

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 9:00 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, William A. Hejl and Dick Sundberg, 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 Hejl called the meeting to order and introductions were made.

Rush River Watershed

Chad Engels explained the purpose of the meeting was to discuss flood risk reduction in the Rush River Watershed, which has experienced repetitive flooding, including 4 historic floods in the last 9 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 Rush River 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 Rush River Watershed the most affordable they have ever been.

Mr. Engels displayed maps of the 221 square mile Rush River Watershed. Mr. Engels said currently, the only dam in the watershed is the Erie Dam, which controls less than 5% of the Rush River Watershed, and is primarily used for recreational purposes.

Mr. Engels explained random areas of the Rush River 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 Rush River 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 the North Ottawa Impoundment Project can be farmed after it is completed. Mr. Roeschlein replied that the current plan is to farm 2 sections each year for the purpose of vegetation management.

A question was asked if an impoundment project would fill up with sediment and mud over time, and how that will be handled. Mr. Roeschlein explained the amount of sediment that would affect the flood control portion of the project would take over 100 years to accumulate. He then said the impoundment can be completely dried out, so it would be relatively easy to go in and clean sediment for reuse on agricultural lands. Mr. Engels added that like all projects, an impoundment project in the watershed would eventually require a maintenance district.

Someone asked if the Board has already identified areas in the Rush River 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 about the effects on vegetation if on-channel storage is used. Mr. Engels said that would be a function of how long the water is being stored. There has been a large amount of mitigation due to several consecutive years of flooding at the Maple River Dam. The impacts to vegetation have to be mitigated.

Someone asked how the Board would go about acquiring land once a specific site is identified. 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 promotes forming a partnership with landowners from the very beginning of projects.

Mr. Engels was asked if a detention site as large as North Ottawa is envisioned for the Rush River Watershed. Mr. Engels said that would depend on the watershed. Another possibility is using several smaller projects together.

Someone asked if the Board considered the Waffle Plan, using land to create a grid of pockets to hold water. Mr. Engels 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.

Mr. Roeschlein was asked if the operators of the land within the North Ottawa Impoundment Project are offered crop insurance. He 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 summertime inundation, the renters will be reimbursed the per acre rent amount, plus an additional \$100/per acre compensation for every acre damaged by the project.

There was a question about soils and slides related to the project. Mr. Roeschlein said they did extensive soils studies before constructing the project. The project has been filled twice and they have not experienced any problem with slides.

Someone asked if Mr. Engels could provide an estimated cost/acre for a detention project. Mr. Engels said there are too many variables, and it would depend on cost-share amounts, assessment areas and project size.

Mr. Engels was asked to further explain how other communities could benefit indirectly from a potential project in the Rush River Watershed. He said 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.

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