

STATE OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES

Record of Decision

In the Matter of Final Environmental Impact Statement for the Grindstone River Dam Removal Project, Pine County, Minnesota, Pursuant to Minnesota Rules, Parts 4410.0200 to 4410.6500 **FINDINGS OF FACT, CONCLUSIONS, AND ORDER**

Based upon, and after having considered the entire record of the proceeding, including written reports, written and oral data, information, and statements, the Minnesota Department of Natural Resources (DNR) makes the following:

I. FINDINGS OF FACT

Project Description

1. The Minnesota Department of Natural Resources (DNR) section of Fisheries is proposing to remove the dam on the Grindstone River within the city of Hinckley, in Pine County, Minnesota.
2. The dam is owned and maintained by the DNR and impounds the Grindstone Reservoir (the reservoir), a 26.6-acre public water basin within the state-owned Hinckley Aquatic Management Area (AMA).
3. Once the dam is removed, the Grindstone Reservoir will no longer exist as a basin.
4. The proposed project includes the removal of the Grindstone River Dam (Grindstone dam) along with floodplain grading and construction of a series of riffles with associated erosion control methods such as toe wood-sod mat for bank protection and reestablishment of the riparian zone. The area of impact of the proposed project includes the 26.6-acre Grindstone Reservoir (which would be permanently eliminated), the area immediately surrounding the dam, access routes for construction equipment, and downstream areas that may receive sediment.

Implementation of the proposed project would include the following: 1) drawdown of the reservoir, 2) consolidation of sediments, 3) dam removal and 4) floodplain grading and construction of riffles and associated erosion control methods. As the reservoir nears the end of drawdown and the floodplain establishes from exposed sediment, the river channel would reconfigure naturally based on the underlying substrate and historic meander patterns.

Scoping

5. Minnesota Rules, part 4410.2000, identifies and requires the preparation of an EIS must be prepared for any project that meets or exceeds any of the thresholds included in Minnesota Rules, part 4410.4400.
6. Minnesota Rules, part 4410.4400, subpart 20 identifies that projects that will eliminate a public water or public waters wetland requires preparation of an EIS. Once the dam is removed, the Grindstone Reservoir will no longer exist as a basin (see ¶¶ 3 and 4). The DNR or the local governmental unit is designated as the Responsible Governmental Unit (RGU) for environmental review for this project category. However, Minnesota Rules 4410.0500 subpart 1 states that if a state agency is acting as the proposer, then the state agency shall be the RGU. Therefore, because the DNR is acting as the project proposer, the DNR must also act as the RGU for environmental review.
7. The DNR prepared the scoping Environmental Assessment Worksheet (EAW) and the Draft Scoping Decision Document (DSDD) per Minnesota Rules, part 4410.2100, subpart 2. In accordance with the requirements of Minnesota Rules, part 4410.2100, subpart 3, both the scoping EAW and the DSDD were made available for public review during a 30-day scoping period. Documents were distributed via email to the EQB distribution list and other known interested parties. A statewide press release was issued along with a notice of availability in the EQB Monitor. Documents were made available for review at the East Central Regional Library, in Cambridge, MN. Due to the Covid-19 pandemic, the Hinckley Public Library was not allowing review of documents during this time, which is why the documents were not available at a library closer to the project location. Documents were also made available for review on the DNR environmental review website. Copies of the scoping documents were also available upon request. The scoping period began on October 12, 2020. The scoping period ended on November 12, 2020.
8. Minnesota Rules, part 4410.2100, subpart 3, item B, requires an RGU to hold a public meeting on the scoping documents not less than 15 business days after the publication of the notice of availability of the scoping EAW. Per these Rules, a public information meeting was held on November 5, 2020. Due to the Covid-19 pandemic, the meeting was held online. However, computer stations were made available at the Hinckley Community Room for individuals who needed computer access to participate.
9. The DNR responded to substantive public comments on the scoping EAW and DSDD, made revisions to the EIS scope, and prepared a Final Scoping Decision Document (FSDD).
10. As required by Minnesota Rules, part 4410.2100, subpart 3, item C, the FSDD was issued within 15 days after the close of the 30-day scoping period.
11. Notice of availability of the FSDD for the Project and response to comments was emailed to the EQB distribution list and other known interested parties including those who had submitted comments. The FSDD and response to comments were also posted on the project's website.
12. The contents of the FSDD included the topics required to be addressed in the EIS (Minnesota Rules part 4410.2100, subpart 6, items A and G).

13. A number of topics discussed in the scoping EAW were determined to be not relevant or so minor that it was determined that they were adequately analyzed in the scoping EAW and that further review was not needed. Topics eliminated for further analysis in the EIS were:
- Cover types and plans (scoping EAW Item 8 and 9)
 - Wastewater and stormwater scoping EAW (Item 11)
 - Hazardous materials/Wastes (scoping EAW Item 12)
 - Historic properties (scoping EAW Item 14)
 - Visual (scoping EAW Item 15)
 - Air (stationary source emissions, vehicle emissions, dust and odor) (scoping EAW Item 16)
 - Noise (scoping EAW Item 17)
 - Traffic (scoping EAW Item 18)
 - Cumulative potential effects (scoping EAW Item 19)
 - Socioeconomic effects (scoping EAW Item 20)
14. Topics that were identified for inclusion in the EIS were:
- Geology (Karst) (scoping EAW Item 10)
 - Wetland impacts (scoping EAW Item 11)
 - Hydrological effects (scoping EAW Item 11)
 - Groundwater (private wells) (scoping EAW Item 11)
 - Public Waters and Riparian Rights (scoping EAW Item 11)
 - Sediment and contaminants (scoping EAW Item 12)
 - Fish, wildlife, plant communities and sensitive ecological resources (Item 13)
15. An estimated schedule for completion of the EIS process was included in the FSDD as required by Minnesota Rules, part 4410.2100, subpart 6, item B.
16. Known governmental permits and approvals potentially required for the proposed Project were listed in the Scoping EAW, Item 8, and discussed in the FSDD, as required by Minnesota Rules, part 4410.2100, subpart 6, items C and D. All permits identified, however, will be processed separately from the environmental review process and the records for the applicable permits will be compiled as the permit applications are processed.
17. The FSDD identified alternatives that would be analyzed in the EIS, as required by Minnesota Rules, part 4410.2100, subpart 6, item E. Alternatives identified for analysis in the EIS process were those alternatives that addressed all aspects of the purpose and need for the Project. The FSDD identified the following alternatives for inclusion in the EIS:
- The proposed project, which includes drawdown of the reservoir, consolidation of sediments, dam removal, floodplain grading, construction of riffles and associated erosion control methods.
 - The no action alternative, which includes keeping the dam in place, with ongoing maintenance and the potential for major repairs.
 - The partially engineered restoration alternative, which includes all aspects of the proposed project with the addition of excavating a meander at a defined location.
 - The fully engineered restoration alternative, which includes the same dam removal as the proposed Project, but rather than letting the river channel naturally restore, this

alternative would restore the resultant stream channel with full engineering. In this alternative, the resultant stream would be manipulated along much of its distance within the AMA to design specifications that would ensure channel stability. This alternative was later removed from the analysis during EIS development (see ¶¶ 22, 23, 54, 55, and 56).

18. As required by Minnesota Rules, part 4410.2100, subpart 6, item G, special studies and research identified to be completed and used for analysis in the EIS include:
 - Wetland Delineation
 - Hydrologic And Hydraulic Study
 - Sediment And Contaminant Study
 - Mussel Study
 - Geology Study
 - Private Well Study
 - Riparian Rights legal study
19. On May 18, 2021, the DNR published in the EQB Monitor an EIS preparation notice for the proposed Project, as required by Minnesota Rules, part 4410.2100, subpart 9. The FSDD was also published at this time. No amendments to the scoping decision were made following this notice.

Draft EIS

20. As required by Minnesota Rules, part 4410.2600, subpart 1, DNR prepared a Draft EIS for the proposed project consistent with parts 4410.0200 to 4410.6500 and in accordance with the FSDD.
21. The DNR developed the EIS contents, including the cover sheet, summary, table of contents, list of preparers, project description, government approvals, alternatives, environmental, economic, employment, and sociological impacts, mitigation measures, and inclusion of appendices, consistent with the requirements of Minnesota Rules, part 4410.2300.
22. Minnesota Rules, part 4410.2300, item G requires the analysis of alternatives as part of an EIS (see ¶17). The FSDD identified the partially engineered restoration alternative for inclusion in the EIS as a modified design or layout of the Project. During the EIS scoping process, the fully engineered restoration alternative was conceptually developed as an alternative to the proposed project and this alternative was included in the FSDD for further evaluation in the EIS. An alternative may be excluded from analysis in the EIS if it would not meet the underlying need for or purpose of the project, it would likely not have any significant environmental benefit compared to the project as proposed, or another alternative, of any type, that will be analyzed in the EIS would likely have similar environmental benefits but substantially less adverse economic, employment, or sociological impacts. Alternatives included in the scope of the EIS as established under part 4410.2100 that were considered but eliminated based on information developed through the EIS analysis shall be discussed briefly and the reasons for their elimination shall be stated.
23. An alternative screening process was conducted to evaluate the fully engineered restoration alternative against the project purpose. The results of this analysis indicated that this alternative

would not offer significantly less environmental or social impacts compared to the other alternatives identified in the FSDD. Due to the lack of significant benefits that would likely result from the fully engineered restoration alternative, this alternative was eliminated in the Grindstone Dam Removal Project EIS. The alternative screening analysis was included as EIS appendix A, and a brief explanation of the reasons for its elimination was discussed in the EIS (see section 1.4.2.1.3.2). See Minnesota Rules 4410.2300, item G.

24. Minnesota Rules, part 4410.2300, item H requires discussion on environmental, economic, employment, and sociological impacts. The EIS includes a discussion for all environmental impacts of the project and analyzed alternatives (see chapter 3). The scoping EAW discussed that the proposed project is not expected to have economic effects on employment or the local economy, nor is it expected to have social impacts within the community. Thus, the FSDD noted that these topics would not be included in the EIS analysis. However, a brief discussion on socioeconomic effects was discussed in the EIS (see section 1.4.2.1.6). This included discussion on recreation activities.
25. Minnesota Rules, part 4410.2300, item I, require that a section of the EIS include mitigation measures that could reasonably eliminate or minimize any adverse environmental, economic, employment, or sociological effects of the Project. Chapter 6 of the EIS includes a discussion of both proposed and recommended mitigation and monitoring measures that could reduce or eliminate adverse effects of the Project.
26. Upon completion of the Draft EIS, in June 2023 the DNR made the Draft EIS available for public review and comment as required by Minnesota Rules, part 4410.2600. As required by Minnesota Rules, part 4410.2600, subparts 3 and 4, the Draft EIS and a summary were distributed via email to the EQB distribution list and other known interested parties, including anyone who had previously submitted comments. A statewide press release was issued along with a notice of availability in the EQB Monitor. Documents were made available for review at the Hinckley Public Library in Hinckley, MN. Documents were also made available for review on the DNR environmental review website. Documents were also made available upon request. The Draft EIS was made available for a public comment period from June 20 to July 26, 2023,
27. As further required by Minnesota Rules, part 4410.2600, DNR held an information meeting in Hinckley on July 12, 2023. A court reporter was present to record the meeting and oral public comments.
28. Two commenters, one from the local government, and a state representative, provided oral comments at the meeting.
29. During the 30-day public comment period, written and emailed comments were received on the Draft EIS from 15 different commenters from local government agencies and citizens.
30. One additional comment letter was received via email six weeks after the public comment period ended.

Final EIS

31. All substantive comments submitted during the 30-day public comment period received responses in accordance with Minnesota Rules, part 4410.2600, subpart 10.

32. No comments indicated a need for updates to the Draft EIS, thus no changes were made and the Draft EIS is the Final EIS, per Minnesota Rules, part 4410.2700, subpart 2.
33. Pursuant to Minnesota Rules, part 4410.2700, subpart 1, comments and responses were included in the Final EIS as Appendix I.
34. In accordance with Minnesota Rules 4410.2700, subpart 1, the Final EIS Appendix H included a discussion on responsible opposing views that surfaced during EIS development.
35. The cover sheet was updated to include information on the Draft EIS and Final EIS commenting periods. The cover sheet also noted that the draft EIS is the final EIS (see ¶ 32).
36. The DNR distributed the Final EIS in September 2023 and made the documents available for public review in accordance with Minnesota Rules, part 4410.2700. The Final EIS was provided to the EQB distribution list, all persons who submitted substantive comments of the Draft EIS, and other interested parties as required by Minnesota Rules, part 4410.2700, subpart 3. As outlined in Minnesota Rules, part 4410.2800, subpart 2, the Final EIS was made available for a 10-day period from September 26 through October 9, 2023, which began with a press release and a notice of availability of the Final EIS in the September 26, 2023, EQB Monitor. A copy of the Final EIS was available for review at the Hinckley Public Library. The EAW was also publicly available on the DNR environmental review website.

Consideration of Comments on Adequacy

37. During the 10-day period, 11 commenters submitted comments. One additional comment letter was submitted a week after the comment period ended, which expressed support for the proposed project. Topics for which people commented on were: impacts from sedimentation, support for the proposed project (for ecological and safety reasons), opposition to the proposed project, impacts to wildlife and or protected species, and impacts to private wells.
38. Timely comments provided during the September 26 through October 9, 2023, comment period were considered in the determination of adequacy for the Final EIS.
39. Comment content was reviewed to determine if it was related to the three adequacy conditions identified in Minnesota Rules, part 4410.2800, subpart 4, which states that the final EIS shall be determined adequate if it:
 - addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with part 4410.2300, items G and H;
 - provides responses to the substantive comments received during the draft EIS review concerning issues raised in scoping; and
 - was prepared in compliance with the procedures of the act and parts 4410.0200 to 4410.6500.
40. Comment summaries and responses to comments are provided in ¶¶ 41 – 50 below.
41. Sheila DeWuske commented that permits should ensure that all involved should be held accountable for damages and cleanup. Commenter references a project that happened on the Willow River in Wisconsin and resulted in sedimentation issues.

Comment response: The topic of sedimentation was discussed in Final EIS section 3.3 and in the response to comments on the Draft EIS. The Little Falls Dam, located on the Willow River in Wisconsin, was a larger dam than the Grindstone River Dam, with higher volumes of sediment behind the dam. The Minnesota DNR is aware of the potential

issues with this type of legacy sediment. The proposed mitigation and monitoring includes several measures to allow for controlled release and sediment consolidation, such as a slow drawdown and seasonal timing of construction. The construction specifications would require the contractor to remove the dam and manage sediment discharge to avoid any downstream nuisance conditions. Sediment mitigation is addressed in Final EIS sections 2.2.2, 3.3, 4.2.3, and 4.3.3. Permits related to sediment mitigation are listed in the EIS in Table 6-1.

Related to adequacy: The topic on sediment was outlined in scoping and was addressed in EIS sections 2.2.2, 3.3, 4.2.3, and 4.3.3. Comments on this topic received responses (see EIS Appendix I). This comment does not conflict with any of the three conditions identified in Minnesota Rules part 4410.2800, subpart 4 (see ¶ 39).

42. Jon Jones commented that they were in support of the proposed project and provided recommendations that the reservoir become public land. Commenter also provided recommendations to restore the white pine forest, or a prairie/pollinator restoration.

Comment response: Comment noted. The Grindstone Reservoir and the surrounding project area lies within the Hinckley Aquatic Management Area (AMA), which will continue to be maintained as public land. Vegetation restoration and management is proposed for areas exposed by dewatering, and the restored areas and surrounding habitat would be managed as part of Hinckley Aquatic Management Area (AMA) operations in the future.

Related to adequacy: Comments on the topic of public lands were submitted during the scoping comment period; responses to comments were provided in the scoping EAW response to comments document. The topic of habitat restoration was submitted during scoping and was also responded to in the scoping EAW response to comments. Restoration was discussed in EIS section 2.1.4, and 3.3.3, and 3.4.5 No comments on restorations were provided during the draft EIS phase, however, comments on invasive species were submitted. The response to comment included a discussion on restoration (see EIS Appendix I). The comments do not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

43. Mark Hove commented that they were in support of the project and recommended that sediment behind the dam be considered so that it does not kill mussels or cause other problems downstream.

Comment response: See ¶ 41.

Related to adequacy: See ¶ 41.

44. Dan Johnson expressed support for the proposed project, in particular since removal of the dam would open up many miles of river to spawning habitat for lake sturgeon.

Comment response: Comment noted. Project impacts to fish migration are discussed in EIS section 3.4.3.

Related to adequacy: The topic was outlined in scoping and was addressed in EIS section 3.4.3. Comments on this topic received responses (see EIS Appendix I). The comments do not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

45. Chris Smith provided support for the proposed project. Smith also provided information that the state-listed butternut tree (*Juglans cinerea*) was recently observed within the vicinity of the project area and may be impacted from the proposed project.

Comment response: The butternut observations have been submitted to the DNR for entry into the Natural Heritage Information System (NHIS) database. Prior to construction, the NHIS will be reviewed. The proposer and permitting staff will be informed of the recent observations of this state-listed species, and any required avoidance, mitigation, or need for a Permit to Take will be determined by the DNR Endangered Species Coordinator.

Smith also stated that the EIS failed to adequately address species covered under the Federal Endangered Species Act (ESA). Smith provided a screening of the U.S. Fish and Wildlife Service's (USFWS) IPaC tool which provides a list of species within the purview of the USFWS. Species listed included: gray wolf (federally listed as threatened), Northern long-eared bat (federally listed as threatened, state-listed as special concern), tricolored bat (proposed federally listed as endangered, state-listed as special concern), whooping crane (federal status = experimental population, non-essential), monarch butterfly (federal listing candidate). Smith states that the EIS should be updated to reflect these species, along with proposed avoidance, minimization, and mitigation measures.

Comment response: The species which occurred on the IPaC tool list are: gray wolf (federally listed as threatened), Northern long-eared bat (federally listed as endangered, state-listed as special concern), tricolored bat (proposed federally listed as endangered, state-listed as special concern), whooping crane (federal status = experimental population, non-essential), monarch butterfly (federal listing candidate). Take of federally listed species is not reasonably certain to occur. Project plans as described in the EIS does not involve tree removal, limiting potential impacts to forest obligate species protected under the ESA. The two bat species indicated are not known to utilize this dam as roosting habitat. If it is determined during final design that tree removal may occur, permitting authorities would evaluate ESA impacts and the state Bat Habitat Conservation Plan would be followed.

Related to adequacy: All topics that were outlined in scoping were addressed in the EIS. No comments were submitted on these topics during the scoping comment period, or the Draft EIS comment period. The comments do not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

46. Wayne Cessna asked who would be responsible should he experience problems with his well as a result of the proposed project.

Comment response: The EIS section 3.6 describes how private wells may potentially be affected by the proposed project. Based on information available regarding water table elevations and well construction details, in a worst-case scenario, there is potential for supply wells to be impacted if the Grindstone Dam is removed. Should impacts to neighboring wells occur, it would be the project proposers (i.e. DNR Fisheries) responsibility to mitigate impacts to any neighboring wells. Mitigation measures are described in EIS section 3.6.3. Any decision on mitigation would be selected once final project decisions are made and would likely be required at the time of permitting.

Related to adequacy: The topic was outlined in scoping and was addressed in EIS section 3.6. Comments on this topic were submitted during the scoping comment period; responses to comments were provided in the scoping EAW response to comment document. No comments were submitted on this topic during the Draft EIS comment period. The comments do not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

47. Terry Lovegren, Pine County Commissioner District 3 expressed opposition to the project. Reasons for opposition to the project included thoughts that removal of the dam will take away fishing and other outdoor recreation opportunities such as canoeing and kayaking which provide healthy activities for kids and families to enjoy.

Comment response: The topic of recreation opportunities was discussed in EIS section 1.4.2.1.6. This topic was also discussed in the Final EIS Summary, Attachment H and the Draft EIS Response to Comments, Attachment I. Recreation opportunities such as fishing, swimming, canoeing, and kayaking would continue to exist at the site with the proposed project.

Lovegren also expressed concern that the use of taxpayer dollars for the new road is wasteful if the dam is removed.

Comment response: Public access to the AMA and recreation opportunities are discussed in EIS section 1.4.2.1.6. The topic of the improved road access on Dunn Avenue North was discussed in the Draft EIS Response to Comments, Attachment I. Recreation opportunities within the AMA will continue to exist, and the road will continue to provide access to these opportunities.

Lovegren expressed concern of potential impacts to their property on the Grindstone River and stated that the river has been low, with water barely moving this past summer, stating it's hard to comprehend what the future will hold for the North and South Forks of the Grindstone Rivers if the dam is removed.

Comment response: Potential impacts to private property is discussed in the EIS in sections 3.2 (Hydrological and Hydraulic Effects), 3.5 (Geology/Karst) and 3.6 (Groundwater/Private Wells). The proposed project would remove the dam and allow the North and South Forks of the Grindstone Rivers to flow naturally; removal of the dam would not affect the amount of water present in the free-flowing rivers.

Lovegren states that Hinckley residents, Pine County residents, and the Hinckley City Council object to the removal of the dam, and asks the problem of the dam be fixed.

Comment response: The EIS discusses the purpose and need of the proposed project in section 1.2. The proposed project and project alternatives (including the no action alternative of leaving the dam in place) are discussed in EIS sections 2.1 and 2.2. Reconstruction of the dam was not an alternative analyzed in the EIS; the reason this alternative was not analyzed is discussed in EIS section 1.4.2.1.4. Environmental consequences of the proposed project and the no action alternative are discussed throughout the EIS. During the draft EIS, comments on this topic were raised and responded to (See Draft EIS Response to Comments, Attachment I).

Related to adequacy: Comments on the topics of recreation and the Dunn Avenue Road were responded to (see EIS Appendix I). No comments were submitted on the topic of impacts to private property during the Draft EIS phase, however property impacts were discussed in the EIS in sections 3.2 (Hydrological and Hydraulic Effects), 3.5 (Geology/Karst) and 3.6 (Groundwater/Private Wells). During the Draft EIS, one comment was submitted pertaining to flood control and impacts to the city's sewer lift station; a response to this comment was provided (See EIS Attachment I). The comments do not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

48. Pam Sirko states that down river from the dam the river is covered with fallen trees and limbs and expressed concern for their property two miles downriver of the dam.

Comment response: Potential impacts to private property is discussed in the EIS in sections 3.2 (Hydrological and Hydraulic Effects), 3.5 (Geology/Karst) and 3.6 (Groundwater/Private Wells). The proposed project is described in EIS section 2.1; implementation of the project would be initiated with a slow drawdown, which should not impact movement of fallen trees within the river two miles downstream.

Sirko also asks if there will be impacts to the I-35 bridge replacement.

Comment response: The I-35 bridge is located approximately 0.75 miles downstream of the dam. The I-35 bridge replacement and related project is proposed to start in spring of 2024. Start date for the proposed project is unknown, however, the proposed project could start in summer of 2024. Hydrological and hydraulic effects downstream were discussed in EIS section 3.5; modeling indicates there would be no change in water surface elevations downstream at bridges and other public infrastructure.

Related to adequacy: Hydrological and hydraulic effects downstream were discussed in EIS section 3.5; impacts from sediment was discussed in EIS section 3.3; see also ¶ 41. No comments were submitted on the I-35 bridge replacement project during the scoping comment period, or the Draft EIS comment period. The comments do not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

49. Jennifer Ramlet provided comments that she would like the Grindstone Dam to be removed. She states that her sister passed away at the site in 2002 and a man passed away in 2018. She would like the dam to be removed so that other families are not affected as hers has been.

Comment response: Thank you for your comment. Staff at the DNR are sorry for the loss of your sister. Safety and drowning concerns from the dam were discussed in EIS section 1.2.1 as one reason for the need for the proposed project.

Related to adequacy: The topics raised in the comment are consistent with the purpose of the project. The comment does not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

50. Misti Hollister provided comments that she would like to see the dam removed since the dam is dangerous, and mentions two drownings having occurred, her friend in 2002 and another person in 2018. Hollister also mentions benefits to water quality and decreased cost of maintenance with the dam removal.

Comment response: Staff at the DNR are sorry for the loss of your friend. Safety and drowning concerns from the dam were discussed in EIS section 1.2.1 as one reason for the need for the proposed project.

Related to adequacy: The topics raised in the comment are consistent with the purpose of the project. The comment does not conflict with any of the three conditions identified in Minnesota Rules, part 4410.2800, subpart 4 (see ¶ 39).

EIS Topics

Purpose and Need

51. The Grindstone Dam was built in 1931 and has reached the end of its expected life cycle, already having required multiple expensive repairs to keep it in service. The purpose of the proposed project is to:
- i. Address public safety concerns around dam instability, inability to pass floods, and the threat of dam failure.
 - ii. Minimize impacts from flooding by providing a larger floodplain (i.e. restore the reservoir to a naturally functioning stream with a connected floodplain).
 - iii. Restore fish and aquatic life connectivity to the Grindstone River system.
 - iv. Increase pool and riffle habitat.
 - v. Improve hydrologic function of the Grindstone River by restoring more natural sediment and nutrient transport.

Alternatives

52. Minnesota Rules part 4410.2300, item G, requires that an EIS consider at least one alternative from each of the following categories or provide a concise explanation of why no alternative of a particular type is included in the EIS: alternative sites; alternative technologies; modified design

or layouts; modified scale or magnitude; and alternatives incorporating reasonable mitigation measures identified through comments received during EIS development. In addition, the no action alternative is required to be analyzed.

53. The DNR conducted an independent assessment of potential projects within the above categories. The FSDD provided a brief explanation for why no alternative of a certain type was excluded from EIS analysis.
54. The FSDD identified that three alternatives to the project would be considered for full analysis in the EIS: the no action alternative, the partially engineered restoration alternative, and the fully engineered restoration alternative.
55. According to Minnesota Rules, part 4410.2300, item G, an alternative may be excluded from analysis if it would not meet the underlying need for or purpose of the project, it would not likely have a significant environmental benefit compared to the project as proposed, or another alternative, of any type, that will be analyzed in the EIS would likely have similar environmental benefits but substantially less adverse economic, employment, or socioeconomic impacts.
56. An alternative screening process was conducted to evaluate the fully engineered restoration alternative against the project purpose. The results of this analysis indicated that this alternative would not offer significantly less environmental or social impacts compared to the other alternatives identified in the FSDD. Due to the lack of significant benefits that would likely result from the fully engineered restoration alternative, this alternative was eliminated in the Grindstone Dam Removal Project EIS. The alternative screening analysis was included as EIS appendix A, and a brief explanation of the reasons for its elimination was discussed in the EIS (see section 1.4.2.1.3.2). See Minnesota Rules 4410.2300, item G.
57. Two alternatives were included in the EIS for full evaluation: the no action alternative, and the partially engineered restoration alternative.
58. As required in Minnesota Rules, part 4410.2300, item G, Chapter 5 of the EIS compared the potentially significant impacts of the project with those of other alternatives analyzed in the EIS.
59. The DNR received comments on the Draft EIS from the City of Hinckley and Pine County in support of rebuilding the dam, or in constructing a rock arch rapids in its place, two alternatives which were discussed in the FSDD as alternative types that would not be evaluated in the EIS. These alternatives were not carried forward for analysis in the EIS since they would not meet all purposes and needs of the proposed project as described in the EIS.

Environmental Effects

60. Based upon the information contained in the scoping EAW, FSDD and the EIS, the DNR identified the following key topics and potential environmental effects associated with the project that were evaluated in the EIS:
 - Wetland impacts
 - Hydrological and Hydraulic (H & H) Effects
 - Sediment and contaminants
 - Plant Communities, Wildlife, Fish, and Sensitive Ecological Resources
 - Geology (Karst)
 - Groundwater (private wells)
 - Public Waters and Riparian Rights

Each of these topics and environmental effects is discussed in more detail below.

Wetland impacts

61. The topic of wetlands was addressed in EIS section 3.1. Thirteen wetlands and two riverine resources were delineated within the vicinity of the proposed project area. The EIS describes both temporary and permanent wetland impacts that may occur as a result of the proposed project or the alternatives analyzed. It is expected that the proposed project would create new wetlands and may result in a net gain of wetlands within the floodplain area.
62. Wetland mitigation and monitoring is discussed in EIS section 3.1.3 and summarized in Table 6-1. Mitigation of any wetland impacts would be completed in accordance with state and federal regulatory requirements. Regulatory permits related to wetland impacts are summarized in Table 6-1.

Hydrological and Hydraulic (H & H) Effects

63. The topic on hydrological and hydraulic effects was discussed in EIS section 3.2. The EIS describes how the existing floodplain and the Grindstone River water levels in the area may potentially be affected by the proposed project and whether the proposed project, or the alternatives, would impact structures downstream. The proposed project hydraulic modeling indicates there would be no change to the flood hydraulics of the bridges and other river stations of the Grindstone River that are downstream of the existing dam.
64. Measures proposed to avoid, minimize, or mitigate impacts from hydrology and hydraulics are discussed in EIS section 3.2.3 and summarized in Table 6-1. Additional recommended mitigation and monitoring is also summarized that could be incorporated into project permits. There are no regulatory permits required for this topic, however, a Federal Emergency Management Agency (FEMA) letter of map revision would be completed if required, and other required permits could incorporate information from this section into permitting requirements.

Sediment and Contaminants

65. Sediment and contaminants were discussed in EIS section 3.3. Arsenic is a naturally occurring element commonly found in soils and groundwater, however it is considered to be highly toxic in its inorganic form. The EIS identified that four out of seven sample cores contained arsenic at soil reference values that would be unacceptable for repeated human exposure.
66. EIS section 3.3.3 discusses measures to avoid, minimize, or mitigate human exposure to the arsenic present within the soils behind the dam Table 6-1 summarizes proposed and recommended mitigation and monitoring, and regulatory permits related to the impacts from sediment are listed.

Plant Communities, Wildlife, Fish, and Sensitive Ecological Resources

Plant communities

67. The plant communities present within the project vicinity were discussed in EIS section 3.4.1. The EIS identified that upland hardwood forest, wooded wetlands, and shallow lake plant

communities would likely be permanently impacted by the change in surface water and groundwater conditions.

68. EIS section 3.4.1.3 discusses mitigation measures to minimize impacts to plant communities. Table 6-1 summarizes proposed and recommended mitigation and monitoring. There are no required regulatory permits related to impacts to plant communities, with the exception of impacts to wetlands are regulated and discussed above.

Wildlife

69. The EIS discusses wildlife impacts in section 3.4.2. The EIS identifies that numerous wildlife species are adapted to utilize the communities present within the project vicinity and may be impacted from the project, or alternatives; however, significant impacts to wildlife are not expected.
70. EIS section 3.4.2.3 discussed mitigation measures to avoid, minimize, or mitigate impacts to wildlife. Table 6-1 summarizes proposed and recommended mitigation and monitoring. Impacts to non-protected species are not required by any regulatory permits, however conditions incorporated into permits could avoid, mitigate, or minimize impacts to wildlife.

Fish

71. The EIS discusses impacts to fish within EIS section 3.4.3. The removal of the dam is expected to have a positive impact on fishes due to providing more natural habitat and allowing for fish passage further up river.
72. Measures to avoid, minimize, or mitigate impacts to fish is discussed in EIS section 3.4.3.3. Table 6-1 summarizes proposed and recommended mitigation and monitoring. Permitting authorities may include conditions in their permits to protect spawning habitat and eggs.

Sensitive ecological resources

73. A query of the Minnesota Natural Heritage Information System (NHIS) (ERDB20190379) was completed and found several state-listed animal species near the proposed project area. Rare species mentioned in the NHIS letter were discussed within EIS section 3.4.4.
74. Measures to avoid, minimize, or mitigate impacts to these sensitive ecological resources was discussed throughout EIS section 3.4.4. Table 6-1 summarizes proposed and recommended mitigation and monitoring. Impacts to protected species would be required by their respective state or federal authorities, if applicable.

Invasive species

75. The topic of invasive species is discussed in EIS section 3.4.5. Several invasive upland plant species have been documented within the vicinity of the proposed project and the surrounding areas.
76. Measures to avoid, minimize, or mitigate impacts to from invasive species is discussed in EIS section 3.4.5.3. Vegetation restoration and management is proposed at the project site.

Regulatory permits such as the DNR Work in Waters Permit often include standard conditions related to spread of invasive species.

Geology (Karst)

- 77. The karst geology that is known to exist near the Grindstone Dam is discussed in EIS section 3.5.
- 78. While the potential to encounter karst near the project vicinity is low, measures to avoid, minimize, or mitigate impacts is discussed in EIS section 3.5.3 and are summarized in Table 6-1. Mitigation for potential impacts to karst geology does not require any specific permits, however, conditions could be incorporated into any related permits or contracts.

Groundwater (Private Wells)

- 79. EIS section 3.6 discusses groundwater in the vicinity of the Grindstone Dam and describes how private wells may potentially be affected by the proposed project.
- 80. Measures proposed to avoid, minimize, or mitigate impacts are discussed in EIS section 3.6.3 and are summarized in Table 6-1. Conditions of mitigation could be incorporated into required permits.

Public Waters and Riparian Rights

- 81. EIS section 3.7 discusses information related to Minnesota public waters and how it relates to the Grindstone Reservoir. The section also discusses land ownership within the project area and potential impacts to riparian rights from the proposed project.
- 82. EIS section 3.7.3 discusses measures to avoid or mitigate impacts to landowner's riparian rights and are summarized in Table 6-1. Final mitigation decisions would be made based on conversations with the landowner.

Cumulative Potential Effects

- 83. Cumulative potential effects are discussed in EIS section 4. Potentially affected resource categories were identified, the environmentally relevant area was defined for each resource category, reasonably foreseeable projects were identified within the environmentally relevant area, and a cumulative potential effects screening analysis was conducted.
- 84. Three reasonably foreseeable future projects were identified that could result in cumulative environmental effects, however, based on the EIS analysis, cumulative effects to the resource categories identified are not expected.

Comparison of Alternatives

- 85. According to Minnesota Rules, part 4410.2300, item G, the EIS should compare the potentially significant impacts of the proposed project with those of other reasonable alternatives.
- 86. A comparison of alternatives table is presented in Table 5-1 of the EIS.

Proposed and Recommended Mitigation and Monitoring

87. According to Minnesota Rules, part 4410.2300 item I, the EIS must include mitigation measures that could reasonably eliminate or minimize any adverse environmental, economic, employment, or sociological effects of the proposed project. During scoping, it was identified that the proposed project's potential impact on the area's economy, employment, or sociology would be so minor that the FSDD stated the content of the scoping EAW was sufficient and these areas would not be addressed in the EIS. As such, the primary focus of the EIS proposed mitigation and monitoring is on addressing adverse environmental impacts.
88. Proposed mitigation measures related to environmental effects impacts are discussed throughout section 3 of the EIS. In addition, EIS section 6.2 includes Table 6-1 which summarizes the mitigations measures discussed, organized by EIS topic.

Appendices

89. Appendices prepared for the EIS were created according to Minnesota Rules, part 4410.2300 item J.

Governmental Approvals

90. Although the EIS provides information for use in permit issuance or denial, it is not required to gather or present all necessary permit-related information. Additional information may be required as part of the various permitting processes depending on the permit and the permitting authority. EIS Section 1.5, Table 1-1, identified known permits, approvals, and regulatory programs and laws related to and potentially required for the Project.

Determination of Adequacy

91. Upon conclusion of the Final EIS comment period, the DNR as RGU shall determine the adequacy of the Final EIS in accordance with Minnesota Rules, part 4410.2800, which states that the Final EIS shall be determined adequate if it:
 - addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with part 4410.2300, items G and H;
 - provides responses to the substantive comments received during the draft EIS review concerning issues raised in scoping; and
 - was prepared in compliance with the procedures of the act and parts 4410.0200 to 4410.6500.

Did the EIS Address the Potentially-Significant Issues and Alternatives Raised in Scoping?

92. Potentially-significant issues are addressed in Findings of Fact ¶¶ 60 through 82.
93. Alternatives raised in scoping are addressed in Findings of Fact ¶¶ 46 through 59.

Did the RGU Respond to Comments?

94. The responses to substantive comments on the Draft EIS are addressed in Findings of Fact ¶ 28 and ¶ 29.

Did the RGU Comply with MEPA Procedures?

95. As required by Minnesota Rules, part 4410.2800, subpart 4, item C, and as set forth in detail in these Findings of Facts, the DNR, as RGU, has prepared the Final EIS for the Project in compliance with the procedures of MEPA and Minnesota Rules, parts 4410.0200 to 4410.6500. The EIS's compliance with the requirements of law and rules is detailed in Finding of Facts ¶¶ 96 through 102, below; each requirement is underlined at the beginning of each finding.
96. Projects Requiring an EIS – Minnesota Rules 4410.2000. DNR's compliance with the requirements of Minnesota Rules 4410.2000 is addressed in Finding of Facts ¶¶ 5 and ¶ 6.
97. EIS Scoping Process – Minnesota Rules 4410.2100. DNR's compliance with the requirements of Minnesota Rules 4410.2100 is addressed in Finding of Facts ¶¶ 7 through 19.
98. Content of EIS – Minnesota Rules 4410.2300. DNR's compliance with the requirements of Minnesota Rules 4410.2300 is addressed in Finding of Facts ¶¶ 21 through 25, 46, 49, 52, 55, 56, 58, 85, 87, and 89.
99. Incorporation by Reference in EIS – Minnesota Rules 4410.2400. DNR's compliance with the requirements of Minnesota Rules 4410.2400 is addressed in Finding of Fact ¶ 89.
100. Draft EIS – Minnesota Rules 4410.2600. DNR's compliance with the requirements of Minnesota Rules 4410.2600 is addressed in Finding of Facts ¶¶ 20, 26, 27, 31.
101. Final EIS – Minnesota Rules 4410.2700. DNR's compliance with the requirements of Minnesota Rules 4410.2700 is addressed in Finding of Fact ¶¶ 32, through 36.
102. Determination of Adequacy – Minnesota Rules 4410.2800. DNR's compliance with the requirements of Minnesota Rules 4410.2800 is addressed in Finding of Fact ¶¶ 36, 39, 41 through 50, 95 through 10.

II. CONCLUSIONS

1. The DNR is charged with determining the adequacy of the Final EIS for the Grindstone River Dam Removal Project. The Final EIS meets the content requirements of EQB Rules, part 4410.2300.
2. The DNR prepared the EIS in compliance with the procedures of Minnesota Statutes 2022 section 116D.04 and Minnesota Rules, parts 4410.0200 to 4410.6500.
3. The public has been afforded opportunities for input to the scope of the EIS and the content of the Draft EIS, review of the Final EIS, as well as the adequacy of the Final EIS in accordance with all applicable provisions of MEPA and the EQB Environmental Review Program Rules. The Final EIS includes responses to all substantive comments received during the public comment period on the Draft EIS.
4. The information presented in the Final EIS adequately addresses the issues identified in the Final Scope.
5. The EIS followed the procedures for EIS preparation outlined in Minnesota Statutes 2022, section 116D.04. Specific demonstrations of this compliance include:
 - The proposed action is described in sufficient detail.

- The EIS adequately analyzes significant environmental impacts.
 - The EIS adequately presents alternatives to the proposed action and their impacts.
 - The EIS adequately presents methods by which adverse environmental impacts can be mitigated.
 - The EIS adequately presents the economic, employment, and sociological effects that cannot be avoided should the proposed action or an alternative be implemented.
6. The Final EIS is adequate because it meets the criteria set forth in Minnesota Rules, part 4410.2800, subpart 4, which require that it:
 - a. addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with Minnesota Rules part 4410.2300, items G and H;
 - b. provides responses to the substantive comments received during the Draft EIS review concerning issues raised in the scoping process; and
 - c. was prepared in compliance with the procedures of the Minnesota Environmental Policy Act and EQB Rules, contained in Minnesota Rules parts 4410.0200 to 4410.6500.
 7. Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

III. ORDER

Based upon the Findings of Fact and Conclusions contained herein and the entire record of the proceedings:

The Minnesota Department of Natural Resources hereby determines that the Final Environmental Impact Statement for the Grindstone River Dam Removal Project, in Pine County, Minnesota is adequate.

Approved and adopted this 3rd day of November, 2023.

STATE OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES



Jess Richards

Assistant Commissioner