



MOUSE
RIVER
PLAN

Mouse River Plan PROGRESS was developed by the Souris River Joint Board and its' partners to keep project stakeholders, constituents, and the region updated on the progress of the Mouse River Enhanced Flood Protection Project (MREFPP). The MREFPP is a basin-wide endeavor focusing on flood risk reduction along the Mouse River. The estimated \$1 billion project was initiated following the devastating 2011 flood and is anticipated to be completed in 20 years.

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PROGRESS



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Sanitary Lift Station under construction.

MI-4A MAPLE DIVERSION SOUTH UTILITY RELOCATION PROJECT REACHES SUBSTANTIAL COMPLETION

The Phase MI-4A South Utility Relocation Phase is located within Minot, this phase is located on the south side of the Mouse River. The Project footprint extends along Western Avenue, south of BNSF Railway, from Maple Street to approximately 3rd Street SW. Phase MI-4A involves utility relocation in front of the larger MI-4 Maple Diversion project. 2022 marked year three of construction in this phase, where all utilities have been installed, and the sanitary pump station is now operational. The 2022 work included asphalt and concrete finishing work along with final landscaping. The phase is now substantially complete, with the final project closeout expected early in 2023.



Removing the pullhead after completion of the river crossing bore.

MI-4B MAPLE DIVERSION RAW WATER RELOCATION COMPLETED

The Phase MI-4B Raw Water Relocation Phase reached substantial completion in the summer of 2022. Phase MI-4B relocated raw water infrastructure to clear the path for Phase MI-4 Maple Diversion. The new 14” High Density Poly Ethylene (HDPE) pipe was operational in mid-June, and traffic control was removed. To allow the new raw water line to connect to the existing water infrastructure, modifications to the existing Well 8 pump house were also required. These improvements to the Well 8 pump house were also completed in June, and the final items were completed in August. It was a collective effort with Minot Parks and Recreation and other to complete this work on both sides of the river.



MI-6 DOWNTOWN MINOT

Phase MI-6 spans from Main Street North in the Minot downtown area and continues to the east along the railroad tracks and river past 8th Street NE. The phase ultimately ends in Roosevelt Park, where it will tie into Phase MI-7, which is also currently under design.

The project features of this phase include concrete floodwalls, earthen levees, roadway changes, utilities, a gatewell, and a stormwater pump station with gatewell. The concrete floodwalls will be similar in height to the Phase MI-1 floodwalls, extending an average of 13 feet above the finished grade, and earthen levees will be seeded and become a natural green space when completed.

When completed and connected to the other phases of Milestone 2 of the MREFPP, the MI-6 phase will help remove downtown Minot from the proposed FEMA floodplain providing long-term flood protection to the record flood of 2011. It is designed to provide a level of protection equal to the 2011 flood, plus three feet of freeboard.

A public information meeting was held at the Auditorium in May of 2022. This phase is still in the design phase, with anticipated 90% design completion in early January.





MI-2C WEST PETERSON COULEE

The storm sewer project for the West Peterson Coulee Outlet known as Phase MI-2C of the Mouse River Enhanced Flood Protection Project has been underway since August of 2022, located on the west side of Minot near the West Hills Acres and West Ridge Estates subdivisions, along Ward County Road 15. This phase reached substantial completion in late November just prior to the onset of winter.



MI 2_C

Wagner Construction completed the installation of the 48-inch, 60-inch and 66-inch RCP storm sewer pipe in November despite delays in material procurement because of limited precast pipe suppliers in the region. The storm sewer will serve as a bypass, redirecting storm water runoff that would typically follow the ditch along the US Hwy 83 bypass, around the Tierrecita Vallejo and Napa Valley levee system. The bypass allows for runoff to be directed around the City of Minot's levee system and minimizing the infrastructure required to provide interior drainage along the dry side of the levee.

Other features of work constructed this year, include the installation of a new 9' x 6' precast box culvert beneath 41st St NW and dual 60-inch RCP culverts installed beneath Harmony Street. An outlet structure for the Ward County Water Resource District's detention pond was also constructed in order to control discharge rates from the pond. Rip rap was also installed for bank stabilization at key locations along the coulee banks near the confluence with the Mouse River. Final restoration and seeding will be completed in the spring of 2023.



MI 7

MI-7 ROOSEVELT PARK ZOO

The design team continues to work towards 90% plan completion and specifications with a March 1, 2023, date for 90% submittal to the Souris River Joint Board. The Design Water Surface has been revised based on the proposed alignments, the levee profiles have been adjusted accordingly.

60% of comments received from United States Army Corp Engineers, IEPR, City of Minot, and the SRJB have been addressed.

There is currently a lot of coordination with multiple stakeholders on impacts, utilities and alternate solutions. The team is discussing with Minot Parks impacts to Roosevelt Park and the surrounding area, considering traffic circulation and tree preservation. The Roosevelt Park Zoo Director, Jeff Bullock, on the proposed relocation of the North American Exhibit from the north side of the Mouse River into Roosevelt Park and Master planning has been completed to provide a potential lay out. We continue working on individual exhibits, structures, and other miscellaneous zoo features. Another larger impacted landmark staple of Roosevelt Park is Magic City Express, a miniature locomotive that travels throughout the park providing a unique view of the whole space. The alternate design of Magic City Express is at 90% design completion with the proposed route being maintained on the dry side of the levee and circling the newly relocated portion of RPZ.

The MI-7 Design team continues coordinating with the City of Minot and several franchise utilities to walk through plans for maintaining service during construction, reroute franchise utilities, and design of municipal utilities through the levee/floodwall system. The team is working on a variety of required permitting with EA, construction permit, and Sovereign Lands permits for both MI-6-Downtown and MI-7-Roosevelt Park and Zoo.

Our whole team continues coordination with the team working on MI-6-Downtown project understanding portions of these two phases will likely be bid as a single project. Utilities, drainage, levee/floodwall profiles, and alignments have all been coordinated. The team is working through the development of several construction phase options which would fit within a proposed Phase 1 construction budget and would limit the impacts to operation of Roosevelt Park, RPZoo, and the pool.



**MI
5**

Storm water pump station under construction.

MI-5 NORTHEAST TIEBACK LEVEE PROJECT CONTINUES

The Phase MI-5 NE Tieback phase of the project begins near 3rd street NE, the eastern end of Phase MI-1, it runs east along the north property line of BNSF Railway’s existing yard before tying into high ground east of 13th street NE. The project features of this system include concrete floodwalls, earthen levees, arterial roadway changes, a stormwater pump station, and a dry stormwater pond. The concrete floodwalls will be a similar height to the Phase MI-1 floodwalls, extending approximately 13 feet above the finished grade. Areas south of BNSF Railway’s existing yard will be seeded after roadways are removed and will become a natural green space.

Construction on Phase MI-5 started in the summer of 2022 with Wagner Construction as the contractor. Work began on the east end of the project, where the stormwater pump station and tieback levee are being constructed. Additional work in 2022 has included installing the impervious subsurface slurry seepage cutoff wall and installing the utilities beneath BNSF right of way. It is anticipated portions of this project will be in construction until 2025.

Railway Avenue will remain closed to traffic from 4th Street NE to 27th Street NE through the winter months and through traffic is detoured south to Burdick Expressway. Access to the residential streets north of Railway Avenue utilizes 6th Avenue NE.

When completed and connected to the first four phases of the MREFPP, the MI-5 phase will help remove approximately 60 percent of Minot residents from the proposed FEMA floodplain and, most importantly, provide long-term flood protection to the record flood of 2011. All the enhanced flood protection projects currently under construction and those under design provide a level of protection equal to the 2011 flood, plus three feet of freeboard.



Impervious subsurface slurry seepage cut-off wall under construction.



PHASE BU-1C CONSTRUCTION UPDATE

Phase BU-1C for the Mouse River Enhanced Flood Protection Project reached substantial completion in October of 2022. This phase included the construction of earthen levees from Colton Avenue north through the Burlington Recreation Complex. Along with earthen levees, a slurry cutoff wall was installed, as a means of assisting in controlling groundwater seepage beneath the levee. This third phase for the Burlington portion of flood control had a final construction cost of \$6.6M.

Levee, earthwork activities, and utilities were completed during the 2021 construction season, with 2022 activities focusing on site restoration, seeding, landscaping and recreational amenities. Final construction items included asphalt pavement throughout the site, a shared use path atop the levee, a new parking lot at the Burlington Recreation Facility, and the extension of Stemen Drive. The installation of benches along the levee trail, signs, and tree plantings were also included in the final restoration process. Project closeout will continue through the winter months.



URBAN FLOOD CONTROL : CITY OF BURLINGTON

PHASE BU-1D CONSTRUCTION UPDATE

The final phase the Mouse River Enhanced Flood Protection Project for the City of Burlington is located primarily along Park Road and connects back to the BU-1C levee system at the Burlington Recreation Facility. Phase BU-1D had a full and busy construction schedule throughout the 2022 season which included utility relocations, installation of a seepage cutoff wall, and levee construction.

The contractor, Bluestone Construction, Inc., began demolition and clearing activities as soon as spring conditions allowed. Prior to levee construction several key construction items required completion before moving forward on the levee. Multiple utility relocations were necessary to remove existing utilities from beneath the future levee footprint. Utility relocations included water, sanitary sewer, sanitary sewer forcemain, and storm sewer. Similar to the other Burlington phases, a seepage cutoff wall was installed beneath the levee as a hydraulic barrier used to control groundwater seepage beneath the levee. The seepage cutoff wall was constructed along the levee centerline utilizing a one-pass trencher to mix cement, slag, and bentonite with native soils to create the necessary hydraulic barrier extending to depths between 30 to 50 feet.

Once the critical utility relocations and seepage cutoff wall were complete, the levee along Park Road was constructed with imported fill. The reconstruction of Park Road atop the new levee section was also completed during the 2022 construction season. The new roadway alignment included new curb, gutter, storm sewer, and asphalt. Park Road was reopened for traffic in early December.

The 2023 construction season will see the remainder of the project items completed which include final restoration, landscaping, and seeding. The project is scheduled for final completion by September 2023.



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RURAL FLOOD CONTROL : RURAL REACHES



SAWYER

The existing bridge was removed and construction of the new bridge is complete with minor items left to be completed in the spring 2023 construction season. The roadway grading was complete in both directions with the south roadway being paved the first week of November before winter season. Pouring and forming bridge barriers in November proved to be difficult with the early cold temperatures and required supplemental heat applications. The roadway was officially opened to traffic on November 28th. Riprap placement is ongoing and is required to be complete prior to the spring runoff season. The remaining punch list items will be completed in the spring once construction can begin.



MOUSE RIVER PARK

At the request of the Mouse River Park Board a trail was added to the plans to provide access to a planned kayak/canoe launch area. All USACE documents have been completed through the preliminary review and comment process, all comments have been addressed, and packages were resubmitted for final approval. We anticipate receipt of approved documents by the end of January 2023. The sovereign lands permit from the North Dakota Department of Water Resources was approved at the beginning of December. The design plans and bid documents for this project were completed in November with the project being advertised to be let on December 16th, due to a impact full winter storm the project bid opening date was moved to January 6, 2023. All approvals need to be in place prior to the start of construction, with anticipated construction to begin in March of 2023. We are planning a substantial completion date set for the end of October.

VELVA

The design and coordination with NDDOT, the City of Velva, the SRJB, and the USACE continue moving forward on this project. Comments received from the NDDOT on the 60% plans have been incorporated into design. Possible construction phasing options were discussed with the NDDOT, and the results of those discussions have been incorporated in the plans. The environmental documentation will be completed in the spring of 2023 with approvals expected in early summer of the same year. Right of Way activities will continue throughout the winter of 2022-2023 with finalization in the Spring prior to the project being let, this project is scheduled to start construction in 2023.

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To keep up with the latest project updates, be sure and watch the Mouse River Plan YouTube channel. Aerial drone footage of active construction phases is posted monthly.

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