

# ***BUFFALO-RED RIVER WATERSHED DISTRICT***

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## **PROJECT NO. 68, LAKE JACOBS OUTLET FINAL HEARING MINUTES September 8, 2011**

In accordance with Minnesota Statutes Annotated (M. S. A.) 103D.725, and any other applicable statutes, the Board of Managers, Buffalo-Red River Watershed District (BRRWD), held the Final Hearing for Project No. 68, Lake Jacobs Outlet, on Thursday, September 8, 2011, at 8:00 PM in Hildebrand Hall, Assumption Catholic Church, Barnesville, MN. BRRWD Managers present were: Gerald L. Van Amburg, Roger G. Ellefson, Curtis M. Nelson, Breanna Paradeis Kobiela, and John E. Hanson. Others attending included: Bruce E. Albright, BRRWD Administrator, Erik S. Jones, Engineer, Wade Opsahl, Technician, Houston Engineering, Inc. (H.E.); Arvid Thompson, Lauren Peterson, and Eddie Bernhardson, Appraisers; Wayne Johnson, Commissioner, Otter Tail County; and landowners: Dan Solum, Phyllis Treinen, Richard Jenson, Carol F. Schmidt, Kim Claypool, Ed Johnson, Jr., Mary Marty, Pam Axness, Ernest Hovland, Jim Marty, Brian Johnson, John Boen, Mike Boen, Obert Aaberg, Bonnie Harry, Todd Johnson, Norris Johnson, Larry Hovland, Craig Ripley, Gerald Bergquist, Beth Bergquist, Roger Kollar, Steven Bergquist, and Dave Kollar.

BRRWD Chairman Gerald L. Van Amburg called the hearing to order at 8:00 PM. He introduced the BRRWD Board, Staff, and Appraisers. He indicated that tonight's hearing was for Project No. 68, Lake Jacobs Outlet, which has been designed to lower Lake Jacobs to the Ordinary High Water Level (OHWL) of 1305.12', established by the Minnesota Department of Natural Resources (DNR). Albright distributed a sign-up sheet and advised the audience that the meeting was being recorded to aid in the preparation of minutes. He noted that members of the audience having questions should state their name for the record. Albright briefly reviewed the agenda for tonight's hearing.

Albright explained that landowners contacted the BRRWD in November 2010 concerning the rising elevation of Lake Jacobs. The BRRWD Board of Managers declared an emergency for Lake Jacobs on 11/23/10 in accordance with M.S.A. 103D.615, Subd. 1. An informational meeting with the affected landowners was held that same day. Albright noted the next steps would include the BRRWD opening bids, making an Order, and beginning construction. Albright believed it would be possible for the project to be operational before freeze up, if the consensus was to move forward. He explained the goal of tonight's hearing was to discuss landowner concerns and comments regarding the draw down and to determine how far to lower the lake. Albright listed several successful outlet projects completed by the BRRWD, including the Turtle Lake, Grove Lake, LaBelle/Boyer Lakes.

Albright asked if there were any questions regarding the legal process or why this hearing was being held tonight. There were no comments.

Erik Jones, Engineer, H.E., reviewed the project design while referring to a map displayed overhead. He explained the project is located approximately six miles west of Pelican Rapids and five miles east of Interstate 94 (I-94). The aerial photograph from 2009 reflects that the lake is approximately 216 acres in size and the drainage area is approximately 2.4 square miles (sq. mi.). Jones noted there are two options for the drainage outlet. He said one option is the natural outlet that would flow through several United States Fish and Wildlife Services (USFWS) easements. USFWS said they would not support this option since there is an alternate route that doesn't directly affect them.

Jones explained in great detail the plan and profile for the second option. He said there are two 30" dia. culverts through 120<sup>th</sup> AVE. These culverts are sufficient for the project discharges of 8-10 cubic feet per second (cfs), which will accomplish approximately one foot of drawdown on Lake Jacobs per month. The next crossing is at the quarter line in Section 21, Norwegian Grove Township, Otter Tail County, where two 12" dia. Reinforced Concrete Pipes (RCP) would be replaced with two 24" dia. pipes. Jones explained that downstream of Colness Lake, a trail crossing would be replaced with a rock spillway, with smaller rocks placed on the top, so recreational vehicles can continue to drive on this trail. He noted the level of Colness Lake this spring was elevation 1277.6'. On the southeast side of Lake Colness, there is a crossing with two 24" dia. culverts which should be adequate for the project flows. From here, water enters a wetland basin, which has a USFWS easement. A field crossing located upstream from this basin, has a 15" dia. culvert which would be relocated and upgraded to a 30" dia. culvert. The USFWS easement limits what can be done with this channel in this area, meaning channel flows cannot negatively affect the wetland's water elevation. There is a steep drop in the channel elevation extending approximately 400' downstream of County Road (C.R.) No. 21 until the channel reaches this wetland basin. There would be measures implemented to prevent erosion throughout this section, such as a series of rock drop structures and a shallow channel (4' bottom with 3:1 side slopes). Jones stated there is a 24" dia. RCP through C.R. No. 21. Then, there is a 200' stretch upstream of C.R. No. 21 that would not have enough cover for a piped outlet, therefore, this section will be an open channel with a 4' bottom and 3:1 sideslopes. The tile will begin once it is possible to have a minimum cover of four feet. A smooth walled, non-perforated tile line with water tight joints would be installed. There would be approximately 280' of tile (inside diameter of 15") installed at a 1% slope. This tile would continue to a manhole where it would then turn north and continue at a 1% slope. At the end of the tile, there would be a control structure with a screw gate and a stop log bay. The pipe invert as it enters Lake Jacobs would be installed at the OHWL. Jones explained a trash rack would be used to prevent bigger debris from entering the tile line.

Jones asked if there were any questions regarding the proposed plan. There being none, he continued with a review of the total estimated cost, which was \$195,400. He detailed the breakdown as follows: \$111,500 for construction costs, \$20,000 for contingencies, \$50,000 for engineering/permitting, \$2,500 for legal expenses, \$3,500 for administration, \$6,400 for permanent and temporary right-of way (R/W) and other damages, and \$1,500 for utilities.

A landowner asked who would monitor/control the elevation. Jones explained this has been the responsibility of the BRRWD for other projects, and he thought it would be the same for this project.

Landowner Larry Hovland asked what the approximate project cost of the natural outlet route would be, assuming there would be no issues with the USFWS. Jones stated the cost estimate from May reflected a difference of approximately \$27,000. He noted the majority of the savings is from the shorter length of tile required for the natural outlet option.

Landowner Roger Kollar commented that the two culverts between the sloughs cannot handle the current spring flooding. The water spreads out at least 1,000' wide in the spring. Jones explained one benefit of using a stop log bay and/or a screw gate, is that the BRRWD can meter the water discharged from Lake Jacobs depending on downstream conditions.

Landowner John Boen asked if the plan included lowering the culverts upstream of Colness Lake. Jones commented that the design included replacing a 15" dia. culvert on Kollar's land with a 30" dia. culvert. Boen explained it always backs up at the point where the water has to flow into the channel and enter Colness Lake. He stated that when this occurs, he has to use other people's property to access his field each spring. Boen stated the elevation of Lake Jacobs is higher than it's ever been. Jones noted the importance of an operation plan is to be able to determine when to allow flow through the channel without

impacting downstream landowners. Kollar reiterated this is an area where water backs up into the ditch/field.

Landowner Ernest Hovland asked why the landowners would be assessed for the project. Jones commented that Albright would be covering this topic shortly.

Albright asked if it had been determined whether or not Wildlife Lane is a Township road or a private road. Wade Opsahl, H.E., noted that a statement in the most recent plat book reflects that the road "has been dedicated for public use". Opsahl researched and confirmed the legality of this statement. Landowner Kim Claypool questioned why a culvert for Wildlife Lane was approved without the Township being notified. Opsahl did not know. Landowner Phyllis Treinen explained that during the development of their lot, her husband had built the road to township specifications. As lake lots were developed, the road would be turned over to the Township when the time came for the school bus to use the road. To the best of her knowledge, this exchange had not occurred. Opsahl explained that this turnover may have occurred when the County and Township approved and signed the plat.

Albright asked if there were any further questions regarding the Engineering Design. There were no further questions or comments.

A grant has been secured through the DNR to cover 50% of the total estimated project costs (\$195,400). Albright explained that the BRRWD submits a pay request to the DNR for reimbursement. He noted the DNR will only pay 50% of the total costs, so if the costs were less, they would only cover 50% of the new total. Also, they will not pay more than 50% of the total. Albright explained that the actual project costs could be calculated if/when the construction bids are opened.

Albright gave a brief history of the BRRWD. The Watershed District was originally established as the South Buffalo Watershed District on August 31, 1960, and consisted of approximately 344 sq. mi. On September 17, 1976, the Watershed District was renamed and was enlarged in response to the 1975 summer flood. The total area was 1,379 sq. mi. after the Lake Olaf area was removed in 1978. Albright stated landowners across the entire Watershed District are assessed a general tax levy in accordance with M.S.A. 103D.905, Subd. 3. He noted the BRRWD has been doing a general assessment for the last 9-10 years in that regard for other projects, similar to this one. The BRRWD has agreed to contribute 25% of the project costs from this general taxation. The remaining 25% would be the responsibility of the landowners.

Appraiser Eddie Bernhardson, presented the Appraisers report for Project No. 68, Lake Jacobs Outlet:

In accordance with M.S.A. 103D.725, and any other applicable statutes, we herewith submit the following Appraisers' Report:

#### Benefits Statement

This report covers the determination of benefits for the Project No. 68, Lake Jacobs Outlet, which is being developed by the BRRWD in accordance with Minnesota Watershed Law. The basis for determining our benefits is a comparison of the conditions expected with the proposed project with those that exist today.

Over the past several years, with abnormal rainfall, this area has become a flooding issue. The BRRWD held an informational meeting on 11/23/10 to discuss these problems. On that same date, the Board made an "emergency declaration" in accordance with M.S.A. 103D.615 for Lake Jacobs. The appointed Engineer, H.E., filed their initial study of the project on May 9, 2011, which has subsequently been revised (5/23/11) to reflect the final design concepts.

We (Lauren Peterson, Arvid Thompson, and I, Eddie Bernhardson) were appointed by the BRRWD to determine the benefits for the proposed project. We took our Oath of Office and held our first meeting on February 1, 2011. On that same date, we toured the project area. We continued our work on July 6, July 27, and August 8, 2011, and filed our report on 8/08/11. The proposed project has been described earlier by Erik S. Jones, Engineer, H.E., and this is the project for which we have determined benefits.

We understand that Lake Jacobs was at elevation 1313.6. The proposed project could lower the lake over time to elevation 1305. The United States Geological Survey (USGS) maps show Lake Jacobs at elevation 1302.

We toured the lake and observed numerous properties and roads affected by the flooding. The area within our benefit area for Lake Jacobs is at or below elevation 1315.5, which is the natural runout elevation, if nothing is done. We used this contour elevation as a starting place for our benefits because this is an elevation that could be realized if an outlet is not constructed and Lake Jacobs keeps rising. At this elevation, Lake Jacobs would start flowing naturally to Colness Lake. Our benefits were placed directly around Lake Jacobs, and we did not look at any benefits for areas downstream to Deerhorn Creek due to new culvert crossings, etc., nor did we assess any benefits to the lake's contributing watershed.

The basis for our benefits started with the County's assessed property values, which were adjusted to reflect the value for areas within our benefit boundaries. For lands around the lake, we then multiplied these adjusted values by the various rates (25%, 50%, and 100%) to establish individual benefits.

Supporting documentation for our analysis and conclusions of the Report are contained in our files and are available for inspection.

The figures stated within our Report are based on a full and fair consideration of all pertinent facts and information that we were aware of at the time of our work. The following aids were used during our review process:

1. Otter Tail County soil survey manuals and maps
2. FSA aerial photographs
3. USGS topographical maps
4. Sales data and market values from the Otter Tail County Assessor's Office
5. Visual inspections of the project properties
6. LiDAR data

We understand that costs for the project will be assessed against benefited properties (25%), DNR (50%) and the BRRWD and their M.S.A. 103D.905, Subd. 3, account (25%). Historically, the local assessments have been financed either by the BRRWD or through a bond sale that could run over a 7-10 year period. We were told that the total estimated project costs are \$195,400. In our report, we found benefits of \$213,470 for private lands, \$10,000 for road benefits, and total benefits of \$223,470. The estimated local share of the project costs is approximately \$48,850 (25%). The project multiplier (local costs divided by total benefits) is 0.199. This multiplier can be used to estimate an individual's costs.

The benefit values are based upon an increase in the property's value as a result of constructing the outlet project and reconciled with sales value increases. All present land use was evaluated under estimated best land management practices.

Road benefits were determined with consideration of the reduced construction and maintenance costs that will be realized after construction of the proposed outlet project. Clearly, without the proposed project,

the homeowners will need to continue to work on their roads adjacent to Lake Jacobs, either by raising them, or armoring the slopes with riprap to protect against erosion.

Our report also includes a damage assessment for R/W acquisition. For the outlet downstream of Lake Jacobs, the project requires both permanent and temporary (construction) R/W. The permanent R/W includes both cropland and non-cropland areas. For crop areas, we propose a payment rate of \$3,000/acre for permanent R/W, and \$300/acre for construction R/W. For non-cropped areas, we used \$1,500/acre for permanent R/W, and \$300/acre for construction R/W. The Lake Jacobs outlet includes both buried conduit and open channel areas. All open channel areas will include the required one-rod (16.5 ft.) grassed bufferstrips, which have been included in the permanent R/W calculations. Where closed conduit needs to be buried, permanent R/W is required, but after construction, it is anticipated that these areas will return to cropland.

We would be happy to answer any questions you may have regarding our work or findings, and we are pleased to be of service to the Board in this regard.

Albright gave a brief explanation regarding the theory behind the Appraiser's values. He explained LiDAR is a survey performed from an airplane via a laser beam. The LiDAR produces surface elevation data within 6" of accuracy. This data, along with the other aids used by the Appraisers, helped determine the benefits. Albright explained those landowners within the 25% benefit area will gain some land after the drawdown is completed. There would be no threats to structures, roads, septic systems, etc. Those in the 50% benefit area are experiencing more flooding issues. The drawdown would have a greater impact for these areas. Finally, the 100% benefit area is where the greatest impact would be seen. In this area, the roads are currently under water with landowners having a difficult time accessing their properties, and some lots are completely under water.

Landowner Craig Ripley stated he is located in the red (100% benefit area). He feels the design will only partially benefit him due to the elevation of Wildlife Lane, which acts like a dike and prevents the water from draining completely. Van Amburg asked if it would be possible to place a culvert in the road. Jones said it was a possibility. The concern was noted and will be re-evaluated.

Van Amburg asked if there were any further questions.

Landowner Carol Schmidt, speaking on behalf of her husband, Kim Claypool, and herself, explained they own one parcel within the 25% benefitting area and one parcel in the 100% benefitting area, which they disagree with. She said the County Assessor informed them there would be no increase in property value even with a lower water elevation. Therefore, the owners feel they should not be assessed on these parcels since there is no benefit to them. She also noted they own a peninsula of land which extends into the 100% benefit area. This parcel of land is all woodlands. Again, they feel there is no reason to be assessed on this land. Their land was flooded at the time a culvert was placed through Wildlife Lane. They feel this drawdown plan is not going to benefit them because it will not drain the water in their woodland/field. Bernhardson questioned if there would be a culvert placed in that road to provide any drainage. Jones explained there is not culvert included in the drawings. He noted he is hesitant to include a culvert until they know how water levels will adjust with the drawdown of Lake Jacobs. Schmidt commented that the soil in this region is heavy clay. Jones explained another option for the Schmidt's would be to cut the road temporarily to allow the excess water to drain through the location where Wildlife Lane had been built up.

Schmidt was also concerned with how far Lake Jacobs would be lowered. She and her husband have lived on the lake for 30 years and they feel the lake is the best it has ever been with the higher water levels.

The fish have been clean, and the lake does not get smelly. However, they realize people are affected by the higher levels. The Schmidt's would like to see as minimal change in elevation as possible.

Landowner Larry Hovland feels the lake is a mess and needs to be lowered.

Treinen disagreed with the statement concerning the culvert causing damage to Schmidt's property. She stated the water also went over the road and if the culvert were not there, Schmidt's property would have been impacted more significantly. Schmidt stated the point she is trying to convey is that the project as presented will not drain their field. She does not feel they should be assessed, especially at the 100% benefitting rate. Albright noted the concern for the Appraisers to review.

Van Amburg added that tonight's hearing provides feedback for the Board to consider, while they make a decision to move forward with the project or not. Albright noted the Board is listening to the comments and concerns regarding the lake level. There may not be a final determination regarding the lake level, but it is something that would be continually monitored, by both landowners and the BRRWD, in order to maintain a proper elevation.

Schmidt questioned what the procedure is for the drawdown. Albright explained the pipe with a 15" inside dia., would control the release rate and timing of the water. The project is designed to drain approximately one foot per month, but this can vary depending on current weather conditions. The stop logs can be installed once a certain elevation is achieved. This elevation can be adjusted in order to achieve the best conditions for everyone affected. Albright noted there would be a gauge on the lake to monitor levels, as well as landowner observations, to help determine if the water elevation needs to be adjusted.

Albright explained that a permit is not required from the DNR since the work would be above the OHWL level (1305.12'), established by the DNR. He noted a permit would be required if the project were to drain below the OHWL. He did note two permits that need to be obtained: A Grade and Fill Permit from Otter Tail Land and Resource, and a permit for the work to be completed within the R/W for C.R. No. 21. Jones added that the permit for work in the R/W requires a deposit which would be refunded once the area is restored.

Van Amburg asked if there were any further questions. There were no comments.

Albright discussed the timeline for when the landowners might be assessed if the project were to move forward. He explained if the project were operational by the fall 2011, the first assessment would most likely appear on their 2013 taxes and would be assessed over a three-year period. He said a bond sale would not be possible for this project alone, but it might be possible to combine several projects into one bond. A bond sale, which would spread the payments out over 7-10 years, cannot be used for a project cost share that is less than \$50,000. Albright also noted there could always be future maintenance costs, such as beaver dam removals or stop log maintenance. These costs would be assessed to the affected landowners as well.

Bids will be opened on Monday, September 12, 2011, at the BRRWD Board meeting. Albright explained that this would give the BRRWD an idea of who is willing to perform the work and an actual cost. It does not mean that a contract has to be awarded. The Board would likely make a final decision regarding the project at their meeting on Monday, September 26, 2011. If the decision were to proceed, the BRRWD would file an order and award the construction contract, and a 30-day appeal period would begin. Albright noted that the BRRWD would need to acquire permanent and temporary easements from four landowners. These landowners include Brian Raftevoid, Erik and Julie Kari, Phyllis Treinen, and John Boen.

After the 11/10/10 Lake Jacobs informational meeting, Township Supervisors and landowners approached Albright regarding high water issues on Lake Annie. Albright found out that Lake Annie is not part of the BRRWD, however, H.E. gathered additional information to try to determine where an outlet could go. H.E. presented the following three options for an outlet: to drain it straight west into Lake Jacobs, southeast into the Pelican River watershed, or via the north side of Lake Annie, which would drain into Lake Olaf from the northwest. Lake Olaf already has an outlet to manage water levels. Albright mentioned that the Township was considering the first option of draining into Lake Jacobs, however, this could not happen unless they became part of the Watershed District. Albright explained the process of becoming part of the BRRWD according to Watershed Law.

Otter Tail County Commissioner Wayne Johnson stated that an informational meeting was held in July to discuss BWSR's petition process and the options for an outlet on Lake Annie. Albright mentioned he would be revising the petition to include three potential changes for the BRRWD which are as follows: include the Lake Alfred Outlet (North Lake Olaf) in the BRRWD, to add Lake Annie into the BRRWD, and to have BWSR add a water manager for Otter Tail County. The BRRWD Board would need to increase from five members to seven. Albright stated a hearing would be held to take testimony regarding the above changes before the requests would be finalized.

Albright explained that the BRRWD and landowners need to consider the Lake Jacobs project as it exists today. He said the Lake Jacobs project would need to be re-evaluated if there were future changes made that would impact it. Albright noted that Jones' project design for Lake Jacobs would be capable of handling drainage from Lake Annie. He said there would be a gate on the Lake Annie outlet if one were constructed, to prevent downstream issues when needed.

A landowner commented that they thought Lake Annie was already draining into Lake Olaf. Johnson explained that the County offered the Minnesota Department of Transportation (MNDOT) to direct water to the pumping station at Deadman Lake (East Olaf Lake). The one request made by the County in regards to this option, was for MNDOT to share the pumping costs. Currently, there are two 50 horsepower electric motors which pump water over a hill into the Pelican River. MNDOT declined the County's offer and chose to raise Minnesota State Highway 108.

Boen questioned why Lake Annie wanted to be included in the BRRWD once again. Van Amburg stated he was unsure and that the decision would be up to BWSR. Boen stated he is willing to sign an easement for the Lake Jacobs project only. He felt the water from Lake Annie should be directed to Deadman Lake since there are pumps installed and that lake has been lowered. Albright informed Boen that special terms could be stated in his easement that it is for the lowering of Lake Jacobs only. Boen expressed a concern with historic downstream drainage issues. Manager Roger Ellefson explained that having the ability to meter the water flow helps ensure it does not cause downstream problems. He also commented that someday the landowners benefitting from an outlet might have to contribute to the maintenance costs of the downstream ditches being utilized by their outlet flow. Albright explained it would be assumed that Lake Jacobs would never run during spring runoff.

Johnson asked if Lake Alfred was dependent on Lake Annie to drain. Albright said they are independent of one another. Johnson also questioned if it would help alleviate landowner concerns if shut off dates were specified in the Operations and Maintenance Plan (O&M Plan). Van Amburg explained there are certain defined triggers that the BRRWD follows when determining whether the outlet should be open or closed. Van Amburg stated that Boen's concern had been noted.

A landowner questioned if the easements extended past Boen's property to the Kollar property. Jones explained there are no easements past Boen's. There are areas where improvements will need to be

completed but this does not require an easement. Albright also noted if crops were damaged during the completion of these improvements, the BRRWD will compensate the landowners.

Van Amburg asked if there were any further questions or comments. Being none, he adjourned the hearing at 9:55 PM.

Respectfully prepared and submitted by

Bruce E. Albright, BRRWD Administrator