

MINUTES OF SPECIAL MEETING  
CASS COUNTY JOINT WATER RESOURCE DISTRICT  
GOVERNORS' CONFERENCE CENTER  
CASSELTON, NORTH DAKOTA  
APRIL 8, 2014

The Cass County Joint Water Resource District met on Tuesday, April 8, 2014, at 11:00 a.m. at the Governors' Conference Center, Casselton, North Dakota.

Present were Mark Brodshaug and Dan Jacobson, Southeast Cass Water Resource District; Rodger Olson, Jurgen Suhr and Gerald Melvin, Maple River Water Resource District; Michael R. Buringrud, North Cass Water Resource District; Raymond Wolfer, Rush River Water Resource District; Carol Harbeke Lewis, Secretary-Treasurer; Brittany C. Moen, Administrative Assistant; Chad Engels and Mike Opat, Engineers for the Board; Pat Downs, Red River Retention Authority; Jon Roeschlein, Bois de Sioux Watershed District Administrator; and those whose names appear on the attached roster.

Manager Olson called the meeting to order and introductions were made.

**Swan Creek Watershed**

Chad Engels explained the purpose of the meeting was to discuss flood risk reduction in the Swan Creek Watershed, which has experienced repetitive flooding, including 6 historic floods in the last 14 years. He displayed numerous pictures showing the effects overland flooding has had on transportation in rural areas, making roads impassable at times, washing out roads and bridges, stranding homeowners and delaying planting in the fields. Mr. Engels stressed that any future flood risk reduction project constructed in the Swan Creek Watershed should be constructed for the primary purpose of benefitting local agriculture and the local rural community. He said projects should not be constructed for the primary purpose of benefitting Red River communities, although these areas would benefit secondarily.

Pat Downs reviewed the potential funding available from several cost-share partners for future flood risk reduction projects, and gave an example of how much a theoretical \$10 million project would cost locally. Funding sources through new North Dakota State Water Commission cost-share policy, new Federal Farm Bill, increased Red River Joint Water Resource District cost-share and Cass County flood sales tax all have the potential to make detention projects in the Swan Creek Watershed the most affordable they have ever been.

Mr. Engels displayed maps of the 137 square mile Swan Creek Watershed and explained random areas of the Swan Creek Watershed were run through models to show if any flood reduction benefits could be seen in the watershed by the use of detention sites, and the findings showed the possibility of dramatic improvement. He said there are three different types of water detention projects, on-channel, off-channel and the use of existing water bodies. Mr. Engels said off-channel sites would be the most effective in the watershed, and explained what criteria potential sites would need to meet to be effective. Project goals were also reviewed, which include the ability to continue agricultural use of the majority of the project interior. Mr. Engels discussed a potential schedule if landowners in the area are interested in selecting a site for a potential detention project.

Jon Roeschlein then gave a presentation on Bois de Sioux Watershed District's North Ottawa Impoundment Project on the western edge of Grant County, Minnesota. Mr. Roeschlein said the concept for their project was to gather water from a 74 square mile drainage area that currently floods about 10 square miles in the same area, and temporarily store the water until its release would not add to downstream flood damages and to utilize the water to provide secondary benefits while it is held. He explained the secondary benefits of the project are stream flow maintenance, water quality improvement and a resting and feeding habitat for migratory waterfowl and shorebirds, which draws in recreational bird-watching.

The impoundment project consists of a 4 mile diversion channel from the north, and a 4.5 mile diversion channel from the south that intercepts the westward flow of water from the watershed area and diverts it to the inlet channel. A 1.5 mile long inlet channel, diked on both sides, conveys the water to the impoundment project from the higher ground upstream. The impoundment area is 3 square miles and diked on all sides. Eventually the water is released by way of controlled outlets.

The design objectives for the North Ottawa Impoundment Project provide an inlet capacity for 100-year design flood flows into the project, storage of all 10-year design flood inflows with no automatic release, and to limit outflows from all 100-year design floods. Mr. Roeschlein went on to review the operating plan of the project, and noted that during extreme events when the impoundment capacity is expected to be exceeded, the gates can be opened to maximize control to reduce damages. He said low elevation interior dikes will divide impoundment pools within the project into 9 separate pools to allow independent water management.

Mr. Roeschlein displayed pictures and reviewed the design parameters of the project. He also showed a graphical representation of how the project operates.

Mr. Engels asked Mr. Roeschlein what amount of the storage area will be farmed this year. Mr. Roeschlein said that 2/3 of the project has been farmed since construction on the project began.

Mr. Engels reviewed the mailing that was sent out with the meeting notice to landowners, requesting information on areas where they experience flooding and ideas for potential detention sites where flood risk reduction is needed in the Swan Creek Watershed. The Board would like to see a partnership with landowners to achieve detention in the area to mitigate flooding impacts. The meeting was then opened up for questions.

Someone asked Mr. Roeschlein if salt buildup has been a problem for the North Ottawa Impoundment Project. Mr. Roeschlein said they are concentrating on that now, but it is in the principal flood pool, which will not be farmed and will be used the most. He mentioned that nearby landowners are tiling their land to reduce salt issues further. Mr. Engels added that the Board supports tile drainage and sees many benefits to incorporating subsurface drainage into projects.

Someone asked if the land acquisition process can be explained further. Mr. Engels explained with other projects, such as the currently proposed Upper Maple River Dam, the Board is purchasing land fee simple where the project embankment is located and easements will be used for the pool area. He also reminded those present that landowners affected by a project will be able to vote on the project. The Board prioritizes forming a partnership with landowners from the very beginning of projects.

There was a question about whether operators of the land within the North Ottawa Impoundment Project are offered crop insurance. Mr. Roeschlein replied that the operator is eligible for crop insurance, covering perils such as hail and wind damage, but this coverage excludes flooding events that are man-made, such as the impoundment. He then added, when the Bois de Sioux Watershed District advertised the land within the impoundment for lease, the language includes a stipulation saying during the event the project is required for summer time inundation, the renters will be reimbursed their per acre rent amount, plus an additional \$100/per acre compensation for every acre damaged by the project.

Mr. Engels explained the Board was asked if they have considered the Waffle Plan for flood risk reduction, using land to create a grid of pockets to hold water, at the previous meeting. He explained that the Waffle Plan requires the use of roads as embankments for water storage, which can compromise road safety. He said the Board is proposing projects that are set away from roads.

A question was raised about Magnolia Dam. Mr. Engels said they could look into that site for possible detention.

Mr. Engels was asked if the Board has discussed multiple smaller detention sites, rather than one large detention site like the North Ottawa Impoundment Project, for the Swan Creek Watershed. Mr. Engels said that size of the site and numbers of sites would depend on identified areas, but there is a benefit to using multiple smaller sites.

Someone asked what effects a project in the area would have on the local tax base. Mr. Engels explained the Cass County Joint Water Resource District makes payments from funds out of the Maple River Dam maintenance district, to pay property taxes on property acquired for the project.

Someone asked what the Board would decide if no potential sites are identified by landowners. Mr. Engels said the Board has already begun receiving positive input from landowners, and the conversation is starting. He explained that on past projects, the Board may have to work with individual landowners.

Someone asked if the Board has already identified areas in the Swan Creek Watershed that would work best as detention sites. Mr. Engels replied that the Board has not looked at specific sites, but has looked at locations only for the sake of testing the model to see what benefits can be achieved in the watershed. He reminded those present that the primary purpose of this meeting is for the Board to solicit input from them on potential sites.

There was a question regarding how soon the Board would like to get a project started. Mr. Engels explained the Board would like to see progress on a potential site develop soon, with the current cost-share situation explained earlier. Mr. Roeschlein said they are hoping to get through the permitting process quicker than in the past.

Someone asked if it would be more cost effective to build ring dikes for the few farmsteads in the watershed. Mr. Engels explained that ring dikes around farmsteads would not alleviate the transportation or agricultural issues related to flooding in the watershed, and the Board would like to capture as many benefits as possible.

Mr. Engels was asked to further explain how other communities, such as Fargo, could benefit indirectly from a potential project in the Swan Creek Watershed. He responded that all land downstream of a detention project would benefit, and that benefit would get smaller further downstream, away from the project. He also added that assessment districts for projects capture all land that sees a benefit, so the more properties that benefit from a project, the lower assessments would be.

It was questioned why retention is not being built instead of the Metro Flood Diversion Project. Mr. Engels said they are 2 separate projects. Chairman Brodshaug said both are needed.

**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