

MEPA ENVIRONMENTAL ASSESSMENT SUMMARY FORM

Project Name: Nilan East Dam Guard Gate Seal Investigation and Repair

Proposed Implementation Date: Winter 2025-Spring 2026

Proponent: DNRC – State Water Projects Bureau (SWPB)

Type and Purpose of Action: In 2020, SWPB worked on a project to replace the guard gate stem at the Nilan North Dam, the stem was bent and prevented operation of the gate. Nilan East Dam stem guides were also replaced as preventative maintenance. Water is delivered through the dam by the operation of two gates, a guard gate and an operating gate. The guard gate is upstream of the operating gate and is typically kept open while the operating gate is used to regulate flow out of the reservoir. The guard gate is typically only closed to allow for inspection of the outlet conduit and the operating gate. Since the gate stem guide replacement in 2020, the Nilan East Dam guard gate hasn't properly sealed, we are proposing to place a small temporary coffer dam upstream of the Nilan East Dam and dewater the area to facilitate safe entry into the outlet conduit to diagnose and fix the ongoing guard gate sealing issue.

Location: Township 20N Range 7W Section 20

County: Lewis & Clark County

I. PROJECT DEVELOPMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION
1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief summary of the scoping and ongoing involvement for this project.	Groups/agencies involved and/or contacted include: • Nilan Water Users Association • MT Fish, Wildlife and Parks
2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:	Nilan Reservoir is off stream and located on DNRC property. MT DFWP manages the reservoir's fishery. • MT DFWP will be consulted for the issuance of a 318 authorization for any potential short-term turbidity associated with construction of the cofferdam. • In 2020, The US Army Corp of Engineers was consulted on a 404 permit. The project met exemption criteria for maintenance of dams and discharges related to irrigation ditches. Therefore, no 404 permit was necessary. The proposed action is similar in kind to work performed in 2020; and a 404 permit will not be necessary

3. ALTERNATIVES CONSIDERED:

Action Alternative: The proposed action is to place a small temporary cofferdam above the Nilan East Dam outlet to facilitate safe conduit entrance to explore solutions and conduct repairs for ongoing gate sealing issues.

No Action Alternative: Under the No Action Alternative no work would happen, and the guard gate will continue to seal improperly which will hinder inspection of the outlet conduit and gate structures. This goes against dam safety standard practices across the industry. Therefore, the No Action Alternative is not preferable.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Are fragile, compatible or unstable soils present?

Are there unusual geologic features?

Are there special reclamation considerations?

Soils in the project area are Beanlake-Winspect stony loams 4 to 25 percent slopes; parent material is alpine and glacial till. These soils are well draining, nonhydic and are not sensitive or fragile. There are no unusual geological features or any special reclamation considerations.

Action Alternative: The installation and removal of a temporary cofferdam has the potential to impact soils in the area, however these would be temporary and not significant.

No Action Alternative: The No Action Alternative renders the system vulnerable to potential uncontrolled discharges from the reservoir and negative downstream channel impacts to soil in the incremental scenario of operating gate failure and subsequent reliance on the guard gate to prevent leakage and control reservoir releases.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Are important surface or groundwater resources present?

Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?

Nilan Reservoir stores irrigation water for distribution through the North Dam into the Willow Creek drainage, and through the East Dam into the Elk Creek drainage. Water will be prevented from flowing through the work area by using a temporary cofferdam. Proposed work will have no effect on water quality standards in the area.

Action Alternative: The Action Alternative will require the temporary cut off of flow through Nilan East Dam to investigate and repair the guard gate sealing issue. This will not cause any degradation of water quality.

No Action Alternative: Guard gate leakage flow may cause erosion damage and excessive sediment transport. Delivery of irrigation water may be halted to prevent canal damage and/or to facilitate unplanned rehabilitation.

6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I air shed)?	Action Alternative: Any impact would be related to emissions from construction equipment and would be non-significant, minor, short-term, temporary and end with the completion of the project. The project area is not influenced by any special air quality regulations. No Action Alternative: The No Action Alternative will not impact air quality.
7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered?	Vegetation on the banks of the dam consists of common native grasses, forbs, woody shrubs and a mix of coniferous and deciduous trees. Work will mainly be conducted in the reservoir during low water where there are no vegetation communities. Action Alternative: The proposed action will take place upstream of the dam in the reservoir bottom, the equipment used for the construction and removal of the cofferdam could have minor and temporary impacts, but no vegetative communities will be permanently altered by the action. No Action Alternative: The No Action Alternative would have no effect to vegetative communities.
8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	The area surrounding the dam contains habitat for common wildlife and aquatic species. Action Alternative: The Action Alternative could cause a minor and temporary impact to a very small portion of aquatic habitat for the duration of work to investigate and repair the guard gate components. Overall, the work will not substantially or significantly change any terrestrial, avian and aquatic life and habitats. No Action Alternative: The No Action alternative may cause more disruptive impacts to aquatic life if the operating gate malfunctions while the guard gate cannot seal Uncontrolled releases could lower reservoir levels for an extended period of time.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Any sensitive species or Species of Special Concern?	The Montana Natural Heritage Program lists several species of concern in the proposed project area including the Long-billed Curlew, Spague's Pipit, Thick-billed Longspur, Golden Eagle, Chestnut-collared Longspur and the Grizzly Bear. Of these species only one listed as federally threatened and that is the Grizzly Bear. The proposed project will be taking place within the reservoir and the dam conduit; wetland habitat surrounds the full pool reservoir but will not be impacted by construction Action Alternative: The proposed action will have no impact on unique, endangered, fragile or limited environmental resources. No Action Alternative: No impacts will occur under the No Action alternative.
10. HISTORICAL / ARCHAEOLOGICAL : Are any historical, archaeological or paleontological resources present?	Nilan Reservoir is a documented Heritage Site (24LC1818). Action Alternative: The proposed action to fix the ongoing sealing problem with the guard gate constitutes necessary and ongoing maintenance and will not affect the qualities of Nilan Reservoir that make it a Heritage Property. No Action Alternative: The No Action alternative may degrade function of the dam's gates and thereby impact the quality of the Heritage Property.
11. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	The project is adjacent to a public road (Benchmark Road). Action Alternative: Any increase in noise associated with the construction would be non-significant, temporary, and will end with completion of the project. The gate investigation and repair will have no impact on the aesthetics of the area. No Action Alternative: The No Action alternative will have no impact to aesthetics.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	The primary purpose of Nilan Reservoir is to deliver agricultural irrigation. Recreation and fishing are secondary uses incidental to irrigation storage. Normal operation of the reservoir yields lower pool levels in late fall due to irrigation distribution. Annual low-pool levels vary due to irrigation demand, hydrologic supply, and dam repair requirements. Action Alternative: The proposed project will not change the existing demand/use of water. Secondary uses (recreation and fishing) may experience short-term impacts. However, the action is necessary to maintain safe operation of the dam and to continue providing these secondary uses into the future. No other nearby activities will affect the project. No Action Alternative: The No Action Alternative would not cause new demands on environmental resources including: land, water, air and energy. However, No Action could jeopardize reliable water for irrigation and secondary uses by not providing fully redundant gates.
13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this site?	Action Alternative: This project will not impact any other plans or studies. No Action Alternative: The No Action alternative will not impact any studies, plans, or projects at the site.
III. IMPACTS ON THE HUMAN POPULATION	
14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	Action Alternative: The proposed projects goal is to ensure safe sealing of the Nilan East Dam guard gate which will ensure continued safe operation of the dam. This will reduce the risk of downstream individuals since it decreases the risk of potential gate malfunctions. No Action Alternative: No Action Alternative renders the system vulnerable to potential uncontrolled discharges from the reservoir and negative downstream channel impacts to human safety through the incremental scenario of operating gate failure and subsequent reliance on the guard gate to prevent leakage and control reservoir releases.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	Nilan Reservoir stores water for agricultural irrigation use. Action Alternative: The project will have positive impacts on agriculture by allowing the continued use of the dam. No Action Alternative: The No Action alternative may cause negative impacts to agricultural activities due to the risk of gate malfunction. Water storage in the reservoir would be reduced to prevent uncontrolled releases into the canal, meaning less water would be available for the water users.
16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	Action Alternative: Other than the employment related to construction, the project will not create any jobs in the area. The repair will allow continued use of the reservoir for the water users. No Action Alternative: The No Action alternative could cause loss of storage in the reservoir and may jeopardize some of the agricultural operations.
17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	Action Alternative: The project will not impact the local and state tax base or tax revenues. No Action Alternative: The No Action alternative will not impact the local and state tax base.
18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	Action Alternative: The project will not increase traffic nor add to demand for government services. No Action Alternative: The No Action alternative will not cause additional demand for government services.
19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	Action Alternative: The project will not impact locally adopted environmental plans, goals, zoning or management plans. No Action Alternative: The No Action alternative will not impact locally adopted environmental plans and goals.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Is wilderness or recreational areas nearby or accessed through the project location? Is there recreational potential within the project location?	Fishing is the main recreation provided by the reservoir, currently the reservoir is low due to lack of water availability and irrigation deliveries, so fishing is currently very limited in the proposed project area. Action Alternative: The proposed project involves dewatering a small portion of the channel that runs through the bottom of the reservoir, this has the potential to temporarily affect fisheries, however the majority of the fish are likely already sheltering in the "Beale Lake" portion of the reservoir due to low water levels this year. Any impacts from the proposed action will be temporary and flow will be restored to the section above the outlet when the cofferdam is removed. No Action Alternative: The No Action alternative may adversely impact recreational resources because the guard gate will not provide reliable safe management of outflows if the operating gate malfunctions, thus potentially causing the uncontrolled loss of stored water. This type of unplanned disruption to recreational activities is likely to have a much greater impact than that of the planned maintenance.
21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	Action Alternative: The proposed project will not impact the density and distribution of population and housing. No Action Alternative: The No Action alternative will not impact the density and distribution of population and housing.
22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	Action Alternative: The proposed project will not disrupt any traditional lifestyle or communities. No Action Alternative: The No Action Alternative will not disrupt any traditional lifestyle or communities
23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	Action Alternative: The proposed project will not impact the cultural uniqueness or diversity of this area. No Action Alternative: The No Action Alternative will not impact cultural uniqueness and diversity.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Action Alternative: Investigating and repairing the guard gate sealing issue will ensure that Nilan East Dam can continue to operate safely and maintain irrigation deliveries and thereby help to sustain the local agricultural economy.

No Action Alternative: The No Action Alternative could negatively impact local agricultural economics if the reservoir storage is reduced to accommodate malfunctioning gates.

IV. FINDING

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| 25. ALTERNATIVE SELECTED: | Action alternative. |
| 26. SIGNIFICANCE OF POTENTIAL IMPACTS: | No significant impacts anticipated. |
| 27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS: | |
| ☐ EIS ☐ More Detailed EA ☒ No Further Analysis | |

EA Prepared By: Jillian Hendrix DNRC-SWPB Environmental Scientist Date: 11/19/25

Name

Title

EA Approved By: Trevor Watson Acting-DNRC Water Resources Division Administrator

Name

Title

Trevor Watson
Signature

Date: 11/24/25

Attachments: No attachments are included.

Additional Information:

This EA will be published for 30 days on the DNRC website at:

<http://dnrc.mt.gov/public-interest/environmental-docs>

Questions and comments should be directed to:

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