

VOLUME 1: ISSUE 2: APRIL 2018

PROGRESS

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.





Mouse River Plan Phase BU-1 – Burlington Levee

Engineers are approximately 90% complete with the design of the flood risk management system around the City of Burlington. Like other phases of the project, the levees are being designed to mitigate flood risk against an event similar to what was experienced in 2011. The project consists of approximately 9,000 linear feet of earthen levees, a new bridge on Colton Avenue (Ward County Road 10), a road raise along Park Road adjacent to the Des Lacs River, and a new stormwater pump station. The most recent design does not include any roadway closure structures or gatewell structures, which will significantly reduce the risk of system failure due to human intervention or operation during a flood.

Due to cost savings associated with the initial phases of the project in Minot, the SRJB anticipates advancing the construction of the Colton Avenue bridge later this year. The estimated cost of the Colton Avenue bridge replacement is \$4 million. The balance of the Burlington system is anticipated to cost \$26 million; construction on the balance of the project is expected to begin in the summer of 2019, subject to legislative appropriations and North Dakota State Water Commission approval.

PHASE MI-1 CONSTRUCTION UPDATE 4TH AVE/PUMP STATION

Construction is in progress on the Phase MI-1 4th Avenue flood protection project. The first steps are underway on the site, including removing trees along the construction corridor of the Souris River and Fourth Avenue. Trees and other vegetation will be replanted in this area once construction is complete, as appropriate and in agreement with levee and floodwall design and maintenance. Utility companies will also be working in the early weeks of construction to move or remove aboveground or belowground lines and equipment to ensure continuity of service and safety for workers and the neighborhood.

Initial steps are happening to drill de-watering wells on the site just southwest of the Broadway and 4th Avenue intersection – where the large storm water pump station will go. Work on the 180,000 gallons/minute pump station is expected to last this year and into 2019. (To put the size in perspective, this means it would have the ability to drain an Olympic-size swimming pool in a little under five minutes.)

Park Construction out of Minneapolis is the contractor who bid \$43.45 million to construct this first phase of enhanced flood protection. The contractor has just over 2.5 years to finish substantial completion on the project.

The Phase MI-1 4th Avenue urban flood control project includes levees, approximately 2,250 feet of floodwalls, a major pump station at the southwest corner of Broadway and Fourth Avenue NW, and realignment of 4th Avenue to provide ample setback from the river. The project spans from just west of Broadway to the east side of Third Street NE, on the north side of the river – covering approximately six blocks of flood protection.

Residents and the driving public can anticipate roadway closures, traffic impact, and lots of overall activity in this area until the end of 2020.



PHASE MI-2 & MI-3 CONSTRUCTION UPDATE NAPA VALLEY/FOREST ROAD

Initial work has begun on Phases MI-2 and MI-3 consisting of tree and shrub clearing. Wagner Construction has completed tree removal along the proposed levee alignment and the removed trees will be mulched for reuse throughout the project. The contractor has also been mobilizing equipment to the site prior to road restrictions being implemented this spring. Work has also begun to close the walking path and transition the Dakota Bark Park to the temporary location across 7th Avenue.

Despite several spring snow storms, the contractor is anticipating initial levee work to begin in early April starting near the US Hwy 83 Bypass. Work is also expected to begin near 16th Street Southwest, where pre-consolidation of soils is necessary at the interface between the earthen levees and the concrete floodwalls associated with the roadway closure structure across 16th Street Southwest. In addition to the levee construction, excavation and foundation work for the Perkett Ditch Pump Station will also begin as weather permits.



US Army Corps of Engineers (USACE Feasibility Study)

The Souris River Joint Board's engineers have been working diligently on a preliminary design for the Maple Diversion, which will likely be eligible for federal funding through the US Army Corps of Engineers Civil Works Program.

On March 20th, SRJB representatives traveled to Minneapolis to meet with representatives from the USACE St. Paul District to review the preliminary designs for the project. The federal project is likely to include the Maple Diversion channel, river closure structures located west of the Moose Lodge and west of Broadway, and a levee on the north side of the channel. The federal project will not include a levee on the south side of the channel. The estimated cost of the federal project is approximately \$80 million.

The SRJB will be evaluating alternatives for managing flood risk on the south side of the diversion at a later date. Any structural improvements on the south side of the diversion (i.e. levees and floodwalls) will be funded using state and local resources.

Large piles of mulched trees (left) are temporarily stored near the 4th Avenue section of the project . As trees along the future levee are removed, they will be recycled as mulch to use in landscaping for the project.



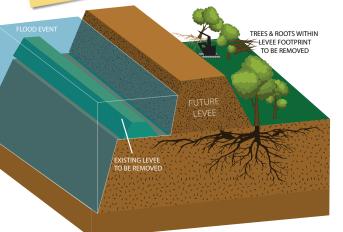
A groundbreaking was held Wednesday, March 28th for the first three phases of flood protection. State dignitaries, local leaders and representatives from the USACE were on hand to break ground and celebrate this monumental event.

(L to R) Jason Zimmerman (ND State Water Commission Board), Representative Roscoe Streyle, Thomas Barry (City of Minot), David Ashley (Souris River Joint Board), Senator John Hoeven, Lt. Governor Brent Sanford, Colonel Sam Calkins (US Army Corps of Engineers), Chuck Barney (Minot Mayor).

A NOTE FROM OUR PROJECT ENGINEERS

As construction begins on each of the phases throughout Minot, you may notice some things that make you question, "I wonder why they did that?" In this month's issue, our engineers explain why trees and levees don't mix!

Whyare the trees being Removed?



Unfortunately, trees and levees do not mix well together. Tree roots can extend up to 15 feet from the edge of the tree, creating paths for seepage water to travel from the wet side to the dry side of the levee. Any uncontrolled seepage can cause levees to fail during a flood. It's important to remove all trees from the future levee footprint, including all roots, as rotten tree roots can be paths for uncontrolled seepage.

Perennial landscaping may also be installed within the clear zone.

Movable landscaping furnishings, such as benches, birdbaths, bike racks, etc. can be installed on the levee or within the clear zone.

The clear zone is established to prevent tree roots from penetrating beneath the new flood protection features and to allow enough room to inspect the levees and make repairs, if necessary.

Trees and shrubs are not permitted within the clear zone (15' of each side of the levee toe).

Creating A
CLEAR ZONE

15 ft.

CLEAR ZONE

It is important that a clear zone of at least 15 feet be established on each side of the flood protection levees.