

MINUTES OF SPECIAL MEETING
CASS COUNTY JOINT WATER RESOURCE DISTRICT
CASS COUNTY HIGHWAY DEPARTMENT
WEST FARGO, NORTH DAKOTA
NOVEMBER 10, 2016

The Cass County Joint Water Resource District met on November 10, 2016, at 9:30 a.m. at the Cass County Highway Department, West Fargo, North Dakota.

Present were Mike Opat and Josh Hassell, Engineers for the Board; Michelle Anderson, Administrative Assistant; Pat Downs, Moore Engineering, Inc.; Mike Hargiss, North Dakota Department of Health; Randy Gjestvang, Red River Retention Authority and State Water Commission; Josh Monson, Natural Resource Conversation Service (NRCS); Bruce Kreft, North Dakota Game and Fish Department; Eric Dahl, Cass County Soil Conservation District; and those whose names appear on the attached roster.

Swan Creek Watershed Project Team Planning Meeting

Pat Downs welcomed the Swan Watershed Project Team (Team) and introductions were made.

The Team reviewed the draft *Purpose and Need Statement*, goals and objectives for planning outcomes, the Alternatives formulated at previous meetings, data used to narrow the alternatives from the *Alternative Screening Worksheet*, and the priority problem areas within the watershed identified for potential flood damage reduction solutions.

The purpose and goal of the Team meeting is to choose the level or target of protection and narrow down final Alternatives to meet the purpose and need for a detailed study to find potential solutions for flood damage reduction in the Swan Creek Watershed. Mr. Downs reviewed the areas of concern identified by the Team. He explained each part of the process requires written reasons and criteria for keeping or removing a conceptual project site.

Josh Hassell provided information on 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 Swan Creek Watershed. A preliminary 2D HECRAS map was presented demonstrating a 10-year 24-hour event compared to a 100-year 24-hour event and the results at the priority damage areas identified by the Team at previous meetings. Brief discussion was held on the level or target of protection for watershed projects in the Swan Creek Watershed.

A summary of remaining Alternatives was presented and discussed. The Team reviewed the *Evaluation Summary Worksheet* and analyzed the data to narrow down final

Alternatives for flood damage reduction in the Swan Creek Watershed. The Team reviewed impoundment/dry dam with channelization, road elevation considerations and culvert sizing. Grassland restoration and best management practices (BMPs) were discussed as tools to use in conjunction with the primary Alternatives. Josh Hassel provided a review of the data for impoundments. Comparisons were made between the acres impacted to the volume inundation acres at the spillway. Mr. Hassel explained the preliminary modeling results were chosen based on the topography. Further analysis and study may reduce the size of the footprint and all the costs involved. Pat Downs stated location and property ownership were not considered.

Discussion was held on Alternatives #2, #2-1, #2-2 and #2-3. A Team member volunteered his land for the site of an impoundment. Mr. Faught compared Alternative #2, an on-channel impoundment, to Alternatives #3, #5, #6 and #10. Mr. Faught stated Alternatives #3, #5, #6 and #10 are not feasible due to the amount of land, mitigation, construction, sedimentation, soil deterioration, acquisition costs, site restoration and long-term maintenance. Pat Downs explained the comparison is unbalanced because Alternative #10 is based on a different set of problem areas identified in the Swan Creek Watershed compared to Alternative #2.

Discussion was held on Alternatives #5 and #6. Keith Monilaws stated putting an impoundment in Section 27 of Ayr Township will further deteriorate the soil. David Strand stated an impoundment will make the salinity worse. Mr. Monilaws stated the water does not cross Cass County Highway 5. Concerns were raised on how the water drains on Alternative #6 and many landowners feel an impoundment is not going to offer further protection. Mr. Monilaws and Duane Gulland stated they were told the Alternative would be eliminated if the landowner objects to the impoundment location. Pat Downs clarified and explained to Mr. Monilaws and Mr. Gulland their comments made at previous meetings would be recorded and documented, but he did not make the statement that Alternative #6 would be eliminated.

Pat Downs reviewed the problem areas identified on the preliminary inundation map. Mr. Downs explained the Team identified problem areas due to significant damage to roads, crops and public infrastructure in the watershed. Mike Opat stated an economic analysis may show a benefit to landowners upstream and downstream. Crop damage recorded was significant from previous flood events.

Mike Faught stated the water issues in the Swan Creek Watershed are due to on-channel and flooding from small tributaries, which would make culvert sizing a potential solution. Landowners would support changing the size of the culverts. Josh Hassel stated a preliminary model was done to simulate the result of a culvert reduction west of Wheatland, but state law restrictions and liability issues limit downsizing culverts. If larger size culverts were placed, it would cause problems downstream.

Dean Giermann stated he appreciates the process and landowner involvement, but does not feel the water issues result in crop loss or loss of production. Mr. Giermann raised concern of upstream landowners holding water on land for downstream landowners and

Fargo. Mr. Hassel explained the process and potential solutions are for the benefit of the Swan Creek Watershed. Mr. Hassel stated locations can shift and the level of protection for the Swan Creek Watershed can also be adjusted.

Discussion was held on the assessment process, economic analysis, flowage easements, right of way and the options available to landowners, funding sources for watershed projects, ground saturation from spring rains, estimated costs for the potential impoundment Alternatives, costs and impacts of on-channel versus off-channel projects and the mechanics and environmental requirements of a dry dam impoundment.

Mr. Opat explained the Cass County Joint Water Resource District (CCJWRD) recommended the process for the Swan Creek Watershed due to funding available through the Natural Resources Conservation Service (NRCS). The process involves the Team making a recommendation to the CCJWRD for further study of final Alternatives. The Team agreed to meet with the Cass County Joint Water Resource District to provide an update, explain the issues and discuss the next step in the process.

Adjournment

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

APPROVED:

Mark Brodshaug
Chairman

ATTEST:

Carol Harbeke Lewis
Secretary-Treasurer