



# North Dakota State Water Commission

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November 23, 2010

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Mr. Tom Fischer, Chairman,  
Cass County Joint Water Resource District  
1201 Main Avenue West  
West Fargo, ND 58078-1301

Dear Chairman Fischer:

As your board requested, the State Water Commission reviewed the work of Moore Engineering regarding the "Waffle" plan. This review was conducted by Tim Fay and Waylon Erdmann of our staff.

On September 9, Tim and Waylon met with Chad Engel, Lyndon Pease, and Stuart Dobberpuhl of Moore's staff. They outlined Moore's techniques and their findings. Subsequently, Tim and Waylon began our own analysis. We approached the task as a bi-lateral review, that is, to review both Moore's findings and the original work by EERC. They did look at the hydrology (SWAT), however the main effort was centered on the hydraulics (HEC-RAS).

Moore had detected significant problems in the hydraulic modeling of the Red River mainstem in and around the vicinity of the Wild Rice confluence and also on the Maple River. We sought to determine if these discrepancies exist and if they did, whether there was an explanation for them.

To maintain objectivity and avoid adding to the controversy that has grown around this subject, we avoided any unnecessary contact with either Moore or EERC. Our philosophy was that engineering work should require a minimum of explanation for competent review.

The result of our effort is that we concur with Moore Engineering's findings. The discrepancies they noted do exist, and there seems to be no explanation for them other than error. Furthermore, these problems are far-reaching and not simple to remedy. An extensive revision of the hydraulic analyses would be required before the overall project could be properly evaluated.

Bethany Kurz, of EERC requested a meeting, and since we had met with Moore at the beginning of the effort, we thought it appropriate to meet with EERC at the end. Tim, Waylon, and Bill Schuh (of our staff, and an advisory board member) met with Bethany on Nov. 10 and explained our findings. She acknowledged the problems with the hydraulic modeling and they briefly discussed remedial steps. She concurred that re-doing the hydraulics is the only measure that seems appropriate at this point. It was also pointed out that there are other issues, beyond what was involved in this effort, that will likely arise if the project advances.

At this juncture, I feel that the important goal is to establish that there are problems with the EERC study as it stands, and that they need to be corrected, but that detailed listings of all questions and discrepancies would be counterproductive. If the project advances, and if good lines of communication remain, those issues can be addressed in detail.

JOHN HOEVEN, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
SECRETARY AND STATE ENGINEER

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If you have any further questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Sando". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Todd Sando, P.E.  
North Dakota State Engineer

Cc: Bethany Kurz, EERC  
Jeff Volk, Chad Engel Moore Engineering  
Randy Gjesvang, SWC