Lac qui Parle-Yellow Bank Watershed District December 7, 2021 Meeting Minutes #622

Call to Order

The meeting was held in the Lac qui Parle Commissioners' Room in the Courthouse, 600 W 6th St, Madison, MN 56256, with a virtual ZOOM login option. The meeting was officially called to order by Chairman Darrel Ellefson at 4:30 p.m. Managers Present: Chairman Darrel Ellefson, Secretary David Craigmile, Publicity Manager Michael Frank, Vice-Chairman John Cornell, and Treasurer Andrew Weber. Managers absent: none. Staff present: Administrator Trudy Hastad, Coordinator Mitch Enderson, Drainage Manager Jared Roiland, and Park Manager Ron Fjerkenstad. Others present: Darby Hemish, and via Zoom, Attorney John Kolb.

Approval of the Agenda

Chairman Ellefson asked for additions to the agenda. There being none, David Craigmile motioned to approve the agenda, seconded by John Cornell. Upon roll call vote, the motion passed 5-0.

New employee, Abby VanKempen was welcomed and introduced to the Board.

Chairman Ellefson reconvened the Br 3 CD #4 final engineer hearing from November 18, 2021 at 4:40 p.m. Attorney Kolb reminded the Board that the public comment portion of the hearing was closed at the November 18, 2021 hearing. Attorney Kolb took all the evidence, engineer information, viewers report of improvement benefits and damages, authorizing application of separable maintenance, and directing construction of the project and presented the findings and order as instructed to the Watershed Board of Managers (attached as exhibit A). The findings and order were read.

Manager Andrew Weber moved, seconded by Manager Cornell for adoption of the findings and order (as attached exhibit A). After discussion, the Board president called the question. The question was on the adoption of the attached findings and order and there were 5 yeas, and 0 nays. Upon vote, the Chairman declared the motion passed.

Administrator Hastad will provide a copy of the findings and order to the Lac qui Parle County Auditor and to DNR.

Staff Reports:

PARK: Park Manager, Ron Fjerkenstad, reported on monthly activities.

- The new 2022 park stickers are printed and Ron showed to the managers.
- The City of Canby is going to hold the 3rd annual fishing tournament on January 28-29, 2022 on Del Clark Lake. This is a very popular event with approximately 125 ice houses on the lake.
- The water is starting to freeze over, and there are lots of geese yet on the open water spots.
- There are not a lot of new beaver chews this year, so relieved.
- Ron posted the park for snowmobile usage. Discussed no snowmobiles on the face of the dam.
- The mailed in requests for seasonal registrations are in the reservation book. The 2022 Holidays are already
 getting reserved, and there are only a couple spots left for weekends.
- One of the managers asked if we collect a fee for campers left at the park over the winter. Ron reported he
 does not charge them a fee.
- Ron reported that Pat Stanley will oversee the park when he is gone on vacation.

DRAINAGE INSPECTOR REPORT: Jared Roiland reported on monthly activities.

I attended the first in person Drainage Inspector meeting since before the pandemic on November 4, 2021. There
was discussion centered around how different drainage authorities are working with the DNR and private
conservation groups while still trying to fully maintain their drainage systems.

- Trudy, Darrel, & I met with Jeff Jessen, Roger Schuelke, & Francis Brandenburger to discuss a block that was put
 in on a private ditch that blocked the outlet of the neighbor's ditch to the North. Unfortunately, the landowners
 did not come to an agreement.
- On November 24, the drainage committee met.
- Attended the MAWD annual virtual conference December 1-3, 2021.
- Reported on the status of the CD #54 improvement project. We will be working with the Engineer to move forward with a close-out date for the project.
- I took the Roxor and pickup to Lac qui Parle Co-op to have them both serviced and had the Roxor winterized.
- Darrel, Andrew, and I met on site at section 24, Yellow Bank Township to investigate a trespassing and ditch
 cleaning conducted without a permit. Informed the landowner he would need to work with the neighbor on an
 after-the-fact permit. Administrator Hastad will send them a letter.
- Updated the Board on the CD #42 improvement project.
- We have started to clean out the vault to make it easier for our transition when our offices are connected with the Environmental staff.
- I have been working with one non-compliant buffer landowner across the county and the county has collected the money from the landowner who was assessed penalties for 1 year of non-compliance on his buffer.

COORDINATOR REPORT: Mitch Enderson reported on monthly activities.

- Steering and Advisory committees have met to provide feedback on priority issues to Houston. There was good
 input and discussion from advisory committee members so that was great for Houston to be able to incorporate.
- The Kamrath dam repair is set to move forward and the landowner has agreed to contribute to the project. The contract is set up for Kamrath's to pay \$2000 and the Watershed \$3,000 for cost-share. Mitch asked the Board to approve the cost-share contract with the Kamraths.

Manager Michael Frank motioned to approve the cost-share contract for the Kamrath dam repair with the Watershed contributing \$3,000 and Randy Kamrath to contribute \$2,000, seconded by Manager David Craigmile. Upon vote, motion passed 5-0.

- The sign for the Del Clark projects is scheduled to be installed next week.
- The contractor was onsite the day after Thanksgiving to address punch list items. Once the engineer inspects and gives approval we will get final payment and paperwork completed.

Manager Michael Frank motioned to approve final payment to A&C Excavating for the Del Clark/Canby Creek project once engineer gives the final approval of the project, seconded by Manager Andrew Weber. Upon vote, motion passed 5-0.

- We have had fourteen applications submitted this year for the SSTS loan program with eight systems being installed and paid.
- The Florida Creek restoration agency folks had a group call to discuss remaining surveying needs to develop a high-level model/cost estimate for landowners. They also discussed another potential funding source.
- Thirteen people submitted photos for the photo contest. Tamie Steffen Hornstein was 1st place winner, Mary Quick 2nd, and Mary Swenson 3rd. I will be working on calendars later this week.
- There has been some discussion with the LQP Hwy Dept, DNR, SWCD, & Watershed to address an erosion issue on the Lac qui Parle River that is threatening the bridge on County Highway 31.
- Mitch talked about applying for the No Child Left Behind Grant to do a park retreat with canoeing, identifying
 plants & vegetation, invasive species, and camping trip for youth in the Watershed. The Board gave approval to
 apply for the grant.

WCA: Mitch Enderson reported on monthly activities.

 A citation was issued and a lien placed on the property of the Yellow Bank, 4 restoration issue. The TEP has not been able to verify the restoration order has been satisfied, as the landowner has kicked them off the property multiple times. The regional enforcement officer felt this was the best course of action after consulting his supervisors. <u>OTHERS:</u> Darby Hemish met with the Board to discuss the thistle and leafy spurge issue at R-6. Discussion followed. Administrator Hastad reported on the dates staff had sprayed for weeds at R-6. The Board agreed we will do another round of spraying in the spring and possibly fall of 2022.

TREASURER'S REPORT: The Treasurer's report was read by Manager Weber.

Michael Frank motioned to approve the Treasurers report, seconded by John Cornell. Upon roll call vote, the motion passed 5-0.

The following warrants were presented for approval:

| | Number Vendor Details 11/04/2021 to 12/07/2021 |
|---|--|
| General Klein Account: | |
| Houston Engineering | November consulting services 1W1P \$7,249.00 |
| Western Guard | two-week 1W1P survey ad \$283.50 |
| Tony & Alicia Burmei | ter/Hillman SSTS Loan \$10,904.81 |
| | TOTAL \$18,437.31 |
| Park Expense Account: | |
| 426 Vlaminck Electric | repair camper outlets & cord \$562.29 |
| Fransfer to UPB General | 11-20-21 park payroll \$3,902.89 |
| Fransfer to UPB General | 12-03-21 park payroll \$3,702.89 |
| 427 City of Canby | year end sewer charge @ park \$361.22 |
| 428 VOID | VOID \$0.00 |
| 429 Countryside Public He | |
| 430 LQP Environmental O | fice park cell phone \$41.25 |
| 431 Minnesota Pump Work | |
| 432 Frontier Communication | |
| 433 Olson Sanitation Inc | November trash \$40.95 |
| 434 Doug's Service & Mar | * · · · · · |
| 435 Ag Plus Cooperative | gas \$47.17 |
| 436 Lincoln Pipestone Rura | Water November water \$34.64 |
| 437 Lyon-Lincoln Electric | |
| 2500 Billoon Bloom | TOTAL \$10,001.17 |
| | 101AL 510,001.17 |
| UPB GENERAL ACCT: | |
| 21160-21162 semi-monthly payroll | November 19 payroll \$5,108.51 |
| 21163 Darrel Ellefson | per diem, mileage \$471.71 |
| 21164 David Craigmile | per diem, mileage \$175.91 |
| 21165 John Cornell | per diem, mileage \$154.07 |
| 21166 Michael Frank | per diem, mileage \$137.84 |
| 21167 Andrew Weber | per diem, mileage \$578.28 |
| Void | Void \$0.00 |
| LQP-YB Liability | 11-15-21 semi-monthly PERA \$1,004.49 |
| 21168-21170 semi-monthly payroll | 12-3-21 payroll \$5,108.52 |
| 21171-21172 monthly payroll | 12-3-21 park payroll \$2,722.59 |
| Canby News, Inc | two-week ad for job \$140.00 |
| 1156 Quill Corporation | quill blue \$39.99 |
| Western Guard | 2 week ad for job \$200.00 |
| Houston Engineering | October/November engineering \$5,336.50 |
| Rinke Noonan Attorne | @ Law monthly retainer, CD #42, Br 3 CD#4 \$2,895.50 |
| Nelson Oyen Torvik | Stoks judgement, Shop rent lease agreement \$850.00 |
| Dawson Sentinel | 3 weeks final hearing notice Br 3 CD #4 \$222.75 |
| LQP County Auditor/T | |
| City of Madison | November electric, garbage, sewer \$100.43 |
| | |
| LQP Coop Oil Compar | y gas for pickup \$92,31 |
| LQP Coop Oil Compar Tamie Steffen Hornstei | |
| LQP Coop Oil Compar | 1 1st place photo contest ad \$50.00 |
| LQP Coop Oil Compar Tamie Steffen Hornste | 1 lst place photo contest ad \$50.00 2nd place photo contest ad \$30.00 |
| 164 | 1 1st place photo contest ad \$50.00 2nd place photo contest ad \$30.00 3rd place photo contest ad \$20.00 |
| LQP Coop Oil Compar Tamie Steffen Hornstei Mary Quick Mary Swenson | 1 1st place photo contest ad \$50.00 2nd place photo contest ad \$30.00 3rd place photo contest ad \$20.00 easurer Abby December Health Ins \$787.50 |

| 4171 4172 | LQP County Auditor/Treasurer LQP-YB Liability | January health insurance monthly & semi-monthly PERA | \$5,888.46 \$1,503.92 |
|--------------|--|---|---|
| 4173 4174 | Minnesota Revenue LQP County Auditor/Treasurer | November sales & use Add'l December Health – Abby TOTAL | \$37.00 <u>\$164.50</u> \$38.522.94 |
| | | IOIAL | 338.322.94 |

DITCH ACCT

TOTAL \$0.00

Andrew Weber motioned to approve the warrants as presented, seconded by Michael Frank. Upon roll call vote, motion passed 5-0.

Secretary's Report: Trudy Hastad reviewed Secretary report #621 and #621.1 as mailed.

Manager David Craigmile motioned to approve meeting minutes #620 as mailed, seconded by Manager Michael Frank. Upon roll call vote, motion passed 5-0.

Manager David Craigmile motioned to approve meeting minutes #621 as mailed, seconded by Manager Andrew Weber. Upon roll call vote, motion passed 5-0.

Discussed the playground fundraiser. The current balance raised is \$20,262.50, with the Canby Fireman's possibly donating an additional \$5000. Discussion followed.

Michael Frank motioned to contribute \$5,000 from the park deposit account to the playground fundraiser, seconded by David Craigmile. Upon roll call vote, motion passed 5-0.

Administrator Report/Old & New Business: Trudy Hastad gave the Administrator report.

- Reminder the Advisory Board meeting is scheduled for Wednesday, December 8, 2021 @ 6:00 p.m.
- Received a notice that the audit firm of CliftonLarsonAllen rates for the 2021 audit went up to \$7,250.00
- Abby VanKempen started employment with us on December 1, 2021 and is working out very well.
- I made new time sheets and we started using them December 1, 2021. This will help to track hours for various year-end reports.
- I have been working on updating the personnel policy in my spare time.
- We are continuing to clean out the vault to make room for the office remodel. This is scheduled to be in late spring and we will move up to the Commissioners room during our office remodel.
- Updated the Board on the Volkenant/Strei cleanout dispute.
- We are trying to work on the consolidation of the Environmental Office with the Watershed. It will be really helpful
 when we are all in the same office space.
- Discussed the CD #42 improvement project status with the lack of contact from the contractor.

PERMITS- The following permit applications were applied for:

| 13548 | Keith & Jill Citrowske | Ten Mile Lake, 29 | seepage lines | 12/7/21 DC |
|-------|------------------------|-------------------|-----------------------------|-------------|
| 13549 | Don Denekamp | Manfred, 20 | seepage lines with intakes | 12/07/21 DE |
| 13550 | Don Denekamp | Manfred, 29-30 | seepage lines | 12/07/21 DE |
| 13551 | Sidney Johnson | Maxwell, 24 | seepage lines with intakes | 12/07/21 DC |
| 13552 | Sidney Johnson | Madison, 28 | seepage, main tile, intakes | 12/07/21 DE |
| 13553 | Sidney Johnson | Madison, 28 | seepage, intakes | 12/07/21 DE |
| 13554 | Karen Jackson | Lake Shore, 28 | seepage, main tile | 12/07/21 DE |
| 13555 | David Haas | Madison, 32 | ditch clean out | 12/07/21 DE |
| 13556 | Matt Bormann | Madison, 29 | ditch clean out | 12/07/21 DE |
| 13557 | Steve Haas | Hamlin, 10 | replace culvert | 12/07/21 DE |
| 13558 | Gerard Radermacher | Walter, 3 | ditch clean out | 12/07/21 AW |
| 13559 | Jim Theisen | Florida, 5 | seepage lines | 12/07/21 MF |
| 13560 | Jerome Schuelke | Riverside, 36 | seepage, main tile | 12/07/21 DE |
| 13561 | Jim Thorpe | Freeland, 30 | main tile, intakes | 12/07/21 DE |
| | | | | |

| 13562 | Josh Peterson | Hammer, 13 | seepage, main tile, intakes | 12/07/21 MF |
|----------------------|-----------------|---------------|---------------------------------|-----------------|
| 13563 | Gary Nelson | Riverside, 31 | ditch cleanout | 12/07/21 DE |
| 13564 | Jerome Schuelke | Riverside, 36 | seepage, main tile | 12/07/21 DE |
| 13565 | Sidney Johnson | Hantho, 21 | seepage, main tile, intakes | 12/07/21 DE |
| 13566 Renewal #13008 | Eldon Haas | Manfred, 31 | seepage, main tile, catchment b | asin12/07/21 DE |

Permits Denied: none

Manager David Craigmile motioned to approve the permits, seconded by Manager John Cornell. Upon roll call vote, motion passed 5-0.

Hastad asked the Board to set the 2022 salaries. She reviewed the 2021 salaries with the managers.

Manager David Craigmile motioned to approve a 4% increase for the Coordinator, Ditch Inspector, and park manager, with the Administrator to receive a \$10,400 increase for taking on the responsibility of the LQP County Environmental Services Department (\$10,000 paid with the Administration fee from LQP County for Environmental services and the \$400 from LQP County Ditch Administration) seconded by Manager Michael Frank. Upon roll call vote, motion passed 5-0.

Meeting adjourned at 6:52 p.m.

Darrel Ellefson, Chairman

Attesta

David Craigmile Secretary

Minutes prepared by Hastad

The next regularly scheduled meeting of the Lac qui Parle-Yellow Bank Watershed District is Tuesday, January 4, 2022 at 4:30 p.m.

STATE OF MINNESOTA LAC QUI PARLE/YELLOW BANK WATERSHED DISTRICT DRAINAGE AUTHORITY FOR 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 FINDINGS AND FINAL ORDER ESTABLISHING DRAINAGE PROJECT, ADOPTING AND CONFIRMING THE VIEWERS' REPORT OF IMPROVEMENT BENEFITS AND DAMAGES, AUTHORIZING APPLICATION OF SEPARABLE MAINTENANCE, AND DIRECTING CONSTRUCTION OF THE PROJECT

The Board of Managers of the Lac qui Parle/Yellow Bank Watershed District, sitting as Drainage Authority for the improvement of Branch 3 of Lac qui Parle County Ditch 4, held a Final Hearing on November 18, 2021, continued to December 7, 2021, in the matter of the Petition of Steven Haas, et al., for the improvement of Branch 3 of Lac qui Parle County Ditch 4, at which meeting Manager word, seconded by Manager for adoption of the following Findings and Order:

Findings:

- 1. In March 2021, the Board of Managers of the Lac qui Parle/Yellow Bank Watershed District ("Board") accepted the Petition of Steven Haas, et al., for the improvement of Branch (Br.) 3 of Lac qui Parle County Ditch (CD) 4 ("Petition").
- 2. The Petition included a request that the Board consider separable maintenance as part of the proposed improvement.
- 3. The Petition and Bond were properly filed with the Board pursuant to statutes section 103D.625, subd. 4.
- 4. The Board and its Attorney reviewed the Petition and Bond to verify compliance with statutes chapter 103E. The Board found that the Petition met the requirements of section 103E.215 and that the bond met the requirements of section 103E.202.
- The Board appointed the engineering firm of Houston Engineering, pursuant to section 103E.241, to perform the duties required of the project engineer.
- 6. The Engineer prepared and filed a Preliminary Survey Report, dated April 29, 2021, with the Board.

- 7. Concurrent with its filing, the Engineer provided copies of the report to the Petitioners, the Commissioner of Natural Resources, the local Department of Natural Resources (DNR), Lac qui Parle County Environmental Services, and Lac qui Parle County Soil and Water Conservation Service.
- 8. The Board noticed and held a Preliminary Hearing on June 10, 2021, at which hearing the Board received public comment, including the DNR Preliminary Advisory Report on the Preliminary Survey Report.
- 9. By Findings and Order dated June 10, 2021, the Board accepted the Preliminary Survey Report; directed the Engineer to address comments of the DNR and continue to coordinate with government authorities regarding external funding sources and technical assistance; directed the preparation of a Detailed Survey Report (aka Final Engineer's Report) of the proposed improvement; and appointed the H2Over Viewers' viewing team to determine improvement benefits and damages to all property affected by the drainage project.
- 10. The Engineer prepared and filed its Final Engineer's Report, dated August 12, 2021, with the Board.
- 11. The Engineer provided the Final Report to the DNR for review.
- 12. The Viewers completed and filed their Viewers' Report of improvement benefits along with a benefits and damages statement (improvement reports), as amended.
- 13. The Drainage Authority prepared Property Owners' Reports and mailed them to the owners of property identified in the Viewers' Reports as affected by the improvement.
- 14. Notice of the Final Hearing on the improvement was provided by publication, posting, and mail as required by statute to include notice to landowners on the CD 4 system and outletting ditches, CDs 10, 12, 20, 44, 45 and Branches 1, 2, 4 and Lateral B of CD 4 affected by the application of separable maintenance.
- 15. In addition to the notice described above, the Drainage Authority provided separate notice to all owners of property within the CD 4 system that would be affected by the application of separable maintenance. The separate notice included the amount of assessment to individual properties for the repair component of the Br. 3 improvement, if ordered by the Board.
- 16. The DNR provided its Final Advisory Report on September 10, 2021. The DNR's comments are attached to these findings as **Exhibit A**.
- 17. The DNR Final Advisory Report is required by statutes section 103E.301. The statutes require the Commissioner to examine the Final Engineer's Report and state whether the Commissioner:

- 1) finds the Detailed Survey Report is incomplete and not in accordance with the provisions of this chapter, specifying the incomplete or nonconforming provisions;
- approves the Detailed Survey Report as an acceptable plan to drain the property affected;
- 3) does not approve the plan and recommendations for changes;
- 4) finds the proposed drainage project is not of public benefit or utility under the environmental, land use, and multipurpose water management criteria in section 103E.015, subdivision 1, specifying the facts and evidence supporting the findings; or
- 5) finds a soil survey is needed, and, if it is, makes a request to the Engineer to make a soil survey.
- 18. In its Advisory Report, the DNR concluded as follows:
 - (1) WCA TEP and the NHIS program need to be consulted to be consistent with state law.
 - (2) The proposed establishment will improve drainage for the properties in the project area.
 - (3) The DNR does not believe that the proposed project is practicable after considering the environmental, land use, and multipurpose water management criteria in section Minn. Stat. §103E.015, subdivision 1.
 - (4) The drainage improvement benefits the landowners in the system but will further degrade the receiving waters and private riparian land downstream of the outlet.
 - (5) A soil survey is not necessary.
- 19. The Advisory Report was read into the record. The Advisory Report contained additional, substantive comments related to the DNR's review of the project and criticism of the engineer's analysis. However, no member of the DNR attended the hearing to answer questions or provide context or specific evidentiary support for the comments.
- 20. Reviewing the Engineer's reporting requirements under statutes sections 103E.285 and 103E.015, the Board finds that any deficiencies noted by the DNR do not go to the Engineer's Report being incomplete.
- 21. The Board has thoroughly reviewed the DNR's comments and the Final Engineer's Report. After consideration of both, and in response to the specific comments provided by the DNR, the Board finds as follows (DNR comments in *italics*):
 - a. "The WCA TEP must be consulted and a no loss determination must be issued for the project, or if wetland impacts will occur, a wetland replacement plan for the project must be documented." The Board applied for and received an exemption/no loss determination from the WCA LGU determining that the proposed project will not result in impacts to wetland subject to the WCA.

- b. "[T]he project needs to consult the NHIS program regarding the presence of an endangered bird species based on our preliminary NHIS review." Consulting the Natural Heritage database, the Engineer concluded there were no species of concern impacted by the proposed property. In response to the DNR's comment, the Board, through its Engineer, did request concurrence of its conclusion from the Natural Heritage Information System coordinator on September 28, 2021. As of the date of these findings, the Engineer has received no response from the NHIS program.
- c. "The engineer used Manning's equation to estimate the pipe capacities, but this method cannot provide information on the amount of surface runoff, total storm event discharge volumes, or other hydraulic or hydrologic information." The Board agrees that additional or more detailed modeling might provide more accurate information regarding the performance and impact of the proposed project. However, the Board must balance the cost of the additional analysis against its value in evaluating the project and does not, in this instance, find that the additional analysis will better inform this project. As discussed herein, the Board finds the Engineer's analysis sufficient for its considerations and determinations under the drainage code and other applicable law.
- d. "The potential impacts of this project include reducing water storage within the watershed, further degrading downstream water quality, contributing to downstream flooding and bank and bed erosion, and adding cumulative impacts to downstream receiving waters, which are widely identified across Southwest Minnesota." The Board finds that this comment is without specific evidence in the record and describes, rather than this project specifically, the DNR's concerns regarding drainage in general. The DNR comment is not consistent with the engineer's analysis of the project and specific, evidence-based conclusions.
- 22. Evidence of all actions in this matter, including preliminary orders, appointments, oaths, affidavits of mailing, publication and posting as well as hearing agendas and presentation materials are present in the record of proceedings, on file with the Board and incorporated herein by reference.
- 23. The Final Hearing was held on November 18, 2021, continued to 4:30 p.m. on Tuesday, December 7, 2021, in the Commissioners' Room at the Lac Qui Parle County Courthouse, 600 6th St., Madison, Minnesota.
- 24. At the Hearing, the Engineer presented the Final Engineer's Report and details of the project, including its analysis of the necessity and feasibility of the proposed improvement in light of the environmental and land use criteria contained in statute. The Engineer further provided an explanation of the need for repair on portions of the system proposed to be improved and the allocation of separable maintenance costs on the system.

- 25. The Engineer's evidence of the drainage system's need for repair included inspection and maintenance history, visual observation, landowner statements and consideration of the age and service life of the system.
- 26. The Engineer identified the improvements to the public drainage system, which include replacement of portions of existing branch tiles with new tiles sized to provide a 3/8-inch drainage coefficient and the deepening of tile to protect the tile and accommodate modern farming practices and equipment.
- 27. At the Board's request, the Engineer analyzed the proposed project's potential to increase the transport of sediment, nutrient or other water quality stressors to downstream portions of the watershed. The proposed improvement will not inherently increase nutrient transport to downstream waters. Although residence time occurring in surface depressions following larger rainfall events may decrease, the amount of rainfall infiltrated into the soil with improved drainage will increase. That rainfall volume is then available for plant uptake or filtered by the soil. The increased capture can result in an annual reduction in sediment along with delivery of contaminants that attach to the sediment. The project will not result in the discharge of additional runoff volume to CD 4.
- 28. The project includes Best Management Practices (BMPs) and design features to sustain (i.e., not increase) or reduce pollutant discharges to downstream waters. The increase in discharge of the project is not substantial enough to significantly alter the velocity or erosion rate within CD 4 and negatively affect existing, downstream impairments.
- 29. The Viewers appeared and presented their report of improvement benefits and damages based on their viewing and landowner meetings. The Viewers further provided detail of the viewing process and the information used by the Viewers to: (1) verify the boundary of the watershed of the Ditch; (2) verify and confirm the existence of drainage benefit; and (3) determine the economic benefit to lands deriving a drainage benefit from construction of the proposed improvement (determination of improvement benefits and damages).
- 30. The right of way acquired in the original proceedings to establish Br. 3 was mostly for tile alignment. This drainage system improvement will require a slight increase in the original footprint of construction of the drainage system so additional damages for the drainage system right of way were determined by the Viewers.
- 31. Members of the public attended the Hearing, but none offered substantive comments on either the improvement, the improvement benefits determination or the application of separable maintenance.
- 32. The Board notes and has considered the comments received during the Hearing specifically those contained in the DNR Advisory Report. The comments are both of

concern and significance to the Board as related to this project and as related to its role as a water management authority within the Lac qui Parle/Yellow Bank Watershed. Notwithstanding the comments, the evidence, modeling and analysis of the Engineer appointed in these proceedings demonstrate that the proposed improvement will not be of any significant impact to downstream reaches of CD 4 or the Lac qui Parle River.

- 33. As related to this improvement project, the evidence does not support the need for project-specific storage or rate/volume controls beyond the reduced drainage coefficient (3/8-inch) adopted by the Board in these proceedings.
- 34. After calls for additional public comment, and hearing none, the Board closed the public comment portion of the Hearing.
- 35. During deliberations after the presentations and public comment portion of the Hearing, the Board made preliminary findings related to the improvement. The Board adopted a motion directing staff to prepare findings and an order consistent with the proceedings, including responses to all comments received through the public comment process; that the draft findings and order be written to affect adoption and confirmation of the Viewers' and Engineer's reports; and that the Hearing be recessed to the Board's regular meeting on December 7, 2021, at 4:30 p.m., in the Courthouse in Madison, Minnesota, or by adjournment to an appropriate time on the Board's agenda, at which meeting the Board would consider findings and an order as discussed.

Findings Specific to the Determination of Improvement Benefits and Damages:

- 36. At the continued Hearing, the Board reviewed the findings and order herein.
- 37. The Viewers reviewed all property within the drainage area of the proposed improvement to determine the improvement benefits and damages.
- 38. To determine the economic benefit to lands deriving a drainage benefit from the proposed improvement, the Viewers conducted a condition comparison comparing the current efficiency of the drainage system with the improvement efficiency. The Viewers used this comparison in determining the increased market value of the properties receiving a direct drainage benefit.
- 39. Based on their detailed observations, the Viewers determined benefit classifications, classified acres and assigned economic benefit on a per acre basis.
- 40. The Viewers determined that some acres within the watershed of the proposed improvement, i.e. existing wetlands and non-contributing basins, received no benefit from the proposed improvement.

- 41. The Viewers accounted for the efficiency of the drainage system, as designed, and the proximity of lands to and the elevations of lands above the ditch.
- 42. The Viewers determined the amount of economic benefit to property benefited immediately by the proposed improvement, or for property for which the proposed improvement can become an outlet for drainage, make an outlet more accessible, or otherwise benefit the property.
- 43. The Viewers determined economic benefits based on: (1) an increase in the current market value of the property as a result of constructing the project; (2) an increase in the potential for agricultural production as a result of constructing the project; or (3) an increased value of the property as a result of a potential different land use.
- 44. The Viewers determined road benefits based on accelerated drainage from road surfaces and based on the reduced cost of road maintenance and construction because the ditch provides an outlet for drainage from the road and adjacent road ditches.
- 45. Additional right of way damages were determined and are herein awarded for the slight increase in the original footprint of construction of the drainage system.
- 46. The Viewers prepared a report which describes how the improvement benefits and damages were determined ("Benefits and Damages Statement") which is attached and included as part of **Exhibit B** of these findings.

Total Benefits and Damages for the Improvement:

47. The Viewers determined improvement benefits of \$712,009 and damages of \$10,134.

The benefits for the project are included in **Exhibit C** of these findings (Viewers' Report).

Improvement Costs and Separable Maintenance:

- 48. The Engineer's estimate of the cost of construction of the improvement is \$1,139,000.

 Adding the damages as determined by the Viewers, the total estimated cost of the improvement is \$1,149,134.
- 49. The Engineer's estimate of the portion of the cost of improvement attributable to separable maintenance is \$958,300. Taking the separable maintenance cost out of the total cost of improvement yields a cost of \$190,834 to be assessed against improvement beneficiaries. This amount is less than the improvement benefits determined by the Viewers.

Costs of Proceedings:

- 50. The Viewers kept an accurate account of all time engaged in viewing and examination; the nature and kind of work performed; the days each Viewer was engaged in said work; the amount charged per day by each Viewer; and every item of expense incurred by the Viewers in said work.
- 51. The Engineer kept an accurate account of all time engaged in analysis and preparation of reports and every item of expense incurred by the Engineer in said work.
- 52. The Board's Attorney and the Petitioners' Attorney kept accurate accounts of all time engaged in assisting the Board and Petitioners in the proceedings and every item of expense incurred by the attorneys in said work.
- 53. The Viewers', Engineer's, and Attorneys' accounts of work have been filed with the Board.

General Findings:

- 54. The Detailed Survey Report and Viewers' Report have been made and other proceedings have been completed as required by Minnesota Statutes, chapter 103E.
- 55. All reports made or amended in these proceedings are complete and correct.
- 56. The damages and benefits for the improvement of CD 4, Br. 3 have been properly determined.
- 57. Br. 3 of CD 4, as proposed to be improved, is in need of repair. The Engineer has included in the Detailed Survey Report a statement showing the proportionate estimated cost of the proposed improvement required to repair the separable part of the existing system and the estimated proportionate cost of the added work required for the improvement. The notice of hearing on the Detailed Survey Report was given by publication and mailing to all persons owning property affected by the existing drainage system.
- 58. The improvement benefits (\$712,009) are greater than the total estimated improvement cost (\$190,834), including damages, after applying a separable maintenance value of \$958,300.
- 59. The proposed improvement of Br. 3 of CD 4 will be of public utility and benefit, and will promote the public health and welfare.
- 60. The proposed improvement of Br. 3 of CD 4 is practicable.

- As part of its review, the Engineer presented alternatives to the improvement requested in the Petition. The Board, having considered those alternatives as well as the County's Water Plan, the Board's Watershed Management Plan, the Lac Qui Parle River Watershed Restoration and Protection Strategy (WRAPS), downstream waters Total Maximum Daily Load studies and other related resource management plans and reports, finds that the proposed project is consistent with watershed based objectives and presents the best alternative considering private and public benefits; the costs of the proposed project; conservation, allocation, and use of drainage waters for agriculture, stream flow augmentation, or other beneficial uses; reduction of downstream peak flows and flooding; drainage system capacity requirements; reduction of erosion and sedimentation; and protection or improvement of water quality.
- As part of the evaluation of alternatives, the Board considered whether any external programs or resources could be applied to an alternative in order to achieve additional benefits within the proposed improvement. After consideration, the Board finds, because of the nature of the proposed improvement and resources within the project area, that such alternatives are not feasible and that no external sources of funding or technical assistance are available to implement such alternatives if feasible.
- 63. Based on the WRAPS and other plans and reports, the Board considered storage alternatives as part of the project. The WRAPS articulates a goal of 0.4 inches of storage across entire Lac qui Parle River Watershed or approximately 20,094 acre-feet of storage watershed-wide. Within the project area there is approximately 100 ac-ft of storage available (<.5% of the watershed goal). The engineer evaluated the effectiveness of a storage alternative based on: current soil type and land use; a drainage area of roughly 820 acres to a feasible storage area; and a runoff analysis using Hydrology Guide for MN. The engineer concluded that even with an optimal storage alternative, runoff events greater than a 2-year frequency would overflow with little attenuation and the addition of a storage alternative would create a saturated condition in the low areas, reducing infiltration capacity, potentially making large events worse downstream. Based on the Engineer's evaluation and analysis, the Board finds the addition of a storage alternative infeasible and ineffective in addressing the concerns for which it would otherwise be considered.
- 64. The proposed improvement is consistent with the present and anticipated land use within the project area and is consistent with the County's land use ordinance.
- 65. The Board finds, just as the original establishment of Br. 3 of CD 4 promoted the public health by removing deleterious accumulations of water from the landscape, the proposed improvement will, similarly, promote the public health.
- 66. The Engineer evaluated the current and potential flooding characteristics of property within project area and evaluated the downstream outlet of the proposed improvement. The evaluation included consideration of 5-, 10-, 25-, and 50-year run-off

events. Based on the Engineer's analysis, the Board finds that the proposed improvement will not increase flood potential and will provide relief from flood conditions within the project area. The Board further finds that the outlet is adequate for the proposed improvement.

- 67. In downstream portions of CD 4, the proposed improvement will result in flow increase 1% 5%. The increase in flow equates to a <0.2′ increase in water surface elevations across all storm events and 0.1 foot per second increase in velocity. In no event will the increases cause damage or impair the function CD 4. At the outlet of CD 4 to the Lac qui Parle River, the proposed improvement will result in a flow increase of <.2%.
- 68. The Engineer considered the effects of the proposed improvement on water quality; the effects of the proposed improvement on fish and wildlife resources; the effects of the proposed improvement on shallow groundwater availability, distribution, and use; and the loverall environmental impact of the proposed improvement. Based on the Engineer's analysis, the Board finds that the proposed improvement will not create any negative impact on water quality; fish and wildlife; or shallow groundwater.
- 69. Addressing water quality, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and followed for the proposed improvement. The establishment of certain BMPs with the project will ensure future maintenance of those BMPs. Downstream sediment / nutrient loading is anticipated to decrease because of elimination of failing tile and intakes which currently introduce sediment and nutrients to the system.
- 70. Addressing fish and wildlife resources, the Engineer investigated the presence of significant fish and wildlife habitat and consulted the NHIS database. As discussed above, a concurrence review and letter was requested from the NHIS coordinator, but none was received. No impacts are anticipated. In the vicinity of the project, the Burrowing Owl (Athene Cunicularia), a state-listed endangered species may be present. However, in the area of the proposed project itself, the work will not disturb any suitable nesting or breeding habitat.
- 71. Addressing ground water, the proposed project will use non-perforated tile to prevent direct groundwater infiltration to the system. Therefore, no impact is anticipated.
- 72. Based on the record and findings herein, the Board finds that proper consideration of conservation of soil, water, wetlands, forests, wild animals, and related natural resources, and to other public interests affected, together with other material matters as provided by law has been made in determining that the proposed improvement will be of public utility, benefit and welfare.

Based on the foregoing findings, the Board makes the following:

Order:

- A. The Lac qui Parle/Yellow Bank Watershed District Board of Managers, Drainage Authority for the improvement of Branch 3 of Lac qui Parle County Ditch 4, hereby establishes and orders said improvement according to the project as described in the Detailed Survey Report (a.k.a., Final Engineer's Report).
- B. Further, the Board directs the Engineer to prepare detailed plans and specifications and other necessary documents to allow for bidding on the project.
- C. Further, the Board directs its Secretary to provide notice of the filing of this order to the Lac qui Parle County Auditor-Treasurer or his designees.
- D. Further, the Board directs its Secretary, in conjunction with the Lac qui Parle County Auditor-Treasurer, to take all necessary actions for the construction of said improvement and authorizes the Secretary to proceed as necessary, reserving to itself only those matters that the Board, by vote, must authorize.
- E. Upon completion of the project, the drainage system record shall be updated with the as-built alignment and conditions of Branch 3 of Lac qui Parle County Ditch 4, replaced by the improvement. The prior alignment and any remnants thereof, shall be abandoned from the drainage system.
- F. The Viewers' determination of improvement benefits and damages, the Viewers' Report, as amended (See Exhibit C of these findings) and the Benefits and Damages Statement are hereby confirmed and adopted by the Board.
- G. The Viewers, Engineer, and Attorneys are allowed payment of their accounts of work.
- H. The Secretary shall work with the County Auditor-Treasurer to ensure that the benefits roll is updated to reflect the improvement benefits.
- The Petitioners' bond herein may be discharged upon the award of a contract for construction of the improvement and the costs of the proceedings herein shall be carried and assessed as part of the costs of the improvement.
- J. Because the Board has found application of separable maintenance is appropriate in this case, the Board orders that the cost of the improvement be allocated as follows: that the separable maintenance cost of \$958,300 be assessed to all benefited properties on CD 4, including outlet fee ditches, according to the current benefits roll of the whole system; that the improvement cost, less the cost of the separable maintenance, as determined by the final contract for the improvement, be assessed to properties benefited by the improvement according to the Viewers' Report of improvement

benefits and damages approved herein; that the Board reserves the right to amend this distribution based on total cost of the improvement determined after a contract is awarded for the improvement.

- K. The Board reserves to itself, by future order, the decision to bond for the proposed improvement and to determine the term and other conditions of assessment for the proposed improvement and the separable maintenance portion of costs.
- L. The Secretary shall provide a copy of this order to the DNR as requested in its Advisory Report.

After discussion, the Board President called the question. The question was on the adoption of the foregoing findings and order and there were __ yeas and __ nays as follows:

| | <u>Yea</u> | <u>Nay</u> | <u>Absent</u> | <u>Abstain</u> |
|-----------------|------------|------------|---------------|----------------|
| Darrel Ellefson | Ø | 11.50 × | | . 🗆 |
| Michael Frank | × | | | |
| Andrew Weber | 哲 | | | |
| David Craigmile | 哲 | | | |
| John Cornell | M | | | |

Upon vote, the Chairman declared the motion Passed.

Darrell Ellefson, Chairman

Dated: 12/7/2021, 2021

* * * * * * * * * * *

| I, David Craigmile, Secretary of the Lac qui Parle/Yellow Bank Watershed District, do hereby certify that I have compared the above motion, findings and order with the original thereof as the same appears of record and on file with the Board of Managers and find the same to be a true and correct transcript thereof. The above order was filed with me, Secretary of the Board of Managers, on 12,7,2,2021. |
|---|
| IN TESTIMONY WHEREOF, I hereunto set my hand this day of |
| David Craigmile |



Benefits and Damage Statement for the Improvement Determination of Benefits Lac qui Parle County Ditch 4 Branch 3

In accordance with Minnesota Statute (MS) 103E.321, subd. 2, we the viewers, submit the following Viewers' Report:

The fundamental principle for the determination of benefits and damages is based upon a comparison of the conditions prior to the construction or improvement of the ditch system with the conditions that exist after the implementation of the ditch system or proposed drainage project.

The undersigned viewers, pursuant to the order of the Lac qui Parle – Yellow Medicine River Watershed District, did meet virtually prior to commencing duties on June 10, 2021. Having taken the oath as required by MS 103E.305, did view, all lands affected by said proposed drainage system and further, we did determine the damages to lands affected by grass strips, permanent and temporary damages.

We were able to determine the boundaries of the benefited area by processing and analyzing maps using "Light Detection and Ranging" (LiDAR) along with visually viewing the project area. Meetings were held with landowners, and Lac qui Parle — Yellow Medicine River Watershed District staff. We viewed the County Assessor's records to determine the number of acres of land in each parcel of each 40-acre tract of land. Other sources of information used were USDA-Natural Resources Conservation Service Web Soil Survey, 12 years of USDA satellite imagery, US Fish and Wildlife Service National Wetland Inventory (NWI) maps, and Lac qui Parle County Assessors' sales data and annual report.

We have determined the extent and basis of benefits and damages as prescribed under MS 103E.315 and MS 103E.321. We have indicated in tabular form, for each lot, 40-acre tract, and fraction of a lot or tract under separate ownership that is benefited or damaged (see Exhibit A).

Right of way damages and grass strip easements, having been determined and paid in the original proceedings for establishment of the drainage system and subsequent redetermination of benefit, based on the area contemplated and included in the proceeding for the establishment or subsequent improvement of the drainage system, were not considered.

We have determined the following direct drainage benefits and indirect (outlet) benefits on and related to the improvement of Lac qui Parle CD4 Br 3. Benefits were determined based on a comparison of the benefits of the drainage system operating in its as constructed condition, which were redetermined on December 28th, 2020, and the benefits of the

drainage system operating with the capacity of the proposed improvement, which were determined on September 30th 2021.

Direct Benefits - Class 1 (Mapped as Red)

Using the direct market value approach, giving consideration for the lands' geographic location in the watershed, location relative to the proposed improvement, location relative to the outlet, proximity to the ditch bottom elevation, soil types, as well as analyzing direct sales data for competitive properties in the market place, we determined the existing market values of land in a pre-establishment condition in an as originally constructed condition, and in a condition that reflects the proposed improvement. Though this description may not describe your lands exactly, your lands fell broadly under this category.

Class 1 lands, prior to the existence of the drainage system, consisted mostly of lowlands that may have been farmed, but not without substantial risk. With the establishment of adequate drainage to these lands, the production value and/or market value has increased. These lands consist of soils that benefit greatly from good drainage. These lands are now more suitable for intense crop production.

Direct Benefits - Class 2 (Mapped as Yellow)

Using the direct market value approach, giving consideration for the lands' geographic location in the watershed, location relative to the proposed improvement, location relative to the outlet, proximity to the ditch bottom elevation, soil types, as well as analyzing direct sales data for competitive properties in the market place, we determined the existing market values of land in a pre-establishment condition in an as originally constructed condition, and in a condition that reflects the proposed improvement. Though this description may not describe your lands exactly, your lands fell broadly under this category.

Class 2 lands, prior to the existence of the drainage system, were suitable for row crop agriculture, but not without substantial risk of loss to the grower. Now that adequate drainage has been established through these lands, the production value and/or market value has increased. These lands typically consist of soils that benefit from good drainage to increase crop production.

Direct Benefits - Class 3 (Mapped as Green)

Using the direct market value approach, giving consideration for the lands' geographic location in the watershed, location relative to the proposed improvement, location relative to the outlet, proximity to the ditch bottom elevation, soil types, as well as analyzing direct sales data for competitive properties in the market place, we determined the existing market values of land in a pre-establishment condition in an as originally constructed condition, and in a condition that reflects the proposed improvement. Though this description may not describe your lands exactly, your lands fell broadly under this category.

Class 3 lands, prior to the existence of the drainage system, were mostly utilized to produce row crops, although over saturation of the soil and surrounding lands did not allow for these lands to realize their full production potential. Now that the drainage system has been established, the land is able to utilize the system as an outlet to drainage tile systems and increased the production potential. As a result, the production value and/or market value has increased.

Indirect Benefits - Class 4 (Mapped as Blue)

Class 4 lands are lands which have not had an increase in market value after the construction of the drainage system. However, they have been altered from their pre-settlement state in such a manner that they are now tilled and farmed. As a result, they burden the drainage system's capacity, thus increasing a sediment load and causing a need for increased maintenance. Taking into consideration the percentage of Class 4 acres in the watershed, regular ditch maintenance, and sediment loading, we determined the rate per acre that Lac qui Parle CD4 provides as an outlet or contribution benefit to these lands. Though this description may not describe your lands exactly, your lands fell broadly under this category.

Example of how benefits were calculated:

| Production and/or Market Value Before Improvement: | ¢1 000 |
|--|---------|
| Production and/or Market Value After Improvement: | \$1,000 |
| Increase in Draduction and the antier improvement: | \$3,000 |
| Increase in Production and/or Market Value: | \$2,000 |
| Net Change in Benefits: | \$2,000 |

Road Benefits

The viewers have determined outlet as well as reduced maintenance cost benefits for all State, County, and Township roads located within the watershed of Lac qui Parle CD4.

Residential Land Benefits

Outlet benefits were applied to residential lands within the watershed of Lac qui Parle CD4. The outlet benefit was calculated based on runoff burden to the drainage system and use of the drainage system as an outlet.

Woodlot Benefits

Benefits were applied to woodlot lands within the watershed of Lac qui Parle CD4. These lands receive a benefit because the ditch conveys their water burden away from adjacent landowners and adds to the need for system capacity and system maintenance.

Benefit Variables

Based on criteria used to determine the likelihood of future improvements, each sub catchment within the watershed of the public drainage system has been given a grade of its as constructed condition relative to its ability to utilize the public drainage system efficiently. This grading system varies the benefit amount according to the aforementioned ability within each sub catchment. The difference between the capacity of the system in its as constructed condition and the capacity of the proposed improvement may significantly impact how the proposed improvement affects the assessment of landowners benefited by the improvement.

Non-benefiting Acres

Based on current land use and regulatory restrictions, permanent program restrictions (i.e. RIM or CREP) or other permanent restriction and restoration to pre-settlement landscape conditions or creation of wetland areas, we determined some areas to be non-benefited from the drainage system and restricted from taking future benefit from the drainage system. For example, we determined that lands restored to pre-settlement conditions and permanently restricted from future modification would not drain in any altered manner such that the drainage system would be burdened by the land other than such burden as nature would have provided. Further, for example, nonconverted wetlands that are so restricted from conversion by regulation that conversion is unlikely, were not determined to benefit from the system.

We further examined and determined benefits for each classification within the sub-catchments of the CD 4 Br 3 system. These benefit numbers were used to establish the benefits that existed in the drainage system in its as constructed condition. These numbers were also used to calculate the benefit increase due to the planned improvement to the drainage system. Consideration of the increased hydraulics to each sub-catchment was used to apply benefits to each tract of land represented as a line in the "Exhibit A" portion of the viewers' report. We the viewers also carefully considered the benefits to all lands within the drainage system due to improvements to the drainage system as a whole. These improvements include but are not limited to improvements to the mains, establishments of impoundment areas, and implementation of control structures within the drainage system.

At the completion of our examination, we summed up the total benefits for the proposed improvement to Lac qui Parle CD4 Br 3. We found that the total benefits are \$712,009.06, permanent damages are \$0.00, and temporary damages are \$10,134.34. (See Exhibit A for tabular report of benefits.)

We recommend that the Lac qui Parle — Yellow Medicine River Watershed District hold a final hearing on the report and confirm the benefits and damages for the improvement of Lac qui Parle CD 4 Br 3.

Dated this 21st day of October 2021.

[Signature Page to Follow]

Respectfully submitted,

Bryan Murphy

Aaron Goemann

Larry Murphy



Division of Ecological & Water Resources Region 4 (Southern Region) 21371 Highway 15 South New Ulm, MN 56073

September 10, 2021

Lac qui Parle Yellow Bank Watershed District c/o Trudy Hastad, Administrator 600 6th Street, Suite 7 | Madison, MN 56256

Re: Final Engineer's Report for Proposed Improvement of Lac qui Parle County Ditch 4, Branch 3

Dear Drainage Authority,

We offer the following advisory letter regarding the proposed improvement of Lac qui Parle County Ditch 4, Branch 3 (CD4 Br3) on behalf of the Commissioner of the Minnesota Department of Natural Resources (DNR). The DNR is directed by Minnesota Statute §103E and §103D to provide advisement to the drainage authority, who is the legal decision maker for the proposed project. The drainage authority must ensure that a project meets drainage statutes (§103E and §103D) as well as legal requirements outside of drainage statute including those for public waters, wetlands, listed species, etc. Based on the DNR's hydrologic and environmental expertise, our findings on several required considerations differ from those of the project engineer. The drainage authority must consider reports, advisement, and comments and conclude that a proposed project meets all necessary legal requirements before its approval.

Wetlands

In accordance with the Wetlands Conservation Act (WCA), we stated that WCA Technical Evaluation Panel (TEP) must be consulted and that appropriate documentation should be appended to the FER. The engineer's response was that an NRCS determination was made for a portion of the area in question and that they assumed that the same would apply to the unassessed portion. The NRCS and WCA determinations are not the same, and one determination does not exempt the other. The WCA TEP must be consulted and a no loss determination must be issued for the project, or if wetland impacts will occur, a wetland replacement plan for the project must be documented.

State-listed Species

In accordance with Minnesota Rules, Parts 6212.1800 to 6212.2300, we stated that the project needs to consult the NHIS program regarding the presence of an endangered bird species based on our preliminary NHIS review. While the project engineer appears to have reviewed the database under an agreement with the NHIS program, the engineer does not have the legal authority to conclude that the project does not have impacts. This assessment may be correct, but per the NHIS agreement and rules, the project needs to submit a concurrence and/or review request to the NHIS program.

Impact to Waters and Water Quality

The engineer declined providing additional modeling for this system as suggested. The engineer used Manning's equation to estimate the pipe capacities, but this method cannot provide information on the amount of surface runoff, total storm event discharge volumes, or other hydraulic or hydrologic information. Without this information, the downstream impacts cannot be fully understood. The DNR is working to better assess the impact to public waters from drainage improvements. The DNR has legal responsibility to protect and permit projects that impact public waters. As such, expect to provide this modeling request for future projects. Reference the model request in the PER Advisory letter for details.

The impacts of improved subsurface drainage to water quality and quantity are well-documented. The inherent impact of improved drainage is to increase the amount and timing of water leaving the watershed: to eliminate wet soil and standing water. Modeling and empirical observations of drainage improvement projects consistently show higher total runoff amounts due to increased drainage. Research has well established that the more water is drained, the higher the mass of dissolved pollutants are carried with the drainage water. Similarly, geomorphic principles have proven that when storm event peak flows and annual flows increase due to improved drainage, stream bank and bed erosion increases. When the effects of several drainage projects cumulate in downstream waters, flooding, severe erosion, and property damage occur. This project represents a fairly "standard" drainage improvement, and without substantial BMPs, the impacts of this project can be expected to be consistent with the damage commonly observed from drainage improvement.

These cumulative impacts can already be seen in the Lac qui Parle River and downstream in the Minnesota River, where many upstream drainage improvement projects - further accelerated by climate change - have caused extreme river bank erosion and communities struggle with more frequent floods. While a drainage project may be designed to incorporate sufficient BMPs to reduce or mitigate the impact of the improved drainage, this project does not.

A Hickenbottom inlet is preferred over an open inlet, but in the spectrum of BMPs, this practice impact is inadequate. A drainage improvement project can reduce surface runoff and the sediment it carries, but the impact of increased bank erosion from more water often negates any improvements in surface runoff. The engineer claims that because the project uses BMPs (Hickenbottom inlets), "the project is a reasonable strategy for TMDL implementation". While the use of an alternate inlet could be, its use in the context of a drainage improvement is not a reasonable TMDL strategy. Tying this project to TMDLs implementation and water quality improvement is misleading.

Plan Consistency, Coordination, and Cost Analysis

Our watersheds and landscape, in degraded condition already, are facing a new level of threat due to the pressure of climate change, increasing global population and farming demands, and increasing environmental needs. The effects of drainage improvement within this context necessitate a new level of scrutiny and a refreshed application of drainage statutes. The engineer dismisses or disputes the DNRs assessment of plan consistency, questions about methods, requests for additional information, and encouragement for more input. We believe that drainage projects - this project and drainage projects generally - need a closer look at the consistency with plans, additional input from the multitude of stakeholders, and scrutiny of the benefits versus costs. Drainage projects are in fact watershed projects, and the investments made in unmitigated drainage effectively undo the public and private investments made in watershed improvement. We need to find better

ways to work together to decrease the impacts of drainage improvement, rather than deny downstream impacts are occurring.

Overall Environmental Impacts

The potential impacts of this project include reducing water storage within the watershed, further degrading downstream water quality, contributing to downstream flooding and bank and bed erosion, and adding cumulative impacts to downstream receiving waters, which are widely identified across Southwest Minnesota. We encourage the Drainage Authority and the project proposers to fully mitigate drainage improvements using management practices so that the existing peak flows and total storm event and annual flow volumes are not increased.

Conclusion

Through this letter and the PER Advisory letter, the DNR advises the drainage authority on a number of perceived discrepancies in administering drainage statute and other legal requirements. The drainage authority is responsible to consider this evidence to ensure all legal requirements are fully met.

In accordance with Minn. Stat. §103E.301, we offer that:

- (1) WCA TEP and the NHIS program need to be consulted to be consistent with state law.
- (2) The proposed establishment will improve drainage for the properties in the project area.
- (3) The DNR does not believe that the proposed project is practicable after considering the environmental, land use, and multipurpose water management criteria in section Minn. Stat. §103E.015, subdivision 1.
- (4) The drainage improvement benefits the landowners in the system but will further degrade the receiving waters and private riparian land downstream of the outlet.
- (5) A soil survey is not necessary.

Please read this letter at the FER hearing and make it part of the official hearing record. Send a copy of the response to comments and/or revised document, meeting minutes, Finding of Fact, and any Order issued by the Drainage Authority regarding the proposed improvement to the DNR when they become available. Please also send in the viewer's report. Submit all requested documents or any questions about this letter to Regional Drainage email at Region4Drainage.dnr@state.mn.us.

Sincerely,

Jim Sehl

Digitally signed by Jim Sehl Date: 2021.09.10 15:58:28

Jim Sehl, DNR Ecological and Water Resources Division, Region 4 North District Manager

CC: Joanne Boettcher, DNR Regional Environmental Assessment Ecologist
Ryan Bjerke, DNR Area Hydrologist
Chris Domeier & Curt Vacek, DNR Area Fisheries & Wildlife Managers
Samantha Bump, DNR NHIS Review Coordinator
Tim Gieseke, Liz Harper, Scott Roemhildt, DNR Regional Management
Katherine Pekarek-Scott & Paul Davis, MPCA
Ed Lenz and Rita Weaver, BWSR
Chessa Frahm, Lac qui Parle County SWCD District Manager
Chris Otterness, Project Engineer

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