



MOUSE RIVER PLAN

Project Summary

JANUARY 2019

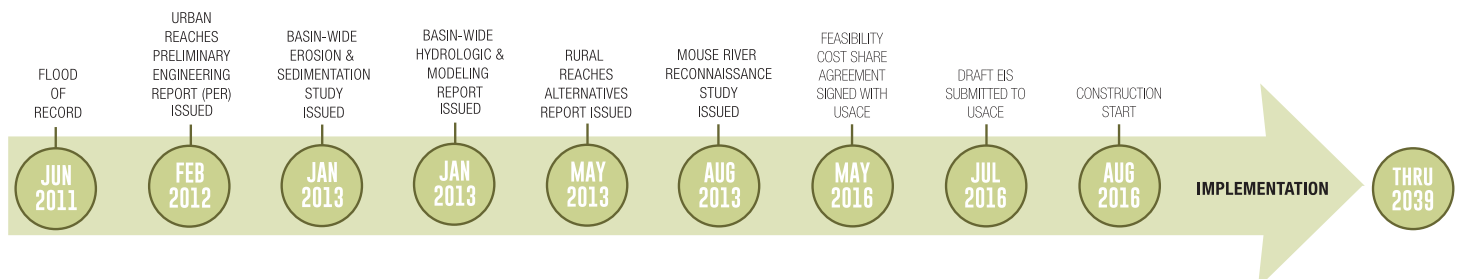


A HISTORY OF SEVERE FLOODING

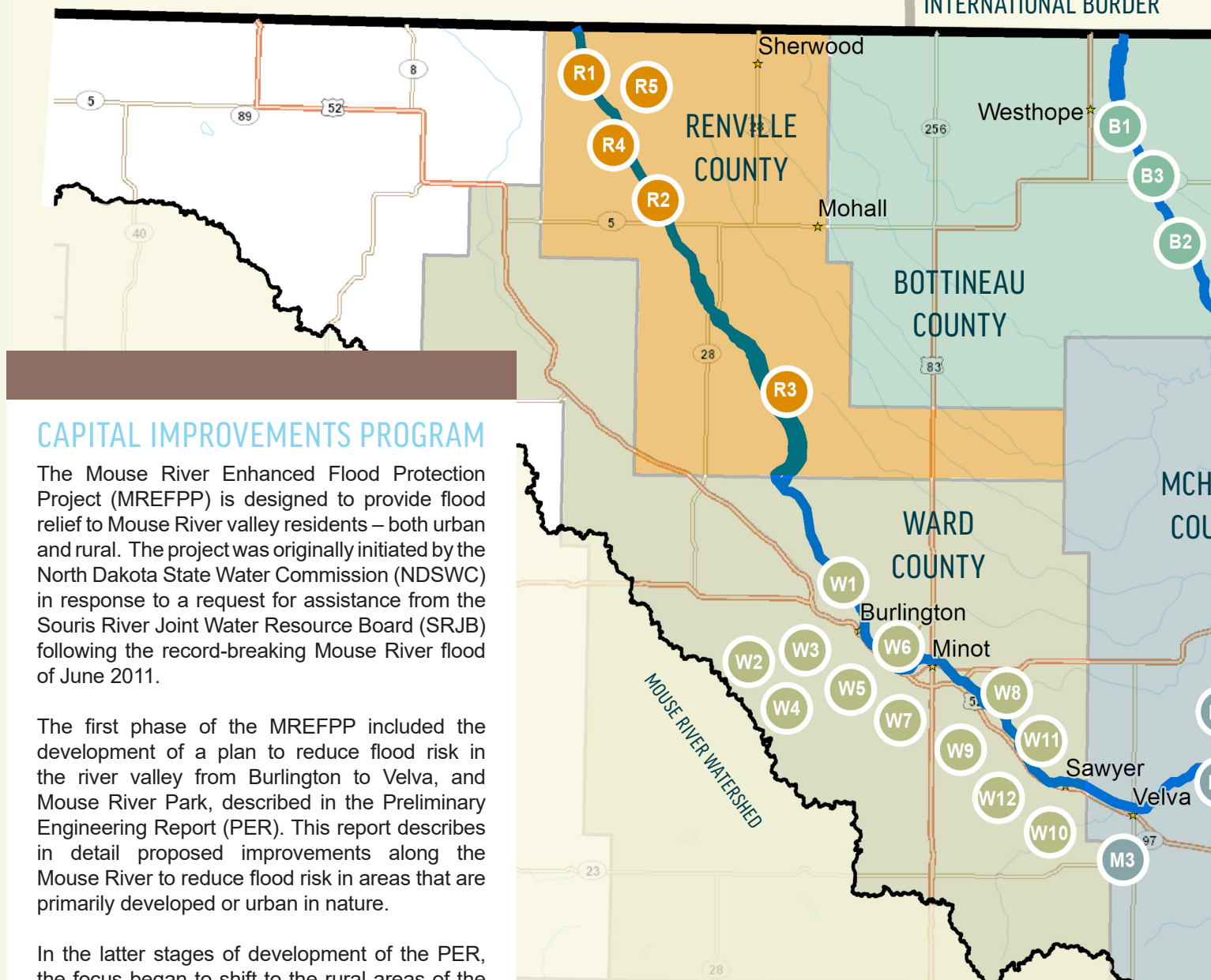
On June 25, 2011, the Mouse River flowed under Minot's Broadway Bridge at a record rate of 27,400 cubic feet per second (cfs) – more than five times the rate that existing channels and levees had been designed for. Not since 1882 had flows in excess of 20,000 cfs been seen. For weeks during the 2011 flood, water levels were too high for passenger and emergency vehicles to safely cross numerous area bridges. After flood waters receded, many bridges remained out of service for months while damages were assessed and repaired.

The record-breaking flow overwhelmed most flood fighting efforts along the entire reach of the Mouse River, causing extensive damages to homes, businesses, public facilities, infrastructure, farms and ranches. According to the U.S. Army Corps of Engineers (USACE), 4,700 residential, commercial and public structures in Renville, Ward and McHenry Counties sustained building and content damages totaling more than \$690 million. If emergency flood fighting measures had not been implemented, structure damages would have totaled roughly \$900 million. Infrastructure damages totaled hundreds of millions of dollars in the city of Minot alone.

Agricultural and rural infrastructure losses eclipsed \$100 million. The rural reaches of the Mouse River valley in North Dakota have endured frequent flood damages over the past two decades. Flooding has had significant impacts on the rural residents who make their livelihood along the river. Impacts from flooding in the rural areas are varied and widespread, including crop and hay losses, damage to structures, impacts to livestock, and loss of commerce due to inundated roads and bridges.



The initial focus of the Mouse River Enhanced Flood Protection Project was developing a Preliminary Engineering Report for the urbanized portions of the basin. Additional reports identified potential solutions for the rural reaches of the valley. The current focus is on implementation.



CAPITAL IMPROVEMENTS PROGRAM

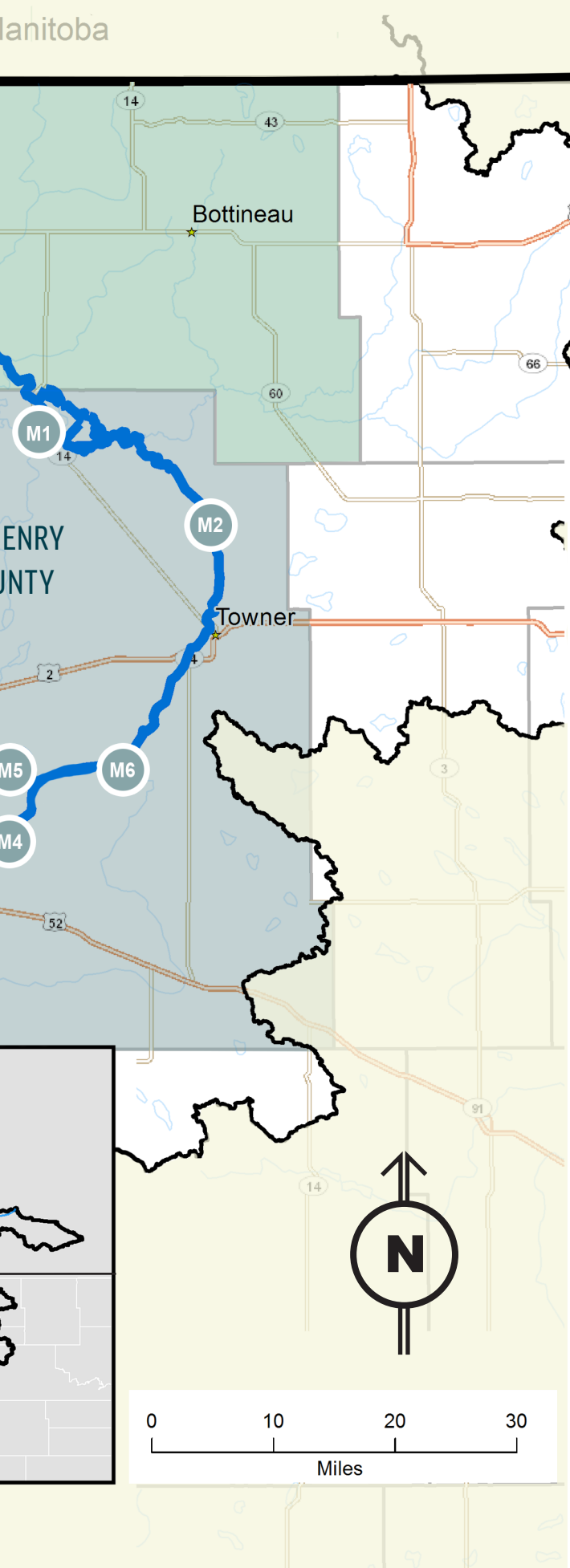
The Mouse River Enhanced Flood Protection Project (MREFPP) is designed to provide flood relief to Mouse River valley residents – both urban and rural. The project was originally initiated by the North Dakota State Water Commission (NDSWC) in response to a request for assistance from the Souris River Joint Water Resource Board (SRJB) following the record-breaking Mouse River flood of June 2011.

The first phase of the MREFPP included the development of a plan to reduce flood risk in the river valley from Burlington to Velva, and Mouse River Park, described in the Preliminary Engineering Report (PER). This report describes in detail proposed improvements along the Mouse River to reduce flood risk in areas that are primarily developed or urban in nature.

In the latter stages of development of the PER, the focus began to shift to the rural areas of the Mouse River valley. Basin-wide evaluations of erosion, sedimentation, hydraulics and hydrology were completed to begin to assess the basin-wide implication of improvements proposed in the valley. Additionally, an evaluation of 12 different alternatives for reducing flood risk for the rural reaches of the basin was completed.

The focus of the MREFPP now shifts toward implementation. The SRJB has developed a long-range capital improvements program (through 2039) focused on rural and urban improvements throughout the Mouse River valley. The total estimated cost of this program, in 2019 dollars, is \$1.028 billion (see table at right).





BASIN-WIDE IMPROVEMENTS

BENEFITING RENVILLE, WARD, MCHENRY AND BOTTINEAU COUNTIES

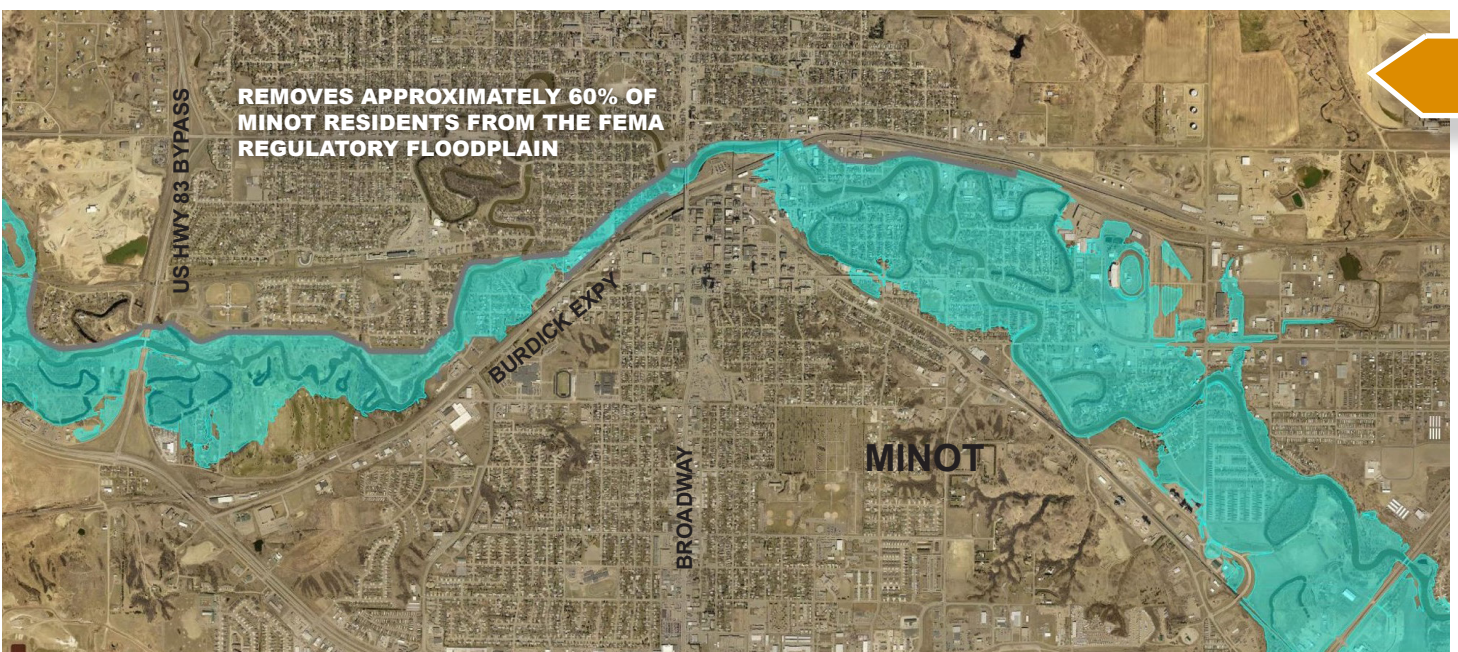
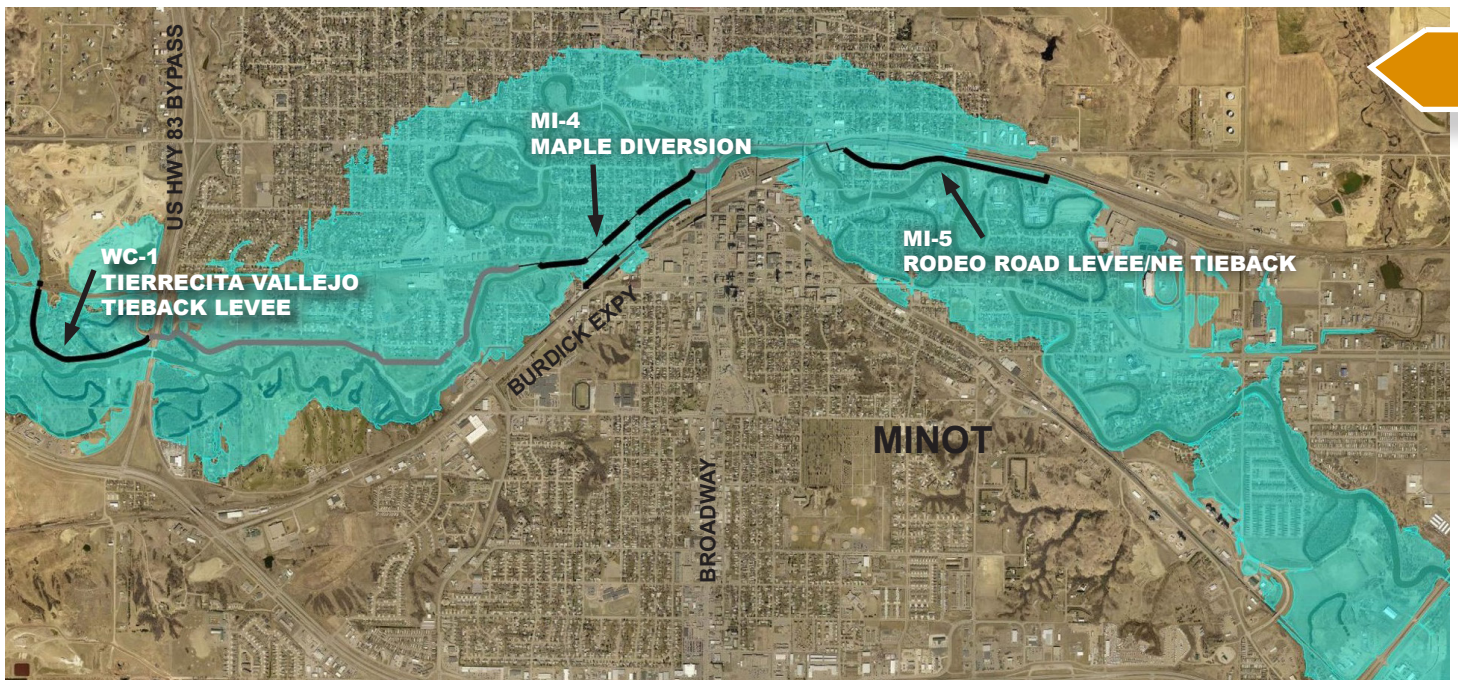
Renville County Projects (Thru 2039)		
R1	Rural Structure Acquisition, Relocation or Ring Dike	\$2 M
R2	Mouse River Park Levee Improvements	\$21 M
R3	Lake Darling Dam Operational Modifications	\$3 M
R4	Rural Bridge / Road Modifications	\$13 M
R5	Remove Trapped Water	\$1 M
Renville County Subtotal		\$40 M

Ward County Projects (Thru 2039)		
W1	Rural Structure Acquisition, Relocation or Ring Dike	\$25 M
W2	Burlington Levee System	\$36 M
W3	Robinwood / Brooks Addition Levee System	\$59 M
W4	Talbot's Levee System	\$7 M
W5	King's Court Levee System	\$17 M
W6	Tierracita Vallejo Levee System	\$17 M
W7	Minot Levee System	\$564 M
W8	Apple Grove Levee System	\$25 M
W9	Eastside Estates Levee System	\$13 M
W10	Sawyer Levee System	\$28 M
W11	Rural Bridge / Road Modifications	\$40 M
W12	Remove Trapped Water	\$1 M
Ward County Subtotal		\$832 M

McHenry County Projects (Thru 2039)		
M1	J. Clark Salyer Structure Modifications	\$21 M
M2	Rural Structure Acquisition, Relocation or Ring Dike	\$5 M
M3	Velva Levee System	\$21 M
M4	Rural Channel Modifications	\$15 M
M5	Rural Bridge / Road Modifications	\$21 M
M6	Remove Trapped Water	\$3 M
McHenry County Subtotal		\$86 M

Bottineau County Projects (Thru 2039)		
B1	J. Clark Salyer Structure Modifications	\$32 M
B2	Rural Channel Modifications	\$17 M
B3	Rural Bridge / Road Modifications	\$21 M
Bottineau County Subtotal		\$70 M

GRAND TOTAL: \$1.028 BILLION



CURRENT WORK

The Federal Emergency Management Agency (FEMA) is in the process of updating the Flood Insurance Rate Maps for Ward County, including the city of Minot. FEMA's proposal will double the 100-year discharge, which is used to establish the regulatory floodplain, from 5,000 to 10,000 cubic feet per second. The current effective regulatory floodplain is confined to the banks of the Mouse River. Once FEMA's new Flood Insurance Rate Maps become effective, the regulatory floodplain will resemble what is shown in this figure in blue. Nearly 3,000 homes will be placed into the regulatory floodplain, mandating purchase of high risk flood insurance that will cost residents of the basin millions of dollars annually.

Construction work is complete on the portion of the flood control project around Minot's water treatment plant. Construction is currently underway for the Napa Valley levee, Forest Road levee, and 4th Avenue floodwall portions of the project in Minot (shown on the map to the left).

FUTURE WORK

Future phases of the project include the construction of the Maple Diversion and high ground tieback levees at the western edge of Minot at Tierrecita Vallejo and in northeast Minot along 4th Avenue. Recent work by the Souris River Joint Board and the US Army Corps of Engineers as part of the federal Feasibility Study has identified a potential federal interest in the construction of these features. This study is expected to be completed in February 2019. If a federal interest is identified, two important additional Congressional milestones must be achieved to bring the project to fruition – authorization and appropriation. Each of these actions is typically delivered in the form of a Water Resources Development Act (WRDA) Bill.

INTERIM MILESTONE

Following the construction of these initial phases of the project in Minot, the regulatory floodplain will be amended in the interim to remove approximately 60% of the homes affected in Minot. The interim regulatory floodplain is shown to the left in blue. Significant resources and support from federal, state and local governments will be necessary to implement flood risk reduction features that benefit the remainder of the Mouse River basin.



Construction of the floodwall and stormwater pump station to protect the water treatment plant in 2016.



A portion of floodwall near 16th Street Southwest and the Minot Water Treatment Plant.



New roadway closure structure at 16th Street Southwest near the Minot Water Treatment Plant.

FUNDING

Federal Funding

To begin the process of securing federal funds for construction, the Souris River Joint Board (SRJB) executed a Feasibility Cost Share Agreement with the US Army Corps of Engineers (USACE) in May 2016. The execution of this agreement began a three-year process that will ultimately determine if there is a federal interest in constructing a flood-risk-reduction project within the Mouse River basin.

If a federal interest is determined, two additional and important milestones must be achieved through action by Congress – authorization and appropriation.

The extent of possible federal funding is unknown at this time. The timeframe for authorization and appropriation is also uncertain, as these Congressional actions are taken in the form of Water Resources Development Act (WRDA) bills.

Local Funding

The City of Minot continues to provide leadership for northwest North Dakota. Through its commitment to provide all of the local share for the Northwest Area Water Supply (NAWS) project and the Mouse River Plan, Minot has committed significant financial resources intended to benefit tens of thousands of residents that do not live within the limits of the city.

Presently, the City of Minot is collecting a 0.7% sales tax for flood control which is generating approximately \$7 million per year.

Discussions are ongoing to examine the possibilities associated with increasing revenues through additional sales taxes, property taxes or other fees.

The City of Minot has been fortunate enough to receive Disaster Recovery assistance from the U.S. Department of Housing and Urban Development (HUD). Despite a long list of unmet recovery needs, the City has elected to utilize these HUD funds for flood control acquisitions. This is being done for the benefit of the entire region.

It should be noted that HUD funds may not be used for the construction of flood control features.

State Funding

Funding through the North Dakota State Water Commission has been coupled with local funding to allow the Mouse River Plan to progress since its inception by the State of North Dakota following the 2011 flood. To date, major activities undertaken with state funds include acquisitions, environmental documentation, design and some construction. Generally, funding from the State of North Dakota has provided up to 75% of the total cost for acquisitions and up to 65% of the total cost for other activities.





FINANCIAL HARDSHIP

Several communities along the Mouse River - Burlington, Sawyer, Velva, the unincorporated subdivisions in Ward and Renville counties, and the rural reaches of the valley - do not have the ability to raise funding sufficient to cover the local share of the flood control project. Because of its commitment to the region's success, the City of Minot has agreed to be the primary source of local funding for the project. Sales tax is the most likely source, with a 0.7% sales tax currently being levied by the City of Minot for flood control.

While sales taxes may be increased, it should be noted that residents of Minot are currently paying a total of 7.5% in sales taxes – tied for the highest rate among North Dakota's largest five cities. Currently, a portion of the sales taxes levied by the City of Minot are used for property tax relief. Should sales tax rates for flood control increase, the likelihood of higher property taxes also increases.

The residents of the Mouse River basin were devastated by the 2011 flood. Residents of Minot and the surrounding communities witnessed the Mouse River cause hundreds of thousands of dollars of damage to their personal property. While partial recovery assistance was made available through federal and state programs, the typical resident of the Mouse River basin was still left with massive debt as a result of the 2011 flood, since a majority of the assistance provided to Mouse River residents was in the form of loans, not grants. In many instances, the amount owed by property owners is in excess of the value of the property.

Additionally, flood insurance reforms by the federal government will place most of those directly impacted by the 2011 flood into the regulatory floodplain, mandating payment of flood insurance premiums that, in some cases, will increase from \$500 per year to in excess of \$10,000 per year. Flood insurance reform, expected to become effective in 2020, will directly impact those most vulnerable and directly impacted as a result of the 2011 flood.

Local taxes, whether they are generated through sales tax or property tax collections, directly impact those who pay them. A significant portion of those who pay these taxes are also those who are attempting to overcome the hardships associated with recovering from the 2011 flood and those who will also be forced to overcome the hardships associated with flood insurance reform.

The City of Minot is also paying the 35% local share for the NAWS project through collection of local sales taxes. Minot's commitment to this important project for northwest North Dakota is unwavering. Minot's leadership in this endeavor, however, represents another hardship to raising local funds for the Mouse River Plan.

2019-2021
Unmet Needs

\$281 Million

2019- 2021
Request

\$186 Million

The SRJB has developed a prioritized list of specific initiatives and projects for implementation through the end of fiscal year 2021 (June 30, 2021). Through the end of fiscal year 2021, the estimated total unmet need for the program is \$281 million.

The SRJB is requesting \$186 million from the State of North Dakota to continue implementation of the Mouse River Enhanced Flood Protection Project for fiscal years 2020 and 2021. This funding level request is based on the current cost share policy of the State Water Commission.



Emergency Levee Constructed in 2011



For additional information, please contact:

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DESCRIPTION		2019-2021 BIENNIUM FUNDING REQUEST (MILLION)
Property Acquisitions		\$35.0
DESIGN & PERMITTING	Phase MI-4: Maple Diversion	\$6.0
	Phase WC-2: Robinwood Levee	\$4.0
	Phase WC-3: Kings Court Levee	\$2.0
	Phase MI-6: Eastwood Park Floodwall	\$6.0
	Phase MI-7: Valker Road South Levee	\$3.0
	Phase RU-1: Rural Conveyance Improvements	\$1.0
CONSTRUCTION	Phase MI-4: Maple Diversion	\$115.0
	Phase MI-5: Northeast Tieback Levee	\$40.0
	Phase WC-1: Tierrecita Vallejo Levee	\$20.0
	Phase BU-1: Burlington Levee	\$30.0
	Phase SA-1: Sawyer Bridge	\$4.0
	Phase VE-1: Velva Bridge	\$4.0
	Phase RC-1: Mouse River Park Bridge	\$4.0
	Phase RU-1: Rural Conveyance Improvements	\$7.0
Total		\$281.0
State Funds (2019-2021)		\$186.2
Local Funds (2019-2021)		\$94.9