Senate Appropriations – Education and Environment Division Chairman – Senator Ron Sorvaag March 11, 2025

Testimony of:

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HB 1020

SLIDE 1

Chairman Sorvaag and members of the Senate Appropriations Education and Environment Division, my name is David Ashley. I am chairman of the Souris River Joint Board. I am here today to speak in support of House Bill 1020 and the appropriation needed to continue progress on the Mouse River Enhanced Flood Protection Project.

This summer will mark 14 years since the 2011 flood devastated Minot and the surrounding region. We have come a long way as a community and as a basin, and much of that progress is a result of the support from the North Dakota Legislature. For that, we are very grateful.

I want to offer a little bit of background information regarding the Souris River Joint Board and the project. The Joint Board is a water resource district with representatives from all four counties along the Mouse River in North Dakota – those being Renville, Ward, McHenry and Bottineau counties. In addition, we have a voting member from the City of Minot.

We have been responsible for developing, designing and building the flood control project along with our funding partners, who have included the State of North Dakota, the City of Minot, all four counties along the River, the US Army Corps of Engineers, the Department of Defense, FEMA, HUD and others.

SLIDE 2

I'd like to provide a brief overview of the project funding summary for the current biennium. A total of \$76.1 million was appropriated for Mouse River activities during the last legislative session. Of that total, the Souris River Joint Board received \$66.35 million for construction and engineering activities throughout the basin and property acquisitions outside the city limits of Minot. The balance of the appropriation, \$9.75 million, was granted to the City of Minot for property acquisitions within Minot's city limits.

SLIDE 3

Our original work plan, as we presented to this committee two years ago, is shown on this slide. The program included approximately \$14.8 million in total property acquisitions and \$100 million in construction of two phases within the city of Minot. All of the funding for the current biennium is contractually committed.

Much of our planning focus has been on the Maple Diversion phase of the project in central Minot. We have been engaged in dialogue with the three railroad entities that the project will affect – BNSF Railway, CPKC Railway, and Amtrak – to determine necessary design considerations and mitigation measures for the project.

The original feedback from the railroads would have the project include significant reconstruction of both BNSF and CPKC railroad infrastructure, including a realignment of the intersection of the two railroads and reconstruction of the Amtrak passenger platform.

SLIDE 5

Over time, we have been able to significantly reduce the amount of railroad work, which reduces project cost. The latest design iteration includes limited modifications of both BNSF and Amtrak infrastructure. While beneficial to the project budget, this dialogue takes a long time to occur and gaining concurrence between the three railroad entities has been a lengthy process.

SLIDE 6

There are three different milestones which have been identified within the City of Minot. Minot Milestone 1 will provide flood protection for much of northwest Minot, and we have made significant progress towards that goal. The lines shown in the solid green color indicate segments of the project which are fully funded and nearly complete. The dashed green line represents the Maple Diversion, which is the piece of the project that has a funding commitment of over \$60 million from the Corps of Engineers.

SLIDE 7

This slide represents another reason for urgency in implementing this project. The blue shading represents FEMA's proposed regulatory floodplain through Minot. As you can see, there are thousands of homes within their proposed floodplain. The owners of these homes would generally be required to purchase high-risk flood insurance if they have any type of mortgage or debt on their property. This is a major economic hardship, with projected premiums exceeding \$10,000 annually for some of the lowest-lying homes.

This is how the completion of Minot Milestone 1 will affect that regulatory floodplain. Approximately 60% of the homes within the regulatory floodplain in Minot would be mapped out, once the Maple Diversion is completed. While this is a significant improvement within Minot, it's important to point out that two additional milestones will remain.

SLIDE 9

We have also begun working on Minot Milestone 2 which focuses on providing benefit to the areas of downtown Minot and the Eastwood Park historic residential neighborhood.

SLIDE 10

The areas outlined in orange are fully designed, permitted and partially under construction. The areas outlined in red are currently undergoing final design and construction could begin on those phases in 2026.

SLIDE 11

Minot Milestone 3 focuses on southeast Minot, including the North Dakota State Fair Center and thousands of residents in that area.

SLIDE 12

Ultimately, our vision is for the regulatory floodplain in Minot to resemble the figure shown on this slide. We have not begun detailed design on Minot Milestone 3.

SLIDE 13

We've also been completing work outside of Minot. Levee work in Burlington is substantially complete. If Burlington were to see a flood of similar magnitude to what was experienced in 2011, the community would be safe without much emergency effort. Burlington represents the first community to complete flood protection.

SLIDE 14

We want to share the results of recent bidding for the project that has caused us great concern. We originally bid the phases outlined in orange on this slide in the spring of 2024. Those bids were considerably higher, in some cases nearly double, than we had experienced only two years prior. The first round of bids were ultimately rejected by the Joint Board and the projects were rebid.

Ultimately, the rebid process yielded better results, including a reduction of approximately \$12 million as compared to the initial bidding process. The lowest bid amounts were still 40-50 percent higher than comparable bids received in the spring of 2022.

We want to share a couple of data points from projects that we have put out for bids since 2017. The low bidder's price for pump station concrete was 209% higher than it was in February of 2022. While not nearly as drastic, the low bidder's price for floodwall concrete saw an increase of 41% over a similar period. These concrete costs include the costs of reinforcing steel and labor.

SLIDE 16

The United States Department of Transportation publishes the National Highway Construction Cost Index, and this chart illustrates the troubling inflation trend of the past several years. Nationally, hyperinflation seemed to start in the first quarter of 2021. Present day estimates indicate that costs have increased 71% as an average across the nation. We are seeing an even greater impact of hyper-inflation in Minot.

SLIDE 17

We have taken several steps in an attempt to understand and counteract the effects of hyper-inflation. As I indicate previously, we rejected the bids received for Phases MI-6 and MI-7 of the project in the spring of 2024. We subsequently rebid those phases of the project and reduced the costs of those by approximately \$12 million.

We also repackaged the project in an attempt to solicit the interest of smaller contractors. We split the project into several sub-phases, which seemed to encourage additional competition and interest. Ultimately, it was the combined bids of the larger contractors that were the most cost-competitive.

SLIDE 18

We reached our contractor base to inquire why there has been such a considerable change in pricing and interest in these projects. Their feedback is clear – they're very busy doing a lot of work in other areas of the state. Relocation of their crews to the Minot area is not ideal because they have ample opportunity to work closer to their home bases. Additionally, contractors cited costs of labor, materials, and carryover work as reasons for lack of interest and high pricing. Historically, much of the contractor workforce has come from Minnesota to build this project. Today, there are many more opportunities for these contractors between their home bases and Minot.

SLIDE 19

The Joint Board also undertook a re-evaluation of the remaining program to identify the anticipated costs to complete the project with the effects of inflation. In addition, the Joint Board has been evaluating alternative delivery methods for the project. Recently, an agency construction manager was selected to facilitate the construction of the required bridge replacement at Mouse River Park in Renville County. That project was originally developed as a design-bid-build project. After four consecutive bid openings with no bids received, the Joint Board is pursuing a different method of project delivery. We also recently bid a required bridge replacement in Velva and received no bids for that project either. The feedback is that bridge contractors are plenty busy doing bridge replacements in other areas of the state closer to their home bases.

Our hope is that we can work together to find a solution to finish this project. As we shared with the Water Topics Overview Committee last summer, we have been working to refine the project budget based on best available information. With this updated budget, we have developed a number of scenarios to aid in your deliberations. We have estimated that the remaining cost to complete the project is \$1.018 billion, represented in 2025 dollars.

SLIDE 21

In response to questions from your colleagues in the House, we developed a number of funding scenarios based on varying levels of appropriation and varying levels of inflation. In the interest of time, we will cover the funding scenarios which correspond to the \$125 million appropriation advanced by your House colleagues.

SLIDE 22

The differences in the funding scenarios I will present is based on assumed inflation rates. Under scenario 4A, the appropriation level is \$125 million and inflation is assumed to be 3%. Under this scenario, the final appropriation would be made in the 35-37 biennium and the total future State funding necessary to complete the project is \$733 million.

SLIDE 23

With scenario 4B, the inflation rate is assumed to be 4%. This pushes the total future State funding to \$781 million with the final appropriation occurring in the 37-39 biennium.

SLIDE 24

With scenario 4C, the inflation rate is assumed to be 5%. This pushes the total future State funding to \$839 million with the final appropriation occurring in the 39-41 biennium.

SLIDE 25

Your House colleagues asked us several questions during their deliberations. One question was 'if \$125 million is appropriated, when will that funding actually be spent?'.

SLIDE 26

In response, we developed a projected cash spend model for that \$125 million appropriation. It should be noted that the \$125 million appropriation is matched with approximately \$70 million in federal funding and \$65 million in local funding, meaning that the total contracting authority established by the \$125 million State appropriation would be \$260 million.

SLIDE 27

As illustrated, it is estimated that it will take 6 years to fully expend the funding due to the complex sequencing required to construct the Maple Diversion. For this phase of the project, we are building a diversion channel along and, in some cases, through two Class 1 railroads, while keeping those railroads operational during the full construction period.

Another question raised by your colleauges was 'if you can only spend \$51.6 million in FY 26-27, why should we appropriate \$125 million?'

SLIDE 29

The spending authority created by the \$125 million appropriation allows the multi-year contracts to be awarded. Without the spending authority (i.e. the full appropriation), contracts can't be signed and the project implementation gets further delayed and subjected to increased inflationary risk.

SLIDE 30

As we consider ways to deliver this project, we are asked about why we are building to the level we experienced in 2011. We have a few perspectives that we would like to share with the committee. First, building to the flood of record has been identified as the optimal investment with the maximum benefit to cost ratio. The US Army Corps of Engineers performed an independent evaluation of the economics of the project and reached this conclusion.

SLIDE 31

Second, the cost savings don't justify the reduction in project value. Following the development of the original Preliminary Engineering Report, the State Water Commission, led by Governor Dalrymple at the time, studied the costs associated with building to various lower levels of protection. The conclusion of that study was that a 64% reduction in project capacity – building to a 10,000 cubic feet per second level of protection – would produce savings of only around 6%.

Building to the flood of record will allow for flexibility and adaptive reservoir management that can be used to benefit both urban and rural portions of the basin. When flow rates are well below the capacity of the urban levee systems, the reservoirs could be operated for the benefit of rural stakeholders. This is the essence of a basin-wide solution.

SLIDE 33

Our historical record is roughly 120 years long, and multiple researchers and agencies have classified the 1900's as a relative drought. We don't know for certain what the next century will bring, but we aren't comfortable expecting a drought to persist for the next one hundred years as part of our strategy.

SLIDE 34

And finally, the 2011 flood actually happened. This design level was not established through the mystics of statistics. It actually happened, and we are committed to preventing damage from a similar threat in the future.

SLIDE 35

On behalf of a grateful community of residents along the Mouse River, I want to thank you once again for your steadfast support.



TESTIMONY TO SENATE APPROPRIATIONS EDUCATION & ENVIRONMENT DIVISION

RE: HOUSE BILL 1020

11 MARCH 2025



23-25 Biennium Funding Summary

\$76.1 Million Total

The funding amount of \$76.1 million represented the first biennium with the same amount to complete the project (Legislative Intent, Section 14, SB 2020)

Uses:





\$9.75 M

- \$66.35 Million to the Souris River Joint Board for Construction and Engineering Throughout the Basin (Including Minot) and Acquisition Activities Outside Minot City Limits
- \$9.75 Million to the City of Minot for Acquisition Activities inside City Limits

Contracts between the State Water Commission and SRJB / City of Minot signed in May 2024

Original 23-25 Biennium Work Plan

Fairly significant shift in focus within the last 24-36 months based on delays associated with railroad negotiations and permitting.

Originally, Phase MI-4: Maple Diversion was programmed for the 23-25 biennium, but based on delays associated with the railroads, the SRJB repositioned to advance Phases MI-6 and MI-7 to completion.

				tal Estimated t to Complete
2023-2025 WORK PLAN	PROPERTY ACQUISITIONS	Minot	\$	13,000,000
		Outside of Minot	\$	1,800,000
	CONSTRUCTION	Phase MI-6: Downtown Levee / Floodwall	\$	59,000,000
		Phase MI-7: Roosevelt Park Levee / Floodwall	\$	41,000,000
Total				114,800,000
State Funds				76,100,000
Federal Funds				-
Local Funds				38,700,000



Significant progress has been made with the three railroad entities affected by the Mouse River Enhanced Flood Protection Project

Early design concepts (at right) included impractical railroad requirements:

- Significant reconstruction of BNSF Railway tracks
- Significant reconstruction of CPKC (formerly Canadian Pacific) Railway tracks
- Construction of a new bridge on the CPKC tracks to cross the diversion channel
- Reconstruction of the Amtrak passenger loading platform adjacent to BNSF Railway tracks





Significant progress has been made with the three railroad entities affected by the Mouse River Enhanced Flood Protection Project

Latest design concepts only include:

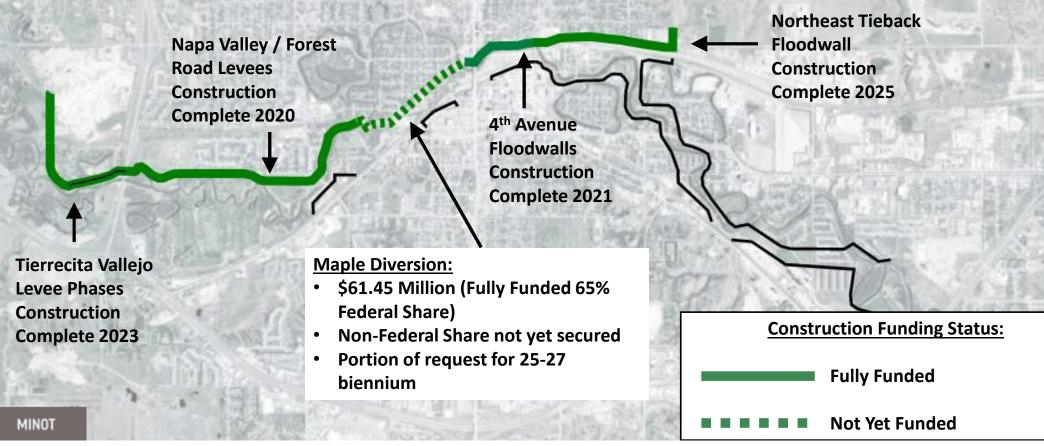
- Construction of a new bridge on the CPKC tracks to cross the diversion channel
- Reconstruction of the 6th Street railroad underpass bridge on the CPKC tracks
- Limited coordination with BNSF Railway
- Limited coordination with Amtrak

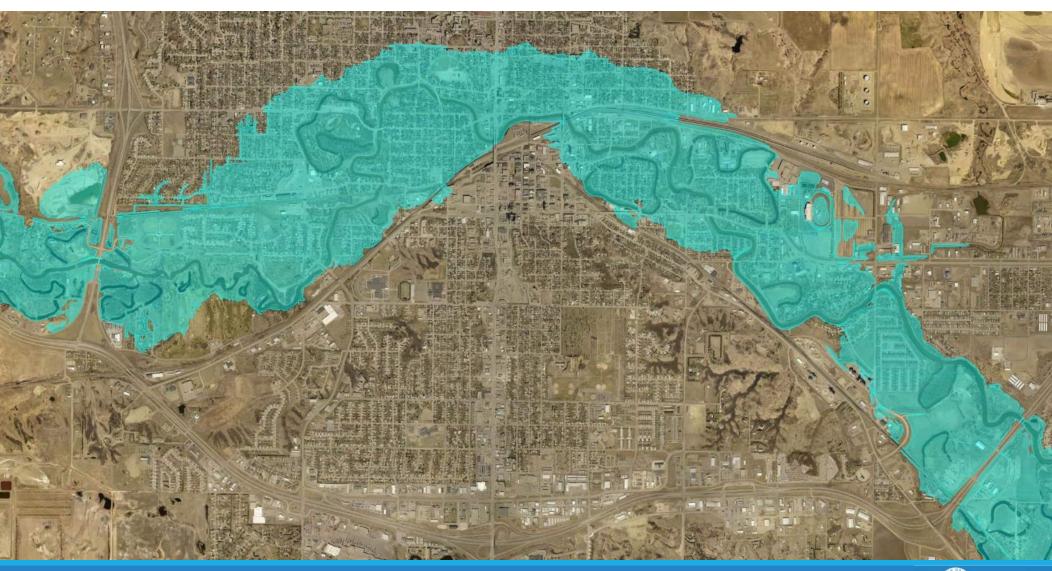






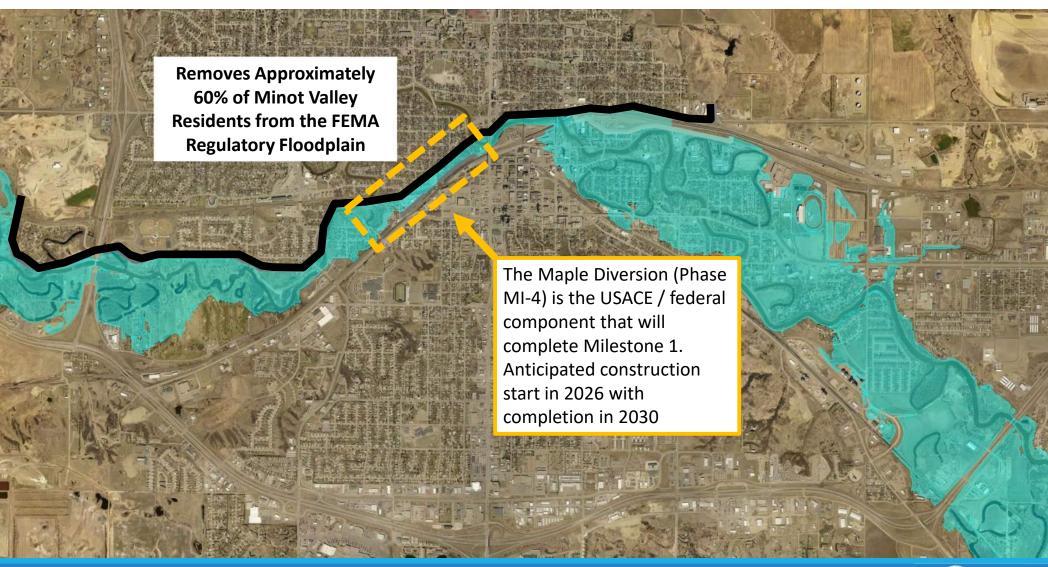
Significant Progress Made Towards Minot Milestone 1





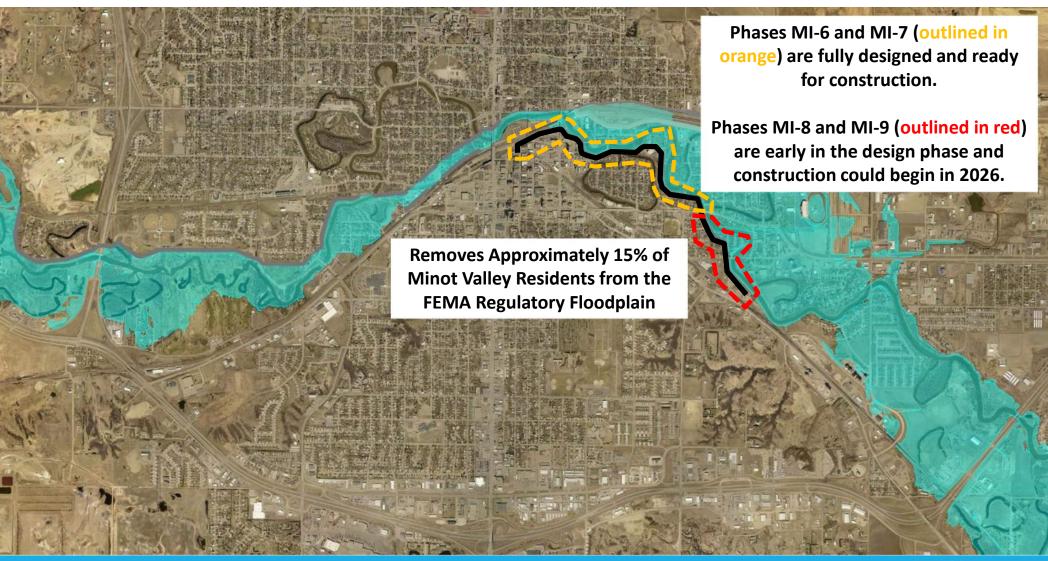




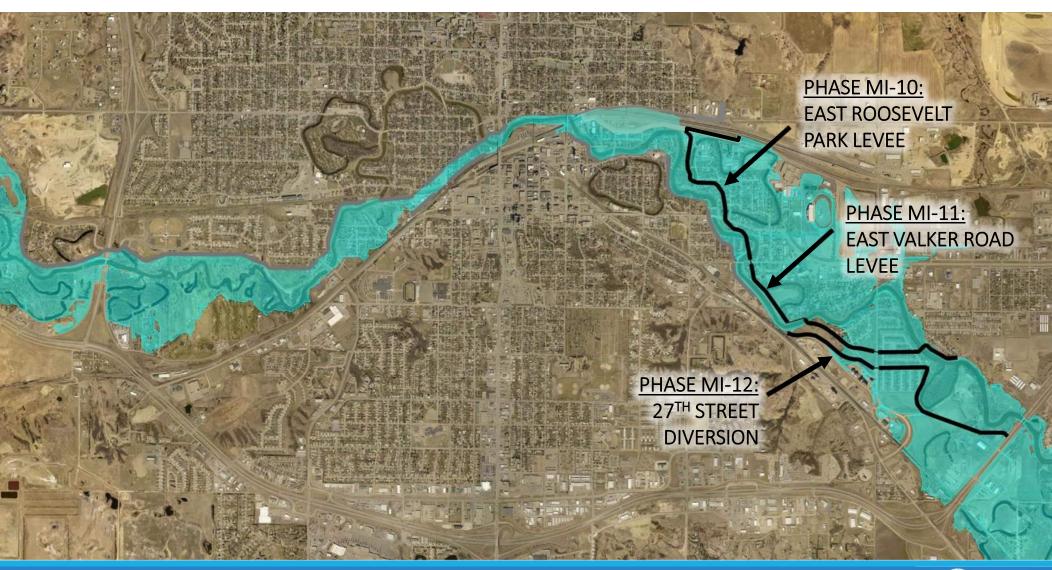




SRJB NORMAN BRIVER JOINT BOAR

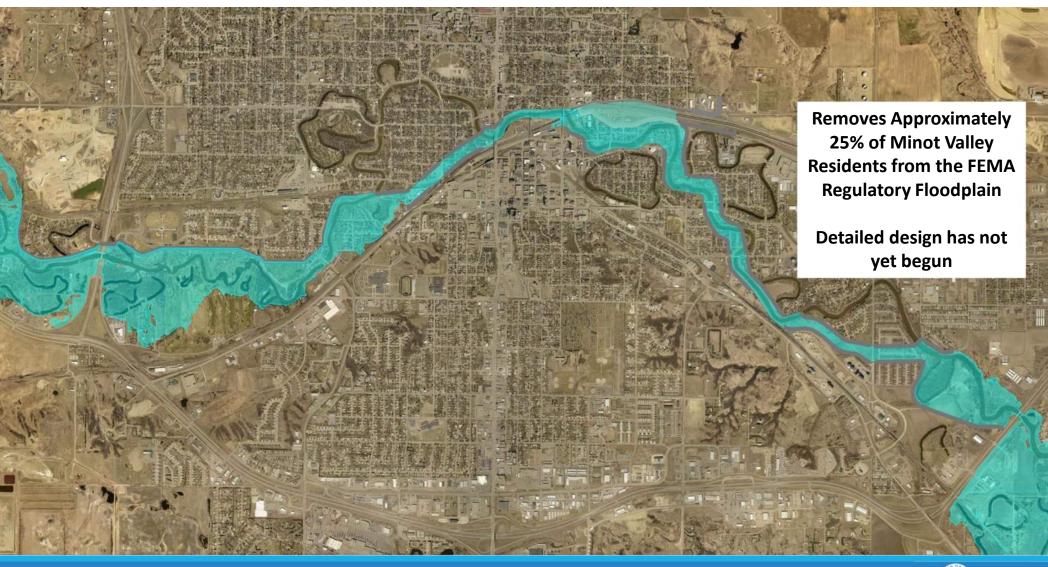






Minot Milestone 3

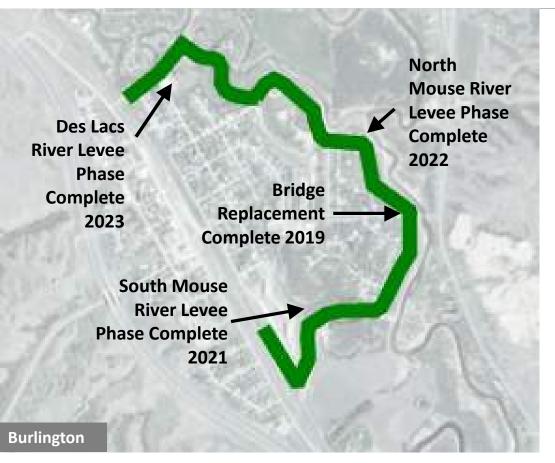








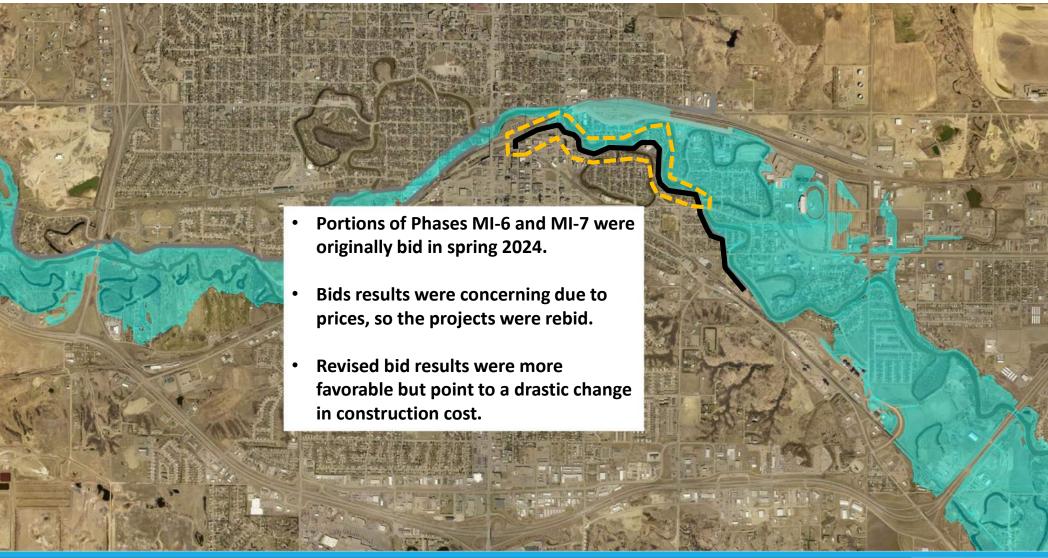
Progress in Rural Portions of the Mouse River Valley



Construction Funding Status:

Fully Funded

<u>construction of all Burlington</u> <u>phases of the project are</u> <u>substantially complete.</u>









Historical Concrete Bid Costs – Price per Cubic Yard (CY)

Pump Station Concrete

Phase MI-1 (Re-Bid December 2017): \$921 / CY *

Phase MI-5 (Bid February 2022): \$1,100 / CY

Phase MI-6 (Re-Bid September 2024): \$3,400 / CY *

+209% in 31 months

Floodwall Concrete

Phase MI-1 (Re-Bid December 2017): \$752 / CY *

Phase MI-5 (Bid February 2022): \$1,213 / CY

Phase MI-7 (Re-Bid July 2024): \$1,710 / CY *

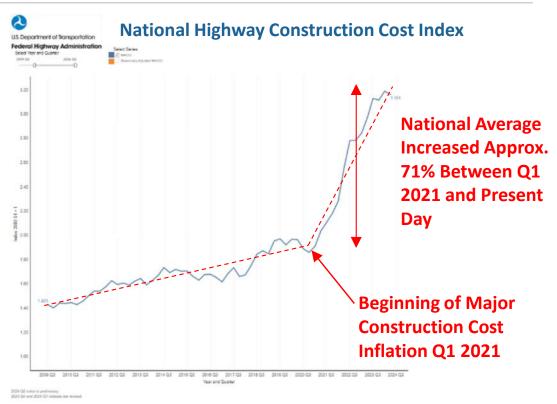
+41% in 29 months

* Project was re-bid due to high pricing or irregularities





Nationwide Construction Cost Indices Show Similar Trends, Though Not as Excessive







Our actions thus far include:

Rejecting and rebidding phases of the project.

 Rebidding of Phases MI-6 and MI-7 resulted in the costs being reduced by approximately \$12 million. These projects were subsequently awarded.

Repackaging the project to solicit the interest of smaller contractors

Phases MI-6 and MI-7 were split into smaller scopes of work (approximately \$20M each) in an attempt to entice other bidders. This encouraged some additional competition, which lowered pricing of the larger contractors.





Our actions thus far include:

Evaluating why there has been a considerable change in the degree of competition and the bid amounts for these projects. Contractor feedback indicates:

- Relocation of crews and labor to the Minot region is not ideal due to increased workload across the state and region (state-funded projects, federally funded projects, etc.)
- Cost of labor
- Cost of materials
- Too much carryover work from last year to meet schedule demands of the flood control work





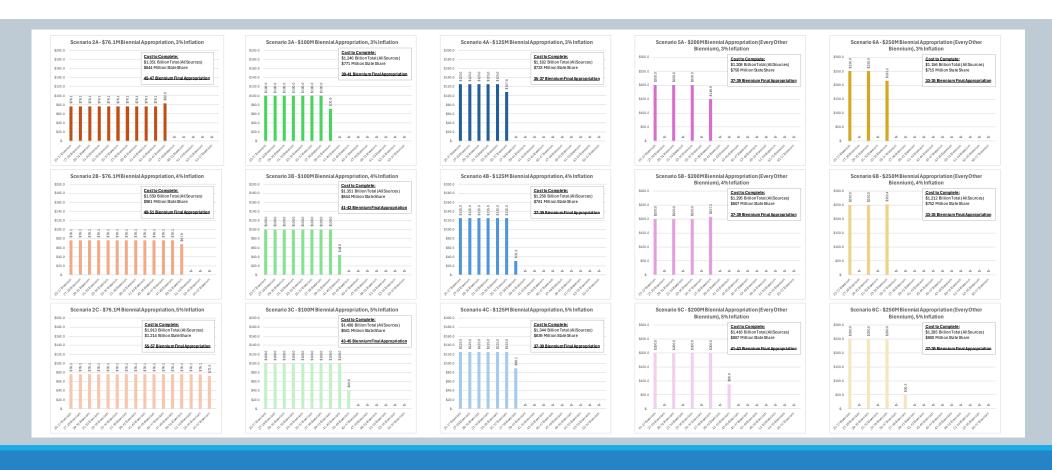
Our actions thus far include:

Performing a re-evaluation of the entire program to identify

- Projected budgetary impacts of inflation (i.e. construction costs)
- Projected effects of revised alignments due to railroad feedback
- Opportunities for capital cost savings
- Alternate Delivery Methods
 - Bridge replacement at Mouse River Park bid 4 times with no bidders
 - Bridge replacement at Velva bid 1 time with no bidders

We Wish to Secure a Commitment to Finish this Project

Alternate funding scenarios have been developed to illustrate the effects of inflation on the total investment and schedule for completing the project.



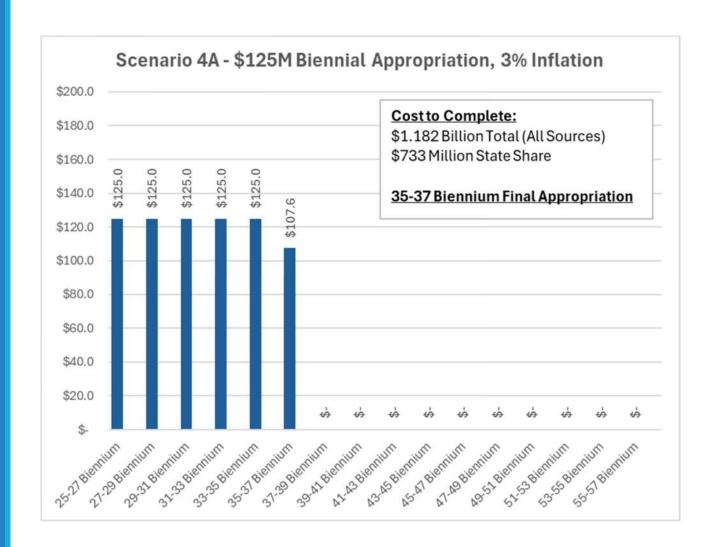
We are limiting the alternatives presented to those which correlate to the previous action of the House (\$125M appropriation for 25-27 biennium)

State Funding Scenario 4A

\$125M Biennial Appropriation

3% Inflation

Final Appropriation: 35-37 Biennium

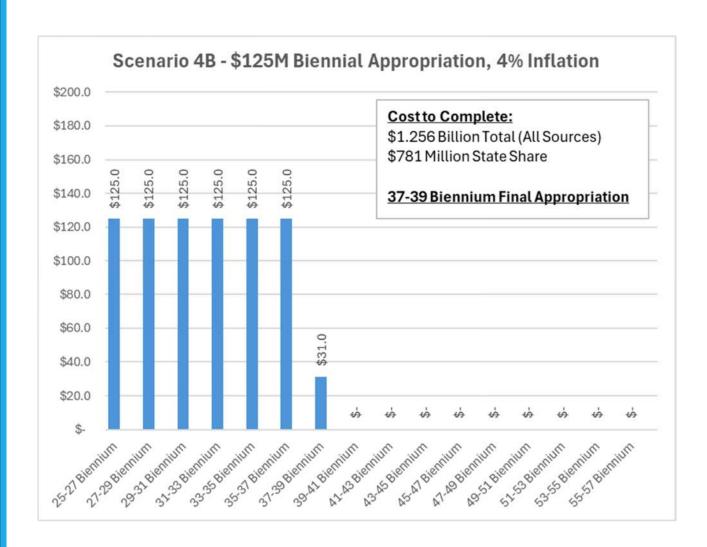


State Funding Scenario 4B

\$125M Biennial Appropriation

4% Inflation

Final Appropriation: 37-39 Biennium

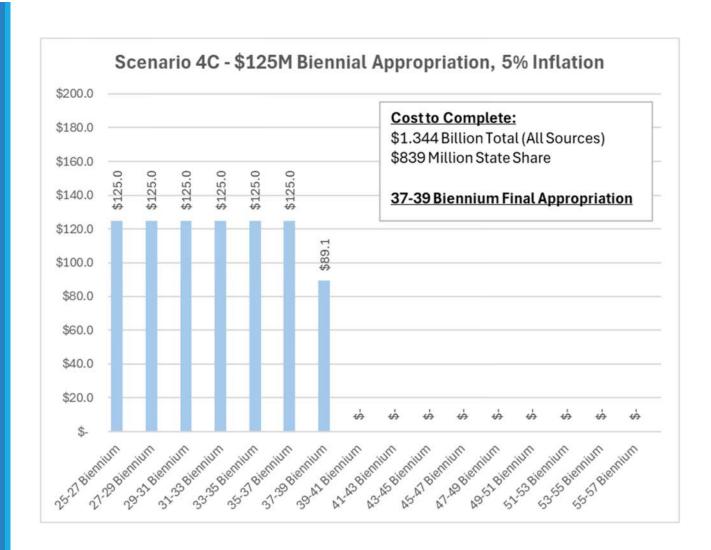


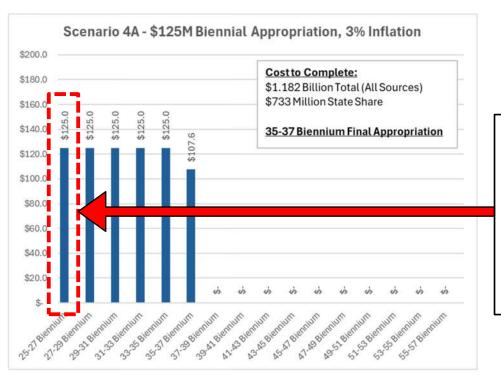
State Funding Scenario 4C

\$125M Biennial Appropriation

5% Inflation

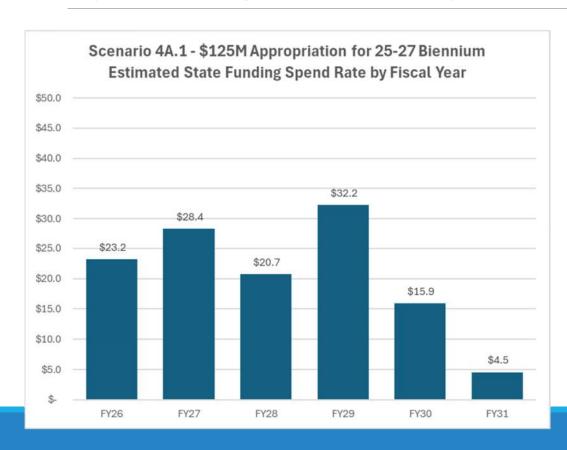
Final Appropriation: 37-39 Biennium





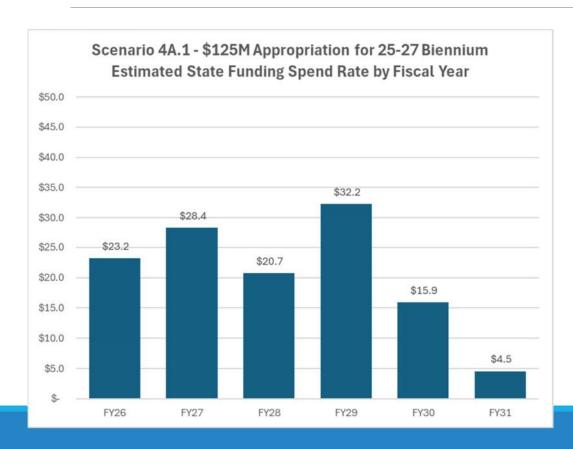
Question from your House colleagues:

If we appropriate \$125 million, when will that cash be spent?

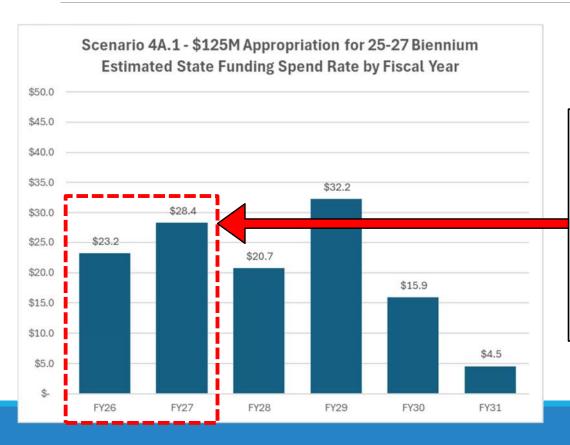


\$125 million State appropriation generates a total of \$260 million in contract authority in the 25-27 biennium

- \$125 M State
- \$70 M Federal
- \$65 M Local

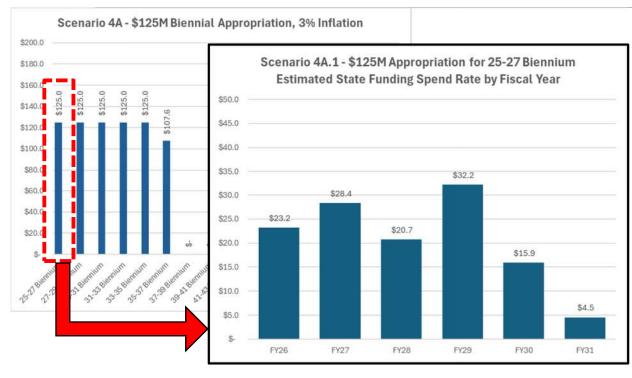


Due to complexity of construction sequencing, certain phases (i.e. Maple Diversion) may take up to **five construction seasons** to complete



Question from your House colleagues:

If you can only spend \$51.6 million in FY 26-27, why should we appropriate \$125 million?



The spending authority created by the \$125 million appropriation allows the multi-year contracts to be awarded.

Without the spending authority (i.e. the full appropriation), contracts can't be signed and the project implementation gets further delayed and subjected to increased inflationary risk.

The Mouse River Enhanced Flood Protection Project is being designed to convey the flow rates experienced in 2011, or 27,400 cubic feet per second at Minot.

Why?

It is the optimal investment. The US Army Corps of Engineers performed an independent evaluation of the economics associated with the design level for the Maple Diversion. The maximum benefit-cost ratio is achieved at a design flow rate of 27,400 cfs.



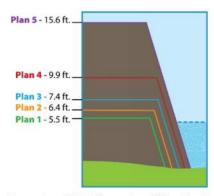


Table 9: Optimization results across Plan 1 - Plan 5

Results Top of Levee	Plan 1 14,000 cfs	Plan 2 17,000 cfs	Plan 3 20,400 cfs	Plan 4 27,400 cfs	Plan 5 36,000 cfs
Total Investment Cost ¹	66,900,000	67,800,000	69,500,000	72,000,000	78,600,000
Total Annual Costs ²	2,700,000	2,800,000	2,900,000	3,000,000	3,200,000
Total Annual Benefits ³	2,400,000	2,800,000	3,100,000	3,600,000	3,800,000
Net Annual Benefits	-400,000	-30,000	300,000	600,000	600,000
BCR	0.89	0.99	1.09	1.20	1.18

Figure 10: Levee Height Differences Across Different Plans Evaluated During Optimization

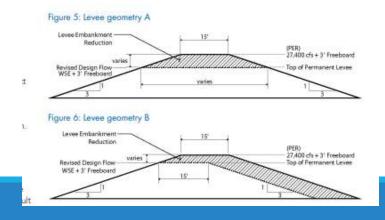
The Mouse River Enhanced Flood Protection Project is being designed to convey the flow rates

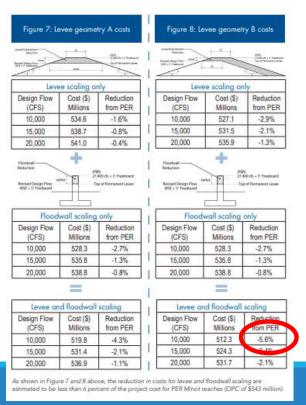
experienced in 2011, or 27,400 cubic feet per second at Minot.

Why?

The cost savings don't justify the reduction in project value.

The ND State Water Commission studied the costs associated with building to various lower levels. A 64% reduction in project capacity (i.e. 10,000 cfs in lieu of 27,400 cfs) would produce savings of approximately 6%.

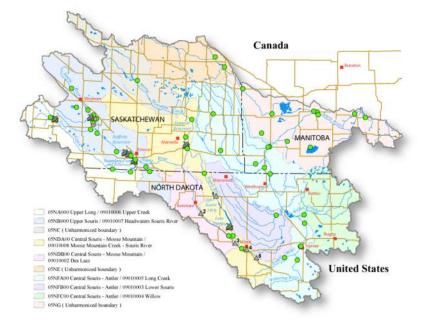




The Mouse River Enhanced Flood Protection Project is being designed to convey the flow rates experienced in 2011, or 27,400 cubic feet per second at Minot.

Why?

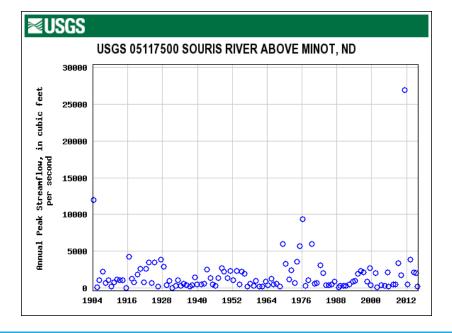
Allows for adaptive reservoir management that can be used to benefit both urban and rural portions of the basin. When flow rates are well below the capacity of the urban levee systems, the reservoirs could be operated for the benefit of rural stakeholders. This is the essence of a basin-wide solution.



The Mouse River Enhanced Flood Protection Project is being designed to convey the flow rates experienced in 2011, or 27,400 cubic feet per second at Minot.

Why?

Our historical record is 'only' a century long, and multiple researchers and agencies have classified the 20th Century (1900s) as a relative drought. What will the next century bring?



The Mouse River Enhanced Flood Protection Project is being designed to convey the flow rates experienced in 2011, or 27,400 cubic feet per second at Minot.

Why?

It actually happened.



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

Thank You!



Project information may be viewed or downloaded at: http://www.mouseriverplan.com

Construction progress videos may be viewed at: https://www.youtube.com/channel/UCJEMcuR74qzNP Z83qzQhCTg



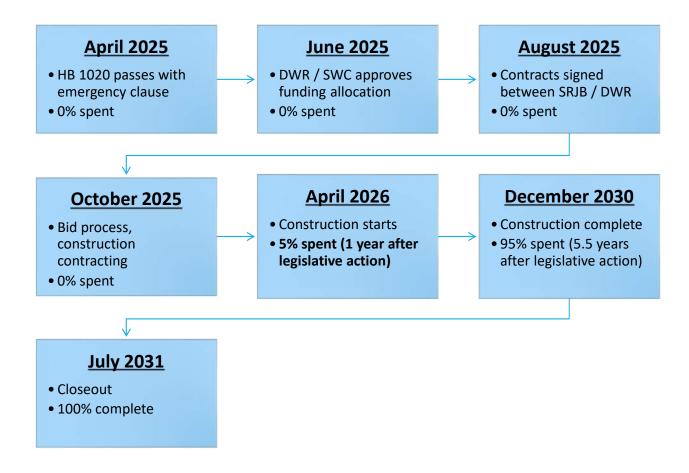




Why does it take so long to spend the appropriation?

How can cash carryover be reduced?

Typical Project Schedule



Why does it take so long to spend the appropriation?

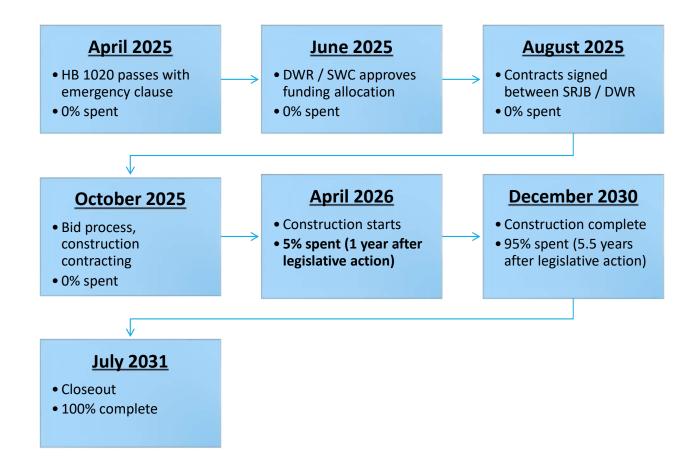
Even when the emergency clause carries, starting construction prior to freeze-up of the same year is unlikely due to approval, contracting and procurement processes

(April '25 to April '26 at right)

Portions of the work are highly sequential. Individual phases take several construction seasons to complete. Therefore, the spending gets extended over several years following the appropriation

(April '26 to July '31 at right)

Typical Project Schedule



How can cash carryover be reduced?

Increase the line of credit available to the Department of Water Resources to increase the amount of contract authority available to water project sponsors.

Based on a total \$125 million appropriation for Mouse River activities, an estimated \$52 million would be expended. The remaining amount (\$73 million) would be carryover into future biennia.

The line of credit establishes contracting authority for the project. It is highly unlikely that the funds would need to be accessed for cash expenditures.

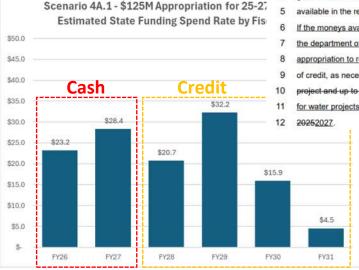
- 28 SECTION 13. AMENDMENT. Section 61-02-79 of the North Dakota Century Code is
- 29 amended and reenacted as follows:

Page No. 4 25.0164.02000

Sixty-ninth Legislative Assembly

61-02-79. Bank of North Dakota - Line of credit.

- The Bank of North Dakota shall extend a line of credit not to exceed one hundred-
- milliontwo hundred million dollars at the prevailing interest rate charged to North Dakota
- 4 government entities. The department of water resources shall repay the line of credit from funds
- available in the resources trust fund or other funds, as appropriated by the legislative assembly
- the department of water resources shall request from the legislative assembly a deficiency
- appropriation to repay the line of credit. The department of water resources may access the line
- of credit, as necessary, to provide up to fifty million dollars for the northwest area water supply-
- project and up to fifty million dollars for the southwest pipeline project wo hundred million dollars
- for water projects during the biennium beginning July 1, 20232025, and ending June 30,



How can cash carryover be reduced?

If the line of credit is expanded consistently in future biennia, the cash spend will be more consistent from year to year and will converge to match the rate of cash appropriations.

Carryover amounts will converge to the line of credit amount, meaning that the amount of carryover that is cash will be significantly reduced.

It is important to note that the risk for availability of funds is transferred to the local project sponsor in the funding agreement (excerpts at right).

Agreement for Cost-Share Reimbursement Souris River Joint Board 23-25 Biennium Mouse River Enhanced Flood Protection Project

3. Commission's Responsibility and Intent. Commission will provide Sponsor with cost-share, not to exceed \$66,350,000, as approved by Commission on April 11, 2024, to reimburse 65 percent of the actual eligible construction costs and 75 percent of actual eligible acquisition costs incurred in Project. Commission cost-share is contingent on availability of funds and conditions of this agreement. Commission's intent in providing this funding to Sponsor is to assist Sponsor financially with Project costs. Sponsor retains sole and absolute discretion in the manner and means of carrying out Project, except to the extent specified in this agreement.

NORTH DAKOTA STATE WATER COMMISSION

COMMISS

ANDREA TRAVNICEK, Ph.D.

Secretary

Date: 04/21/2024

SOURIS RIVER JOINT BOARD

By: David w askley

DAVID ASHLEY Chairman

Date: 5/2/2024

Cash carryover can be effectively reduced through expansion of the line of credit.

Contracts between the SWC and local project sponsors shift the risk of funding availability to the local project sponsors (rightly so).

Reducing the revenue to the Resources Trust Fund is not an effective strategy to reduce cash carryover while addressing the State's water needs.

A cut in funding to the Resources Trust Fund would delay project implementation, increase inflationary effects, and increase the risk of damages occurring from future floods or widespread drought.

We respectfully request the Senate resist proposed cuts to the Resources Trust Fund.