



MOUSE RIVER PLAN

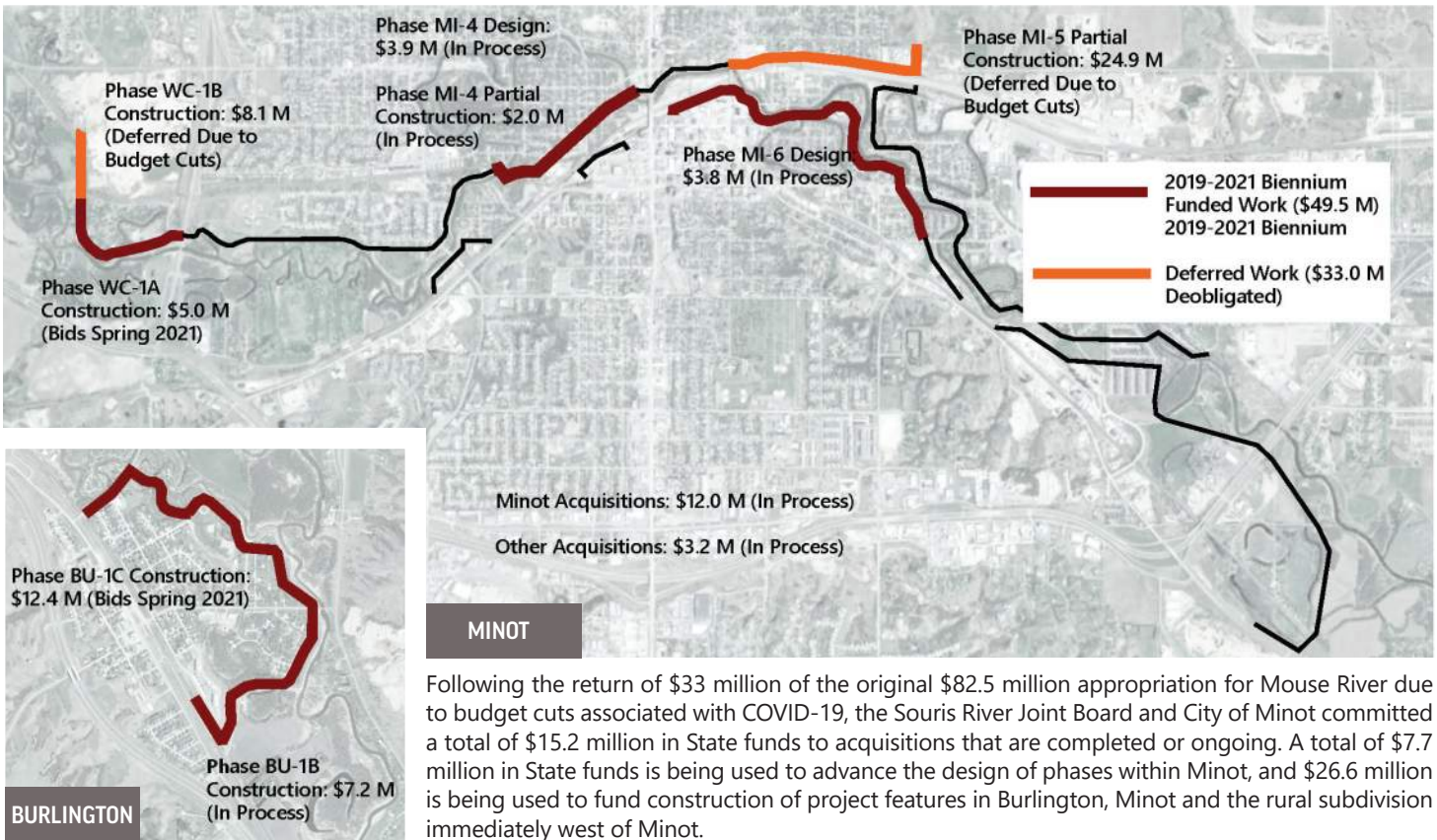
BASIN-WIDE

FLOOD RISK MANAGEMENT

FOR MINOT, RURAL COMMUNITIES, AND BASIN RESIDENTS

PROJECT SUMMARY : MARCH 2021

2019-2021 Biennium Work Status Update



Following the return of \$33 million of the original \$82.5 million appropriation for Mouse River due to budget cuts associated with COVID-19, the Souris River Joint Board and City of Minot committed a total of \$15.2 million in State funds to acquisitions that are completed or ongoing. A total of \$7.7 million in State funds is being used to advance the design of phases within Minot, and \$26.6 million is being used to fund construction of project features in Burlington, Minot and the rural subdivision immediately west of Minot.

2021-2023 Work Plan (Based on House Action)

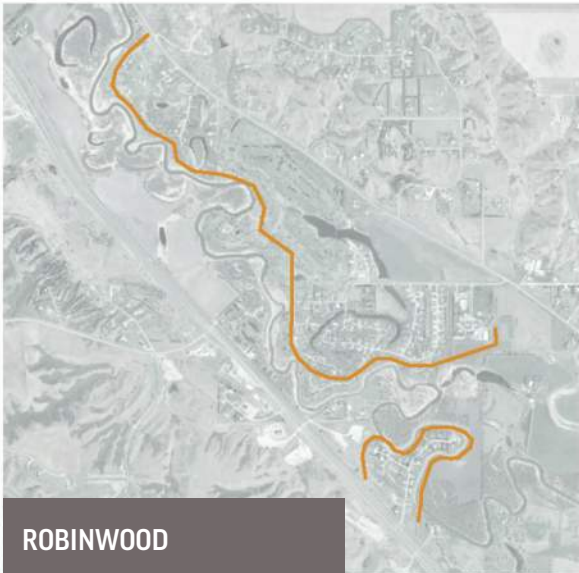
		TOTAL ESTIMATED COST
PROPERTY ACQUISITIONS	Minot	\$9M
	Outside of Minot	\$3.7M
DESIGN & PERMITTING	Phase WC-2: Robinwood Levee	\$4M
	Phase MI-7: Valker Road South Levee	\$3M
	Phase RU-1: Rural Conveyance Improvements	\$1M
CONSTRUCTION	Phase MI-5: Northeast Tieback Floodwall	\$64M
	Phase WC-1B: Tierrecita Vallejo Levee North	\$13M
	Phase SA-1: Sawyer Bridge	\$4M
	Phase VE-1: Velva Bridge	\$4M
	Phase RC-1: Mouse River Park Bridge	\$4M
	Phase RU-1: Rural Conveyance Improvements	\$3M
The House proposal includes \$74.5 million in State funds, which will be used to advance additional acquisitions, design and construction of features as shown in this table.		Total
		State Funds
		Local Funds
		\$112.7M
		\$74.5M
		\$38.2M



MOUSE RIVER PARK



BURLINGTON



ROBINWOOD



FUNDING STATUS BY LEVEE REACH

MINOT

MINOT SYSTEMS

MINOT WATER TREATMENT PLANT

▬ Levee/Floodwall Construction Funded

MINOT MILESTONE 1

▬ Levee/Floodwall Construction Funded

▣▣▣▣ Levee/Floodwall Design Funded



Bridge Construction Funded

MINOT MILESTONE 2

▣▣▣▣ Levee/Floodwall Design Funded

MINOT MILESTONE 3

— Unfunded Levee/Floodwall



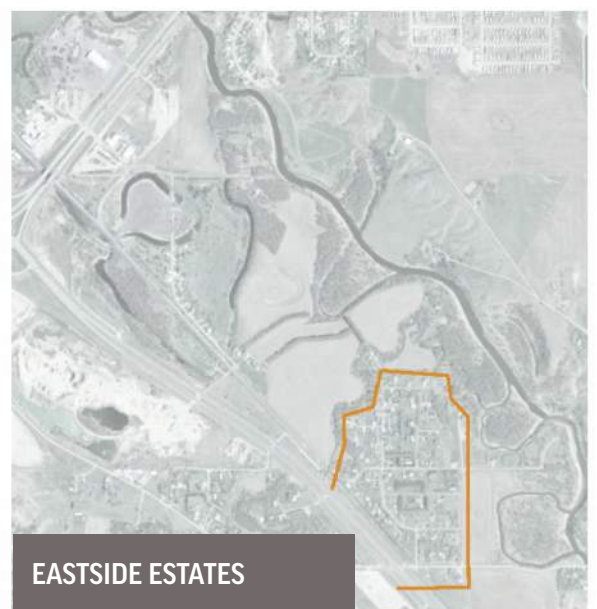
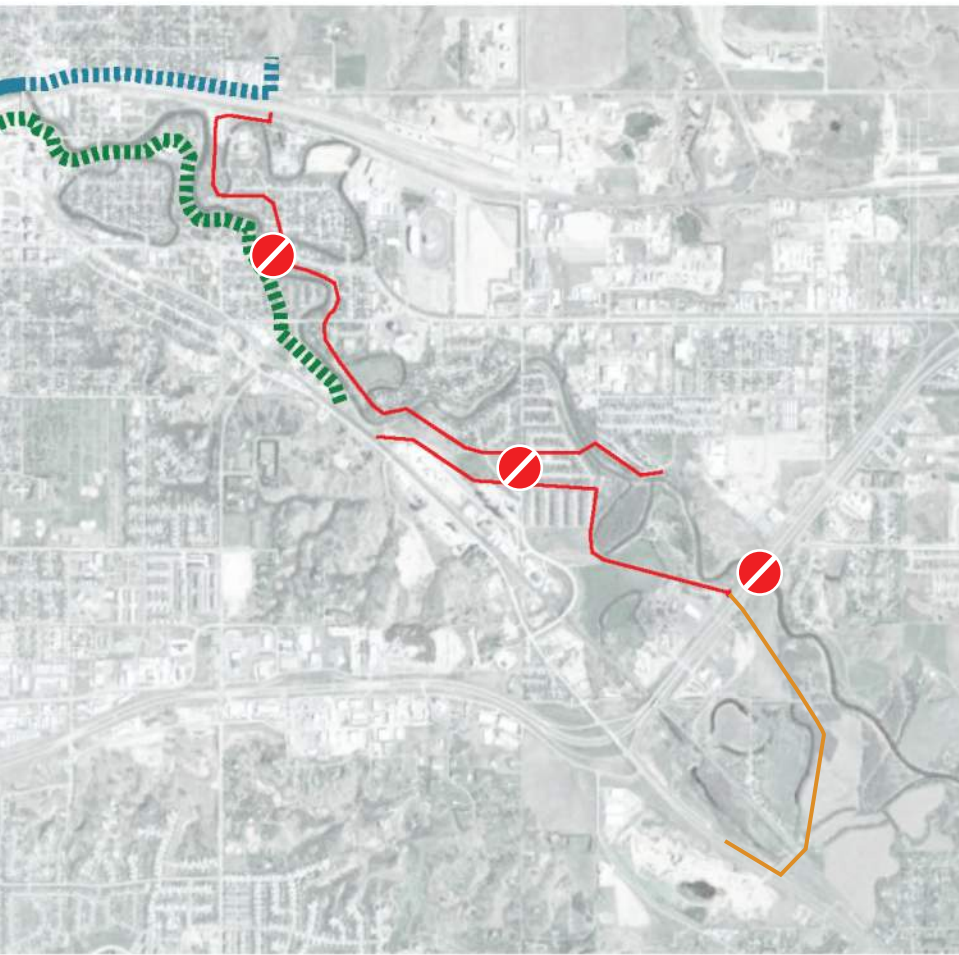
Unfunded Bridge

Previous Legislative Support:

To date, the State of North Dakota has committed a total \$228.7 million for flood risk management activities in the Mouse River basin since the record flood of 2011. In the current biennium, a total of \$82.5 million was originally appropriated. However, due to the anticipated reductions in revenue related to the COVID-19 pandemic, the Souris River Joint Board voluntarily released a total of \$33 million in State funding back to the State Water Commission. The activities originally planned for implementation in the current biennium that were voluntarily deferred include the construction of the Northeast Tieback of Minot Milestone 1 and the north portion of the Tierrecita Vallejo levee (rural community immediately west of Minot).

Past Legislative Intent:

During the 2017 Legislative Session, Legislative Intent was established to fund up to \$193 million for improvements within the city limits of Minot. The basis for that amount was the State's share of the total estimated costs to construct only Minot Milestone 1. The previously established Legislative Intent does not provide a funding commitment for the construction of Minot Milestone 2, Minot Milestone 3, or any of the improvements within the rural communities outside of Minot city limits.



RURAL COMMUNITY SYSTEMS

RURAL COMMUNITY SYSTEMS

- Rural Community Levee Construction Funded
- ■ ■ ■ Rural Community Levee Design Funded
- ⊗ Rural Community Bridge Construction Funded
- ⊗ Rural Community Bridge Design Funded
- Unfunded Rural Community Levee



Current Biennium Design:

Through the current biennium, design has been funded for several phases inside and outside of Minot. Within Minot, the design of multiple phases of Minot Milestone 1 is ongoing, including the Northeast Tieback and the Maple Diversion. Design is beginning on Minot Milestone 2 as well. Outside of Minot, design has been completed for levee systems at Burlington and Tierrecita Vallejo. In addition, the design of bridge replacements for Mouse River Park, Sawyer and Velva is ongoing.



Current Biennium Construction:

In the current biennium, construction has been funded for levee improvements at Burlington and Tierrecita Vallejo. In addition, construction for relocating utilities associated with the Maple Diversion has been funded.

FASTER IMPLEMENTATION WILL SAVE MILLIONS

SCENARIO 1

\$902M

SCENARIO 2

\$735M

SCENARIO 3

\$767M

City of Minot
Shaun Sipma, Mayor
515 2nd Avenue SW
Minot, North Dakota 58701
Ph: (701) 721-6839



Souris River Joint Water Resource Board
David Ashley, Chairman
P.O. Box 1516
Minot, North Dakota 58702
Ph: (701) 626-1566



PREVIOUS FUNDING

To date, the project has received funding from State, federal and local agencies totaling \$409 million, with \$228.7 million being provided by the State of North Dakota. This funding has been used for acquisitions, relocations, design, permitting and construction activities. Taking into account the reduction in funding during the 19-21 biennium, the average State appropriation level for the Mouse River Enhanced Flood Protection Project has been \$45.7 million per biennium since 2011. It is estimated that the total new appropriation (State, federal and local) needed to complete the project is \$674 million.

INFLATION

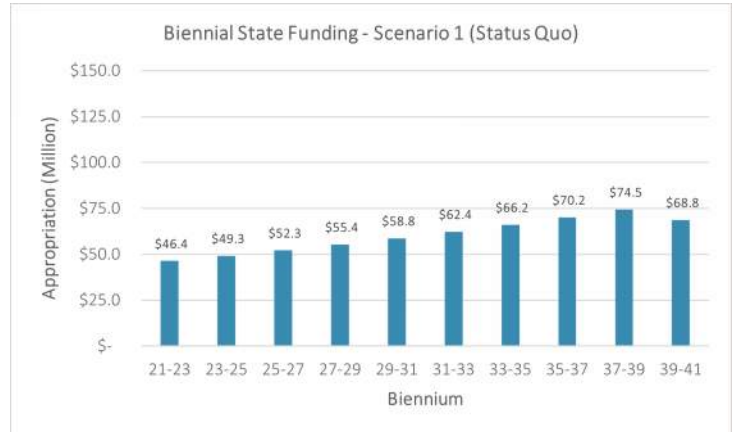
Thus far, the project has been able to counteract the effects of inflation through value engineering. The initial budget for the project, established in 2013, was \$1.028 billion. The current total budget for the project is \$1.083 billion, with \$674 million currently unfunded. The estimated State share to complete the project is \$452 million (2021 dollars), assuming no additional federal funding.

As the schedule for the project is extended, the costs will increase due to inflation. Three funding scenarios have been developed for the project based on varying degrees of funding.

Scenario 1 is based on assuming the average of the State appropriations since 2011 in the 2021-2023 biennium with a 3% annual escalator. Based on this assumed funding scenario, the project will be completed in 2041, and the total cost to complete the project would be \$902 million.

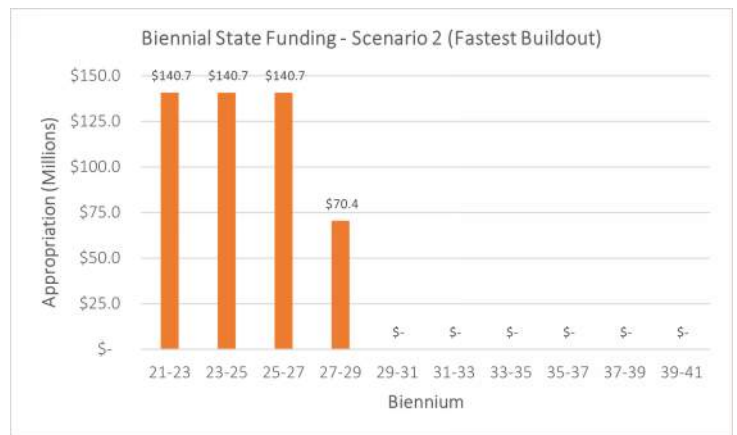
Scenario 2 is based on assuming funding being made available during a fast-track project implementation over the next 7 years. Based on this assumption, the project will be completed in 2028 and the total cost to complete the project would be \$735 million. This represents a \$167 million reduction in the total project costs as compared to Scenario 1.

Scenario 3 is based on assuming funding being made available during a 10-year project implementation. Based on this assumption, the project will be completed in 2031, and the total cost to complete the project would be \$767 million. This represents a \$135 million reduction in the total project costs as compared to Scenario 1.



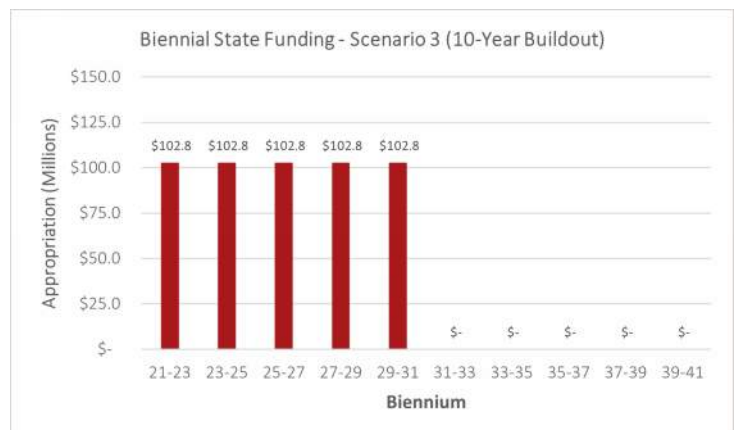
Total Cost to Complete: \$902 million
State Share to Complete: \$604 million

COMPLETION DATE 2041



Total Cost to Complete: \$735 million
State Share to Complete: \$493 million

COMPLETION DATE 2028



Total Cost to Complete: \$767 million
State Share to Complete: \$514 million

COMPLETION DATE 2031

**Senate Appropriations
Chairman – Senator Ray Holmberg
March 19, 2021**

Joint Testimony

**By: Shaun Sipma
Mayor, City of Minot
shaun.sipma@minotnd.org
701.721.6839**

**By: David Ashley
Chairman, Souris River Joint Board
dashley@mouseriverplan.com
701.626.1566**

HB 1020

Introduction – Mayor Shaun Sipma

Chairman Holmberg and members of the Senate Appropriations Committee, my name is Shaun Sipma, Mayor of the City of Minot. I am here today to speak in support of HB 1020 and the allocation needed to continue the Mouse River Enhanced Flood Protection Project.

With me today is David Ashley, Chairman of the Souris River Joint Board. We will be presenting jointly today.

This year will mark 10 years since the flood of 2011 devastated Minot and the surrounding region. The first words I want to say today are “thank you.” “Thank you” for the commitment this legislative body has made to both our recovery and the ongoing protection we are building for Minot and other communities up and down the Mouse River.

Slide 1 – Mayor Shaun Sipma

We have uploaded this joint testimony along with a series of slides. Our intent is to cover 5 topics with you today.

First, we want to update you regarding the status of the current biennium appropriations and how that funding is currently being utilized.

Second, we want to outline how the \$74.5 million that is included Section 10 will be utilized. As you are aware, the financing of this amount is currently in the “bonding bill” – HB 1431.

Third, we want to give you a high-level status update regarding the funding for the project, including which reaches are currently funded as well as the reaches that are currently not funded.

Additionally, we want to share with you the funding for the project that has been secured to date.

Finally, we wish to share what we have done to date to counteract inflation as well as how inflation may impact the project, depending on the timeframe for its completion.

David Ashley is going to say a few words and cover slides 2-7, and then I will be back this podium to wrap up on slides 7-12.

Slides 2-7A – David Ashley

Thank you, Mayor Sipma.

SLIDE 2

The graphics on slide 2 depict the phases of the project that were originally intended to be completed using the 2019-21 appropriation. Of the \$82.5 million, a total of \$46.6 million was programmed for activities inside the city limits of Minot. The remaining \$35.9 million was programmed for activities outside of Minot. It should also be noted that the figures represented on this slide are State funding only.

A total of \$15.2 million in State funding has been used to advance acquisitions to clear the footprint for future levee construction. These acquisitions are ongoing, and while a portion of the funding remains unspent, the negotiations are active, and it is important that the funding is in place to be able to close these acquisitions when terms are agreed upon.

A total of \$59.6 million in State funding was programmed in the current biennium for construction activities. Approximately \$19.6 million in State funding is being used to construct the Burlington segment of the project. The south phase of the project is currently under construction and is approximately 50 percent complete. Bids will be received by the Souris River Joint Board for the north phase of the project within two weeks.

Approximately \$13.1 million in State funding was to be used to construct the Tierrecita Vallejo levee in the current biennium. This is the levee segment on the western end of Minot. The construction of the southern portion of this levee is also scheduled to begin in the spring of 2021. The construction of the northern portion of this levee has been deferred into the future due to budget cuts.

Construction of utility relocations associated with Phase MI-4, or the Maple Diversion, in Minot is currently ongoing and is utilizing approximately \$2.0 million in State funding.

The original work plan also included the partial construction of Phase MI-5, which is the northeast tieback levee in Minot. The State funding programmed with this partial construction was \$24.9 million.

Due to budget cuts, the construction of this portion of Phase MI-5 has also been deferred into the future.

Approximately \$7.7 million in State funding was programmed in the current biennium for design and permitting activities related to future construction phases, including \$3.9 million for the Maple Diversion in Minot (also known as Phase MI-4) and \$3.8 million for the design of the Eastwood Park Levee in Minot (also known as Phase MI-6).

All of the activities originally planned for the 19-21 biennium are shown on this graphic. However, as mentioned, two construction activities were deferred into the future due to budget cuts. The activities depicted in the maroon total \$49.5 million in State funding and are ongoing, whereas the activities depicted in the orange total \$33.0 million and have been deferred.

The chart at the bottom right corner of Slide 2 summarizes the original work plan for the 19-21 biennium based on the original \$82.5 million appropriation.

SLIDE 3

The chart at the bottom right corner of Slide 3 summarizes the current work plan for the 19-21 biennium based on de-obligating a total of \$33 million in State funding and completing acquisitions, engineering and construction totaling \$49.5 million in State funding.

SLIDE 4

For the upcoming biennium, the Souris River Joint Board and City of Minot are slated to receive \$74.5 million in State funding to complete the activities outlined in the chart included on Slide 4. The activities are organized by color, with acquisitions in blue, design and permitting activities shown in the light brown color, and construction activities outlined in orange. The total cost of all activities is estimated to be \$112.7 million. This includes \$74.5 million in State funding and \$38.2 million in local funding. The following slides will go into a little more detail on the planned activities.

SLIDE 5

On slide 5, activities in or near Minot are shown on the map. The orange colors on the map of slide 5 are indicative of proposed construction activities, and the maroon color corresponds to a proposed design activity.

Within Minot, a total of \$9 million is planned for acquisitions, which would include \$6.8 million in State funding. Additionally, \$2 million in State funding is requested for the design of the Valker Road South levee. Also, within Minot, the construction of the Northeast Tieback Floodwall is planned, which is expected to cost a total of \$64 million. The request from the State related to this phase of the project is \$41.6 million.

West of Minot, at Tierrecita Vallejo, the north segment of the Tierrecita Vallejo levee is planned for construction. Based on current estimates, the requested State share associated with this phase of the project is \$8.5 million.

SLIDE 6

On slide 6, activities outside of Minot are shown on the map. Design was completed for bridge replacements at Mouse River Park (Renville County), Sawyer (Ward County) and Velva (McHenry County) using funding from the 17-19 biennium. These designs are nearly complete, and funding for construction of these bridges is being requested for the upcoming biennium. Each bridge replacement is estimated to cost approximately \$4 million total, with the requested State share being \$2.6 million each.

At Robinwood, which is a rural community between Burlington and Minot, design funding is requested for the proposed levee. The total design effort is estimated to be \$4 million, with the requested State share being \$2.6 million.

A total of \$3.7 million is planned for acquisitions outside of Minot in the next biennium, with the requested State share being 75% of the cost of those acquisitions. Rural improvements are also being planned to reduce flood risk outside of the urbanized areas of the basin.

SLIDE 7A

We have accomplished much since 2011, as the Mayor will discuss shortly. But our intent is to communicate that there is much more to do. On slide 7 and also within the middle pages of the brochure, we have included a graphic that illustrates the funding status for the various reaches of the project. Currently, we have funding in place to complete approximately 40 percent of the project, and we sincerely appreciate the State's support in reducing flood risk throughout the Mouse River basin.

The City of Minot has been a steadfast supporter of the Souris River Joint Board and flood control throughout the Mouse River Basin. I would now ask that Mayor Sipma continue with further remarks regarding funding for the project.

Slides 7B-12 - Mayor Shaun Sipma

SLIDE 7B

As we continue on slide 7, I would like to again express gratitude to this committee for previously establishing legislative intent to fund a large portion of the project in Minot. The legislative intent was originally established to cover the anticipated State share of what is known as Minot Milestone 1. This is the portion of the project shown within Minot in the blue color on Slide 7 and within the middle pages of the brochure.

We are grateful for the State's commitment to funding that milestone. It has meant a great deal to the 60% of valley residents in Minot that would be protected by that portion of the project. However, our Minot residents within the neighborhoods of Minot Milestones 2 and 3 as well as our rural neighbors are concerned about the future and are asking for your support.

SLIDE 8

There has been a fantastic commitment since 2011 to reducing flood risk in the Mouse River basin and within the City of Minot. To date, nearly \$409 million has been committed by our local, state, and federal partners for this project.

The graphics that are shown on Slide 8 illustrate that commitment. Chairman Ashley mentioned that the original appropriation in the current biennium was \$82.5 million and was reduced to \$49.5 million following the de-obligation of \$33 million due to projected revenue shortfalls related to COVID.

This graphic demonstrates the State's commitment to this project since 2011, with an average biennial appropriation of \$45.7 million. We are absolutely grateful for that, but we want to share some of our concerns with maintaining a similar level of funding.

SLIDE 9

If you recall, the original plans for improvements throughout the basin were developed by the North Dakota State Water Commission following the 2011 flood. These improvements were originally estimated in early 2013 to cost a total of \$1.03 billion.

Based on the current unfunded need to complete the project of \$674 million, the total project is expected to cost \$1.08 billion.

As the project has progressed, we have been able to counteract inflation through value engineering. While inflation has been progressing in the construction markets at a rate of around 3% each year, we have been able to control the project costs such that the annual increases have been less than 1% per year. We intend to continue these efforts to refine the design and reduce the cost of the project, but these efforts will be increasingly difficult as we continue to progress towards the finish.

I would like to share three different scenarios that would take us to project completion.

The chart on Slide 9 depicts what we have termed "Scenario 1" where the project receives State funding at a level similar to the average received to date, with a 3% annual escalation factor applied. If we assume this level of funding and an average annual inflation rate of 3%, the project will take approximately 20 more years to complete, and the immediate need of \$674 million to complete the project grows to \$902 million. In other words, the project will cost \$228 million more due to inflation.

SLIDE 10

We have been asked how quickly the project could be implemented if the funding was made available during the most aggressive implementation schedule. We believe that the project could be completed in as few as 7 years, shown on Slide 10, at a total cost of \$735 million. We have termed this "Scenario 2." In "Scenario 2," the cost to complete the project is \$167 million lower than "Scenario 1" due to the cost associated with inflation.

SLIDE 11

If the project implementation schedule were adjusted to meet funding which would be provided over a period of 10 years, shown on Slide 11 as "Scenario 3", the total cost to complete the project would be \$767 million. As compared to "Scenario 1," the cost to complete the project is \$135 million lower than "Scenario 1" due to inflation.

Of course, there are endless funding scenarios that could be created. Our main point: if we can figure out a way to advance these projects to completion more quickly, we will save hundreds of millions of dollars. Another significant advantage of faster implementation is avoiding the economic damages that will be sustained by residents due to flood insurance premium increases, as well as potentially avoiding the damages associated with a flood that could occur during an extended implementation schedule for the project.

I have spent a considerable amount of time analyzing flood insurance impacts to Minot and the region. Advancing the construction from a 20-year buildout to a 12-year buildout saves approximately \$110 million in construction costs but also nearly \$45 million in flood insurance premiums for Minot residents and businesses. I have submitted a couple of slides that cover this in more detail that I will not review today.

SLIDE 12

On our final slide we have included links for your use that will take you project information and construction videos.

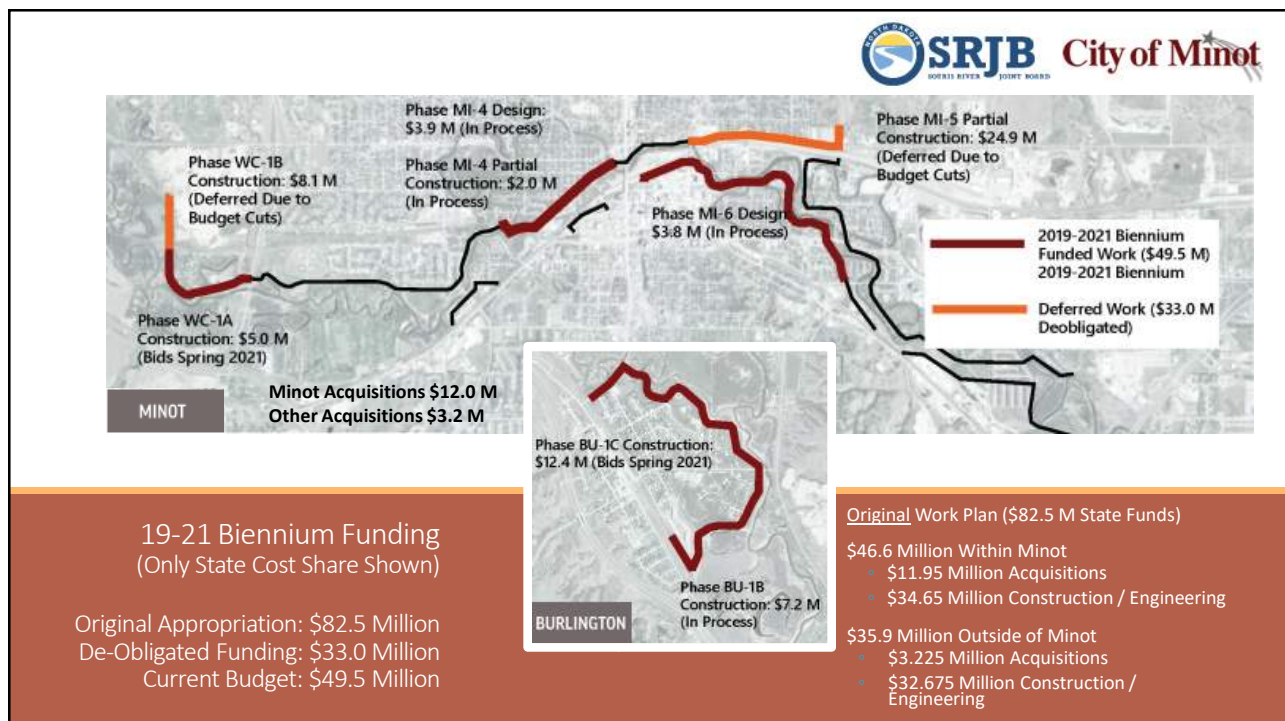
On behalf of the City of Minot and the Souris River Joint Board, we look forward to continuing to work with this committee on the state's share of funding in the present biennium and, of course in the years ahead to complete the work on this important project.

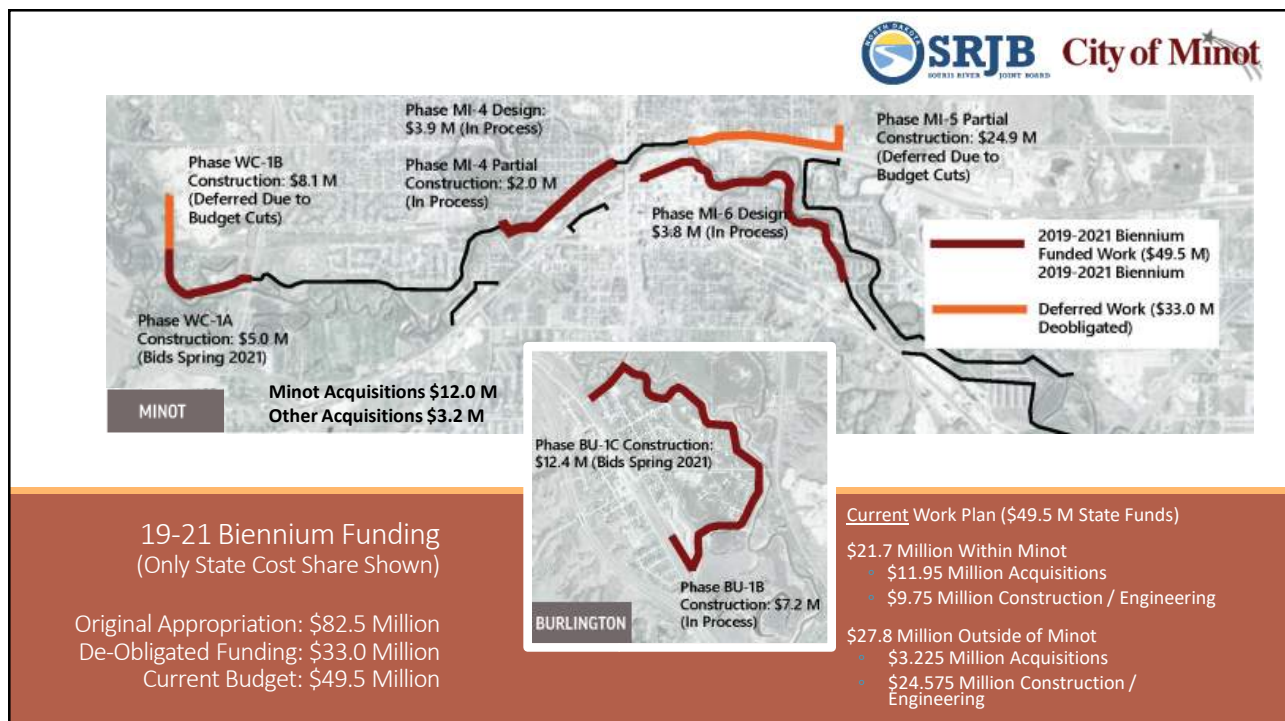


MOUSE RIVER PLAN

TESTIMONY TO SENATE APPROPRIATIONS
HOUSE BILL 1020
22 MARCH 2021









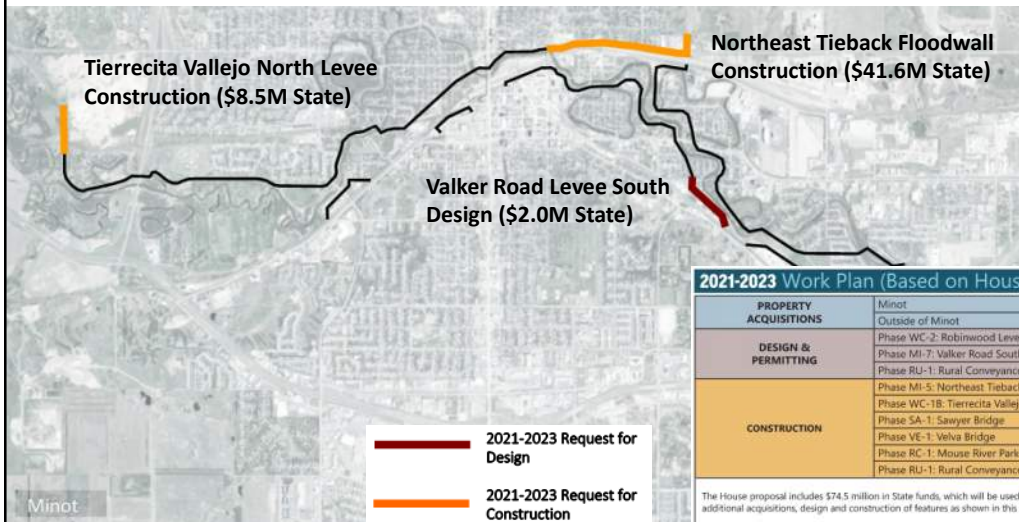
2021-2023 Biennium \$74.5 Million State Funds

2021-2023 Work Plan (Based on House Action)		TOTAL ESTIMATED COST
PROPERTY ACQUISITIONS	Minot	\$9M
	Outside of Minot	\$3.7M
DESIGN & PERMITTING	Phase WC-2: Robinwood Levee	\$4M
	Phase MI-7: Valker Road South Levee	\$3M
	Phase RU-1: Rural Conveyance Improvements	\$1M
CONSTRUCTION	Phase MI-5: Northeast Tieback Floodwall	\$64M
	Phase WC-1B: Tierrecita Vallejo Levee North	\$13M
	Phase SA-1: Sawyer Bridge	\$4M
	Phase VE-1: Velva Bridge	\$4M
	Phase RC-1: Mouse River Park Bridge	\$4M
	Phase RU-1: Rural Conveyance Improvements	\$3M
Total		\$112.7M
State Funds		\$74.5M
Local Funds		\$38.2M

The House proposal includes \$74.5 million in State funds, which will be used to advance additional acquisitions, design and construction of features as shown in this table.



2021-2023 Biennium \$74.5 Million State Funds



2021-2023 Work Plan (Based on House Action)		TOTAL ESTIMATED COST
PROPERTY ACQUISITIONS	Minot	\$9M
	Outside of Minot	\$3.7M
DESIGN & PERMITTING	Phase WC-2: Robinwood Levee	\$4M
	Phase MI-7: Valker Road South Levee	\$3M
	Phase RU-1: Rural Conveyance Improvements	\$3M
CONSTRUCTION	Phase MI-5: Northeast Tieback Floodwall	\$64M
	Phase WC-18: Tierrecita Vallejo Levee North	\$13M
	Phase SA-1: Sawyer Bridge	\$4M
	Phase VE-1: Velva Bridge	\$4M
	Phase RC-1: Mouse River Park Bridge	\$4M
	Phase RU-1: Rural Conveyance Improvements	\$3M
Total		\$112.7M
The House proposal includes \$74.5 million in State funds, which will be used to advance additional acquisitions, design and construction of features as shown in this table.		
Total State Funds		\$74.5M
Local Funds		\$38.2M



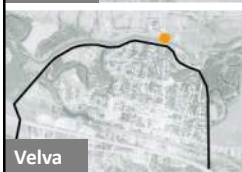
2021-2023 Biennium \$74.5 Million State Funds



**Mouse River Park
Bridge Construction
(\$2.6M State)**



**Sawyer Bridge
Construction
(\$2.6M State)**



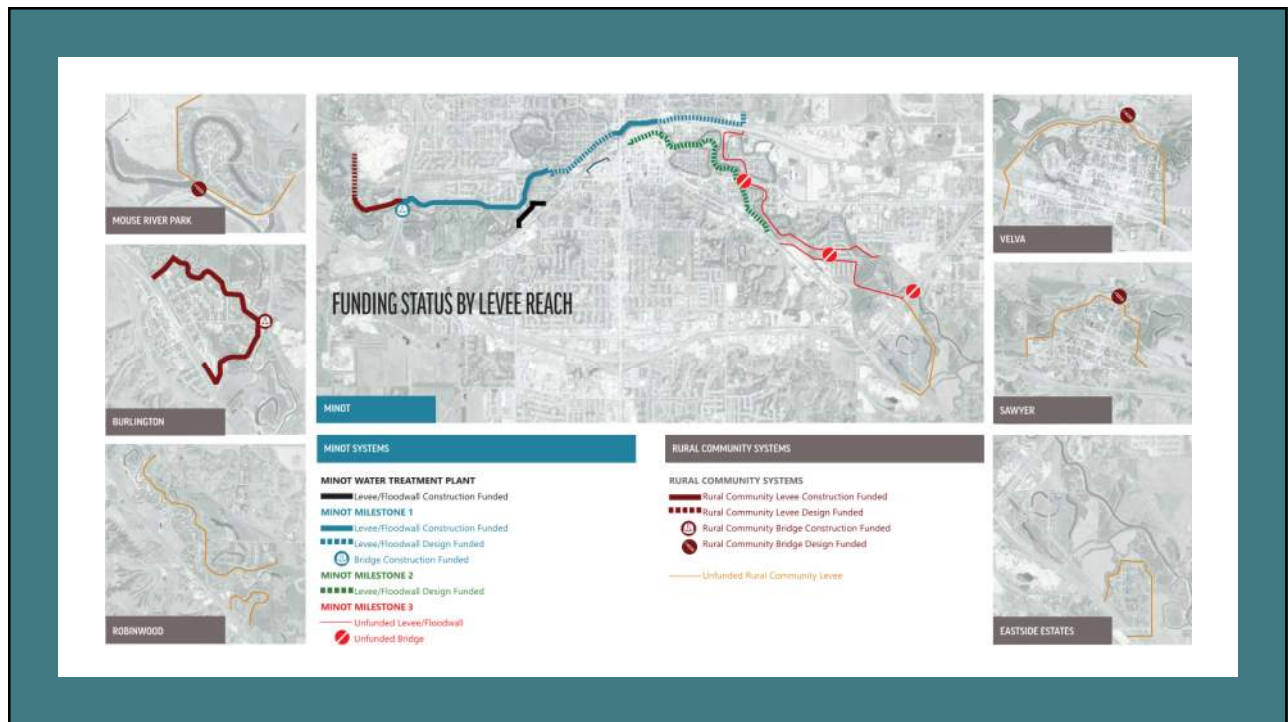
**Velva Bridge
Construction
\$2.6M State)**

— 2021-2023 Request for Design
— 2021-2023 Request for Construction



**Robinwood Levee
Design (\$2.6M
State)**

2021-2023 Work Plan (Based on House Action)		TOTAL ESTIMATED COST
PROPERTY ACQUISITIONS	Minot	\$9M
	Outside of Minot	\$3.7M
DESIGN & PERMITTING	Phase WC-2: Robinwood Levee	\$4M
	Phase MI-7: Walker Road South Levee	\$3M
	Phase RU-1: Rural Conveyance Improvements	\$3M
CONSTRUCTION	Phase MI-5: Northeast Tieback Floodwall	\$64M
	Phase WC-18: Tierrecita Vallejo Levee North	\$13M
	Phase SA-1: Sawyer Bridge	\$4M
	Phase VE-1: Velva Bridge	\$4M
	Phase RC-1: Mouse River Park Bridge	\$4M
	Phase RU-1: Rural Conveyance Improvements	\$3M
The House proposal includes \$74.5 million in State funds, which will be used to advance additional acquisitions, design and construction of features as shown in this table.		Total State Funds Local Funds
		\$112.7M \$74.5M \$38.2M





Approved Funding to Date

\$408.7 Million Total [\$228.7 Million State]

HISTORIC FUNDING DATA

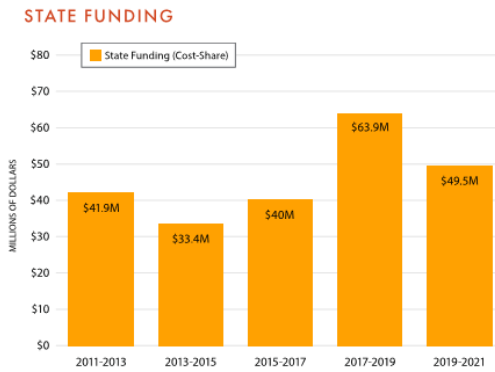
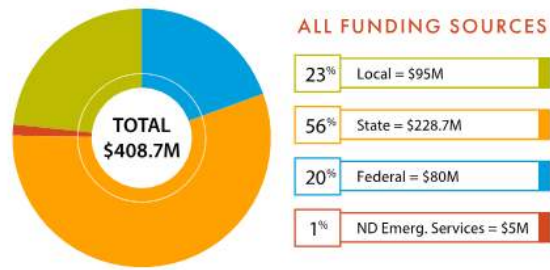


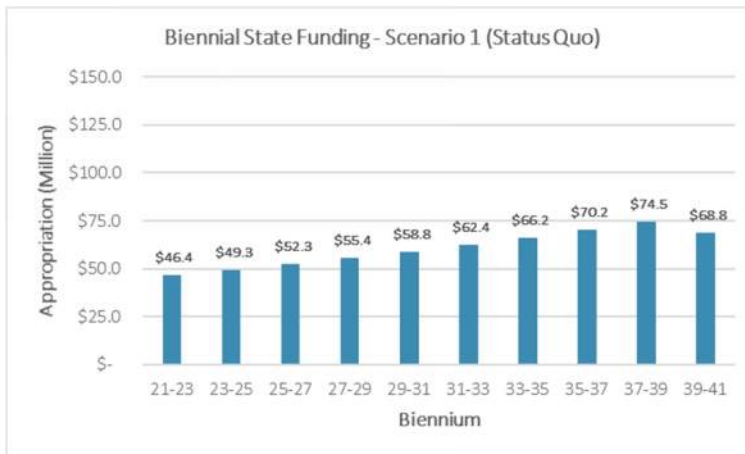
Figure 1 - Historic State Funding For MREPPP.



Source: ND State Water Commission
2021 Water Development Plan



Funding to Complete (\$674 M - 2021 Dollars)



Scenario 1:

Average of State Funding Per Biennium to Date, with a 3% Escalation Factor

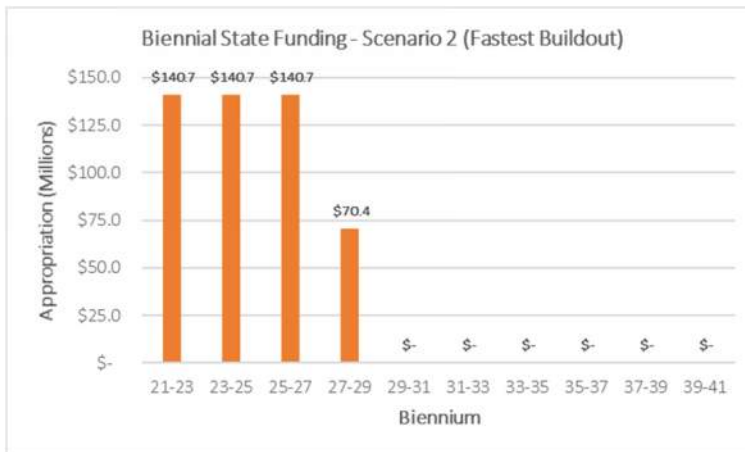
Total Cost to Complete: \$902 M (+\$228 M due to inflation)

State Share to Complete: \$604 M

Completion Date: **2041**



Funding to Complete (\$674 M - 2021 Dollars)



Scenario 2:

Fastest Buildout (7 Years)

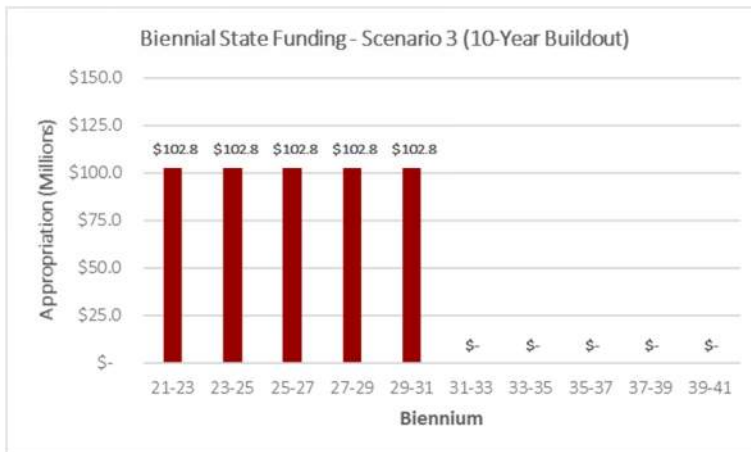
Total Cost to Complete: \$735 M (+\$61 M due to inflation)

State Share to Complete: \$493 M

Completion Date: **2028**



Funding to Complete (\$674 M - 2021 Dollars)



Scenario 3:

10-Year Buildout

Total Cost to Complete:
\$767 M (+\$93 M due to inflation)

State Share to Complete:
\$514 M

Completion Date:

2031

On behalf of the residents of the Mouse River Basin...

Thank You.



MOUSE RIVER PLAN

Project information may be viewed or downloaded at:

<http://www.mouseriverplan.com>

Construction progress videos may be viewed at:

<https://www.youtube.com/channel/UCJEMcuR74qzNPZ83qzQhCTg>



City of Minot

City of Minot *North Dakota*



- Flood Plain Properties 2,761
 - Residential Dwellings 1,822
 - Rental Dwellings 723
 - Commercial Properties 216
- FEMA Map Change from 'X' Low Risk Expected To Change to 'AE' High- Risk In 2022.
- FEMA Rate Increase Maximum 12% First 2 Years, Maximum 18% Every Year After.



Flood Insurance Projected Increases

- 12 Year Build Rate Versus 20 Year Build Rate

Property Description	12 Year Build	20 Years Build	Cost Savings
Residential Dwellings	\$9,603,627	\$27,670,084	\$18,066,457
Rental Dwellings	\$7,349,209	\$20,677,490	\$13,328,281
Commercial Properties	\$14,812,416	\$28,619,870	\$13,807,454
Combined Properties	\$31,675,252	\$76,967,445	\$45,202,192

