

RICHLAND-CASS COUNTY JOINT WATER RESOURCE DISTRICT  
Richland County Law Enforcement Center, Wahpeton, ND  
April 1, 2013

The Richland-Cass County Joint Water Resource Board (RCCJWRB) met April 1, 2013 at 10:00 AM in the Richland County Law Enforcement Center Community Room, Wahpeton, North Dakota.

THOSE PRESENT: Richland County Managers Arv Burvee, Gary Friskop, James Haugen, and Don Moffet, Cass County Managers Mark Brodshaug, Mike Buringrud, Dan Jacobson, Ray Wolfer, and Rodger Olson, Engineer Chad Engels, Engineer Damon DeVillers, Red River Basin Commission Coordinator Pat Downs, Red River Basin Commission Executive Director Lance Yohe, Carol Harbeke Lewis, and Monica Zentgraf.

See attached sign-in sheet for others in attendance.

### **Minutes**

It was moved by Manager Jacobson and seconded by Manager Burvee to approve the minutes of the October 29, 2012 meeting, as presented. The motion carried unanimously.

### **Bills and Financial Matters**

Treasurer Lewis presented a Claim Approval List. She reported all bills listed have been paid and cost share reimbursements are up to date. It was moved by Manager Olson and seconded by Manager Haugen to approve Claims #7359 through #7363. The motion carried unanimously.

### **Bois de Sioux Dam Study**

Engineer Engels presented an overview of the Bois de Sioux Dam Study. The study site is located approximately ½ mile north of the North Dakota/South Dakota state line. A large portion of the Bois de Sioux watershed is located in Minnesota and flows south, getting into the Mustinka River, and entering into the system upstream of White Rock Dam. Flows by Tintah, Nashua, and the south Rabbit River area enter into the Bois de Sioux River downstream of White Rock Dam. Most of the Bois de Sioux watershed in Minnesota is controlled by White Rock Dam. The Bois de Sioux Watershed District is currently building a project called "RedPath". This project will not completely eliminate Mustinka River breakouts from moving into the downstream watershed, but it will take out a considerable amount of water. On the South Dakota side, a large portion flows south and also gets into the reservoir system. Two-thirds of the watershed is currently controlled by White Rock Dam.

Engineer Engels explained that taking the crest off at Wahpeton will take the peak off at Fargo; however, historic events (with the exception of 1997) show that taking the peak off at White Rock Dam does not take the peak off at Wahpeton and Fargo. Unfortunately, adding storage at White Rock Dam does nothing for the peak at Wahpeton or Fargo. Benefits of adding storage at White Rock Dam are that it will cause the back side of the

flood to draw down faster and reduce the duration of breakouts for an area between White Rock Dam and Wahpeton.

#### Conclusions:

- \*For all synthetic and historic events modeled and investigated with gage data, the increased storage would not have reduced the flood crest at Wahpeton or Fargo except for 1997.
- \*Increased storage volume would have reduced the flood crest at Wahpeton and potentially at Fargo for the 1997 flood.
- \*Increased storage volume will reduce the frequency at which flows exceed 1,100 cfs at White Rock Dam.
- \*Increased storage volume will lessen the duration of downstream flooding.
- \*Increased storage volume will significantly reduce peak flows between White Rock Dam and the Bois de Sioux breakouts south of Wahpeton.
- \*Potential benefits due to increased storage volume are greatest for exceptionally large flood events.
- \*Current draw down operations exceed channel capacity.

#### Recommendations:

- \*Submit findings to USACE so they have the information.
- \*Meet with USACE about possibility for reducing the draw down flow to less than 1,100 cfs. (Letter has been sent to USACE by the Richland County Water Resource District.)
- \*Hear from Bois de Sioux Watershed District regarding upstream sites that may accomplish the same results with added benefits to the watershed and reduced permitting difficulties. (They have a number of projects in their long range planning that will also provide storage with results similar to the Bois de Sioux study results.)
- \*Consider this project along with other analysis that will be coming out. (Improved Bois de Sioux Watershed modeling and the Wild Rice Watershed Comprehensive Plan.)
- \*Identify missing breakout areas and monitor additional sites this spring.

#### **Wild Rice River Dam**

Soils report shows the site is conducive to building a dam. The engineer's preliminary cost estimate for the project is \$60,000,000. The structure would have approximately a 3.5:1 slope on the upstream side and 3:1 slope on the downstream side. It would have three primary components consisting of the actual structure, the emergency spillway, and raising Highway 18, which accounts for approximately \$20,000,000 of the project. Rights-of-way are estimated at \$25,000,000; mitigation is estimated at \$2,500,000. Storage at the site is estimated at less than one inch. Engineer Engels suggested that, because of limited storage, this project should be considered in combination with other storage sites to draw out the justification for the project. Engineer Engels was asked if the dam would eliminate flooding at Great Bend. He reported that flooding will still occur at Great Bend. A public meeting will not be held until the Board has information on other retention plans (Wild Rice River Comprehensive Retention Plan, Red River Basin Commission, Bois de Sioux Watershed District) and stream gage monitoring is done during this spring's runoff event. Some additional areas may need to be monitored that have not been in the past.

### **Wild Rice Watershed Comprehensive Retention Plan**

Interstate Engineering is currently working on identifying potential retention sites in Richland, Ransom, Sargent, Cass, and Marshall counties.

Brief discussion was held relative to construction of ring dikes as a part of the overall solution to flooding in the valley. Mr. Yohe explained that the Red River Basin Commission's long term flood report highlights this approach, which is what Manitoba has been doing for years. Mr. Yohe stated "We need to figure out how to live in the bottom of this lake without damages. The best we can do is protect ourselves and let the water get through as quick as we can. Retention does not solve our problem up front, but it gives us insurance. It is not that retention is not worth doing, but it will be a slow process to reduce flood damages if you look at retention only; many other things need to be in place. You need to either get people out of harms way or protect them, and then get the retention of water a little bit longer on the land. It raises everybody's level of protection, so you get value that way." Locally, reduce the losses, including to agriculture. Engineer Engels added that he feels the Board should be looking at those projects no matter what and to view retention as something to supplement (help give these projects more freeboard). Every community needs its' primary project. Retention may have some agricultural benefits for summer events.

The following project development timeline was presented by Engineer Engels for Board review:

Wild Rice Watershed Comprehensive Detention Plan	
Site Identification (Interstate Engineering)	April 2013
Modeling & Report (Moore Engineering)	June 2013
Red River Basin Commission Upstream Timing Study	October 2013
Land Acquisition Strategy Kickoff	October 2013
Project Development	
Action Needed-Select Sites	October 2013
NDSWC & RRJWRD Cost Share Request Approval	October 2013
NDSWC & RRJWRD Cost Share Meeting	December 2013
Complete	May 2014
Land Acquisition Strategy Decided	May 2014
Environmental Reporting & Permitting	
NDSWC & RRJWRD Cost Share Request Approval	May 2014
NDSWC & RRJWRD Cost Share Meeting	July 2014

Work will continue on the Wild Rice River Comprehensive Retention Plan with another meeting to be held upon completion.

**Sheyenne River Comprehensive Watershed Plan**

Upon completion, a joint meeting should be held with the Ransom County Water Resource Board.

**Retention Upstream of Halstad**

Mr. Downs reported the City of Fargo wants modeling completed so they can see the benefits of the sites identified and modeled before the Red River Basin Commission moves forward with finding a way to determine how money is distributed if projects are built.

**2013 Spring Flood Monitoring**

Engineer Engels presented a proposal for monitoring and stream gage activities in the Wild Rice River and Sheyenne River watersheds. Cost estimates are \$25,000 for the Wild Rice River watershed and \$17,000 for the Sheyenne River watershed.

A motion was made by Mgr. Brodshaug and seconded by Mgr. Friskop to award the monitoring project to Moore Engineering per their proposal. The motion carried unanimously. Engineer Engels was directed to obtain input from Darin Prochnow for identification of additional sites that should possibly be monitored.

**Fargo-Moorhead Flood Diversion Project**

The Richland County Water Resource Board received word of 24 people in the Walcott area having been approached about a buy-out of their properties. Because of this information, the Cass County Board was asked if there has been a change in the channel alignment. Mgr. Brodshaug assured the Richland County Managers the alignment has not changed (from three months ago) and no offers of buy-outs have been made. The USACE is currently updating models due to the last alignment changes. Mgrs. Olson and Brodshaug updated the Richland County Managers on the project and answered questions.

**Adjournment**

There being no further business to come before the Board, Chr. Moffet adjourned the meeting at 1:00 PM.

(Tape recording of meeting on file in Richland County Water Resource District Office.)

Respectfully submitted,

Monica Zentgraf  
Secretary

Don Moffet  
Chairman of the Board

RCC YWIKD mtg 4/1/2013

Cari Wefel

Gene Wefel

James Haugen

Don Hoffer

Brett Lambrecht

DARIN PROCHNOW

DAMON DEVILCAS

Jesse Sedle

Richard Lewis

Don Ferguson

Jason Heitkamp

Phil Beck

Reyn Old

TIM SCHULTZ

Lowell BLADOW

Tim Campbell

Lancey Yoble

M. King