

Lac qui Parle-Yellow Bank Watershed District
Special Meeting #615.1
June 10, 2021

The matter of the petition of Steven Haas and others
for the Improvement of Lac qui Parle Branch 3 County
Ditch #4

Preliminary Engineer's Hearing

The preliminary engineer's hearing for the matter of the petition of Steven Haas and others for the improvement of Lac qui Parle County Branch 3 County Ditch #4 was called to order by Chairman Ellefson at 10:00 a.m. with ZOOM option at the Lac qui Parle County Commissioners' Room, Lac qui Parle County Courthouse, 600 6th Street #7, Madison, MN.

Managers present: Chairman Darrel Ellefson, Vice-Chairman John Cornell, Secretary David Craigmile, Publicity Michael Frank, and Treasurer David Ludvigson. **Staff present:** Trudy Hastad & Jared Roiland. **Others present:** Houston Engineer Chris Otterness, Petitioner Steven Haas, Seth Haas, Landowners David Estling, Kenneth Devorak, Jason Webber, James Call, Bruce Vaala, Kevin Halvorson, Mark Hastad, SWCD Chessa Frahm. Present via ZOOM: Patty Walgrave, Steven Jensen, & David Minge.

Chairman Ellefson welcomed everyone to the hearing. Administrator Hastad stated the purpose of the preliminary engineer's hearing. Administrator Hastad reviewed the record of Notice requirement. The public notice was advertised for three weeks (May 18, 25, & June 1, 2021) in the Western Guard and Dawson Sentinel papers, posted on the legal bulletin board in the Lac qui Parle County Courthouse, and sent to each landowner of the County Ditch #4 system via US Postal Service, Madison, MN.

Hastad read Attorney Kolb's report regarding review of the petition which stated the petition was filed with the County Auditor pursuant to statutes sections 103E.202 and 103E.215. Since the improvement is within the Lac qui Parle/Yellow Bank Watershed District, the petition must be filed with the Watershed District pursuant to statutes section 103D.625 subd. 4. Based on its agreement with the County, the Watershed District board of Managers will conduct the improvement proceedings in coordination with County staff. The petitioned improvement occurs solely within Lac qui Parle County. Based on the petition, the petitioners are owners of 63.6% of the property area that the proposed improvement passes over. Having reviewed the property ownership information for the petitioners' parcels on record with Lac qui Parle County, he determined that we received valid signatures. He reviewed the remainder of the petition and found that its remaining content meets the requirements of statutes section 103E.215. The petitioners filed a cash deposit bond totaling \$10,000. This bond is sufficient to initiate the proceedings, although close attention must be paid to costs to ensure that subsequent bond deposits or a replacement security remain sufficient to cover the costs of the proceedings. The petition also specifically requests that separable maintenance be considered. This will be communicated to the engineer and will require extended mailed notice to the Branch 3, CD #4 system for the final hearing.

Houston Engineer, Chris Otterness presented his preliminary engineers report for Branch 3 County Ditch 4. He stated the petitioned project consists of an improvement of Branch 3 of Lac qui Parle County Ditch 4 (CD4 Br3). The improvement will increase the capacity of a tiled portion of Branch 3. The petition for improvement of CD4Br 3 states that the drainage system has insufficient capacity, and inadequate cover. The installation of larger tile is required to furnish sufficient drainage capacity and fulfill its original intended purpose; and the proposed improvement will be of public utility and promote the public health. The drainage system is located in section 9, 10 and 15 in Madison Township (T118N, R44W). The tile system was constructed in 1906 and is now well over 100 years old and is past its functional life. Two significant sections of the tile have minimal cover and have incurred damage due to their shallow depth. Tiles of this age typically experience displacement of individual pipe sections, which decrease the functional cross-section of the pipe and consequently decrease the capacity from its as-built condition. One such location is at the outlet, where tile sections have become displaced and have dropped. Numerous repairs have been required to repair blow-outs and other failures of the system, and it is likely that deterioration will continue to accelerate due to its age and shallow depth. The existing tile cannot be effectively maintained and must be replaced in its entirety.

On-site survey was completed by HEI in March 2021 to determine the location and elevation of the existing tile at the tile outlet and tile inlets when discovered. Two areas of concern for this project are low areas that no longer have adequate cover over the drain tile. Top of field survey elevations were obtained to determine more precise measurement of the available cover in the two low spots. LiDAR elevation data from the state of Minnesota was utilized to develop drainage patterns and catchment boundaries and determine tile-laying depths. The project site survey included several soil borings in the CD 4 Main Trunk near the outlet of Branch 3. The borings and channel cross sections reveal that the main trunk is also in need of maintenance to clean out sedimentation and allow for an improved outlet of Branch 3. The surveyed outlet elevation is at 1031.5 feet with adjacent soil borings showing a channel bottom at 1031.7 feet and sedimentation to roughly elevation 1032.3 feet.

Plan and profile drawings, provide a graphical representation of the current system and recommended solution to correct existing flooding and drainage problems in the benefiting area for Branch 3. This included replacement of existing tile with new tile sized to provide a 3/8-inch drainage coefficient. The NRCS recommends a drainage coefficient of ½ inch per day for most agricultural lands in this region. However, a ½ inch drainage coefficient cannot feasibly be achieved for this system due to the size of the contributing drainage area to this system, the elevation of the existing outlet (CD 4 Main Trunk) and the minimum cover required in the depressional areas. The capacity of 3/8 inch of runoff per day over the drainage area will provide a substantial increase in function compared to existing conditions and will support modern row crop production. Along with providing the additional capacity needed, the proposed design provided adequate cover for the majority of the system. Specifically, a minimum of 3 feet of cover is achieved throughout the project area with the exception of the downstream low area which achieves between 2.5-3 feet of cover. This is a significant improvement compared to current conditions and is sufficient to prevent flotation of the pipe. If greater depth of cover near the outlet is required, alternative configurations for Branch 3 could be considered that would provide the desired cover. This may include realigning the outlet to a location with higher topography or utilizing multiple tiles with a smaller diameter. It is anticipated that realignment alternatives may have challenges. Realignment of the outlet may require reconstruction of private tiling at that location, which in turn may have cover challenges. Likewise, the increased cost associated with installing multiple lines of tile may make the improvement cost greater than the project benefit. Engineer Otterness reviewed compatibility with existing plans and state law and project costs and public and private benefits. The project would be compatible with Local, State, & Federal plans and also the LQP-YB Watershed District Management Plan, Lac qui Parle County Water Plan, & County Zoning and Land Use plans.

The Engineer reviewed private benefits expected for the project accrue mainly to agricultural lands that lie adjacent to the proposed improvement with reduced overland flooding, reduced seepage, and erosion prevention along with reduced maintenance costs. Public benefits include benefit to 241st avenue which has been partially washed-out in recent years due to overland flooding and the project will reduce the duration of standing water adjacent to the road by improving drainage capacity from the contributing drainage area, protection and preservation of tax base, and reduction of impairments to public waters. The Engineer reviewed alternative measures with the first being do nothing. Due to the age of the system, it will continue to rapidly deteriorate, requiring significant cost to maintain until it is improved or repaired. The current drainage system contributes excessive sediment and nutrients to downstream impaired stream reach due to open water intakes and sectional tile. For these reasons, the Do Nothing alternative is not preferred. The second alternative measure is Repair. Repair of the drainage system would resolve the excessive contribution of sediment and nutrients to downstream impairments but would not enhance the economic viability of agriculture. Repair would also fail to resolve the issue with lack of cover depth. Therefore, it is not a feasible alternative. Alternative three would be Improvement. Improvement of the drainage system would resolve the excessive contributions of sediment and nutrients to downstream impairments, enable sufficient cover depth for long term viability, and enhance the agricultural economics on the drainage system. The engineer reviewed three alternatives they looked at for the improvement project. The proposed improvement will be of public utility and benefit and will promote the public health and welfare. Public utility and benefit is achieved by providing more efficient drainage to agricultural properties and public roads within the drainage area. The improvement will protect property values and improve the economy of agricultural production. Public health and welfare is achieved by reducing the frequency of wet and overflowed land which will improve the general sanitary condition of the community, relieve low wet or stagnant and unhealthful conditions, and protect the overflowed property – just as was sought to be achieved in the original proceedings to establish CD4 Branch 3.

Engineer Chris Otterness reviewed proposed costs for the improvement with construction costs of \$929,000 and other costs at \$173,300 for a total cost of \$1,102,300. He reviewed separable maintenance costs. The ditch inspector has previously indicated that the existing tile is in poor condition and given the age of the system, originally constructed in 1906, it is recommended that the existing tile be replaced regardless of improvement proceedings. The cost to repair existing main trunk tile by replacement at its current sizing was separately estimated from the improvement cost and found to be \$920,250. The engineer recommended that the Viewers consider these as separable maintenance costs relative to the improvement in further ditch proceedings.

The Engineer's recommendation is the proposed project outlined in the preliminary engineer report is necessary, feasible, and practical. He recommended that the managers take the necessary legal and administrative steps to proceed with the Improvement of Lac qui Parle County Ditch 4 Branch 3. This includes the ordering of the Engineer to make a detailed survey with plans and specifications and appointing viewers to assess benefits and damages.

Chairman Ellefson asked the Board if they had any questions for the Engineer. There being none, Administrator Hastad read the DNR's preliminary advisory report response into the record. Hastad said the Engineer would address the DNR's concerns following the hearing.

Chairman Ellefson opened the meeting to public comment. He asked people to state their name and location to the project if commenting.

Landowner Jim Call asked for a copy of the DNR comments. Petitioner Steven Haas also asked for a copy of the DNR comments.

David Minge, via Zoom, stated he was with the Izaak Walton League, and asked if the Engineer will respond to the DNR comments and wondered if the flow at the outlet would be decreasing?

Engineer Chris Otterness said they would respond to the DNR comments if the Board requested them to do so. He stated the flow will be slightly increasing and was stated incorrectly in DNR comments. The open channel of CD #4 would have a small increase of 1-5%. The flow coming thru the main trunk of County Ditch #4 Br. 3 tile amount will be minimal because of small amount of drains.

David Minge, via Zoom, asked if we increase from 1/8 co-efficient to 3/8 co-efficient is that going to increase the flow out of Branch 3 by 300%. Engineer Chris Otterness replied flow will depend on what the rainfall event looks like.

David Minge discussed his background which led to his participation in today's hearing. He is currently working with the Izaak Walton League. The Minnesota River downstream watersheds are complaining that upstream practices have led to non-farming downstream. The Cargill barge ships required the channel to be dredged which caused hundreds of thousands of dollars to remove dredge material that resulted in sedimentation at Lake Pepin. Every project has a dominium's, but 100 to 1000 projects have overwhelming impacts. They are looking at upstream drainage projects to see what impacts they may have downstream. He encouraged the drainage authority to weigh all comments and look at what DNR has asked, do models, and strongly encouraged use of BMP practices.

Chairman Ellefson responded that the standard practice of the LQP-YB Watershed District is to have the engineer respond to the DNR comments in the final report.

Petitioner Steve Haas said the proposed project will provide less sediment to CD #4. Engineer Chris Otterness confirmed the project will reduce sediment and they recommend intakes which will further help with sediment reduction. Petitioner Steve Haas said by improving the tile from 1/8 to 3/8 co-efficient will also help in spring with heavy rains as they will go under ground through the tile versus overtop flooding. Engineer Chris Otterness said in a heavy rain event the water currently floods overland to County Ditch #4. Petitioner Steven Haas felt it was crazy to not do this project as current tile is in total disrepair and unsafe to farm. He thought it would be a good project and would reduce soil erosion and sediment buildup in CD #4.

Landowner Bruce Vaala asked the Engineer to explain parallel lines. Engineer Chris Otterness said they looked at realignment of the system by using two 30" lines but found you get diminishing returns. The bigger capacity doesn't correspond, with a 36" tile you have to have roughly two 30" tiles to be equivalent and they worked through the cost and found it would be more expensive to do the two lines. Petitioner Steve Haas stated with the improvement should be better water quality and WS could request inspection reports. Engineer Chris Otterness replied they can install larger intakes so the tile system could have a camera run thru it. Chris discussed the NWI wetland map. Petitioner Steve Haas said he can provide his NRCS wetland inventory map on his land to the engineer. Chris said that would be good.

Landowner Kenny DeVorak reported the engineer map is wrong as the branch 3 tile line does not hook up to the ditch on the north part of the map. He has lived in the area his whole life and it has never connected at that point. Engineer Chris Otterness said the map was incorrect and had already noted that. Kenny was not in favor of the project if it cost \$800/acre. Engineer Chris Otterness said that was in the DNR report and was incorrect. He then discussed the cost of separable maintenance and the difference between improvement of the system. The Watershed office will work with Kenny to get him his approximate cost on the proposed million dollar project.

Chairman Ellefson said he has worked on that tile quite a bit over the years and said it was his understanding that there was tile in the NW part of corner by Kenny DeVorak but the water would run ovetop of the ground so an open ditch was added later at the point where the tile blew out. Landowner Kenny DeVorak said he was correct and they installed two outlets and then vacated that tile portion. Landowner Steve Haas reported that in the spring if CD #4 doesn't open up to the North or East the water comes so fast it takes out Harry Schultz driveway. Steve said he also felt somewhat insulted by DNR comments as he uses BMP practices and feels he is proactive by using reduced tillage, griding all their ground, looking into cover crops, and uses a crop consultant to name a few. Engineer Chris Otterness said it his helpful to know this and will use for comments.

Chairman Ellefson asked for other comments. There being none, the public comment portion of the hearing was closed.

Hastad reviewed the draft findings and order (attached as exhibit A) and recommended appointing the viewing team of H2Overviewers as viewers and instruct the Engineer to reply to DNR comments and move forward to complete a more detailed engineer report.

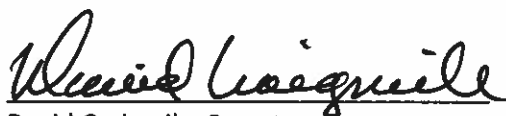
Manager Ludvigson motioned to adopt the findings, move ahead with the order as attached (Exhibit A), seconded by Manager Craigmile. Chairman Ellefson stated there is a motion, and a second, any discussion?

Chairman Ellefson said there was motion made, and a second to adopt the findings & order (as attached) and appoint H2Overviewers as viewers. On motion, the motion passed 5-0.

Chairman Ellefson adjourned the hearing at 11:33 a.m.


Darrel Ellefson, Chairman

ATTEST:


David Craigmile, Secretary

STATE OF MINNESOTA
LAC QUI PARLE-YELLOW BANK WATERSHED DISTRICT BOARD OF MANAGERS
SEATED AS DRAINAGE AUTHORITY UNDER STATUTES CHAPTER 103E
FOR THE IMPROVEMENT OF LAC QUI PARLE COUNTY DITCH 4 BRANCH 3

The matter of the petition of Steven Haas and others for the improvement of Lac qui Parle County Ditch 4 Branch 3

Preliminary Hearing Order

The Board of Managers of the Lac qui Parle-Yellow Bank Watershed District, sitting as Drainage Authority for Petition for Improvement of Lac qui Parle County Ditch 4 Branch 3 (CD 4 Br. 3) met at 10:00 a.m. on Thursday, June 10, 2021, at the Watershed District meeting room at the Lac qui Parle County Courthouse, 600 6th St., Madison, MN, for a Preliminary Hearing. The hearing was held according to Minnesota Statutes, section 103E.261. Having considered the preliminary engineer's report, the DNR's Preliminary Advisory Report and the comments and testimony received at hearing, Manager Ludvigson moved, seconded by Manager Cragmille, for adoption of the following:

Findings:

1. The Drainage Authority met at 10:00 a.m. on Thursday, June 10, 2021, at the Lac qui Parle County Commissioners Room located in the Lac qui Parle County Courthouse, for the preliminary hearing on the petition for improvement of CD 4 Br. 3.
2. The hearing was held according to Minnesota Statutes, section 103E.261.
3. The administrator presented the history of the proceedings through the preliminary hearing and summarized the requirements of the drainage code.
4. The hearing was noticed according to statute after filing of the preliminary engineer's report.
5. The drainage authority's attorney examined the petition to determine its sufficiency.
6. The drainage authority finds the following regarding the sufficiency of the petition:
 - a. The Board verified the signatures and ownership interests of the petitioners and finds that the petitioners are the owners of 7 of the 11 – 40-acre parcels that the proposed improvement passes over. As such, petitioners are at least 26 percent of the owners of the property affected by the proposed improvement; or the

- owners of at least 26 percent of the property area that the proposed improvement passes over. (103E.215)
- b. The petition was filed with the Watershed District Board of Managers. The petition was properly filed with the Board of Managers to initiate improvement proceedings. For the purpose of a properly filed petition for improvement of a drainage system within the Watershed District, the Board of Managers composes the Drainage Authority for the improvement and, if the improvement is ordered and constructed, for all subsequent actions on the drainage system. (103D.625)
 - c. The petition properly designated the drainage system proposed to be improved by number and map description that identifies the drainage system; the petition alleges that the drainage system has insufficient capacity or needs enlarging to furnish sufficient capacity; the petition describes the improvement, including the names and addresses of owners of the 40-acre tracts or government lots and property that the improvement passes over; the petition alleges that the proposed improvement is necessary and will be of public utility and promote the public health; the petition contains an agreement by the petitioners that they will pay all costs and expenses that may be incurred if the improvement proceedings are dismissed; the petition alleges that the existing drainage system needs repair and further petitions the Board to consider separable maintenance when determining the allocation of costs of the improvement; and the petition was accompanied by cash bond from the petitioners of \$10,000, conditioned to pay the costs incurred if the proceedings are dismissed or a contract is not awarded to construct the drainage system proposed in the petition. (103E.215)
7. The preliminary engineer's report, as amended, was read and reviewed by the drainage engineer.
 8. CD 4 Br. 3 provides beneficial drainage to agricultural properties, public roadways, and otherlands in Sections 9, 10, & 15 of Madison Township, Lac qui Parle County, Minnesota.
 9. CD 4 Br. 3 is in need of repair. CD 4 Br. 3 has remained in service since its original construction in 1918. Besides minor repairs, no major repair or replacement of tile has occurred since original construction. The tile is experiencing more frequent failure at the end of its useful life. Because the original construction did not anticipate the future demands on the drainage system, construction materials and techniques were used that are now prone to failure and rapid deterioration. Previous repairs on the tile have indicated that the existing tile is deteriorated and out of alignment. Years of use and settlement of sections of the tile have reduced the hydraulic capacity of the tile.
 10. CD 4 Br. 3 is in need of improvement. Even in a repaired state, CD 4 Br. 3 is inadequate to support beneficial drainage for current farming and drainage practices. CD 4 Br. 3 has insufficient capacity and needs to obtain more cover to keep the line intact and operating efficiently. CD 4 Br. 3 does not meet current design criteria: the original construction of CD 4 Br. 3 was not deep enough to accommodate adequate drainage to much of the watershed it was intended to serve;

new drainage and farming practices in the watershed of the ditch create further need for increased tile capacity; and shallow installation depth must be corrected to reduce frequency of repair to accommodate current farming implements.

11. The proposed improvements include: lowering the depth of the drainage system to accommodate current farming practices, tile outlets and improve drainage efficiency; increasing the size of existing tile segments to accommodate improved flow; and construction of new surface intakes where necessary to provide improved, buffered and stabilized inlets and to prevent erosion of soil into the system.
12. The preliminary engineer's report indicates that the capacity of the portion of CD 4 Br. 3 proposed to be improved is inadequate to convey the drainage demand being placed on the drainage system.
13. The proposed improvement includes a separable maintenance portion of cost as recommended by the engineer based on the current alignment of tile portions of CD 42 having reached or exceeded its useful life and tile deterioration and settling having reduced the hydraulic efficiency of the system.
14. A copy of the original preliminary engineer's report was mailed to commissioner of natural resources as required by Minnesota Statutes, section 103E.255. By letter dated June 9, 2021, the commissioner provided comments (preliminary advisory report) on the preliminary engineer's report. The comments were read into the record.
15. A copy of the preliminary engineer's report was also provided to the Lac qui Parle County SWCD, Lac qui Parle County Environmental Services and the Lacqui Parle County NRCS office to initiate coordination and investigation of potential external sources of funding to facilitate incorporation of environmental, land use, and multipurpose water management features or alternatives into the project as required by Minnesota Statutes, section 103E.015. As of the date of the preliminary hearing, the Board has not identified any external sources of funding to facilitate incorporation of environmental, land use, and multipurpose water management features or alternatives.
16. The Board invited comment from landowners present at the hearing.
17. Comments were received regarding the condition of the ditch and the need for the improvement.
18. The proposed improvement of CD 4 Br. 3 as petitioned and as addressed in the engineer's preliminary report, is feasible, necessary, will be of public benefit and promote public health.

19. The environmental and land use criteria in drainage code have been adequately considered by the engineer and, as directed herein, will be further investigated in considering the final scope of improvement.
20. Based on the engineer's evaluation of the receiving watercourse, the outlet for the proposed improvement is adequate.
21. The drainage authority has identified a viewing team, consisting of three disinterested residents of the state, qualified to assess benefits and damages, available to view this project and willing to perform the duties of viewers for this project.

Based on the foregoing findings, the ~~Joint~~ Drainage Authority adopts the following:

Order:

- a. The Board accepts and adopts the preliminary engineer's report for the petitioned improvements.
- b. The Board, upon filing this preliminary hearing order with the Lac qui Parle County auditor, orders the engineer to make a detailed survey with plans and specifications for the proposed drainage project and submit a detailed survey report to the drainage authority as soon as possible.
- c. The Board directs the engineer to address comments of the DNR commissioner and evaluate whether changes to the proposed project are feasible to address concerns raised by the commissioner. If feasible, the engineer should include changes in the final project plans.
- d. The Board directs the engineer to continue to work through the processes contained in statutes section 103E.015 to ensure that environmental, land use, and multipurpose water management criteria are considered for inclusion in final project plans.
- e. The Board directs the engineer to continue to coordinate, in addition to the coordination which occurred in advance of this order, with soil and water conservation district, county and USDA planning authorities about potential external sources of funding and technical assistance for environmental, land use, and multipurpose water management features or alternatives.
- f. The Board directs the engineer to request additional information about potential funding or technical assistance for environmental, land use, and multipurpose water management features or alternatives from the executive director of the Board of Water and Soil Resources.

- g. The Board appoints H2Overviewers Viewing Team to determine the benefits and damages to all property affected by the proposed drainage project and make a viewers' report:
- h. Upon issuance of the Secretary's Order calling the first meeting of the viewers, the viewers shall subscribe to an oath to faithfully perform their duties.
- i. The Board directs the viewers, once qualified, to work with the engineer and to commence viewing as soon as practical upon receipt of the engineer's design plans and specifications indicating the efficiency of the drainage system improvement.
- j. The engineer is directed to assist the viewers in identifying properties receiving a hydrological improvement from the project and in identifying properties responsible for increased sedimentation in downstream areas of the watershed or responsible for increased drainage system maintenance or increased drainage system capacity because the natural drainage on the properties has been altered or modified to accelerate the drainage of water from the property.

After discussion, the Board President called the question. The question was on the adoption of the foregoing preliminary findings and order, and there were 5 yeas and 0 nays.

Upon vote, the President declared the motion passed.



Board President

Dated: June 10, 2021

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I, David Craigmile, Secretary of the Lac qui Parle-Yellow Bank Watershed District, do hereby certify that I have compared the above findings and order with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 10th day of June, 2021.

David Craigmile, Secretary