



MOUSE
RIVER
PLAN

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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.

PROGRESS



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MI-1 4th Avenue Project Celebrated

Souris River Joint Board and the City of Minot hosted local and statewide leaders as they gathered May 6th to mark the completion of 4th Avenue North Floodwall phase of the Mouse River Enhanced Flood Protection Plan (MREFPP). The Phase MI-1 4th Avenue project includes over 2,250 feet of floodwalls located between just west of Broadway and just west of Third Street NE.

Governor Doug Burgum, Senator John Hoeven, representatives from Department of Water Resources, and the Army Corp of Engineers celebrated this milestone in Minot and toured flood construction with members of the Souris River Joint Board and the City of Minot.

The Souris River Joint Board initiated the Mouse River Enhanced Flood Protection Project in 2011 to provide future flood protection for urban and rural residents throughout the Mouse River Basin in North Dakota. The project has now progressed several phases through design and into construction.

PHASE MI-4 CONSTRUCTION UPDATE

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

Phase MI-4A utility relocation in front of the larger MI-4 Maple Diversion project is substantially complete. 2021 marked the second year of construction on this phase where all utilities have been installed and the sanitary pump station is now operational. In 2022 work includes asphalt and concrete finishing work along with landscaping.



PHASE MI-5 CONSTRUCTION UPDATE**MI-5 NORTHEAST TIEBACK LEVEE PROJECT STARTS CONSTRUCTION IN 2022**

Construction on Phase MI-5 Northeast Tieback Levee started in the summer of 2022. Work began on the east side of the project where the stormwater pump station will be constructed, impacting Railway Avenue. It is anticipated that construction will last on portions of the project until 2025.

Railway Avenue will be closed to through traffic from 4th Street NE to 27th Street NE starting August 2. This closure will be in effect for the duration of the summer/fall of 2022. Access from 13th Street to the East (towards 27th Street NE) will be opened to through traffic prior to December of 2022. Through traffic will be detoured south to Burdick Expressway, and access to the residential streets north of Railway Avenue will utilize 6th Avenue NE.

The Phase MI-5 NE Tieback Levee segment of the project begins near 3rd street NE (the eastern end of Phase MI-1) and 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 storm water pump station, as well as a dry storm water pond. The concrete floodwalls will be 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 roadway's are removed and will become a natural green space.

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.

**PHASE WC-1 CONSTRUCTION UPDATE****WC-1A & 1B TIERRECITA VALLEJO LEVEES**

Phase WC-1 of the Mouse River Enhance Flood Protection Project has been underway in the Tierrecita Vallejo neighbor since Wagner Construction began in August of 2021. This phase was divided into two construction contracts which allowed for an extension on negotiations of property acquisitions. The second contract for this phase was also secured by Wagner Construction and began in the spring of 2022.

The initial phase, WC-1A, is nearing completion at the mid-summer point. A majority of levee fill has been placed and is progressing towards final restoration. This phase features storm sewer and seepage collection piping which are both complete. The storm water gatewell that will control the flow in the neighborhood's oxbow has been installed. Rip rap has been placed along the riverbank to aid in prevention of erosion along the wet side of the levee. The relocation of a single-family home within the neighborhood was also included in WC-1A, this relocation is complete and was required to clear the footprint for the earthen levee.

The second phase, WC-1B, began in the spring of 2022 with clearing and grubbing of trees and foliage. This section features a seepage cutoff like those installed in the Burlington Phases using the one pass trenching method. The seepage cutoff wall extends to a depth of 35' and was installed in early July. Levee fill is on-going and will continue through late summer. Levee fills, upwards of 30 feet, are required through this low-lying area to meet design specifications for proper flood protection. The existing water control structure in the Mouse River will also be replaced as part of this phase. A rock riffle will be constructed utilizing a series of cascading steps created with boulders which provides a similar gradient control for the river in a more natural and environmentally friendly fashion. Construction of both contracts for Phase WC-1 are scheduled to be completed by the end of the 2022 construction season.



Critical Bridge Replacements Move Forward

SAWYER

The existing bridge has been removed and construction of the new bridge is well under way. The north abutment and pier are complete, and work continues on the south pier with pile driving completed the week of July 24th. The south abutment pile driving will begin the week of August 7th and the abutment construction following immediately after the piles are installed. The girders are being constructed at Forterra's Menoken, ND plant and are slated for installation this fall, the week of September 6. The preliminary roadway grading is complete off both ends of the bridge.

MOUSE RIVER PARK

The design plans for this project are 90% complete and we are completing final internal reviews and cost estimate prior to bidding. Anticipated project bidding opening will be in October or November of 2022 with construction beginning in the spring of 2023. The permitting documents have all been submitted to the appropriate agencies for review, comment, and approval with all approvals needing to be in place prior to the start of construction.

VELVA

The design and coordination between NDDOT, the City of Velva, and the SRJB continue on this project. A 60% set of plans has been sent to the NDDOT for initial review and comment prior to the design being completed. This process is to ensure the structure has the full approval of the NDDOT, as the bridge ownership and maintenance will be handed over to the DOT once the bridge is completed and final inspection needs to be approved by the NDDOT. This bridge is scheduled for construction in 2023.

PHASE MI-2C WEST PETERSON COULEE OUTLET

An additional phase of the Mouse River Enhanced Flood Protection Project will begin August along the west side of Minot. Phase MI-2C, also referred to as the West Peterson Coulee Outlet, is a storm sewer project located near the West Hills Acres and West Ridge Estates subdivisions along Ward County Road 15 immediately west of Minot. The storm sewer installed for this project will serve as a bypass and redirect storm water runoff which would typically follow the ditch along the US Hwy 83 bypass around the Tierrecita Vallejo and the Napa Valley levee system. By directing runoff around the levee system, the infrastructure required for interior drainage along the dry side of the levee can be greatly scaled down which results in cost savings in construction as well as continued operations and maintenance savings.



The Contractor, Wagner Construction, plans to begin work on Phase MI-2C in August. Initial construction activities will be tree removal, clearing, and grubbing along the storm sewer alignment. Storm sewer construction will begin on the downstream end of the project with the installation of a new 9' x 6' precast concrete box culvert beneath 41st St NW followed by the storm sewer installed along and beneath CR 15 and then up to the existing detention basin owned by Ward County Water Resource District. The storm sewer will use reinforced concrete pipe that ranges in diameter from 48-inch up to 66-inch. Construction of this project is scheduled to be completed by the end of the 2022 construction season.

URBAN FLOOD CONTROL : CITY OF BURLINGTON

PHASE BU-1C CONSTRUCTION UPDATE

Construction of Phase BU-1C for the Mouse River Enhanced Flood Protection Project has been progressing towards completion over the summer in Burlington. Levee, earthwork activities, and utilities were completed prior to construction halt for winter. Construction activities this season have included seeding, landscaping, and restoration items. One of the finishing items was a bathroom build out at the splash pad locations, it was completed, and the splash pad was re-opened on July 1st, 2022. Asphalt pavement throughout the site has been completed, which includes the shared use path atop the levee, new parking lot at the Burlington Recreation Facility, and extension of Stemen Drive. Installation of benches along the levee trail, signage, and tree plantings will be the final touches to complete BU-1C. Construction activities for this phase of the project should be fully completed by the end of August.



PHASE BU-1D CONSTRUCTION UPDATE

The final phase the Mouse River Enhanced Flood Protection Project for the City of Burlington began this spring and has been fully underway throughout the summer. Phase BU-1D is located mainly along Park Road and connects back to the BU-1C levee system at the Burlington Recreation Facility. Along with levee construction, this phase required multiple utility relocations around the levee. Like the other Burlington phases, this phase will also feature a seepage cutoff wall which provides a hydraulic barrier beneath the levee as a means to control groundwater seepage beneath the levee.

The Contractor, Bluestone Construction, Inc., began demolition and clearing activities as soon as conditions allowed this spring including the closure and removal of Park Road. Once the levee con-

struction is complete, Park Road will be built back in the same location but will be raised and will sit atop the levee.

Utility relocations were critical to the construction schedule, as the levee alignment needed to be cleared allowing for the installation of the seepage cutoff wall. Municipal utility work included rerouting of water, sanitary sewer, sanitary sewer forcemain, and storm sewer. Franchise utility work included rerouting of electrical, natural gas, and communication lines.

Once the utility relocations were complete, the base section of the levee was constructed with imported fill material. The levee base serves as the working pad for construction of the seepage cutoff wall. The seepage cutoff wall will be installed utilizing a one-pass

trencher that mixes cement, slag, and bentonite with in-situ soil material in place without removing material from the trench. Like the walls constructed in previous phase for Burlington, the seepage cutoff wall is located along the centerline of the new levee and extends from the base of the levee prism to depths that range between 30 to 50 feet.

Levee construction is required to be completed in 2022 and would effectively complete the flood protection system for Burlington. Other items required to be completed in 2022 include all utility work, seepage cutoff wall, and the reconstruction of Park Road which will include new curb, gutter, and asphalt. Final restoration, landscaping, and seeding will continue into the 2023 construction season.