

# MIDDLE-SNAKE-TAMARAC RIVERS WATERSHED DISTRICT

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

## Judicial Ditch #19 RCPP Project Team Meeting February 20, 2020, 2:00 P.M., Strandquist Community Center

### Meeting attendees:

Tony Nordby, HEI	Ben Kleinwachter, Nelson Park Twp
Joel Praska, MSTRWD	Julian Stusynski, Nelson Park Twp
Bill Petersen, MSTRWD Manager	Chuck Edgar, Lincoln Twp
David Bakke, MSTRWD Manager	Lyle Braff, Lincoln Twp
Brad Blawat, MSTRWD Manager	Kevin Roppe, East Park Twp
Gary Kiesow, Marshall Co Commissioner	Peter Kostrzewski, East Park Twp
John Williams, MNDNR	Arlyn Dvergsten, Huntly Twp
Jason Wollin, MNDNR	Jerry Strandberg, Huntly Twp
Tammy Baden, MNDNR	Ken Beito, Como Twp
Matt Fischer, BWSR	Elroy Aune, Moose River Twp
Henry Van Offelen, BWSR	Neil Widner, Tamarac Twp
Debra Walchuk, NRCS	Lynn Harnack

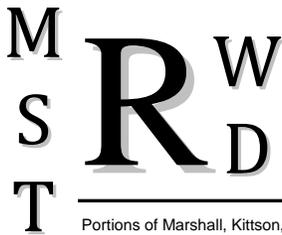
The meeting was called to order at 2:00 p.m. by Joel Praska, MSTRWD. Introductions were made and Tony Nordby, Houston Engineering (HEI), presented a brief overview of the previous Project Team meeting, progress since the last meeting, and the steps to the RCPP planning process. Mr. Nordby stated that the MSTRWD and the DNR have held three meetings since the last Project Team meeting to explore strategies to enhance both flood damage reduction and nature resource enhancements on Nelson Slough.

### RCPP Planning Process:

- Step 1 – Identify problems, opportunities and concerns. (submitted)
- Step 2 – Determine objectives (purpose and needs). (submitted)
- Step 3 – Inventory resources. (submitted)
- Step 4 – Analyze resource data. (submitted)
- Step 5 – Formulate alternatives.
- Step 6 – Evaluate alternatives.
- Step 7 – Make decisions.

Tony Nordby reviewed strategies laid out in Technical Paper No. 11 to formulate alternatives. Four categories with multiple strategies for each were reviewed and explained how they relate to the Red River of the North depending the location within the Red River Basin. The first category is the reduction of runoff volume. A strategy under this category includes the conversion of cropland to perennial grassland, forest or other beneficial uses of stored water. The second category is to increase conveyance capacity with strategies such as increasing culvert sizing and drainage improvements. The third category is to increase temporary flood storage with strategies such as on/off channel impoundment sites. HEI performed Hydraulic and Hydrologic (H&H) modeling and

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Mr. Nordby presented on all the above referenced modeled strategies under the three categories. Mr. Nordby stated that strategies under category one and two either are not practical or do not meet the purpose and need of the project. The third category of increasing temporary flood storage showed the best ability to meet the purpose and need. Houston Engineering analyzed five alternative locations for potential temporary flood storage and also reviewed potential flood damage reduction improvements to the East Park WMA, Nelson Slough.

The five alternative temporary flood storage areas were identified along JD 19 Branch M, J option 1, J option 2, East Park Township, and Lincoln Township. Mr. Nordby compared H&H model results for the five alternatives and the improvements for Nelson Slough against existing conditions. Mr. Nordby showed H&H model results at three reporting locations Nelson Slough Outlet, US Hwy. 59, and the JD 19 Outlet. The Nelson Slough Improvement Alternative #7 showed the most benefit for the sub-watershed from a flood damage reduction standpoint.

Concerns over the history of the Nelson Slough were raised by local landowners. High water levels and a constant flow overtopping the spillway, while the WMA appears to not draw down to affectively achieve flood damage reduction in even small rain events was raised by local landowners.

The operation of Nelson Slough by the DNR was questioned as to when the last time the WMA was drawn down or the outlet gate opened.

Mr. Nordby presented Alternative #7 which has evolved over the three MSTRWD/DNR meetings.

Alternative #7 includes the construction of a new outlet structure for Nelson Slough and to build a cattail debris deterrent. The existing levee height would increase from approximately 1106.3 to 1109.0. The borrow source would potentially come from within the impoundment site, which strategic design could increase natural resource enhancements/habitat.

Alternative #7 would also call for a joint power agreement between the MSTRWD and DNR that would alter the original operation and maintenance plan as follows:

- No fall drawdown below 1102.3 (Current identified normal pool elevation)
- Summer/fall drawdown at 1102.3
- Summer gated storage 1104.0
- Spring gated storage 1105.5
- Summer/spring release based on trigger points downstream.

The MSTRWD/DNR Nelson Slough FDR strategy, Alternative #7, would include downstream grade stabilization of Judicial Ditch #19 and potential upstream repairs to more efficiently allow flow into Nelson Slough.

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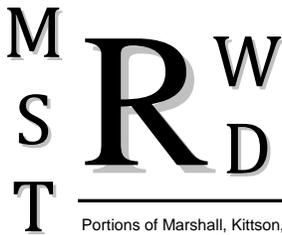
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Together, Alternative #7, would meet the purpose and need of the project for the majority of the sub-watershed. It would provide the largest upstream gated storage capacity. It would increase the flood storage within Nelson Slough and address the existing freeboard concerns, while minimizing bounce during nesting season, thus enhancing natural resources within the WMA. Lastly, it would improve the downstream flow conditions.

Additional concerns over Judicial Ditch #19 east of the WMA were raised as many landowners stressed flooding fields in even a 2" rain event. It was stated that as part of the project, repair and maintenance both upstream and downstream of the WMA would be addressed in the preliminary engineer's report. It was also mentioned that landowners need to relay their concerns with the ditch authority, which is Marshall County.

John Williams stated that by collaborating with MSTRWD water level concerns by the public are being addressed and that the DNR realizes the need for changes to the outlet structure of the East Park WMA, a raise in the levy height and monitoring of water levels can be achieved. A plan to move forward is in place and a memorandum of understanding is being discussed between the two agencies.

Mr. Williams also mentioned that part of the altered Operation & Maintenance plan would include the MSTRWD and DNR to work side by side in the monitoring and operation of the WMA and that both parties would collaborate on a yearly basis to discuss, and possibly, fine-tune the operation of the WMA while retaining the sites natural resource enhancements.

The question of cost and time of such a project was raised. Without a preliminary engineer's report, Tony Nordby stated a rough ballpark estimate of 5 million would be required to replace the outlet structure and raise the levy height in addition to repairs to Judicial Ditch #19.

Deb Walchuk stressed the need for planning to continue as the RCPP federal funding of this project will expire on September 30<sup>th</sup> of this year.

It was the consensus of the Project Team that the team continue to work with the DNR over the operation and maintenance of the East Park WMA and to continue to evaluate Judicial Ditch #19 and its need for repair.

The path forward includes the project team recommending an alternative to the MSTRWD Board. Mr. Nordby stated that Houston Engineering and MSTRWD will be opening a comment period for Project Team members to review and comment on the alternative screening document. The draft document will be available on the MSTRWD website <https://mstrwd.org/> on February 26<sup>th</sup> and comments will be received until the end of March 11<sup>th</sup>. Pending the comment results, Alternative #7 will be the Project Team preferred alternative to move forward and asking the MSTRWD Board to approve the project. A memorandum of understanding agreement between the MSTRWD and

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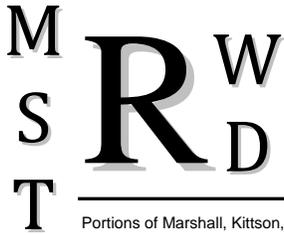
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DNR would then be signed and Houston Engineering would begin preliminary engineering on the preferred alternative.

The meeting adjourned at approximately 5:00 p.m. with the next JD #19 RCPP Project Team Meeting to be scheduled at a later date.

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Joel Praska, MSTRWD  
Acting Secretary

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