

Finding of No Significant Impact for Tongue River Supplemental Watershed Plan #3 Tongue River Watershed Channel Stabilization Project, Pembina County, North Dakota

I. Introduction

The Pembina Water Resource District Tongue River Watershed Channel Stabilization Project is a federally-assisted action authorized for planning under Public Law 83-566, the Watershed Protection and Flood Prevention Act. This act authorized the Natural Resources Conservation Service (NRCS) to provide technical and financial assistance to local project sponsors. The local sponsor of the project is the Pembina County Water Resource District.

An environmental assessment (Plan-EA), attached and incorporated by reference into this finding, was undertaken in conjunction with the development of the watershed plan. The assessment was conducted in cooperation and consultation with local, state, and tribal governments; federal agencies; and interested organizations and individuals. Data developed during the assessment is available for public review at the following physical location:

U.S. Department of Agriculture
Natural Resource Conservation Service
220 East Rosser Avenue PO Box 1458
Bismarck, North Dakota 58502-1458

and online at:

<https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/north-dakota/tongue-river-watershed>

II. Recommended Action

The proposed channel stabilization project involves restoring natural pattern, profile, and dimension to 1.8 miles of the Tongue River starting at a location approximately 1.3 river miles downstream of the Tongue River crossing with North Dakota State Highway 89 in Section 28 of Beaulieu Township, Pembina County, ND. The proposed project will raise the elevation of the riverbed to within 3.0 feet of the natural floodplain, at the low point of the riffles, to just the capacity of the bankfull channel flow. Grade control structures to mitigate risk of future channel incision will be constructed in the channel, including a rock arch ramp with energy dissipation pool on the downstream end, rock cross vanes with buried sheet pile cutoff walls, and cobble patches, debris collectors, and beaver dam analogue structures. Bioengineering bank protection will protect exposed banks after construction, including ballasted large woody debris, cobble toes, coir fabric, grass seeding, live cuttings, and transplanted live willow clumps. Removal of old levee sections and floodplain grading will take place and includes 6.1 acres of floodplain excavation/wetland creation. All disturbed areas and areas of invasive vegetation will be revegetated with native species of grass, forbs, trees and shrubs.

The purposes of the proposed action are watershed protection and flood damage reduction. The needs for action are that channel incision has increased sediment load to Renwick reservoir from 7,500 tons/year to 55,000 tons/year; phosphorus loads to the reservoir have increased by 600%; annual

cropland damages downstream of Highway 32 due to flooding average \$51,121; the Tongue River upstream of Highway 32 is one of the last strongholds in ND for Northern Pearl Dace, a designated state species of concern, and further upstream progression of channel incision threatens 5.5 miles of prime habitat; 2 bridges and 16-25 acres of valuable forest resources are also threatened by upstream progression of channel incision.

I must determine if the Preferred Alternative (Alternative 2), will or will not be a major Federal action significantly affecting the quality of the human environment. The Plan-EA accompanying this finding has provided the analysis needed to assess the significance of the potential impacts from the selected alternative. The decision on which alternative is to be implemented and the significance of that alternative's impacts are under Part VI of this finding.

III. Alternatives Considered In The EA

Alternatives evaluated in the EA for channel stabilization included stage 0 restoration (create a multi-thread channel), priority 1 restoration (relocate channel onto floodplain or reconstruct in place to pre-precised elevation), priority 2 restoration (stabilize channel at its current bed elevation and width), priority 3 restoration (stabilize channel at its current bed elevation, with a constructed inset floodplain bench), beaver dam analogues alone, constructed check dams, and priority 4 restoration (riverbank stabilization in place, with or without armored channel bottom). Alternatives for flood damage reduction evaluated in the EA included reducing runoff volume with structural and non-structural practices, increasing conveyance capacity within the watershed at known damage locations, increasing temporary flood storage within the watershed, and protection and avoidance measures which included structural and non-structural practices that would reduce damages to land, structures and infrastructure. When formulating an alternative, it was analyzed for satisfaction of the purpose and need statement, and against four criteria: completeness, effectiveness, efficiency, and acceptability. Some of the initial alternatives considered were eliminated because they did not meet the formulation criteria or did not address the purpose and need for action, did not achieve the Federal Objective and Guiding Principles, or were unreasonable because of cost, logistics, existing technology, or social or environmental reasons. These alternatives were removed from consideration, as described in Section 4 of the Plan-EA .

Three alternatives were analyzed in detail within the Plan-EA and are characterized as follows:

No-Action Alternative: No new actions would be undertaken. The No-Action Alternative would involve no federal funding to reduce flood damages. Future pressure from changing climatic conditions and subsequent changes in precipitation patterns, in addition to land use changes can expect to result in frequency and magnitude of flood damages to continue in an upward trend. The current sediment delivery rate to Renwick reservoir is expected to result in the filling of the sediment pool by 2027; the permanent (recreation pool) filled by 2086 and the flood control benefits reduced by 33% in 2113. By 2040 the permanent pool would be unlikely to support fish populations or recreational use. The No-Action Alternative is further described in the Plan-EA section 2 with supporting data and analysis in Appendix D-1 and D-3.

Alternative 1: River restoration in place with large floodplain excavations – Channel stabilization project would involve restoring natural pattern, profile, and dimension to 1.8 miles of the

Tongue River channel. The alternative would raise the elevation of the riverbed to within 3.0 feet of the natural floodplain. Approximately 336,000 cubic yards (210 ac-ft) of material would be excavated from the floodplain, of which approximately 65,000 cubic yards would be placed and compacted within the river channel. An additional 3,000 cubic yards of fill material for the channel would come from excavation of old levees which are currently confining the channel. Approximately 14,400 tons of a custom gravel mix would be placed to a 2 ft thickness underlying riffles, runs, glides. Riverbanks of the new channel would be temporarily stabilized by approximately 7,000 feet of Type 1 treatment, consisting of a ballasted large wood debris toe with overlying encapsulated soil lifts, and 9,300 feet of Type 2 treatment consisting of a brush and cobble toe with coir erosion control fabric. Long term bank protection would be provided from the over 55,000 stems of live willow and dogwood cuttings, 30 mature willow clump transplants and 500 prairie cordgrass plugs to be planted on or immediately adjacent to riverbanks.

A fish passable rock arch rapids structure on the downstream end of the project would raise the channel nearly 8 feet in elevation over a length of 180 feet. A buried sheet pile wall, driven down into the existing riverbed at the top of the structure, will provide an emergency scour countermeasure in the event some catastrophic event (such as an upstream dam failure) re-initiated incision. A buried rock sill constructed across the lower elevation floodplain on the north side of the river would provide flanking protection to the rock arch rapids and sheet pile wall. Additional grade control measures just downstream of the Highway 89 bridge and midway from that to the end of the project include two rock cross vanes installed below the constructed channel, with buried sheet pile walls driven into the existing riverbed. Cobble patches will be placed on the upstream end of riffles as 12 scattered locations in the channel as well, to act as minor grade control features. Upstream of the channel restoration section, two rock cross vanes and two debris collectors would be placed to elevations to encourage 1-2 foot of aggradation in 740 feet of slightly incised channel upstream. Sediment fence would be installed along the edges of the bankfull channel, behind bank protection treatments, and removed after the floodplain is fully revegetated.

Following construction completion, revegetation of the floodplain and disturbed areas would consist of 54.8 acres of a temporary cover of oats or rye applied with hydro-mulch. In the following spring the 16.6 acres to be planted as a riparian forest buffer will be drill seeded to a non-competitive grass mix, after which 5,770 bare root trees (with tree protectors) and 2,885 shrubs will be hand planted. The remaining floodplain areas, surrounded the excavations on USFWS conservation easements, would be drill seeded to native grasses including the 6:1 slopes on the excavations as far down as water elevations allow. Disturbed areas due to construction on the downstream end of the project, currently enrolled in the CRP program, will be drill seeded to a CRP mix.

Alternative 1 was focused on stabilizing the channel via a Priority 1 Restoration approach in combination with maximizing temporary flood storage via floodplain excavations. Design of floodplain excavations follows NRCS Conservation Practice Standard 378 for Excavated Pond. The floodplain excavations would provide 210 ac-ft of temporary flood storage under this alternative and require removal of existing utility poles. Planning and design of the project is under NRCS Conservation Practices 582- Open Channel, 410- Grade Stabilization Structure, 378- Pond, 391- Riparian Forest Buffer, 390- Riparian Herbaceous Cover, 512- Pasture and Hayland Planting, 342- Critical Area Seeding, and 484 Mulching.

Alternative 2: Agency Preferred Alternative- River restoration in place with small floodplain excavations - Alternative 2 is identical to Alternative 1 in all aspects but the size of the floodplain excavations are reduced to approximately 70,000 cubic yards (40 ac-ft). The floodplain excavations under this alternative were sized to generate exactly the fill material required for channel restoration in addition to levee removal volumes. Side slopes remain at 6:1 and bottom elevations remain identical, but the extents of the excavations are smaller. At this size of excavation, utility poles will not need to be relocated. From a flood damage reduction standpoint alone, although Alternative 1 provides greater flood damage reduction benefits, due to the larger excavations, Alternative 2 has a higher benefit-cost ratio at 1.2 to 1.0 versus 0.04 to 1.0 for Alternative 1. In short, the cost to excavate and end haul material from the larger floodplain excavations on Alternative 1 is not warranted. Alternative 2 provides identical benefits, in both economic and environmental benefits, to Alternative 1 at a much lower cost, therefore it is the preferred alternative.

Based on the evaluation in the Plan-EA, decisions made by the Local Sponsor, and input from the public, Tribes, and federal, state, and local agencies I have chosen to select Alternative 2 as the agency's preferred alternative. I have taken into consideration all the potential impacts of the proposed action, incorporated herein by reference from the Plan-EA and balanced those impacts with considerations of the agency's purpose and need for action.

In accordance with the Council on Environmental Quality's (CEQ) "40 Most Asked Questions" guidance on NEPA, Question 37(a), NRCS has considered "which factors were weighted most heavily in the determination". Based on the Plan-EA, potential impacts to soil, water, air, plants, fish and wildlife, and human resources were heavily considered in the decision. As a result, the agency's preferred alternative (Alternative 2) would result in short- and long-term beneficial impacts to the environmental resources potentially impacted by the preferred alternative.

IV. Effects of the Recommended Action-Finding of No Significant Impact

To determine the significance of the action analyzed in the Plan--EA, the agency is required by NEPA regulations at 40 CFR Section 1508.27 and NRCS regulations at 7 CFR Part 650 to consider the context and intensity of the proposed action. Upon review of the NEPA criteria for significant effects and based on the analysis in the Plan-EA, I have determined that the action to be selected, Alternative 2 (agency preferred alternative), would not significantly affect the quality of the human environment. Therefore, preparation of an environmental impact statement (EIS) on the final action is not required under section 102(2)(c) of the NEPA, CEQ implementing regulations (40 CFR Part 1500-1508, Section 1508.13), or NRCS environmental review procedures (7 CFR Part 650). This finding is based on the following factors from CEQ's implementing regulations at 40 CFR Section 1508.27 and from NRCS regulations at 7 CFR Part 650: The environmental impacts of constructing the Alternative 2 are not significant for the following reasons:

- 1) The Plan-EA evaluated both beneficial and adverse impacts of the proposed action. It is anticipated the proposed action will result in long-term beneficial impacts to the human environment including natural resources (such as water, fish and wildlife, and vegetation), cultural resources, and social and economic considerations. As a result of the analysis (discussed in detail in section 6 and incorporated by reference), Alternative 2 does not result in significant impacts to the human environment, particularly the significant adverse impacts which NEPA is intended to help decision-makers avoid, minimize, or mitigate.

2) As analyzed in section 5.5.4, Alternative 2 decreases the social issues and improves public health and safety by delaying the sediment infill to the reservoir at Renwick Dam and increasing the duration of flood protection to the City of Cavalier. The project will also improve water quality, reduce the frequency of algal blooms (including toxic harmful algal blooms), and reduce flood damages between the project and Renwick Dam. Specifically, soil, water, air, fish and wildlife, plants and cultural resources will be improved and protected through selection of Alternative 2.

3) As analyzed in Section 5.5 of the Plan-EA, there are no anticipated significant effects to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas from selection of Alternative 2. NRCS regulations (7 CFR Part 650) and policy (Title 420, General Manual, Part 401), require that NRCS identify, assess, and minimize or mitigate effects to avoid effects to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. In accordance with these requirements, avoidance, minimization, or mitigation has been incorporated into the Plan-EA (sections 5 and 7.3). Unlike the No Action Alternative, Alternative 2 is expected to reduce environmental risks associated with past, present, and future actions because natural river hydrology and habitat will be restored.

4) The effects on the human environment are not considered controversial for Alternative 2. There are no impacts associated with the proposed action that would be considered to be controversial.

5) Alternative 2 is not considered highly uncertain and does not involve unique or unknown risks.

6) Alternative 2 will not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about future considerations.

7) Particularly when focusing on the significant adverse impacts which NEPA is intended to help decision-makers avoid, minimize, or mitigate, Alternative 2 does not result in significant adverse cumulative impacts to the human environment as discussed in section 5.6 of the Plan-EA. Alternative 2 will support ongoing dam rehabilitation projects within the watershed and is consistent with regional objectives to achieve locally desired conditions.

8) Alternative 2 will not cause the loss or destruction of significant scientific, cultural, or historical resources as addressed in section 5.5.3, 6.1 and Appendix D-9 of the Plan-EA. NRCS follows the procedures developed in accordance with a nationwide programmatic agreement between NRCS, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers, which called for NRCS to develop consultation agreements with State historic preservation officers and federally recognized Tribes (or their designated Tribal historic preservation officers). These consultation agreements focus historic preservation reviews on resources and locations that are of special regional concern to these parties.

9). Compared with the No-Action Alternative, Alternative 2 will result in increased quality and quantity of natural habitat, potentially supporting increased distribution of T and E Species. There are no known critical habitats within the project reach, however, some potential exists to adversely affect T & E species during the construction phase. At the time of publishing this plan, the final rule on the reclassification of the Northern Long Eared Bat (NLEB) from threatened to endangered has not been published.

The USFWS was a cooperating federal agency on the watershed planning effort and received the Draft Plan-EA and was consulted on September 29, 2022. They responded on January 5, 2023 and provided

four recommendations to avoid and minimize potential adverse construction impacts: 1) NRCS will utilize the online IPaC (Information for Planning and Consultation) online tool prior to the construction phase of the project; 2) NRCS will include language in the final plan/EA to address the current uplisting of the Northern Long-Eared Bat and agree to follow any new USFWS protocols on NLEB's issued by USFWS prior to construction; 3) NRCS will conduct a timely raptor/eagle survey during a leaf-off period prior to construction and agree to communicate results with USFWS; and 4) NRCS will include a USFWS migratory bird avoidance/minimization strategy in the construction specifications. The final plan EA language (section 5.4) included all of these USFWS recommendations. Section 5.4.4 specifies construction windows and USFWS consultation requirements. Section 5.4.4 of the Plan-EA requires the construction schedule will not adversely affect endangered or threatened species, marine animals, or critical habitat.

10) Alternative 2 does not violate Federal, State, or local law requirements imposed for protection of the environment as noted in section 5.7 of the Plan-EA. The major federal laws identified with the selection of Alternative 2 include the Clean Water Act, Endangered Species Act, National Historic Preservation Act, the Executive order on Environmental Justice and Migratory Bird Treaty Act. Alternative 2 is consistent with the requirements of these laws.

V. Consultation – Public Participation

The scoping process followed the general procedures consistent with the NRCS guidance and PL 83-566 requirements. Cooperating federal agencies (USFWS, USCAE), Tribal Historic Preservation Officers for 30 tribes and the State Historic Preservation Officer were sent a letter inviting them to participate in the planning process on July 29, 2016. The USFWS, USACE and SHPO all confirmed to participate. No affirmative replies were received by the THPO's, one THPO declined participation. A public scoping meeting was held on April 5, 2017, in Cavalier, ND; three comments were received from affected landowners. A project team meeting was held on February 27, 2018 which included cooperating agencies (USACE and USFWS). On November 19, 2019, a presentation was made to local stakeholders. A 2nd public meeting was held on April 7, 2021 to review project alternatives. All cooperating agencies, THPO's and SHPO were invited as well as the project team, landowners and other stakeholders. Six letters of support were received from the public and state agencies.

Specific consultation was conducted with the North Dakota Geological Survey, SHPO, and 23 Tribes/Tribal Historic Preservation Officers to maintain NRCS' government-to-government relationship between Tribes. All tribes were mailed copies of the Draft Plan-EA. One tribe (Three Affiliated) responded by requesting to be kept informed if any discoveries were made during the construction phase. The ND SHPO replied with a letter of concurrence of NRCS' Class III Cultural Resource Survey results of "No Historic Properties Affected".

The Draft Plan-EA was transmitted to all participating and interested agencies, groups and individuals for review and comment from September 29, 2022, through November 18, 2022; NRCS accepted all comments through January 12, 2022. A public meeting was held on October 18, 2022; links were also provided for virtual participation. The announcement for the public meeting was published in the Cavalier Chronicle newspaper for 3 weeks (Sept 28, Oct 5th and 12th, 2022). The announcement and invitations included web address for the Draft Plan-EA on a ND NRCS website. During the review period, 32 comments regarding the project were received. These comments were from 4 individuals and 5 units of government (U.S. Army Corps of Engineers (USACE), USFWS, North Dakota Geological Survey (NDGS),

ND State Parks and NDSHPO. Correspondence including stakeholder comments and NRCS response letters are included in Appendix A and Summarized in a comment table. Recommendations from USFWS and USACE were included in the Final Plan-EA.

VI. Conclusion

Alternative 2 has been selected as the Preferred Alternative for implementation based upon best meeting the purpose and need while maximizing economic benefits. Alternative 2 is also the Preferred alternative of the Local Sponsor. The Plan-EA accompanying this finding has provided the analysis needed to assess the significance of the potential impacts from Alternative 2. The decision on which alternative is to be implemented, and the significance of the alternative's impacts, are summarized in Section 7 of the Plan-EA.

Based on information presented in the attached Plan-EA and supporting documents, Alternative 2 is not a major Federal action significantly affecting the quality of the human environment. I have determined that implementing Alternative 2 will not significantly affect the quality of the human and/or natural environment, individually or cumulatively with other actions in the area. No environmental effects meet the definition of significant in context or intensity, as defined at 40 CFR 1508.27. Therefore, an environmental impact statement is not required for the project. This finding is based on the consideration of the context and intensity of impacts as summarized in the Pembina County Water Resource District Tongue River Watershed Plan #3 Tongue River Watershed Channel Stabilization Project, Plan-EA. With these findings, NRCS therefore has decided to implement the Preferred Alternative – Alternative 2.

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