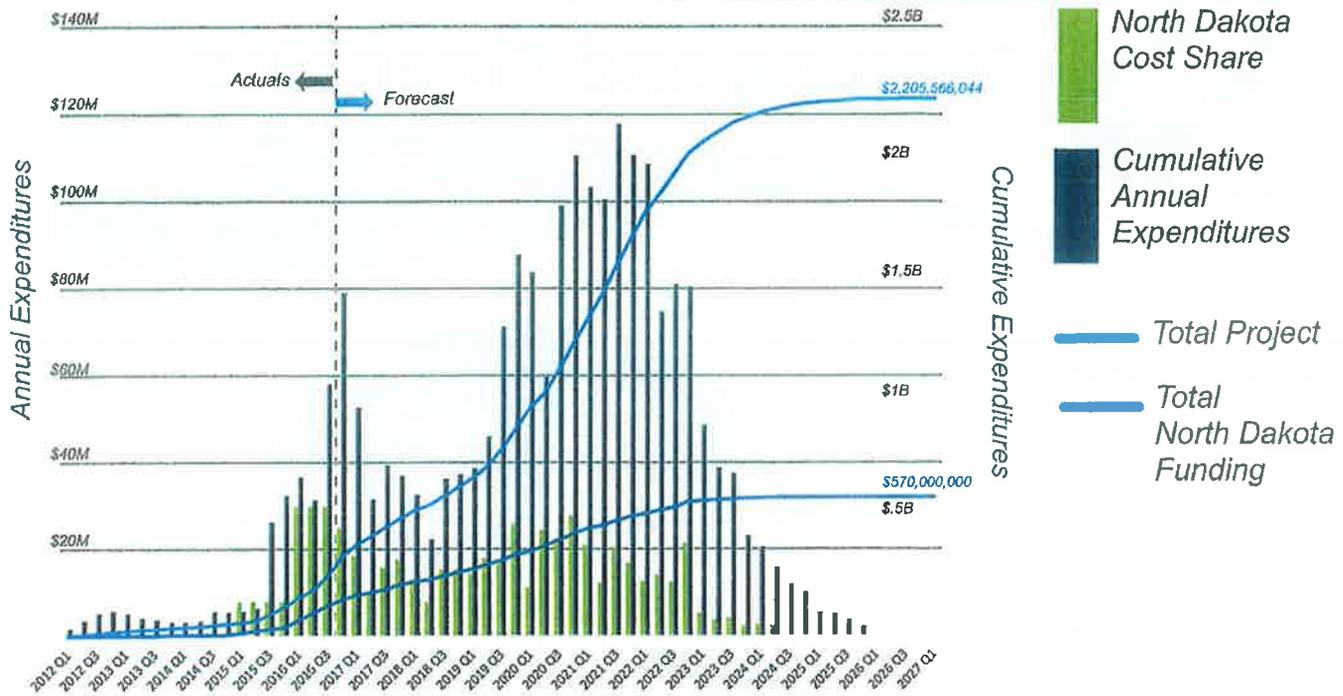
PROJECT COST

\$763M	Diverslon Channel & Associated Infrastructure
\$371M	Southern Embankment & Associated Infrastructure
\$64M	Other Mitigation Projects
\$204M	In-Town Flood Protection
\$14M	Enabling Work/Other
\$426M	Land Acqulsition & Mitigation
\$80M	Engineering and Design
\$119M	Program Management
\$159M	Contingency

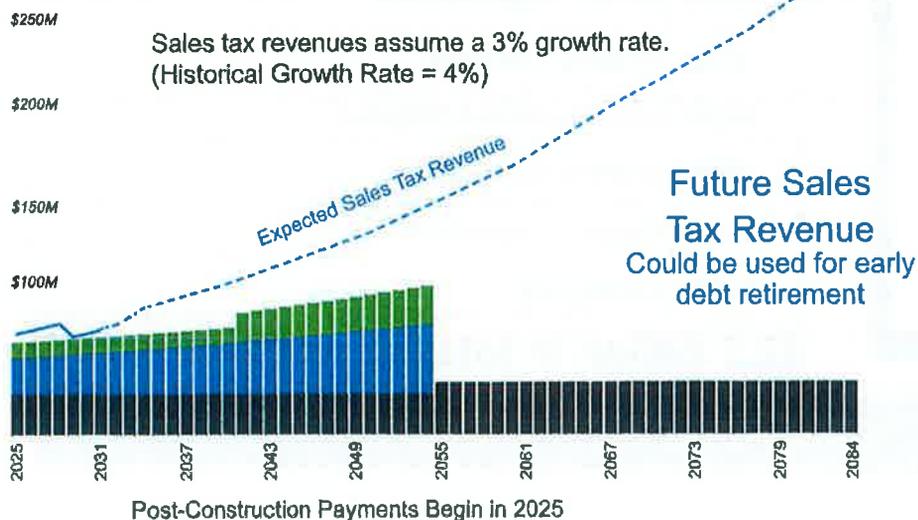
\$2.2 Billion in total costs (Dec. 2015 \$)

Read more about the Project at www.FMDiversion.com

PROJECT EXPENDITURES



LONG-TERM FUNDING AND FINANCING



City of Fargo Sales Taxes

- $\frac{1}{2}\text{¢}$ Dedicated to Flood Control
- $\frac{1}{2}\text{¢}$ Dedicated to Flood Control
- $\frac{1}{4}\text{¢}$ Dedicated to Flood Control Expires In 2028

Cass County Sales Taxes

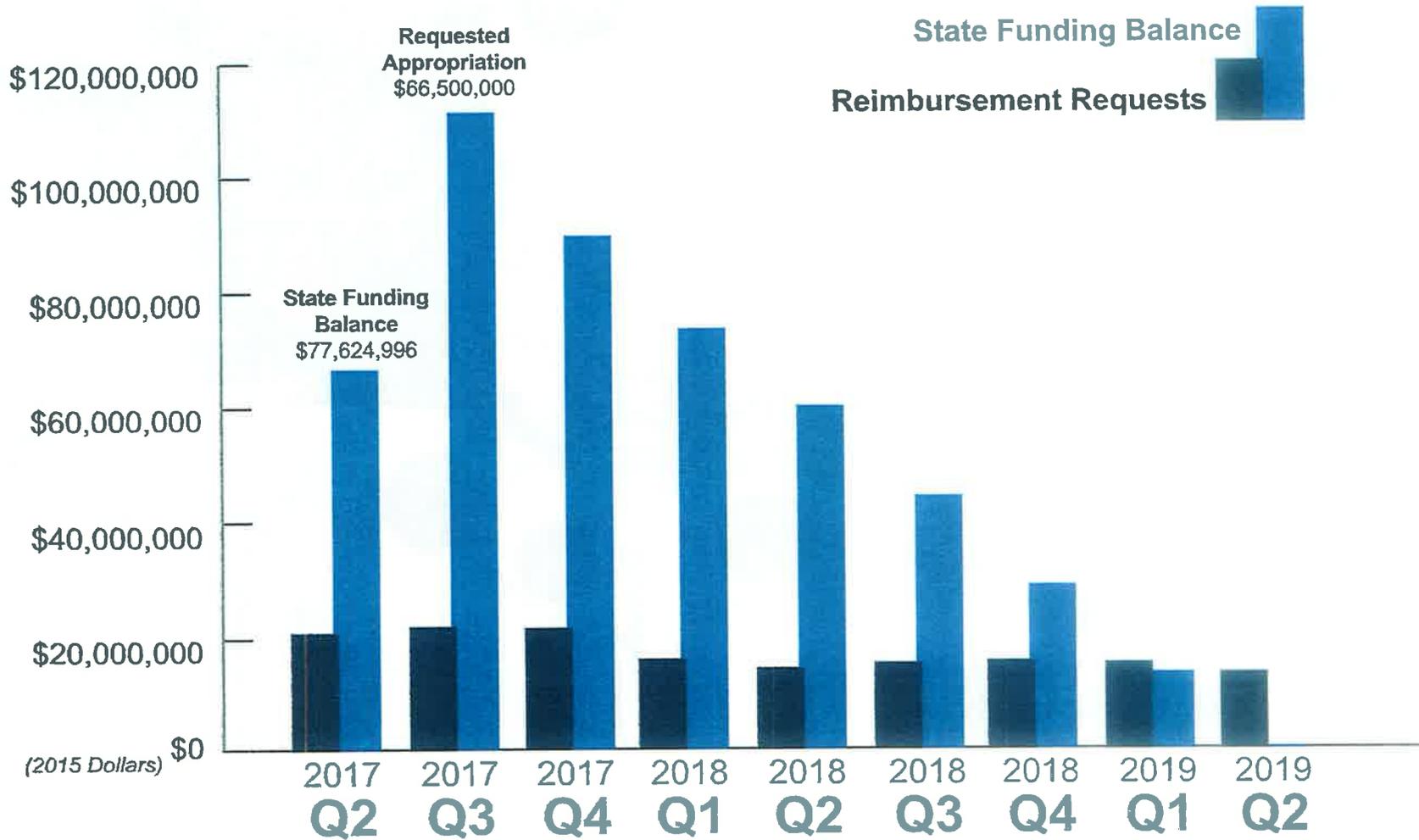
- $\frac{1}{2}\text{¢}$ Dedicated to the Diversion and other County flood projects

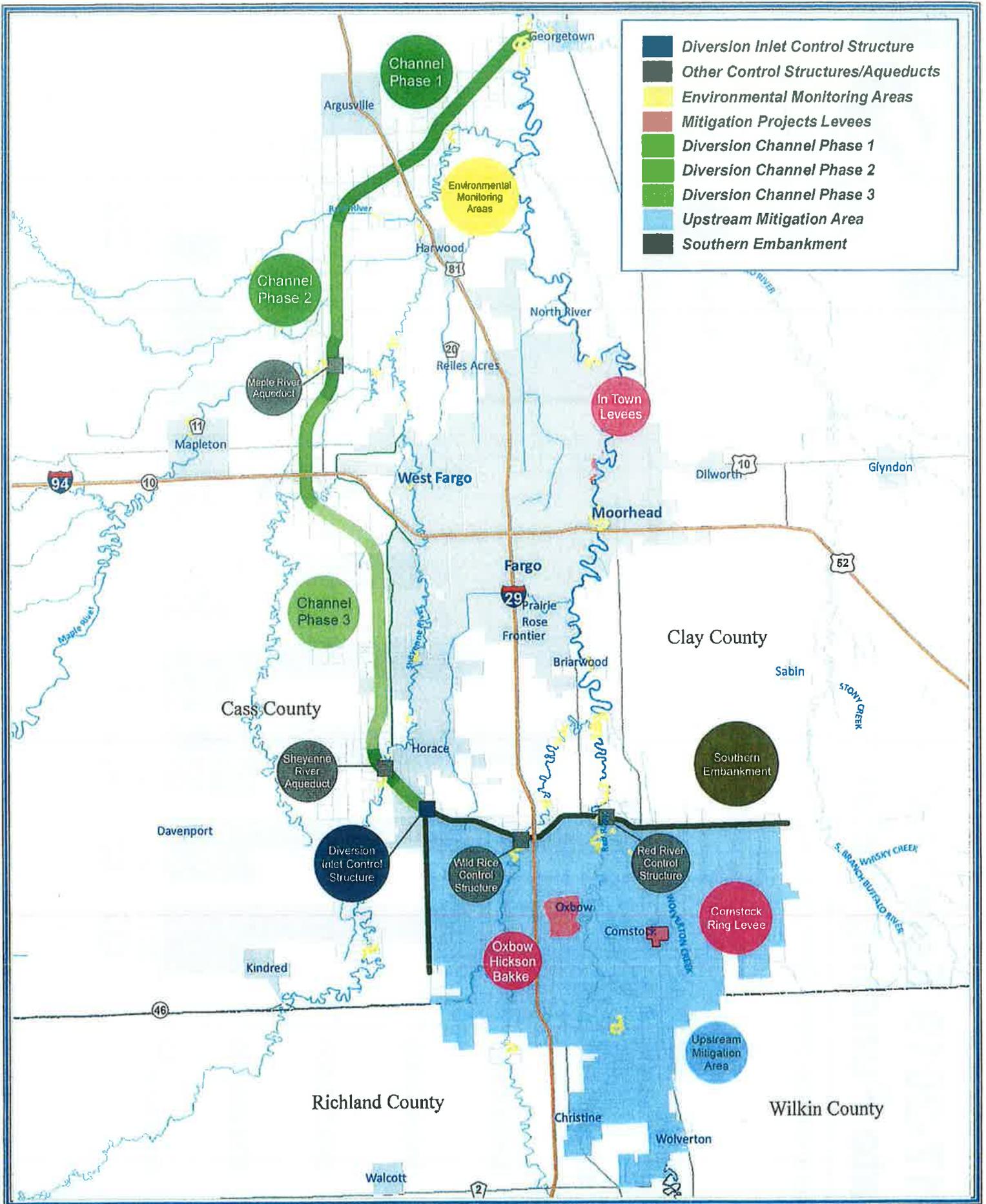
- Debt Service on Assessment District Bonds
- Payment to P3 Developer
- Debt Service on Sales Tax Bonds

2017-2019 Forecasted State Funding Balance



Federal and Fargo Interior Flood Protection Projects





- Diversion Inlet Control Structure
- Other Control Structures/Aqueducts
- Environmental Monitoring Areas
- Mitigation Projects Levees
- Diversion Channel Phase 1
- Diversion Channel Phase 2
- Diversion Channel Phase 3
- Upstream Mitigation Area
- Southern Embankment

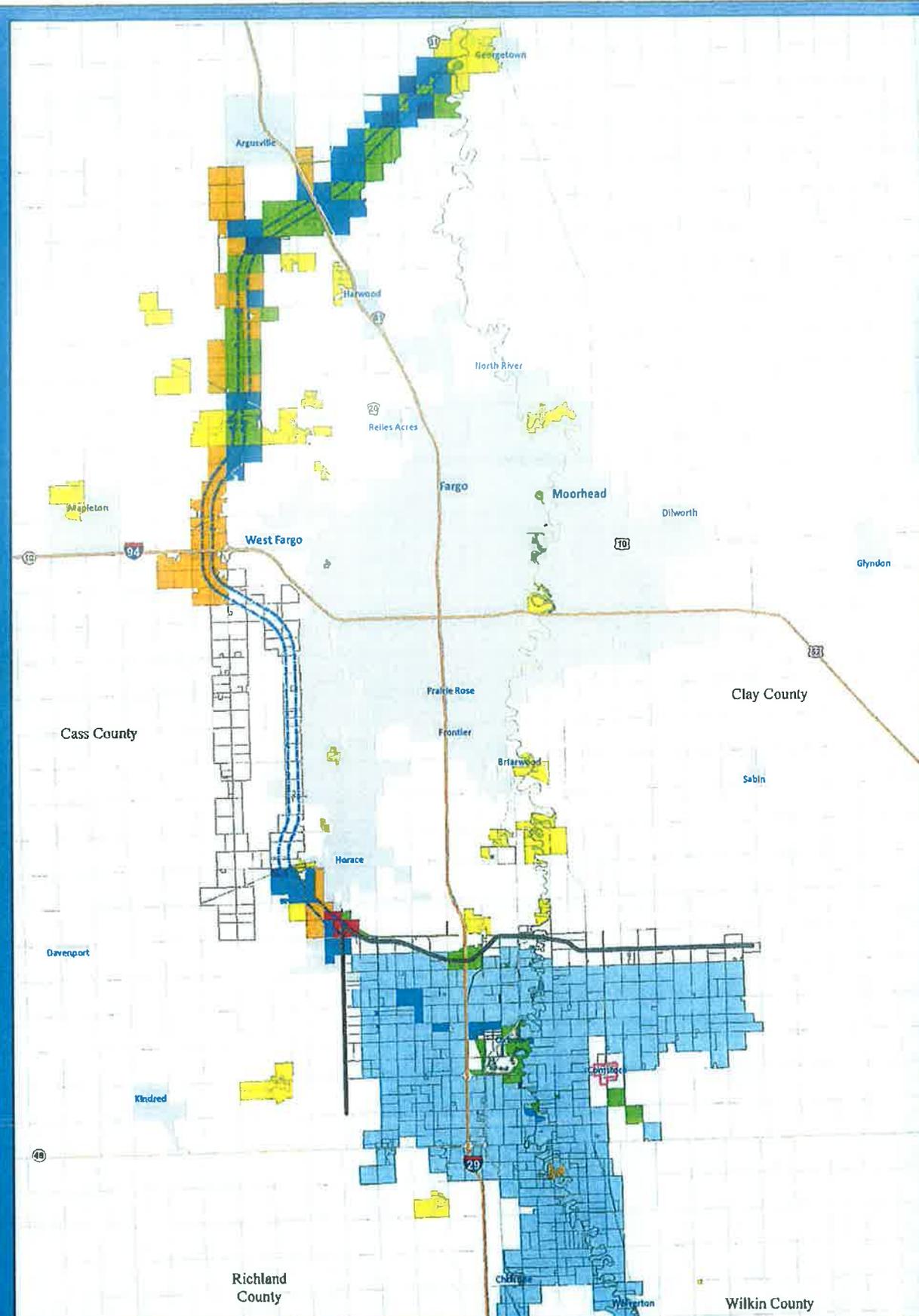
Maps are for graphical purposes only. They do not represent a legal survey. While every effort has been made to ensure that these data are accurate and reliable, The Diversion Authority does not guarantee the accuracy of the information, and makes any warranty or guarantee of any kind, express or implied. The data involved in the project is continuously refined and revised; you should not rely on this information for technical purposes or accuracy.



FM Area Diversion Key Acquisition Areas

6/13/2017





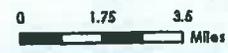
Any data shown on this map is the property owner's responsibility. ARES does not warrant the accuracy of the information shown on this map. The information shown on this map is for informational purposes only and should not be used for any other purpose. The information shown on this map is the property owner's responsibility. ARES does not warrant the accuracy of the information shown on this map. The information shown on this map is for informational purposes only and should not be used for any other purpose.

STATUS	
	Appraisal Pending (104)
	In Negotiation (107)
	Purchase Agreement Signed (16)
	Acquired; Easement Secured (181)
	Condemnation for Acquisition (6)
	Future Acquire Block (251)
	Future Purchase Easement (668)
	Blights Remediation Only (298)
	Relief Parcels (1,478)



Property Acquisition Status Report

08/16/2017



Informational Sheet

Richland County

Richland County Impacts

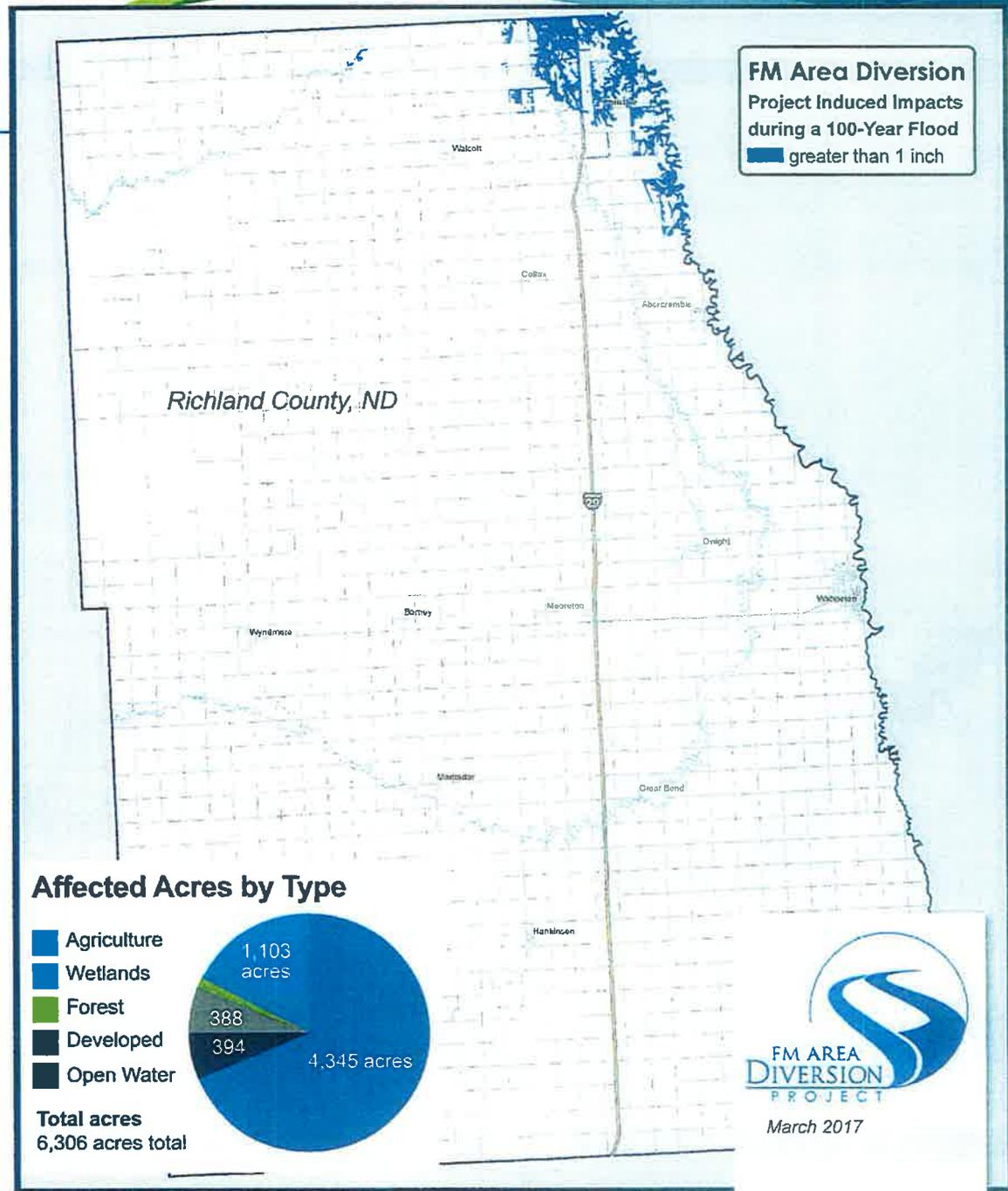
- Due to the dry dam, impacts would only be seen during large flood events when the Diversion Project was operated.
- There would be no impacts until water in the Red River exceeds 35 feet in Fargo. Thirty-feet is considered major flood stage.
- 42% of the acres impacted are already included in the current FEMA 100-year floodplain.
- If the Diversion Project would have been built 100 years ago, it would have operated an estimated 11 times for a total of 69 days.
- During a 100-year flood event, five residential structures would be impacted, two of these structures would be impacted with less than six inches during a 100-year event
- During a 100-year flood, approximately 6,300 acres would have an additional water between one inch to a maximum of three feet.
- The additional duration of flooding is estimated to be two to three days.

Richland County Mitigation

- Flowage Easements will be purchased on impacted land. They will be valued by independent, professional appraisal.
- Development can continue.
- Impacted residences and structures will be acquired in accordance with state and federal law.
- Project impacts will be mitigated consistent with the Mitigation Plan online at www.fmdiversion.com/studies-technical-documents/

Richland County Benefits

- 1,872 Richland County residents, 22% of the county workforce, work in Fargo-Moorhead.
- Flood protection for regional resources including healthcare, entertainment, universities/colleges, transportation and other services.



Informational Sheet

Wilkin County

Wilkin County Impacts

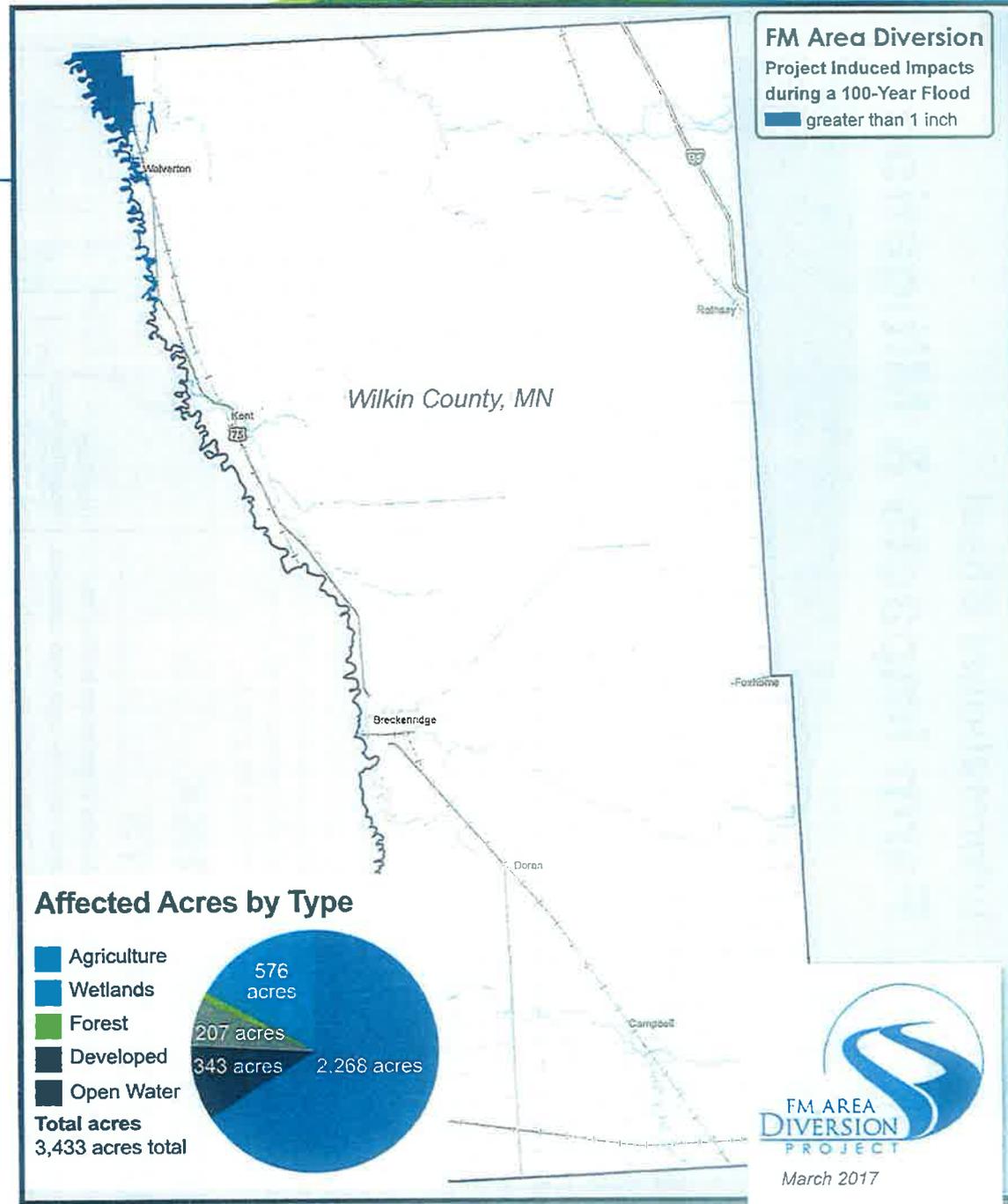
- Due to the dry dam, impacts would only be seen during large flood events when the Diversion Project was operated.
- There would be no impacts until water in the Red River exceeds 35 feet in Fargo. Thirty-feet is considered major flood stage.
- 46% of the acres impacted are already included in the current FEMA 100-year floodplain.
- If the Diversion Project would have been built 100 years ago, it would have operated an estimated 11 times for a total of 69 days.
- During a 100-year flood event, six residential structures would be impacted.
- During a 100-year flood, approximately 3,443 acres would have an additional water between one inch to a maximum of three feet.
- The additional duration of flooding is estimated to be two to three days.

Wilkin County Mitigation

- Flowage Easements will be purchased on impacted land. They will be valued by independent, professional appraisal.
- Development can continue.
- Impacted residences and structures will be acquired in accordance with state and federal law.
- Project impacts will be mitigated consistent with the Mitigation Plan online at www.fmdiversion.com/studies-technical-documents/

Wilkin County Benefits

- 318 Wilkin County residents, 8% of the county workforce, work in Fargo-Moorhead.
- Flood protection for regional resources including healthcare, entertainment, universities/colleges, transportation and other services.





November 2016

Informational Sheet

Farm Impacts & Mitigation

UPSTREAM RETENTION AREA

The FM Area Diversion Project includes upstream retention of flood waters during times of extreme flooding. This is an essential component to safely control the flood waters upstream and downstream of the metro area and is the most effective and efficient storage. In the past 100 years, the Project would have operated 11 times for a total of 69 days.

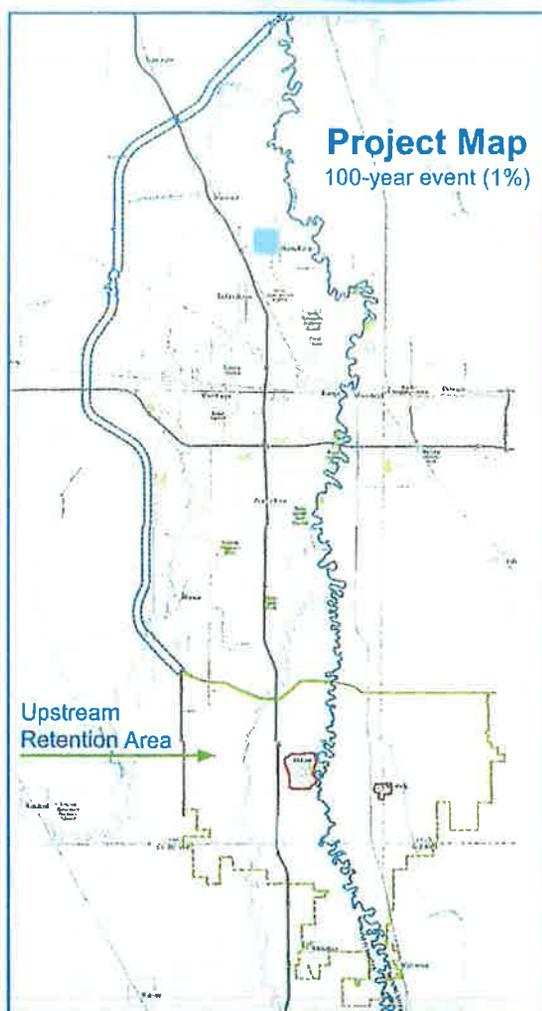
During operation of the Project, the upstream retention area will temporarily store various amounts of flood waters, depending on the magnitude of the flood event. The retention area will not be used every year and will not be used until a flood event exceeds 35-foot flood stage through Fargo-Moorhead. An NDSU study concluded there is an 85% chance every year that no water will be stored upstream. Under an extreme flood event, such as the 100-year flood, the upstream retention area will impact about 39,000 acres, and approximately half of those acres would be impacted today under the same flood event without the project.

AGRICULTURAL RISK STUDY OF IMPACTS

NDSU Agribusiness and Applied Economics department studied the risks and impacts of the Project on farm revenue in the upstream retention area. The study identified the following:

- The study indicated that “the key is to determine when producers can begin planting and if planting is delayed due to the diversion what, if any, planting delays cost the producer in lost revenue.”
- Accordingly, the NDSU research team studied two particular dates:
 - When flood water leaves the land, and
 - When spring planting begins in the retention area.
- Historical data indicates that spring planting starts most frequently about the same time as the effects of man-made flooding are over.
- Between 10,800 and 18,500 acres (depending on flood event size) will flood due to diversion that would not flood otherwise.
- Cumulative revenue losses across the entire study area ranged from \$0 in the best-case (no flood) situations to slightly over \$3 million per event over the entire area of 39,000 acres in the worst-case (extreme flood) situations.
- Conclusions from the study indicated that “there is a high-probability of incurring planting delays associated with man-made water storage. But, planting delays created by the proposed FM Diversion, at this time, do not appear to be extensive – at least not several weeks in length. Large delays are possible, but those situations are not as likely as shorter delays.”

“The study considered numerous factors and concluded that the revenue losses to agricultural producers would not be substantial.”

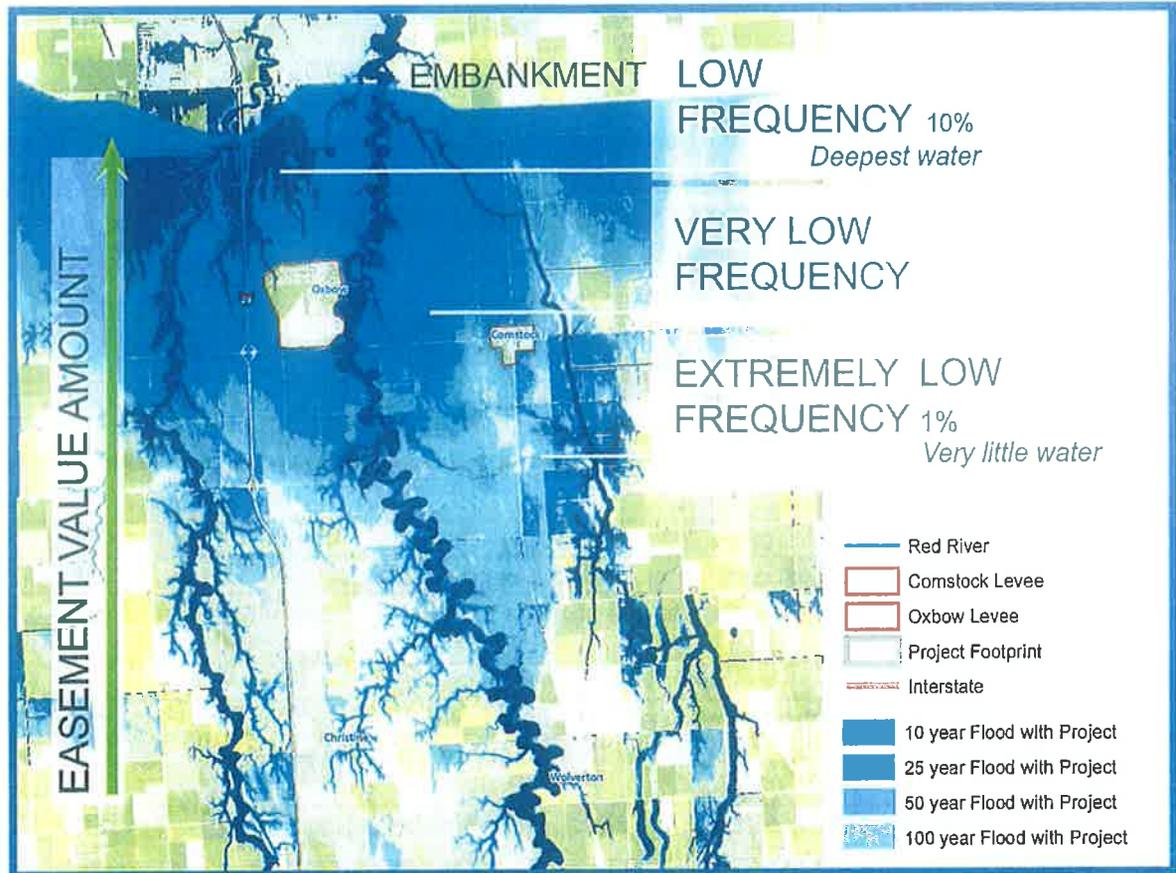


AT A GLANCE

- The retention area will not be used every year. The area will only be used when a flood event exceeds 35-feet.
- There is an 85% chance every year that no water will be stored upstream.
- Smaller storage areas distributed upstream do not provide the level of protection necessary and would have greater impacts.
- Upstream retention in planned location is most effective and efficient because it's close to the area being protected.

MITIGATION: FLOWAGE EASEMENTS

- Upfront payment to property owners impacted by the retention of flood waters.
- Easement provides legal ability to temporarily and occasionally retain flood waters.
- Easement will allow farming to continue, however, development may be regulated depending on extent of impacts.



- Easement value is determined by a market-based appraisal, considering depth, duration, and frequency of flooding, highest and best use of the property, and property impacts.
- Easement values will vary by parcel with the general trend of higher easement values closer to the embankment and lower easement values farther from the embankment.

- Easements are required by Federal law for the Project.
- The purchase of flowage easements is included in the Project cost estimate and financial plan.

MITIGATION: SUMMER FLOOD CROP INSURANCE

- On-going payment to producers for the crop loss caused by summer operation of the Project.
- Summer operation of the Project is extremely unlikely, but summer operation could cause devastating damage to growing crops.
- Diversion Authority has committed to provide greater mitigation than required by Federal or State laws, and greater than what has historically been provided.

- Diversion Authority will either purchase an insurance product or self-fund the program, and provide coverage free of charge to producers.
- Ongoing O&M costs incurred after initial Project construction will be paid by sales taxes or a maintenance assessment to the properties benefited by the Project.

Quick Take Timeline and Steps (per SB2047)

June 19, 2017



Introduction

The following timeline and steps are based on the interpretation of Senate Bill 2047 passed during the North Dakota 65th Legislative Assembly, and will become effective August 1, 2017. The use of quick take eminent domain is not the preferred solution to acquiring property rights, but the process is relied upon for schedule certainty. As such, the Cass County Joint Water Resource District (CCJWRD) will utilize the following timeline and steps for acquisition of property rights for the FM Area Diversion Project if it becomes a necessity.

Timeline / Steps

Step	Timeline
1. Complete pre-acquisition processes. Including: Identification of parcels and common ownership, Contracting actions, Rights of entry, Certificates of surveys, Obtain and review abstracts.	
2. Appraisal of property rights ordered	Day 1
3. Appraisal reviewed and just compensation amount approved by CCJWRD Board	Day 60
4. Contact with property owners and provide property owners with copy of appraisal of property rights.	Day 61
Informal negotiations	+60 days
5. Informal negotiations between Land Agent and Property Owner	Day 121
Formal negotiations – If no agreement, no sooner than 60 days, proceed into formal negotiations	
6. Send to property owner by certified mail the appraisal and offer of just compensation.	Day 121
If no agreement, no sooner than 15 days...	+15 days
7. Send to property owners by certified mail, an invitation to meet in person with CCJWRD representatives.	Day 136
8. Meet with property owner	Day 136 – 166
If no agreement, no sooner than 30 days...	+30 days
9. Send to property owner by certified mail, a notice that CCJWRD intends to take possession of the right of way within 30 days if there is not agreement regarding compensation.	Day 166
If no agreement, ...	
10. CCJWRD requests approval from Cass County Commission for approval to take possession of the right of way by utilizing quick take eminent domain.	Day 167
11. Cass County Commission agrees to consider request from CCWJRD, places the topic on its agenda, and provides a 30-day notice to the property owner of the public meeting.	Day 167
12. CCJWRD board chair files affidavit to Cass County Commission verifying that no reference or threat of quick take eminent domain was used during negotiations.	Day 167
	+30 days
13. Cass County Commission holds public meeting and votes to approve use of quick take eminent domain by CCJWRD to take possession of right of way.	Day 197 (or the next regular County Commission Meeting)
14. CCJWRD board chair files affidavit stating the CCWJRD fulfilled the negotiating steps and deposits the amount of the written offer with the clerk of district court.	Day 198
Meeting schedules and contingency allowance	+30 days
15. Done	Day 228

Split Delivery Construction

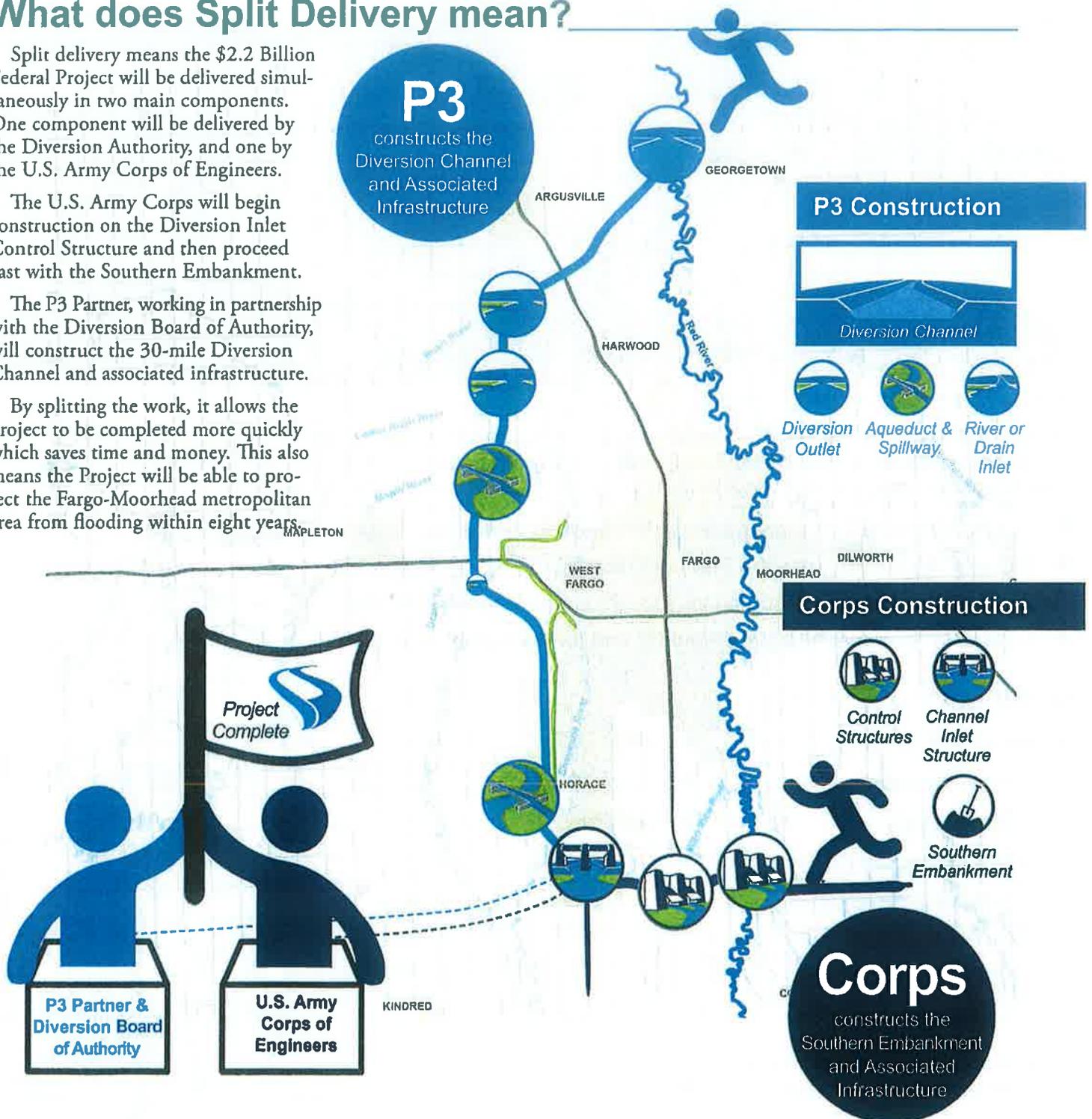
What does Split Delivery mean?

Split delivery means the \$2.2 Billion Federal Project will be delivered simultaneously in two main components. One component will be delivered by the Diversion Authority, and one by the U.S. Army Corps of Engineers.

The U.S. Army Corps will begin construction on the Diversion Inlet Control Structure and then proceed east with the Southern Embankment.

The P3 Partner, working in partnership with the Diversion Board of Authority, will construct the 30-mile Diversion Channel and associated infrastructure.

By splitting the work, it allows the project to be completed more quickly which saves time and money. This also means the Project will be able to protect the Fargo-Moorhead metropolitan area from flooding within eight years.

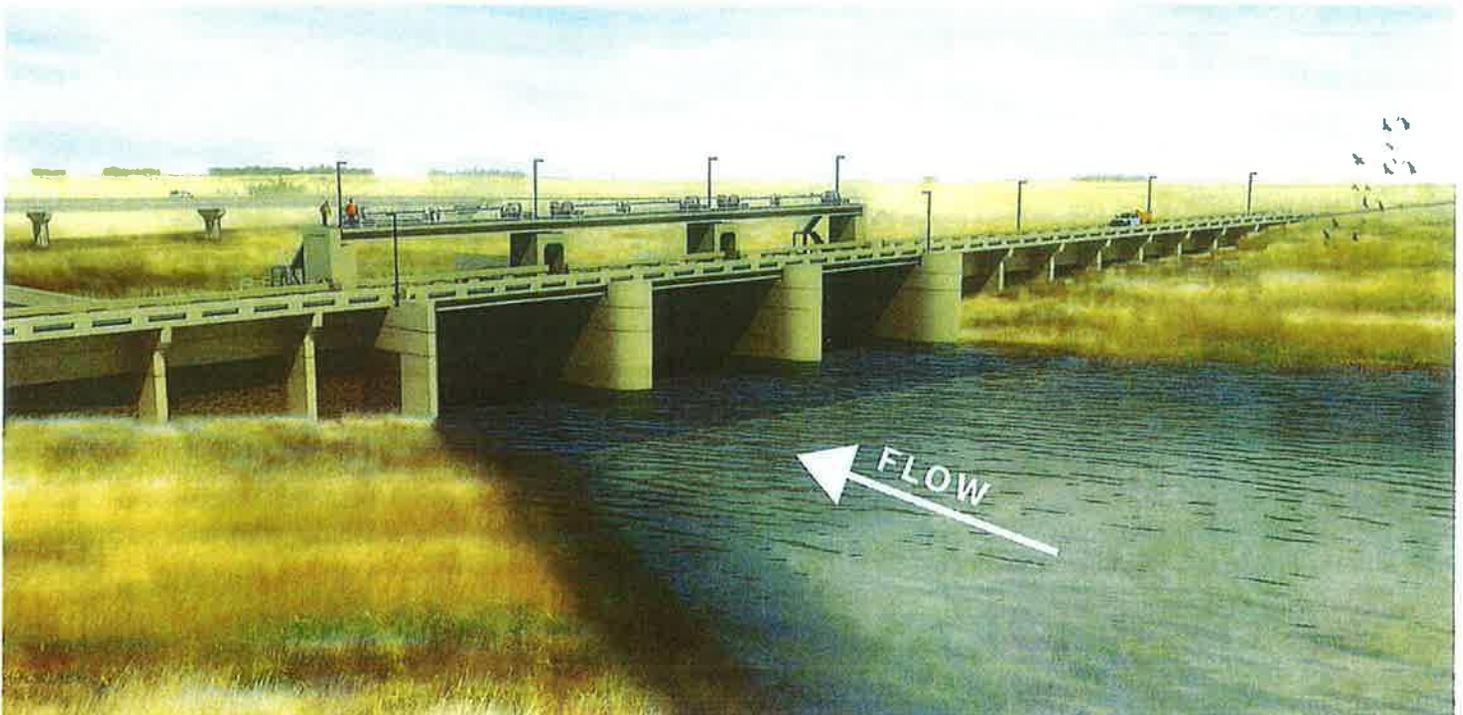




US Army Corps
of Engineers®
St. Paul District

FM AREA DIVERSION PROJECT DIVERSION INLET STRUCTURE

November 2016



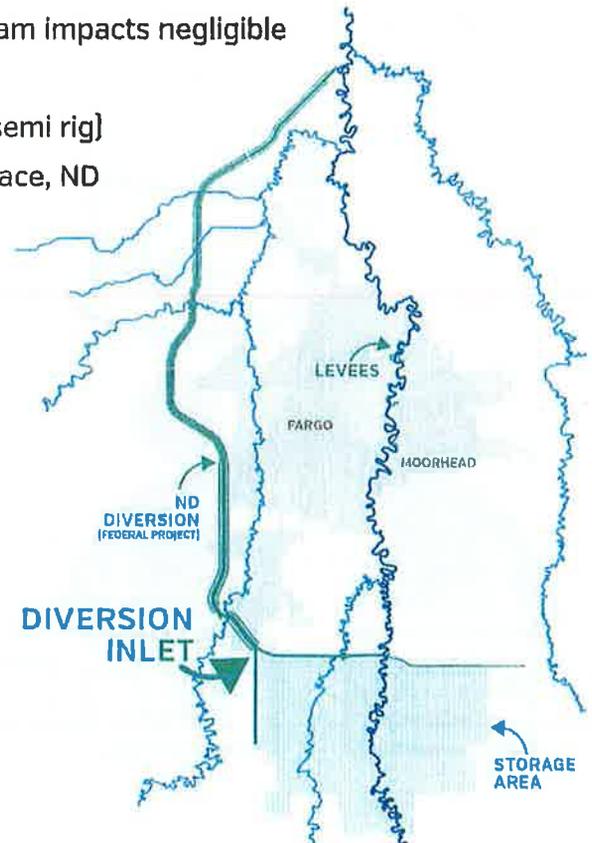
View of Inlet Structure (Looking Downstream from the Embankment Area) - GATES DOWN

Diversion Inlet Structure is a gated control structure that will control the amount of water that enters the diversion channel from the upstream staging area. Features include three 50-foot wide tainter gates, a vehicle service bridge across the structure, mechanical platform and control building.

- ▶ A gated structure allows greater control in keeping downstream impacts negligible
- ▶ 100-year flood = 20,000 cubic feet per second (cfs)
- ▶ Each gate will weigh 87,000 pounds (Equal to a fully-loaded semi rig)
- ▶ Located in NE corner of County Roads 17 and 16, south of Horace, ND

SCHEDULE

- | | |
|---|--------------------|
| ▶ Issued solicitation | ▶ 11 July 2016 |
| ▶ Opened proposals | ▶ 1 Sept 2016 |
| ▶ Award contract | ▶ Dec 2016 |
| ▶ Notice to proceed (14 days) | ▶ Dec 2016 |
| ▶ Contractor submittals and review | ▶ Jan - March 2017 |
| ▶ Contractor mobilizes and begins preload construction to stabilize soils | ▶ April 2017 |
| ▶ End of 275 day preload of site/ start construction of structure | ▶ Feb 2018 |
| ▶ Complete construction of Inlet | ▶ 2020 |





Inlet and Control Structure





Informational Sheet

In-town Levee Construction

20 miles of levees built

Work on levees in Fargo has been ongoing since 2009. The work is funded by the local sales tax that is dedicated for flood control projects, and through funds from the state of North Dakota.

In-town levees in conjunction with the FM Area Diversion Project will provide 100-year certifiable flood protection for the Fargo-Moorhead metropolitan area.

Before and After

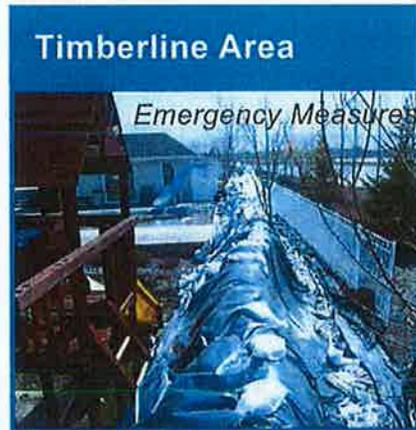


Emergency Measures



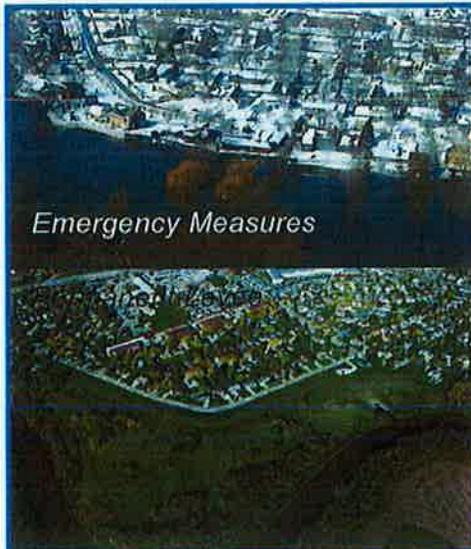
Permanent Levee

Mickelson Park Area



Emergency Measures

Timberline Area



Emergency Measures

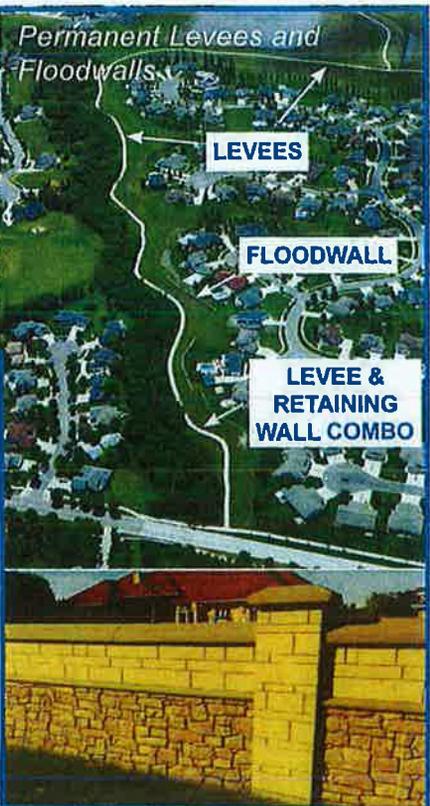
River Drive Area



Emergency Measures

AT A GLANCE

- More than 20 miles built. In 2009, 47 miles of emergency levees had to be built to save the city.
- 191 buyouts = \$62 Million
- Total project cost estimated at \$198 Million
- This work reduces the number of sandbags needed for a 2009 event by approximately 4.5 million.



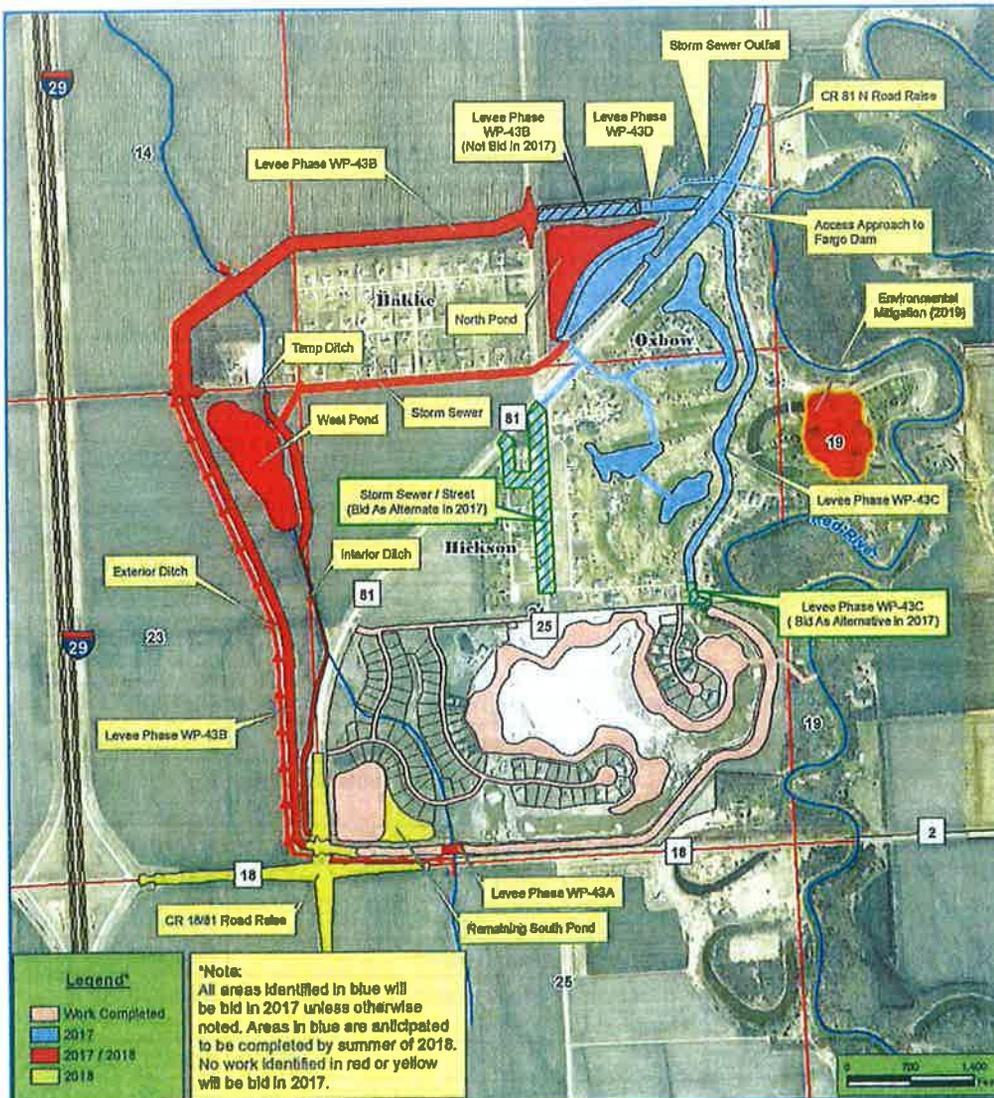


Informational Sheet OHB Ring Levee Construction

PROJECT UPDATE

Construction of the levee along the eastern side of Oxbow, along with a large storm water pump station and internal drainage features, will resume later this year after final design and bidding is complete.

When combined with future construction efforts planned after resolution of the litigation, Oxbow, Hickson, and Bakke will be fully protected against both natural flooding and the water that would be stored temporarily upstream of Fargo-Moorhead by the Diversion Project.



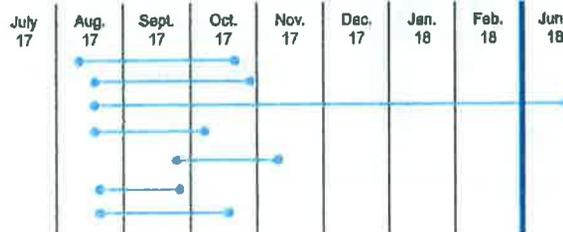
Bidding

Bid Opening	Early July
Award/ Contracting/ Preliminary matters (30 days)	July to August
Notice to Proceed	Early August

Construction (2017)

Highway 81	Early August to Late October
North Pond	Mid August to Late October
Pump Station	Mid August June 2018
Hickson Main Ave	Mid August to Early October
Oxbow Drive	Mid September to early November
East Levee	Mid August to late September
Fargo Sanitary Sewer Utility	Mid August to Mid October

Highway 81 closed
North Pond
Pump Station
Main Ave. Hickson closed
Oxbow Drive closed
East Levee Construction
Fargo Sanitary utility relocation





Informational Sheet

Funding Available for Cass County Flood Projects

AT A GLANCE

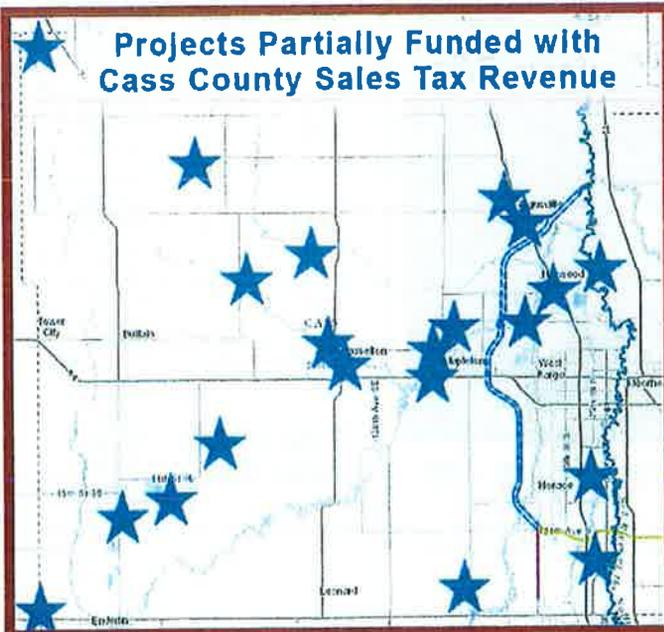
- Money is available to cities & townships for flood protection around the county.
- Cass County voters recently passed an extension of the sales tax that provides flood mitigation projects.

Since 2010 when Cass County voters approved a sales tax for flood protection, 28 projects across the County have received funding for flood protection to protect homes, farms, and an industrial park through the construction of dams, levees, detention, lift stations, and repairs to previously damaged infrastructure.

The sales tax started six years ago when county citizens voted to authorize the collection of 1/2 of a percent sales tax. The tax is authorized until March 31, 2031 and an extension is being proposed on the November 8 ballot. The money collected is used towards land purchases, engineering, construction, and maintenance of flood control projects.

While a majority of this income will be used for the FM Area Diversion Project, nine percent has been set aside for other Cass County flood control projects.

Projects Partially Funded with Cass County Sales Tax Revenue



Project	Total Approved
Round Hill Project	\$350,696.00
City of Oxbow Diking	\$ 105,284.29
2012 City of Argusville Diking	\$ 168,925.00
2012 Maple-Steele WRD Study	\$ 20,562.00
2012 City of Mapleton – Lift Station	\$ 52,500.00
2013 Pontiac Township – Project No 73	\$ 448,000.00
2013 City of Argusville – Levee improvement	\$ 23,874.73
2013 City of Casselton – Levee Repairs	\$ 23,750.00
2013 Maple-Steele – Dam Project	\$ 17,500.00
City of Mapleton Levee Recertification	\$ 543,324.58
2014 Pontiac township Project no 73 additional	\$ 52,000.00
2014 Upper Maple River Dam	\$ 706,000.00
2014 Lake Bertha Flood Water Detention (reduced from)	\$ 66,215.45
2014 Detention project Development:	\$ –
2015 Normanna Township Slide Repair and Road Move	\$ 40,500.00
2015 Upper Maple River Detention Study Phase II	\$ 45,500.00
2015 Rush River Detention Study Phase II	\$ 45,500.00
2015 Swan Creek Detention Study Phase II	\$ 45,500.00
2015 Harwood Levee Improvements	\$ 556,935.00
2015 Casselton Industrial Park Improvements	\$ 242,500.00
2015 Reed Township Road Raise	\$ 60,308.18
2016 City of Mapleton Levee Raise	\$ 99,812.68
2016 City of Mapleton Levee Recert change order	\$14,867.00
2016 Erie Dam Repairs	\$ 35,000.00
2016 Absaraka Dam Repairs	\$ 11,183.50
2016 Garsteig Dam Repairs	\$ 12,696.51
2016 Embden Dam Repairs	\$ 12,167.40
2016 Drain 77 Study Maple River Water Resource	\$ 20,000.00
TOTAL	\$ 3,821,102.32

For more information contact Jason Benson,
Cass County Engineer at 701-298-2372

FM Diversion Litigation in Brief Summary



As of July 19, 2017

Legal Overview

The Richland/Wilkin JPA (RWJPA) initially alleged 10 Counts in its Complaint – five against the Corps and five against the Diversion Authority. In Dec., 2016, the Court allowed the Minnesota Department of Natural Resources (MDNR) could join as a party to the lawsuit and make additional claims.

- All five original counts against the Corps have been dismissed and three against the Diversion Authority have been dismissed, which had removed the Corps as an active defendant in the case.
- Two procedural claims remain against the Diversion Authority that assert that it violated the Minnesota Environmental Policy Act ("MEPA") and the Minnesota Environmental Rights Act ("MERA").
- The new additional claims by the MDNR, related to federal NEPA claims against the Corps and additional state claims against the Diversion Authority, as well as a claim by the JPA against the Diversion Authority based on WRRDA, have yet to be ruled on.

Recent Updates:

- The City of Oxbow requested the Court to remove the injunction against the Oxbow-Hickson-Bakke ring levee.
 - The parties met with the federal Magistrate judge on April 4th, 2017 and subsequently, the Magistrate agreed to a partial lifting of the injunction on construction in Oxbow.
- A hearing was held on July 18 to discuss motions made by the MDNR and the JPA, who are attempting to halt ongoing construction through a request for a preliminary injunction of the Fargo-Moorhead Area Diversion Project. The Corps also moved to dismiss all claims, and the Diversion Authority moved to dismiss the JPA's WRRDA claim.
 - The Court is expected to rule on the injunction motions and the motion to dismiss within 30 days.

Additional Information

The Corps of Engineers has begun construction on the gated inlet structure in North Dakota. All North Dakota permits for this construction have been obtained. The MDNR had previously stated that it does not issue permits for activities in North Dakota, but now asserts the Corps or Diversion Authority need a Minnesota permit as well.

The MDNR has also indicated that it will require the Diversion Authority to obtain a permit for construction of the Red River control structure and associated tiebacks in Minnesota.

- As an accommodation to the MDNR, the Diversion Authority previously submitted a "Preliminary Report" as part of the permitting process for the Red River control structure, but in October 2016, MDNR issued a Permit Denial Order.
- The Diversion Authority challenged the denial by requesting a contested case hearing, which restarts the entire process from scratch and requires an evidentiary hearing and fact finding by an administrative law judge.
- The Minnesota Office of Administrative Hearings has initiated the hearing process, which is expected to take several months.
- The Corps, not the Diversion Authority, will be constructing in Minnesota and the Court has previously ruled that the Corps had sovereign immunity from state regulation. Unless he changes his mind, the Corps should not be required to obtain a permit. The MDNR asserts, however, that the Diversion Authority should be required to obtain a permit for the Corps' work. We expect the Judge will rule on that issue as part of his ruling on the injunction.

State Water Commission (8/23/17)

Talking Points

- Governor Burgum and Commissioners...
 - a. Congratulations to the new members of the Commission.
Thank you for your service to the State.
 - b. A packet is being handed out to you with additional information on our activities, some we will cover, and some we won't have time for today.
- Diversion Project Overview
 - a. Thank you for the opportunity to provide you an update on this critical project to protect our region
 - i. We have a flood risk in Fargo-Moorhead, and in the areas of Cass County surrounding the metro.
 - ii. Much has been done to improve our flood risk, but we need the Diversion.
 - iii. Without the Diversion, approximately 11,000 homes in Fargo are at risk of being in the FEMA's 100-year floodplain.
 - iv. If we are not making progress on the Diversion, FEMA has said they will proceed with another round of remapping.
 - v. The people are Fargo are excited to have begun construction on the Project that will prevent \$30-\$50M in annual flood insurance premiums.
- Construction Update
 - a. This last April we joined the U.S. Army Corps in breaking ground on the Inlet Control Structure located south of Horace, officially starting construction of the Diversion Project.

2. Cass County Commissioner Chad Peterson will speak to our land acquisition progress

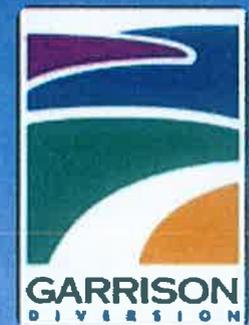
- Land Acquisition
 - a. The Project requires acquisition of property rights from over 1,800 parcels. This is a major component to the project and we are making progress.
 - b. Of this amount, we only need easements on approximately two-thirds of these parcels, rather than full acquisition.
 - c. 181 properties/easements have been acquired
 - i. We have had to use court action to obtain the necessary rights on 6 properties (this is approx. 3% condemnation rate)
 - d. We continue to have property owners approach us to start negotiations, and as such, we are in the final stages of negotiations on several additional properties
- Litigation
 - a. As you know, we've been in litigation for over four years now and a lot has been said on both sides of that issue.
 - b. Last month, we were in St. Paul at a hearing. The Corps presented a motion requesting to dismiss the remaining claims against the federal government. The MDNR and Upstream JPA argued their motions for a temporary construction injunction. Our legal counsel argued against the injunction request, stating that the Diversion Authority is not doing any work that is permissible by MN.
 - i. We felt confidence of our legal standing before the hearing, and continue to feel confident.
 - ii. We are now waiting to hear from the Judge



2017-2019 RRVWSP Work Plan

Presented to:
State Water Commission

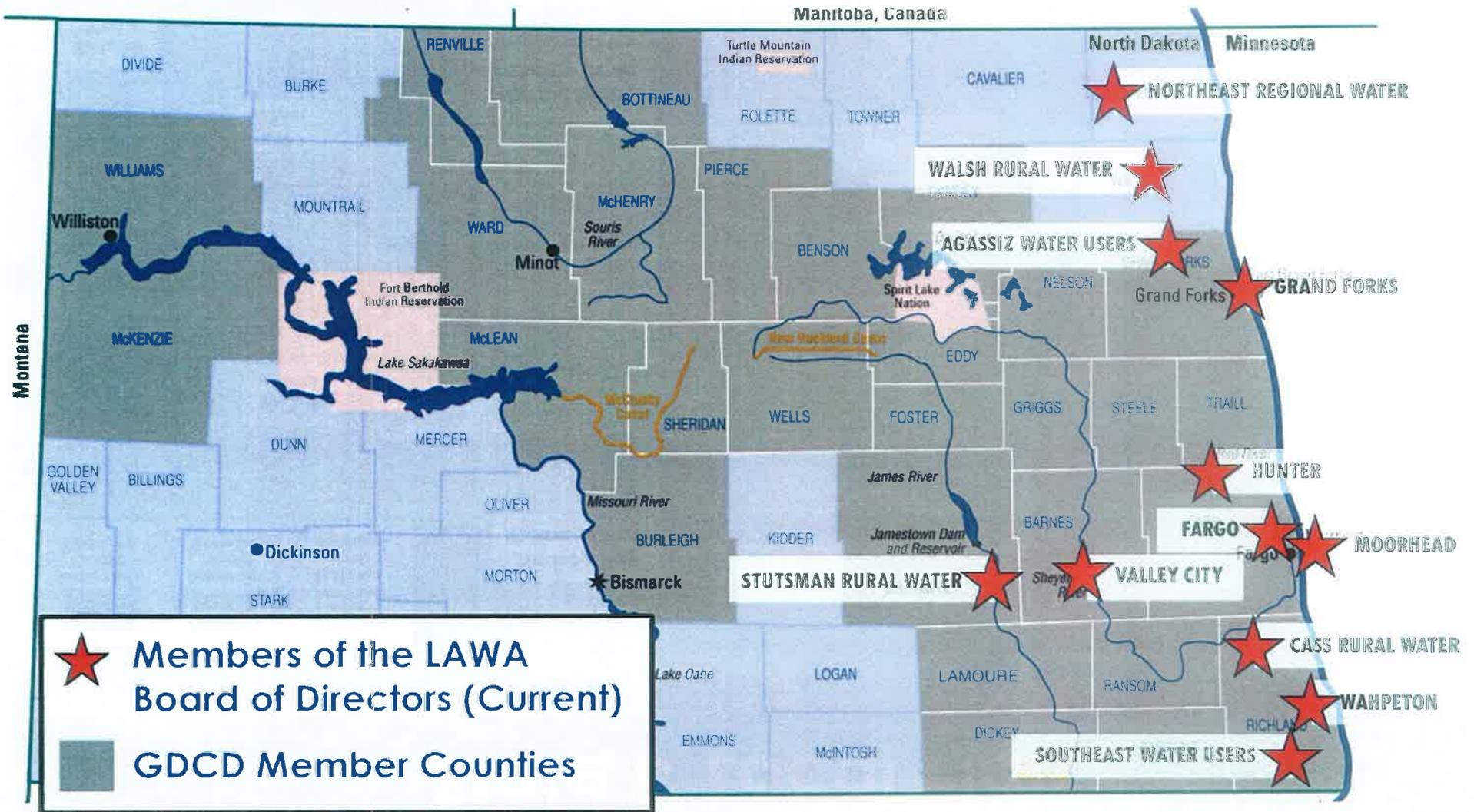
August 23, 2017



Red River Valley Water Supply Project

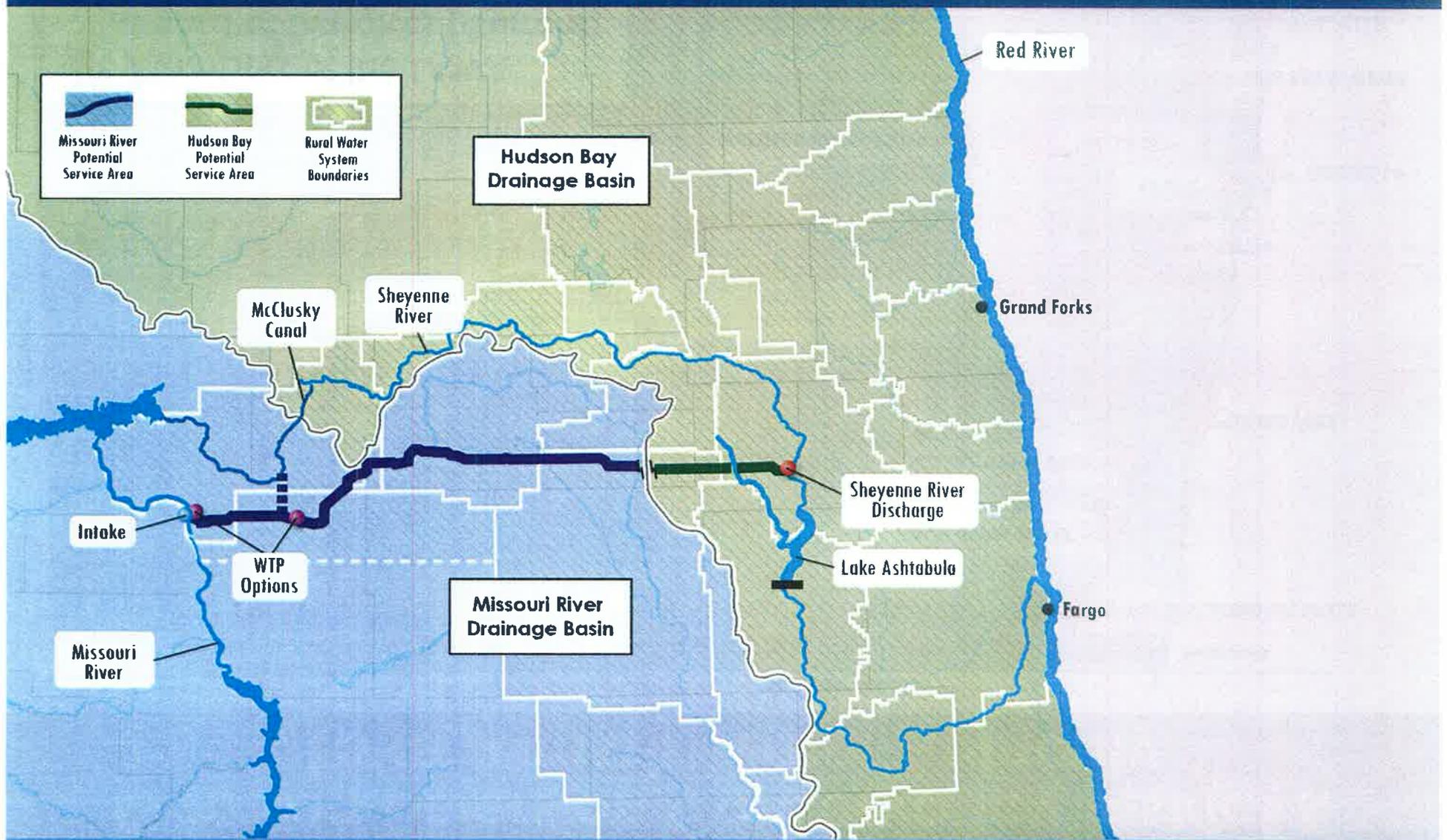
- **Project Overview**
- **2015 to 2017 Review**
- **2017 to 2019 Work Plan**
 - **Project Priorities**
 - **Work Plan Objectives**

Red River Valley Water Supply Project Garrison Diversion Conservancy District & Lake Agassiz Water Authority



Red River Valley Water Supply Project

State & Local Plan



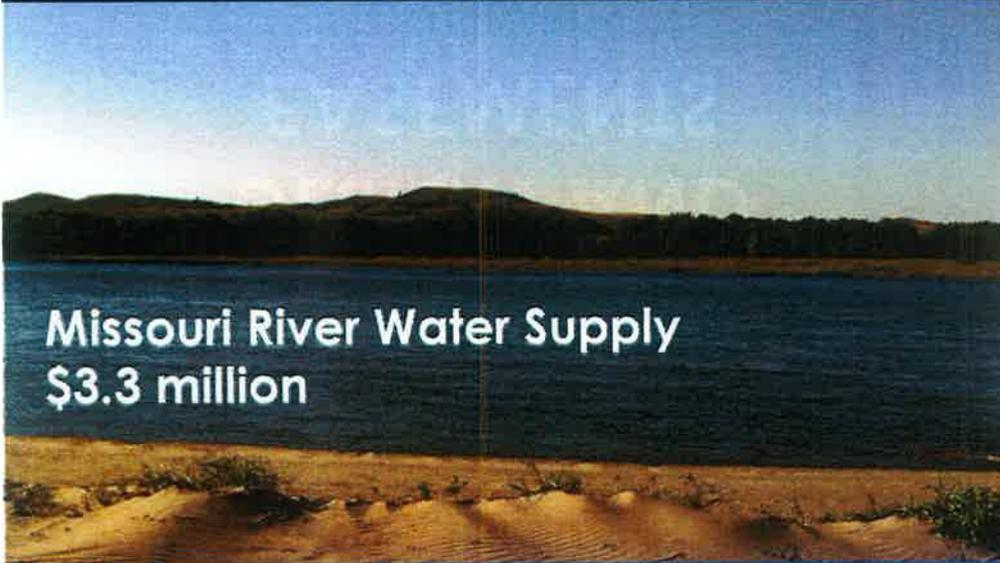
Estimated Total Project Cost (2016\$)

RRVWSP ESTIMATED PROJECT COST*	
	165 cfs System
Conventional Intake, Intake Pumps, & Supply Cost	\$75 M
Transmission Pipeline Costs (including ROW)	\$857 M
Pump Stations, Break Tank, & Hydraulic Structures	\$72 M
Water Treatment Plant Costs	\$59 M
Discharge Structure Costs	\$2.0 M
TOTAL PROJECT COSTS	\$1.065 B
*Excludes Pipeline Extensions/Includes Admin, Engineering, Legal and Real Estate	

****\$171 Million savings if McClusky Canal is utilized**

Red River Valley Water Supply Project

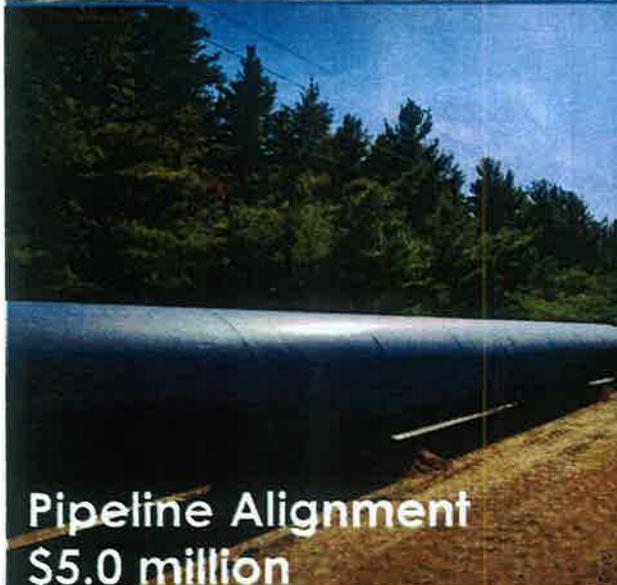
2015-2017 Work Plan



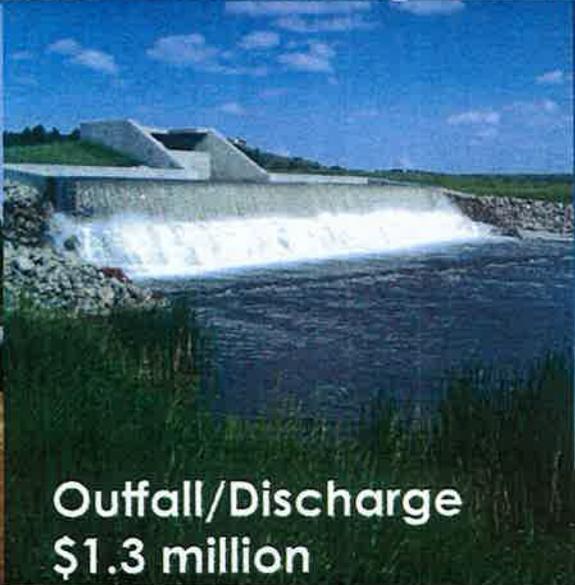
Missouri River Water Supply
\$3.3 million



Water Treatment Plant and Pump Systems
\$2.3 million



Pipeline Alignment
\$5.0 million



Outfall/Discharge
\$1.3 million



Land Services & Needs Assessment
\$1.1 million

Red River Valley Water Supply Project

2017-2019 Biennium



**\$17
Million**

**DESIGN AND
EASEMENTS**



**\$13
Million**

**STRATEGIC
CONSTRUCTION**

2017 to 2019 Transition Plan

- Transition from preliminary design to final design and strategic construction
- Meet legislative mandates of HB1020
- Prepare for 2019 to 2021 and beyond



**Preliminary
Design**



**Final Design &
Strategic Construction**

2017 to 2019 Work Plan

Legislative Mandates – HB1020

1. Any funding received for the completion of the planning and permitting process of the Red River valley water supply project must result in the following accomplishments:
 - A. The completed Red River valley water supply plan document that will be the basis and justification for the project construction and must include:
 - Alternative Selection, Water Supply Needs, Projected Project Costs, Easement Acquisitions, Environmental Regulation Compliance (Boundary Waters Treaty of 1909), and Implementation Schedule

2017 to 2019 Work Plan

Legislative Mandates – HB1020

- B. Acquisition of all state and federal permits required for the construction of any project features intended to be constructed with funding provided during the 2017-19 biennium;**
- C. A signed Bureau of Reclamation water service contract agreeing to a minimum of one hundred sixty-five cubic feet per second over a minimum of forty years or equivalent to ensure an adequate water source for the project's needs;**
- D. Prioritized project features for phase one construction;**
- E. A recommendation for funding options for all phases of the Red River valley water supply project.**

2017 to 2019 Work Plan

Legislative Mandates – HB1020

- 2. Any funding received to initiate construction of phase one prioritized project features identified in subsection 1 may be spent and construction of phase one may begin only after the budget section receives and approves certification from the state water commission and the state engineer that all items listed in subsection 1 have been accomplished.**
- 3. Quarterly progress reports on the Red River valley water supply project from the Garrison Diversion Conservancy District to the water topics overview committee of the legislative management, during the 2017-18 interim**

Red River Valley Water Supply Project

2017-2019 Work Plan



Exercise Options & Require Remaining
Easement Options
\$6.36 million



Final Design of Strategic Section of Pipeline
\$6.35 million



Final Design of Intake & Discharge
\$4.3 million



Begin Construction of Key Components
\$13.0 million

2017-2019 Work Plan

ACQUISITION OF STATE AND FEDERAL PERMITS



2017-2019 Work Plan

SECURE WATER SOURCE



Bureau of Reclamation Environmental Assessment under review for 20 cfs for central North Dakota



Request made to Department of Interior for 165 cfs from McClusky Canal

OR

Missouri River Conventional Intake

2017-2019 Work Plan

ENGINEERING

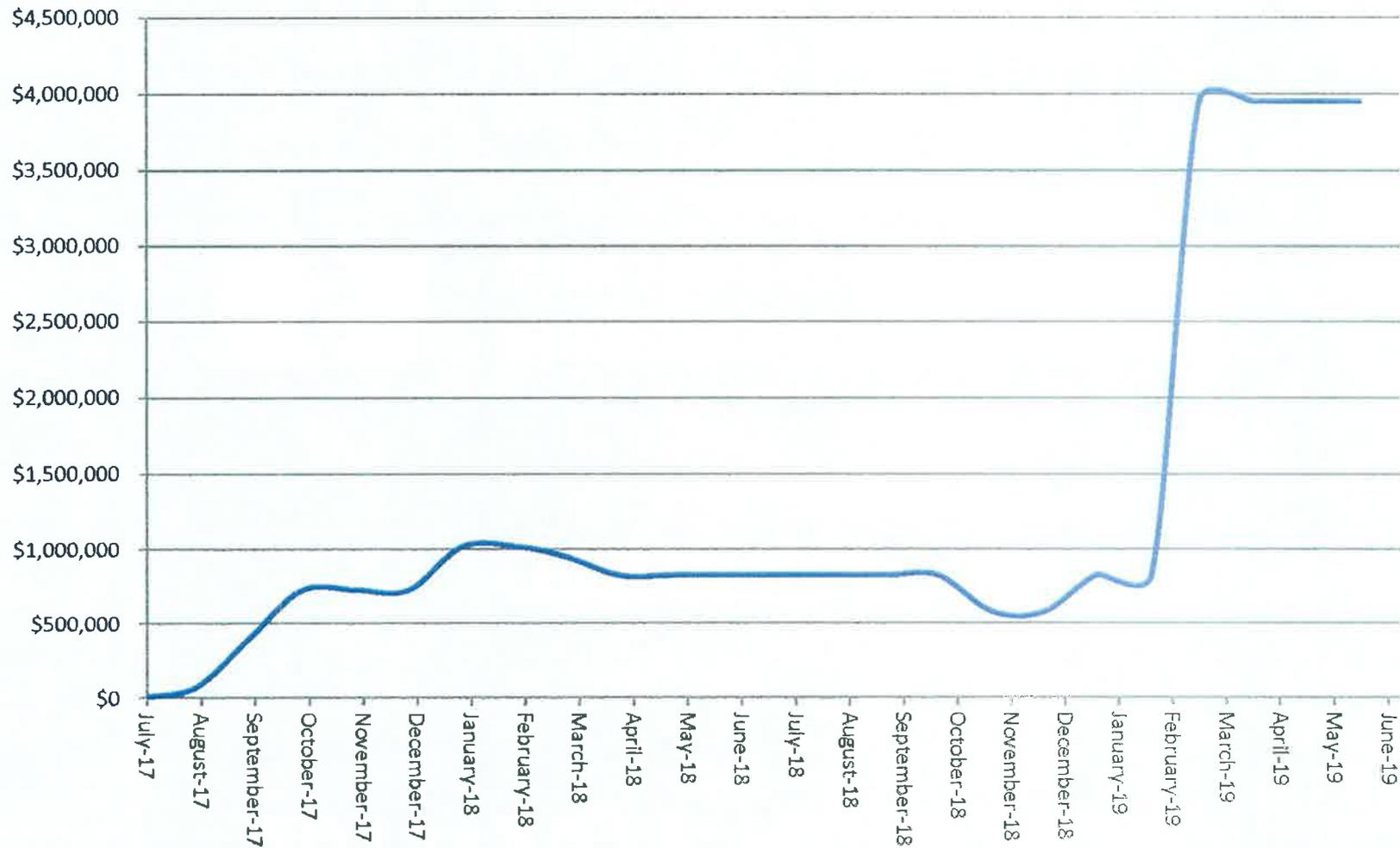


Implement Construction to Ensure Coverage Under Current Regulations

2017-2019 Work Plan

Spend Rate

Monthly Cash Flow



2017-2019 Work Plan

FINANCE



**Innovative project financing
with State of North Dakota**



**Partnership with state
and local users**

Red River Valley Water Supply Project

State and Local Plan Anticipated Schedule

Fall 2017 Goal

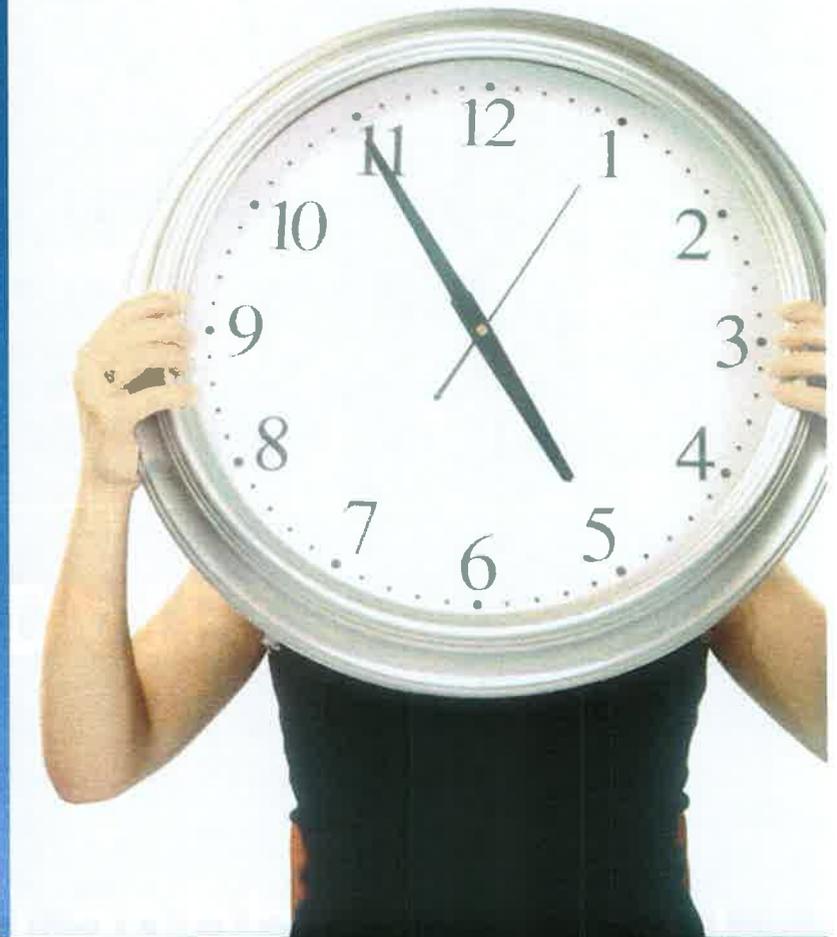
- Preliminary Design

2017-2019 Goal

- Implement Phased Final Design
- Implement Construction to Ensure Coverage Under Current Regulations

2019-2027 Goal

- Engineering and Construction



Red River Valley Water Supply Project

CURRENT UPDATES



YOU CAN FIGHT A
FLOOD, NOT A
DROUGHT

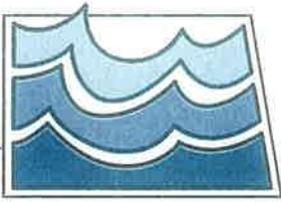


THANK YOU!



Lake Agassiz
Water Authority

Planning today for tomorrow's water



North Dakota State Water Commission

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APPENDIX L

August 23, 2017

MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission

FROM: Garland Erbele, P.E., Chief Engineer/Secretary

SUBJECT: Red River Valley Water Supply Project

DATE: August 7, 2017

The North Dakota Legislative Assembly has recognized the importance of providing a sufficient quantity of water to the people of the Red River Valley. North Dakota Century Code Chapter 61-24.7 contains language declaring the project necessary and in the public interest that the State, by and through the State Water Commission, should provide a share of the cost of constructing the project.

Section 7 of House Bill 1020, the Commission's appropriation bill, states: It is the intent of the sixty-fifth legislative assembly that the State Water Commission provide, in the form of a grant, up to \$30,000,000, of which \$17,000,000 is for the completion of the planning and permitting process and \$13,000,000 is to initiate construction of phase one prioritized project features. Section 8 of House Bill 1020 establishes the following requirements for this funding.

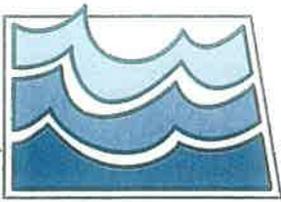
1. Any funding received for the completion of the planning and permitting process of the Red River valley water supply project must result in the following accomplishments:
 - a. The completed Red River valley water supply plan document that will be the basis and justification for project construction and must include alternative selection, water supply needs, projected project costs, easement acquisitions, environmental regulation compliance to include the Boundary Waters Treaty of 1909, and an implementation schedule;
 - b. Acquisition of all state and federal permits required for the construction of any project features intended to be constructed with funding provided during the 2017-19 biennium;
 - c. A signed bureau of reclamation water service contract agreeing to a minimum of one hundred sixty-five cubic feet per second over a minimum of forty years or equivalent to ensure an adequate water source for the project's needs;
 - d. Prioritized project features for phase one construction; and
 - e. A recommendation for funding options for all phases of the Red River valley water supply project.
2. Any funding received to initiate construction of phase one prioritized project features identified in subsection 1 may be spent and construction of phase one may begin only after the budget section receives and approves certification from the state water commission and the state engineer that all items listed in subsection 1 have been accomplished.
3. Quarterly progress reports on the Red River valley water supply project from the Garrison Diversion Conservancy District to the water topics overview committee of the legislative management, during the 2017-18 interim.

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E.
CHIEF ENGINEER AND SECRETARY

I recommend that \$17,000,000 for be approved for transfer to the Garrison Conservancy District for the purpose of planning and permitting the Red River Water Supply Project. This approval is subject to the availability of funds.

GE:DL/237



North Dakota State Water Commission

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APPENDIX M
August 23, 2017

MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission

FROM: Garland Erbele, P.E., Chief Engineer/Secretary 

SUBJECT: NDSWC Cost-Share Request – North Dakota Department of Health
Nonpoint Source Pollution

DATE: August 21, 2017

In their correspondence dated June 12, 2017, the North Dakota Department of Health requested cost share assistance for their Nonpoint Source Pollution Project.

For the past several years the North Dakota Department of Health has coordinated with local organizations (e.g. Soil Conservation and Water Resource Districts) and state agencies to implement nonpoint source (NPS) pollution projects that address water quality impacts from concentrated livestock feeding areas. Through these projects, more than 200 livestock producers have received financial assistance to support engineering design costs for the most feasible manure management systems. Many of these producers have also received federal Section 319 (h) cost-share assistance to construct the systems. These manure management systems are estimated to have prevented thousands of pounds of nitrogen and phosphorus from reaching lakes and streams, helping protect and improve their beneficial uses.

The \$200,000 trust fund allocations have been invaluable for ensuring the necessary engineering services. Approximately 40% of engineering costs typically have been supported with trust funds, while the balance of costs has been supported with Section 319 (h) funds administered by the local NPS projects. With limited non-federal matching funds available locally, the trust funds have greatly helped NPS project sponsors support the needed engineering services.

Given the water quality benefits of properly designed systems and the continued need for engineering services, the department is requesting the SWC consider allocating \$200,000 in trust funds to support the delivery of engineering services during the 2017/2019 biennium. All trust funds will be allocated to local NPS projects to help match existing or new Section 319 funds committed for engineering assistance. Interested project sponsors will be asked to submit formal requests for the trust funds, which will be distributed according to demonstrated needs. When finalized, a summary of the project-specific allocations will be provided to the State Water Commission.

The estimated total cost of the project is \$200,000, of which all is eligible for state cost-share participation.

I recommend the State Water Commission approve this request by the North Dakota Department of Health for state cost participation in the Nonpoint Source Pollution Project at an amount not to exceed \$200,000. This approval is subject to the entire contents of the recommendation contained herein, and the availability of funds.

GE:bn/1859

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E.
CHIEF ENGINEER AND SECRETARY