

MINUTES OF SPECIAL MEETING  
CASS COUNTY JOINT WATER RESOURCE DISTRICT  
CASS COUNTY HIGHWAY DEPARTMENT  
WEST FARGO, NORTH DAKOTA  
AUGUST 18, 2016

The Cass County Joint Water Resource District met on August 18, 2016, at 8:00 a.m. at the Cass County Highway Department, West Fargo, North Dakota.

Present were Jake Gust, Cass County Joint Water Resource District; Jurgen Suhr, Maple River Water Resource District; Shawn Olauson, Barnes County Water Resource District; Kathy Grueneich, Administrative Assistant; Mike Opat and Josh Hassell, Engineers for the Board; Pat Downs, Moore Engineering, Inc.; Jason Benson, Cass County Highway Department; Mike Hargiss, North Dakota Department of Health; Randy Gjestvang, Red River Retention Authority and State Water Commission; Keith Weston and Josh Monson, Natural Resource Conversation Service (NRCS); Jeffrey Miller, Cass County Soil Conservation District; Bailey Elkins, North Dakota Rural Water Systems Association; Patsy Crooke, Corps of Engineers; and those whose names appear on the attached roster.

**Upper Maple River Watershed Project Team Planning Meeting**

Pat Downs welcomed the Upper Maple River Watershed Project Team (Team) and introductions were made.

Mr. Downs reviewed input and information discussed and presented at the previous Team meetings, the adopted draft *Purpose and Need Statement*, Goals/Objectives for planning outcomes or desired conditions, statistical information on flood damage in the Upper Maple River Watershed and alternatives formulated based on the categories chosen for potential flood damage reduction solutions.

The purpose and goal of the Team meeting was to review, analyze and continue to narrow the alternatives to find potential solutions for flood damage reduction projects in the Upper Maple River Watershed. Patsy Crooke encouraged the Team to consider environmental impacts when review concepts on the channel.

Mr. Downs prompted the Team to identify the level of protection. Josh Hassell had provided models using a review of the HED-HMS, 2D-HECRAS modeling results for 10-year, 25-year, 50-year and 100-year, and 24 hour preliminary inundation maps using historical data from 2009-2011 based on depths of .5 inches or greater in the Upper Maple River Watershed.

Maps were provided for the Team detailing problem areas identified at the last meeting. After review of data, each Team member identified the top three areas of concern by placing markers on a map of the Upper Maple River Watershed. Mr. Downs reviewed the areas of concern identified by the Team.

Mike Opat suggested the Team consider the peaks and shorten the length of time water inundates the land. Mr. Downs led the Team through each alternative, grouping them by testing locations. The Team has determined dams and impoundments as the primary alternative for potential flood damage reduction solutions, with restoration of wetlands to act as impoundments as a secondary alternative. The possibility of using culverts and natural storage to resolve issues of flooding in appropriate areas are options too.

Mr. Downs explained each part of the process requires written reasons and criteria for keeping or removing a conceptual project site. Mr. Hassell reviewed alternatives to compare to the problem areas in the Upper Maple River Watershed. Mr. Hassell presented additional information regarding watershed impoundment alternatives and a chart showing the production on acreage in 2014. These charts will aid in determining the size of impoundment compared to possible loss of production.

The Team discussed drainage areas, water flow, off channel solutions and impacts, land use, volume of acres used for storage, reduction benefits in the watershed and cross referenced the top areas of concern identified by the Team in past meetings.

Mr. Downs and Mr. Hassell encouraged the Team to evaluate the data to determine if an alternative or multiple alternatives will meet the purpose and need to provide a potential solution for flood damage reduction in the Upper Maple River Watershed. At the next meeting, the Team will analyze the data to make determinations on the final list of alternatives chosen.

**Adjournment**

There being no further business to be considered by the Board, the meeting adjourned without objection.

APPROVED:

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Mark Brodshaug  
Chairman

ATTEST:

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Carol Harbeke Lewis  
Secretary-Treasurer