

MIDDLE-SNAKE-TAMARAC RIVERS WATERSHED DISTRICT

Portions of Marshall, Kittson, Polk, Pennington and Roseau Counties

OP-21-25

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February 11, 2021

Middle Snake Tamarac Rivers Watershed District Swift Coulee/Marshall County Ditch #3 Project Work Team Meeting Minutes Marshall County Courthouse Meeting Room

Attendees:

Landowners - Dylan Vansickle, Arlyn Stroble, Cindy & Jake Anderson, Tracy Anderson, Mary Ann Nicholls & Jon Nicholls and Van Hapka

David Nelson - Warrenton Twp Cecil Deschene - Middle River Twp

Landowner Representatives - Ken L Johnson also Big Woods Twp Supervisor, Fred Nicholls, Stuart Nordling also Vega Twp Supervisor

Rolland Miller - MC Commissioner, Lon Aune - MC Engineer, Darren Carlson - MC SWCD Stephanie Klamm & Doug Franke – MN DNR

Matt Fischer - BWSR

Danielle Kvasager - MPCA

Ericka Beito, Tony Nordby - Houston Engineering

Brad Blawat, Roger Mischel - MSTRWD Manager Representatives

Mori Maher, Danny Omdahl - MSTRWD staff

The meeting began at approximately 2:30. After introductions, Tony Nordby presided the meeting with a PowerPoint. The last meeting was held August 8, 2020. The meeting was held using Microsoft Teams and it was recorded.

Project Review & Tasks Completed

Tony explained the Team will vote today on which Alternative it will recommend and present to the MSTRWD Board of Managers. The Board will incorporate the Team's advice into continued Project planning.

The purposes of the Project are to minimize County Ditch 3 (CD 3) flooding, from the Snake River upstream to the Swift Coulee (Coulee); to lessen the frequency of the Coulee from overtopping and flowing overland to separate public drainage systems; to reduce the ponded water at areas where the Coulee flow is restricted and to effectively convey the upstream Coulee's water downstream.

Tony summarized the tasks performed thus far. They include the Concurrence Point #1 – Purpose & Need for the Project and Concurrence Point #2 – which Alternatives to take action on. Multiple storage alternatives were explored and researched by the District staff and Houston. Of the potential impoundment locations identified, four were studied further. One was west, two were east of Hwy #75 and the fourth was 5 miles east of Hwy #75.

Meetings with landowners were held to discuss the four proposed storage sites along with staff and Tony.

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The interest was insufficient to proceed with an impoundment moving forward as the preferred alternative, so an alternative of channel restoration, setback levees, and culvert resizing is being analyzed as a potential project alternative. Concurrence Point #3, selection of the preferred Alternative, is drafted but won't be finalized until after the Team's choice preferred Alternative choice today and approval from the MSTRWD board.

Review of E-Channel Restoration, Setback Levees and Culvert resizing

An "E" channel is an alphabetical reference for a channel shape. Houston's hydraulic analysis is for a growing season flow event, not a spring flow event. The proposed channel restoration would commence at the west end of section 3 Warrenton Twp where CD 3 begins and proceed easterly to CSAH #3 which will cover 9 sections. The channel will have an approximate 20' width and a 3' average depth. Sinuosity will be reestablished by removing the straightened portions of the channel. Bends in the channel will allow for the Coulee to transport sediment better instead of deposition on the channel bottom.

Setback levees would be built on both sides of the Coulee. They will be about 140' wide on the inside toe, being placed on the outside Coulee edges. Where the Coulee is wider, the levees will be placed wider. The levee height will be designed to minimize the chance of the Coulee from overtopping. Should overtopping occur, it's believed water will find its way back to the coulee, but some water could leave the subwatershed, which is already a present high flow condition.

The culvert sizing will be altered by removing existing culverts and installing smaller culverts. This will cause Coulee water to rise and the levees will contain the flow, to a certain limit. The culverts under Hwy #75 and the BNSF Railroad bridges will not be altered. The purpose of the culvert alteration is to reduce CD 3 flooding. Each upstream section will temporarily hold more water in the Coulee than existing conditions.

Potential Next Steps

Locating funding sources is important for each project. The District levies money for its Project Fund. Other funding sources include the Red River Watershed Management District, the State of MN. The State may provide more funding for projects that incorporate additional natural resource enhancements. State and local agencies will be able to contribute their ideas towards implementing the enhancements.

When this meeting concludes, Houston Engineering will finalize Concurrence Point #3. The DNR and Corps of Engineers, both of whom are the permitting agencies will collaborate with Houston and the District to approve the final design.

Ouestions/Discussion

Several questions referred to the practicality of Alternative #11, which is to locate an impoundment site and build it, remove sediment from the Coulee and to restore the sinuosity, construct setback levees and alter the culvert sizes.

Other questions referred to Alternative #13, which is to restore the Coulee, construct setback levees and alter the culvert sizes. It was noted that an alteration of the culvert sizing will be largely dependent on the Coulee landowners.

The dialogue then turned towards levee design and if future water storage can still be a considered feature in the future. The answer was yes; the District will continue to have a dialog when opportunities arise.

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A discussion was directed at the hydraulic modeling. Some participants explained that upstream storage in the Coulee will cause the flow duration to be much longer on CD 3, thus the model does not appear accurate. Some field drainage culverts along CD 3 have a depth that is close to the ditch bottom and local drainage is inhibited for longer periods.

CD 3 appears to be a deep ditch, but it's due to the spoilbank on the south side wasn't leveled during ditch construction. The spoilbank elevation is typically near the same elevation as the road.

Tony fielded questions from the Team concerning if a design change or other works will be done to CD 3. It was stated that CD 3 has had recent sediment removal and there is no plan to alter CD 3 within the Project's scope.

Team Recommendation

Danny Omdahl

After discussion, the Team (and the attendees) voted. There were (4) yes votes for Alternative #11. There were (10) yes votes for Alternative #13. Some agency representatives chose not to vote.

The meeting ended at approximately 4:28 p.m.

Danny Omdahl

Acting Secretary