

LOWER LOUP NATURAL RESOURCES DISTRICT BOARD OF DIRECTORS MEETING

November 21, 2019

Ord, Nebraska

The November meeting of the Board of Directors of the Lower Loup Natural Resources District was held at the Headquarters Office, 2620 Airport Drive, Ord, Nebraska, on November 21, 2019. Chairman Citta called the meeting to order at 5:02 p.m.

CALL TO ORDER

Directors in attendance:

James C. Adams
Darwin B. Anderson
Robert L. Bauer
Joseph L. Citta, Chairman
Jim Eschliman, Vice Chairman
Gary A. Kruse
Larry Mohrman
Alan D. Petersen
Gerald Smith
Henry J. Thoene, Secretary

Rollie D. Amsberry, Treasurer
Timothy E. Bartak
Beth Boesch
John Coffey
N. Richard Hadenfeldt
Matt Lukasiewicz
Todd Nitsch
Chad J. Podolak
Dean G. Thede
Rick Vlach

Director absent:

Randy Kauk

Staff in attendance:

Russell G. Callan, General Manager
Irene F. Kreifels, Administrative Assistant
Larry D. Schultz, I&E Coordinator
Brian Kolar, Projects Technician
V. Anne Freeman, Water Programs Secretary
Dell R. Harris, Water Resources Specialist
LeeAnn Smith, Water Programs Assistant

Tylr Naprstek, Assistant General Manager
Kim A. Lyons, Financial Secretary
Cheryl Hornickel, Programs Assistant
Jason Moudry, Water Programs Specialist
Jane Klanecky, Receptionist
Richard L. Woollen, District Forester
Cam Conrad, Water Modeling Coordinator

Guests in attendance

Pat Engelbert, HDR, Lincoln
Reece Jensen, Sargent
Tim Clayton, Sargent

Mick Kozeal, Sargent
Kim Myer, Broken Bow
Gerry Sheets, Sargent

NOTICE OF OPEN MEETING LAW POSTING

Chairman Citta referred those in attendance to the open meeting law information posted in the Board room and that meeting material was available at the entrance to the Board room.

VERIFICATION OF MEETING NOTICE AND ADOPTION OF AGENDA

Chairman Citta asked for verification of the meeting notice. General Manager Russell Callan stated that the agenda was current, and that the meeting notices were properly published in all newspapers, posted at the NRD Headquarters office in Ord, on the NRD web site, and in the eight field office locations.

ROLL CALL AND EXCUSED ABSENCES

Roll Call was conducted electronically. Directors present: Adams, Amsberry, Anderson, Bartak, Bauer, Boesch, Citta, Coffey, Eschliman, Hadenfeldt, Kruse, Lukasiewicz, Mohrman, Nelson, Nitsch, Petersen, Podolak, Thede, and Vlach. Director not present during roll call: Thoene. Director absent: Kauk.

Citta stated that Director Kauk had asked to be excused.

Adams motioned, seconded by Boesch, to excuse Director Kauk. Motion carried by electronic vote, all present voting yes.

MINUTES

Chairman Citta asked for corrections and/or additions to the October 24, 2019, Board meeting minutes. None were heard.

Kruse motioned, seconded by Vlach, to approve the minutes of the October 24, 2019, Board meeting as presented. Motion carried by electronic vote, all present voting yes.

TREASURER'S REPORT

Russell Callan, General Manager, highlighted expenditures on the Treasurer's Report of \$4,944.26 to B-Systems Inc. for docking stations for desks at the NRD office; \$1,250.00 to Kokes Construction LLC for repairs and maintenance on the artesian well at Pibel Lake; \$350,000.00 to Citizens Bank and Trust and \$250,000.00 to Heartland Bank for Certificate of Deposit investments; \$63,750.00 to Cornerstone Mapping for the first half of the NRD flight sensing imagery; \$7,941.84 to HDR for services related to the South Loup River Study and Lillian Creek Study; and \$24,430.31 to HDR for the Columbus Recharge Project.

Anderson asked about the \$600,000 deposits to the banks. Callan replied that the money was moved into CDs and was excess money being held in the savings account.

Eschliman motioned, seconded by Boesch, to approve the November 21, 2019, Treasurer's Report and pay all bills. Motion carried by electronic vote. Directors voting yes: Adams, Amsberry, Anderson, Bartak, Bauer, Boesch, Citta, Coffey, Eschliman, Hadenfeldt, Kruse, Lukasiewicz, Mohrman, Nitsch, Petersen, Podolak, Smith, Thede, Vlach. Director abstaining: Thoene. Director absent: Kauk.

PUBLIC COMMENTS

There were no public comments.

FORESTER'S REPORT

Richard Woollen, District Forester, showed a website for *Cropwatch* which showed benefits of buffer strips and discussed the buffer strip program. He explained there was an article in the October 31st edition of *Cropwatch* on buffer strips. Woollen explained that there were several Lower Loup NRD buffer strip contracts up for renewal for Spring, 2020, and 21 cooperators had responded for renewals. He reported that there was money available to establish new buffer strip contracts.

Woollen also reported that the Conservation Tree Program was under way and some tree orders had been received.

NRCS REPORT

Callan reported that NRCS would not have anyone present to give a report but said that a Memorandum of Understanding between the NRD and NRCS would be discussed later in the agenda.

INFORMATION & EDUCATION REPORT

Larry Schultz, Information & Education Coordinator, was temporarily absent so Citta announced the item would be moved to later in the meeting.

ASSISTANT GENERAL MANAGER'S REPORT

Davis Creek Update

Tylr Naprstek, Assistant General Manager, reported that Nik Johansson with the Bureau of Reclamation came for a site visit and viewed the updates associated with the Title 28, 2019 improvement work at the campground, including electrical upgrades and the tent camping area. Naprstek stated that he was working with staff to prepare the final report on the project and also reported that the NRD had been receiving rec area reservations from hunters.

Pibel Lake Update

No update.

Columbus Area Water Resources Assessment Study Update

Naprstek reported that staff was working to collect easements for the pooling of water and water retention structures along the old Lost Creek. He said the easements were non-specific in access, allowing access by more than one way, if necessary, and crossing property during construction. Naprstek reported that bids for construction of the recharge project would be advertised sometime in December with a deadline in January, with the potential award of the project in February.

Buffalo County – Aerial Electromagnetic Survey (AEM)

Naprstek reported that AEM flyovers were completed and the final report would be ready approximately sometime in March for review.

Buffalo County Cover Crop Study

Naprstek reported that Jason Moudry, Water Programs Specialist, had been working on the cover crop study in Buffalo County and gave a power point presentation.

Moudry showed a power point of the work being done in Buffalo County. He reviewed the \$250,000.00 three-year grant received from the Water Sustainability Fund and said Lower Loup was partnering with Central Platte NRD on the project. Moudry showed a map highlighting the area covered and the fields being used from the study, saying the fields involved in the study included land from the Schulte and Cruise Farms. Moudry explained that the study would look at water movement through the soil and the effects that the cover crops have. They will be looking at the difference in water retainage and soil moisture on portions of the field with cover crops vs. portions without. He explained that staff has been out with EA Engineering a couple times this month to install the measuring equipment. Moudry showed photos and explained the equipment being used for the monitoring, as well as the process that would be used. He showed a screenshot of the website to monitor the sensors.

INFORMATION & EDUCATION REPORT

2020 NARD Legislative & Washington, D.C Conferences

Schultz reported that the NARD Conference would be held January 28-29, 2020, in Lincoln at Embassy Suites and passed around a registration sign-up sheet. He also reported that the Washington, D.C. Conference would be held March 14-18 and was working on arrangements for the White House tour. He said he would begin looking for plane tickets soon.

2020 NCF-Envirothon

Schultz reported that he was on the Entertainment Committee for the 2020 Envirothon to be held in Lincoln July 26 through August 1 and said there would be a team from China participating. He said many volunteers would be needed for the contest.

2020 Calendar/Newsletter

Schultz reported that he was the liaison for the NRDs for the 2020 calendar and the Lower Loup newsletter would be mailed out soon.

WATER RESOURCES COMMITTEE

Ravenna Lake Sampling Results

Naprstek reported that the Committee discussed the Ravenna Lake sampling results and that Mike Archer from NDEE was present to talk about the last two years of water sampling at the lake. Naprstek said that the city of Ravenna had approached the NRD three years ago to do a quality/quantity study on the possibility of using Ravenna Lake for an offsite recharge and retiming of South Loup River flows, as well as determine why the water quality was continually impaired and its cause. He said it was determined that the lake was not a viable recharge/retiming structure. Naprstek reported that the lake has high phosphorus amounts and a high amount of duckweed that covers the lake from July to September. He said the removal of duckweed could result in being replaced with something worse. He reported that he would discuss the results with Ravenna after the study had been finalized.

Columbus Area Nitrates – Sub-Area Designation

Naprstek reported that the Committee held a discussion on Water Quality Area 19 near Columbus. He said nitrate readings were continually increasing in an area northeast of Columbus on the other side of the tailrace canal, and that the area had been under watch for several years for groundwater nitrates. It was discussed that a new Sub-Area 30 could be established. The area outlined contains 162 registered wells and most of the high nitrate samples had come from domestic wells. He said the area covers just under 10,000 acres, mostly by certified irrigated acres (71%) with corn and soybean rotation and that there were a few CAFOs in the area. Naprstek reported that the number of reverse osmosis units was uncertain.

Naprstek showed a chart indicating where the high nitrate numbers were found vs. the rest of Area 19. Staff also had looked at the rest of Area 19 without the proposed Sub-Area 30 included and nitrate numbers dropped considerably. Naprstek also discussed the geo logs for the area. He said chemigation sites in the area were also reviewed and only 5 were present.

Naprstek reported that he had met with Lower Platte North NRD about the area and that they have placed a Phase III designation for the area in their district; however, they cannot trigger the designation on domestic wells at this time. The Committee made a recommendation to start the process of outlining a Phase III area and naming a new sub-area for the affected land.

Smith motioned, seconded by Coffey, that Sub-Area 30 be designated and that the sub-area be placed in a Phase III groundwater management, and to begin the hearing process to implement Sub-Area 30.

Coffey asked what the static water levels were in the area and Naprstek responded that most levels were between 40-50 feet, with some being deeper and some shallower. Smith stated that after the hearing, and if the sub-area was approved, backflow valves and flowmeters would need to be installed.

Kruse asked what the communication plan was. Callan reported that staff was working to put together a mailing list and then letters would be sent directly to property owners. He said information would also be provided in the newsletter and public hearings advertised. It was reported that the first hearing would possibly be in January somewhere near Columbus, and at the hearing it would be determined when the changes would take place.

Motion carried by electronic vote, all present voting yes.

2019 Fall Static Water Levels Results

Naprstek reported that the Committee discussed static water levels obtained from 451 wells across the District and said most levels were up from historic levels and many fall readings were higher than the spring readings.

2019 Flowmeter Readings

Naprstek reported that 801 meters out of 918 had been read thus far. He said the average was 3.89 acre-inches applied. He said that ten percent of the meters had no reading so there was no change from spring to fall.

Nance County – No Transfer Zone

Naprstek reported that the Committee discussed a possible no transfer zone due to limited aquifer yielding potential and the potential for impacting neighboring wells near Genoa in Nance County. There had been a discovery of two wells in the area that were having negative impacts on each other. He said staff would be working to develop a better designation boundary line for the area.

PROGRAMS/PROJECTS COMMITTEE

WFPO Grant

Kruse reported on the discussion for the watershed plan for portions of Mud Creek. He stated that the grant application was prepared by JEO. Naprstek said that not all of Mud Creek was involved, but just from the headwaters by Merna to Litchfield. The Committee made a recommendation to approve sending out RFPs for the Mud Creek Project.

Kruse motioned, seconded by Boesch, to send out RFPs as part of the Watershed and Flood Prevention Operations Program (WFPO) grant received for a portion of Mud Creek. Motion carried by electronic vote, all present voting yes.

Hazard Mitigation Plan

Kruse reported that the Committee had discussed beginning the process of updating the Hazard Mitigation Plan. Callan stated the plan was being utilized by the counties, communities and other entities in the NRD to deal with issues like the flooding of 2019. He said the five-year plan was required before assistance could be received from FEMA or NEMA to mitigate potential disasters. Lukasiewicz asked how often the plan was updated, and Callan responded that it was redone every five years, but it takes about 1½ years to complete. Kruse reported that the Committee was recommending that RFPs be sent out to have the plan redone.

Kruse motioned, seconded by Anderson, that RFPs be sent out for the Lower Loup NRD Hazard Mitigation Plan update.

Citta stated the plan was necessary to have and that it helps many of the NRD's constituents. Anderson asked if the plan would take as much time to complete as it had last time. Callan replied that he hoped not, but he couldn't determine the amount of time it might take.

Motion carried by electronic vote, all present voting yes.

Ord - Dane Creek Flood Project

Kruse reported that the Committee discussed the Dane Creek Flood Project. The project consists of cleaning out the creek that runs through the golf course and also bank stabilization along the golf course. The Committee recommended approving assistance for the project.

Kruse motioned, seconded by Thoene, to approve a contribution of 25% of the City of Ord's match for the Dane Creek Flood Project, not to exceed \$8,000.00.

Lukasiewicz asked how the creek would be cleaned out since it runs through the golf course. Callan stated they would pull out the trees and construct new stabilizations. He said the project would require a 404 permit.

Motion carried by electronic vote, all present voting yes.

SDI #7 Levee Project (Whitetail Lake Development)

Kruse reported that the flood damage to the Whitetail levee in Columbus had been discussed at the Committee meeting, which included torn-out rock riprap in the southwest corner of the subdivision and erosion damage to storm sewers. Boesch said they were working with FEMA. She reported that FEMA had stated they would pay 75% of the project if it was repaired to their standards and NEMA had indicated they would pay 12.5%. She said they were looking

for assistance with the additional 12.5% that the NRD would be responsible for. Kruse said the project would be discussed again in January.

North Loup Flood Mitigation

Naprstek reported on the North Loup Flood project proposals. He presented a spreadsheet outlining the four proposals that were received. The bids from FYRA, HDR, Olsson, and JEO were reviewed and ranked by staff and staff's recommendation was to accept the proposal from JEO for the project. Pros and cons for all the proposals were discussed.

Naprstek said the timeline from all proposals had a start date of early January and a deadline of the first week of April.

Kruse motioned, seconded by Boesch, to accept the proposal from JEO, not to exceed \$78,650.00.

Lukasiewicz questioned whether the Board could take action on the motion since the item had not appeared on the advertised agenda.

Smith said action could be taken if it was a time-sensitive item.

Motion was rescinded and the item tabled until December.

Sargent Area Drainage Issues

Sargent East IPA

Citta said that the Sargent issues would not be action items since they had not been advertised, but would be placed on the December agenda. Callan reported that Bill Hart had gotten the required petition put together, receiving 19 of the 20 signatures.

Village of Sargent

Naprstek reported on the four proposals received for the Sargent Drainage Project. The pros and cons of each bid were reviewed, and staff was recommending Olsson for the project, with a bid of \$77,600.00. Citta said the recommendation and vote would be tabled until December.

Platte County Flood Buyout Zone

Kruse reported that letters were being sent to landowners in the floodplain around the Columbus area. He said that, to date, applications were received from 7 interested parties whose properties had a combined assessed value of \$1,332,240.00. He said more information would be coming.

NRCS MOU Agreement

Callan reported that the Memorandum of Understanding agreement was completed, and he felt that it helped clarify the relationship between NRDs and NRCS. Callan stated that the NRDs would be meeting at the Legislative Conference in January and would have the opportunity to sign the agreement then. He said staff was recommending approval of the agreement.

Kruse motioned, seconded by Eschliman, to approve the General Manager's signature on the updated Memorandum of Understanding Agreement regarding the partnership between the NRD and NRCS. Motion carried by roll call vote, all present voting yes.

Lillian Creek Feasibility Study Updates

Pat Engelbert, HDR, was present and gave an update on the Lillian Creek Feasibility Study. Engelbert explained that, as part of the study, they evaluated soil properties, did a topographic survey, looked at water supply alternatives, preliminary dam embankment options, permitting constraints, economic evaluations and potential funding sources.

He explained that if the benefit-cost ratio exceeds one, the Corps of Engineers deems a project feasible. He said HDR had been asked by the NRD last spring to continue to evaluate the subsurface conditions that exist in the area. He discussed the evaluation of soil types, permeability, and seepage. Engelbert showed a map of boring sites along the proposed dam face, as well as along the valley. The evaluations showed that the slopes or uplands consisted of silt, silty sand, and silt with sand, all having high permeability. He said that the valley was lean clay with low permeability.

Engelbert explained that the geotechnical concerns were dam stability, subsidence of abutments, piping, and seepage. He explained how additional testing was done in test pits to determine the subsurface conditions and discussed the difference in permeability from 2017 and 2019 testing. In review of the seepage, HDR determined that the reservoir seepage would be high for the first few days after filling but would fall to comparable rates to Sherman Dam after about a year. Engelbert showed a spreadsheet of the benefit-cost ratio that showed most cases being over one.

Lukasiewicz stated that from his experience with Sherman Dam, he felt that the data presented wasn't very accurate. He thought that more water would be lost in Lillian Creek than what was lost in Sherman Dam. He said that by his figures, Lillian Creek would have a seepage rate two to three times higher than Sherman Dam.

Coffey asked how the seepage would affect the water issues already present in Sargent. Engelbert explained that by their figures, the water would dissipate before it hit Sargent and the elevation of the water table near Sargent would remain unchanged; however, closer to the reservoir there would be elevated water tables. Vlach asked about the boring process.

Smith asked if a liner would be needed to lessen seepage. Engelbert said, that at this point, he thought it was sustainable under the water supply scenarios that were evaluated and that there would be sufficient to pump from the Middle Loup River up into the system to cap it off and then allow it to infiltrate and evaporate off. Engelbert stated that there were more options that could be reviewed but have not been approached yet. Smith asked if the benefits were evaluated based on pumping water costs and it was discussed that pumping was figured in the operation cost.

Engelbert stated that the next step would be to get detailed information on the valley slopes to determine the mitigation associated with constructing the dam, which would have an impact on cost. He also said that some of the next steps would be to run reconsolidation tests to evaluate how much the materials could collapse or consolidate, as well as evaluating seepage potential through the dam facing.

Podolak asked why comparison was done to Sherman Lake. Engelbert stated it was selected because it was close in proximity and soils were similar, the closest facility that has a long history. He expressed that they were not exact but would be close representations.

Lukasiewicz stated he would like to see a detailed benefit-cost ratio and Engelbert explained that benefits can be hard to measure but they apply the standards set forth by the Corps of Engineers and strictly adhere to them.

Mohrman asked who would operate the dam and control when water was released. Callan said that would be determined by who was involved with construction of the project. He said that if just the NRD were involved, it would be up to the NRD; however, there could be other organizations that participate such as the Corps of Engineers, Bureau of Reclamation, Game and Parks, Custer County, or possibly other entities that could benefit from the project.

Theede asked about the water mounds and expressed concern about surrounding land being saturated to a point that it could not be farmed. Engelbert stated that third-party impacts would be something the NRD would want to avoid. He said the purpose of this study was to evaluate the feasibility of constructing a dam, but if the project were to move forward, saturation of surrounding land would need to be considered.

Petersen asked if the materials for the dam construction would be readily available and Engelbert stated that some could come from the valley, but some would have to be brought in. He said further testing would need to be done.

Adams expressed that he had concerns the project would flood residents that were nearby.

VARIANCE COMMITTEE

Greg Smith

Thoene reported that Greg Smith had come before the Committee wanting to add acres in an area with rising groundwater levels. Thoene said the request would be reviewed again in January.

Ron Reilly/Larry Smith

Thoene stated that Reilly/Smith were able to provide documentation showing irrigated history from 1998 to 2008 on a field in 22-17-1W in Platte County; therefore, no variance was needed.

MANAGER'S REPORT

Litigation Update

Callan stated that staff was still waiting to hear from DNR on the NRD's instream flow application hearing request. No date had been set.

New Hires

None.

Non-action Reports

None.

Smith asked when the hearing for the Columbus Sub-Area 30 designation would be and Callan replied that it would probably be sometime in January. Citta asked if there would be public informational meetings prior to the hearing and Callan replied that there would be, as well as notices. Podolak asked how long the people in the area had been aware of high nitrates and Naprstek stated at least since the 90s. Callan said that the residents receive a letter each year showing their nitrate reading, and if above 10 ppm, the level set by the Public Health Service for safe drinking water, they were encouraged to seek treatment solutions to bring the number down.

NARD REPORT

Eschliman said that he was unable to attend the meeting but that Amsberry attended in his absence. Amsberry reported that a vote was taken to change the way the banking was done and elected to go with a bank in Iowa, but the change was reversed due to the selected bank in not meeting the need for checking accounts. He said the money was put back into NPAIT. He also reported that the Foundation voted to have Dean Edson give all incoming LEAD groups a one-hour presentation on Nebraska and its water. Amsberry stated that NARD would be joining Farm Bureau and The Nebraska Cattleman on a bill that clarified Nebraska groundwater because

it was different than others. He said they gave a hand to Rich Woollen on his studies on the survivability of container trees vs. bare root and would be giving each NRD between 5,000-6,000 trees to do test plot studies on. Callan stated that there were test plots at Aagaard Farm. Callan said that staff was also trying to decide where to put the money NRD had in NPAIT, due to the changes it was undergoing.

NRC REPORT

Hadenfeldt reported that the director approved 14 projects to score and the next meeting would be December 18th.

RC&D REPORT

Thoene reported that there hadn't been a meeting. Callan provided an update on the tire collection status and said Janet Sanders from Loup Basin RC&D had been working with the State to get additional funding to cover the overages and they were waiting on one more group to turn in their paperwork. He stated it sounded like there may be some additional funds but probably not enough to cover everyone's bills; however, the exact amount was presently unknown.

ANNOUNCEMENTS / FUTURE MEETING TOPICS

Eschliman reminded directors that the December 19th meeting would be held at 4:00 p.m. Schultz added that the awards dinner would follow at Trotter's Event Center.

ADJOURNMENT

With no further business before the Board, Citta declared the meeting adjourned at 7:07 p.m.

Roster for attendance of this meeting and tally of votes cast on motions at this meeting are being filed with the official minutes of this meeting at the Lower Loup Natural Resources District's Headquarters Office, 2620 Airport Drive, Ord, Nebraska. Publication notification of this meeting was made via a newspaper in each county within the District. The next Board of Directors meeting will be held December 19, 2019, at 4:00 p.m., at the Headquarters Office in Ord, Nebraska.

Henry J. Thoene
Secretary