

4134 - McDowell Dam Bank Stabilization

Application Details

Funding Opportunity:	3515-Outdoor Heritage Fund September 2020 - Round 17	Initial Submit Date:	Aug 31, 2020 3:49 PM
Funding Opportunity Due Date:	Sep 2, 2020 5:00 PM	Initially Submitted By:	Travis Johnson
Program Area:	Outdoor Heritage Fund	Last Submit Date:	Sep 9, 2020 11:46 AM
Status:	Under Review	Last Submitted By:	Travis Johnson
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Mr. Travis Middle Name Salutation First Name Johnson Last Name
Title:	Civil Engineer
Email*:	tjohnson@houstoneng.com
Address*:	3712 Lockport Street Bismarck North Dakota City State/Province 58503 Postal Code/Zip
Phone*:	(701) 226-0227 Ext. Phone ###-###-####
Fax:	(701) 323-0300 ###-###-####

Organization Information

Status*:	Approved
Name*:	Burleigh County Water Resource District
Organization Type*:	County Government
Tax Id:	
Organization Website::	
Address*:	1926 Frontier Drive, Suite B Bismarck North Dakota City State/Province 58504-0000 Postal Code/Zip
Phone*:	(701) 222-3499 Ext. ###-###-####
Fax::	###-###-####
Benefactor:	

Comments:**Vendor ID:****PeopleSoft****Supplier ID:****Comments::****Location Code:****SAM.gov Entity
ID:****SAM.gov
Name:****SAM.gov Entity
ID Expiration
Date:****State Issued ID:****Category #:****Year Begin:****Year Closed:****NCES#:**

Budget

Objective of Grant

Objective of Grant:

The objective of the grant is to assist in funding bank stabilization along the shoreline of McDowell Dam reservoir in order to primarily protect the existing trail that circles the lake, and secondarily to prevent erosion and maintain water quality in the lake.

Summary

Grant Request:	\$70,552.80
Matching Funds:	\$65,065.20
Total Project Costs:	\$135,618.00
You must have at least 25% match	
Percentage of Match:	47.98%

Project Expenses

Project Expense Description	OHF Request	Match Share (Cash)	Match Share (In-Kind)	Match Share (Indirect)	Other Project Sponsor's Share	Total Each Project Expense
Construction and Contingencies	\$66,555.00	\$22,185.00	\$6,900.00	\$0.00	\$0.00	\$95,640.00
Engineering/CMS	\$3,997.80	\$35,980.20	\$0.00	\$0.00	\$0.00	\$39,978.00
	\$70,552.80	\$58,165.20	\$6,900.00	\$0.00	\$0.00	\$135,618.00

Budget Narrative**Budget Narrative:**

Amount of Grant Request \$ 70,552.80 (52.02%)

This grant amount requested is based on 75% of the projected construction cost, including contingencies, and an allowable 10% for engineering design and construction management services. The remaining regulatory permitting and environmental costs (FEMA/USACE) are not eligible. An Opinion of Probable Cost and Budget is provided in Attachment B.

Total Project Costs \$ 135,618.00

The BCWRD is not consideration of in-kind or indirect costs for matching funds.

A minimum of 25% Match Funding is required.

Amount of Matching Funds \$ 58,165.20 (42.89%)

Matching funds are based on direct payments for remaining construction costs, along with the remaining engineering and regulatory fees.

Source(s) of Matching Funds

Matching funds will be provided by the Burleigh County Water Resource District.

The Bismarck Parks and Recreation District (BPRD) is also contributing in-kind services towards the completion of the project in the form of equipment and labor. The work conducted by BPRD is to relocate the trail farther away from the water's edge to protect it from potential wave action and erosion, and labor to plant trees and install tree gators to water the installed trees. This In-Kind contribution is estimated to include:

Skid Steer to Move Trail - 40 hours at \$50/hr for a total of \$2,000.00

Skid Steer Operator - 40 hours at \$35/hr for a total of \$1,400.00

General Laborer - 100 hours at \$35/hr for a total of \$3,500.00

Hourly rates include all benefits, fuel and overhead costs as they would be included in a contractor's general bid.

Total of of In-Kind Services: \$ 6,900.00 (5.09%)

Bid Attachments

Description	File Name	Type	Size	Upload Date
No files attached.				

Match Funding

Match Amount	Funding Source	Match Type
\$58,165.20	Burleigh County Water Resource District	Cash
\$6,900.00	Bismarck Parks and Recreation District	In-Kind
\$65,065.20		

In-Kind

In-Kind Total:

Description

Directives

Major Directive*:	Directive D Choose One
Additional Directive:	Directive C Choose All That Apply
Type of Agency*:	Political Subdivision Choose One

Abstract/Executive Summary

Abstract/Executive Summary*:

The Burleigh County Water Resource District (BCWRD) intends to proactively stabilize a portion of the shoreline of the McDowell Dam Reservoir to prevent continued erosion, the potential loss a valuable recreational resource and further degradation of the natural habitat. The project will also relocate a portion of recreational trail to be farther away from the water's edge and protected from loss in the event of shoreline erosion. In addition, a culvert will be added and another culvert will be removed and replaced with a new culvert in two locations where concentrated surface runoff crosses the pedestrian trail and has degraded the trail quality.

This project will accomplish key objectives by preserving and improving an important feature of a parks and recreation facility in our community. Protecting the east shoreline with riprap and using natural soil stabilization measures, where practical, will prevent further bank erosion and protect against a potential slope failure of the adjacent property. This failure would result in the loss of a primary trail segment along the pedestrian trail system and significant environmental impacts to the McDowell Dam Reservoir.

The project will provide both bank stability and stabilization of the natural areas that are eroding. Stabilization of the east shoreline will maintain the slope and maintain water quality in the reservoir. Trees will be planted to augment the riprap bank stabilization and provide additional shoreline habitat and slope stability for potentially erodible areas.

The BCWRD considered an alternative trail location, should a significant slope failure occur in this area. Unfortunately, the only suitable location would require the acquisition of additional land from the adjacent landowner. Due to the reluctance of the adjacent property owner to sell and the associated cost to purchase the property, the proposed project is a more viable alternative. Therefore, this project will allow BCWRD to maintain the trail in its current location with positive impacts on the McDowell Dam Reservoir and protecting the natural areas within its boundaries.

Project Duration

Project Duration*:

It is anticipated design would occur in the winter/spring of 2021 and construction would likely occur in the spring/summer of 2021.

Narrative

Narrative

Briefly summarize your organization's history, mission, current programs and activities. Include an overview of your organizational structure, including board, staff and volunteer involvement.

Organization Information*:

The Burleigh County Water Resource District (BCWRD) has a five-member Board of Commissioners, including a Chairman, Vice Chairman, Secretary/Treasurer and two Managers.

The general authorities of the Burleigh County Water Resource District are described in ND Century Code Section 61-16.1-09. In addition to these broadly defined general authorities, the BCWRD has other specific and statutorily defined regulatory authorities.

The Burleigh County Water Resource District was the original local sponsor for the construction of McDowell Dam by the NCRCS. In accordance with the project agreement, the BCWRD is now the owner of the project and is responsible for maintenance and operation throughout a projected 50 year project life.

Describe the proposed project identifying how the project will meet the specific directive(s) of the Outdoor Heritage Fund Program.

Identify project goals, strategies and benefits and your timetable for implementation. Include information about the need for the project and whether there is urgency for funding. Indicate if this is a new project or if it is replacing funding that is no longer available to your organization. Identify any innovative features or processes of your project.

Note: if your proposal provides funding to an individual, the names of the recipients must be reported to the Industrial Commission/Outdoor Heritage Fund. These names will be disclosed upon request.

If your project involves an extenuating circumstance to exempted activities please explain.

Purpose of Grant*:

The project's goal is to be proactive and restore, protect and maintain the lake shoreline, to prevent further degradation and increased risks for slope failure. This in turn will protect the existing McDowell Dam trail system circumnavigating the McDowell Dam Reservoir as well as enhance existing park facilities. Preventing further erosion will improve water quality, soil conditions, and provide stable habitat along the shoreline. The portion of trail that is affected is part of a shared use path system and provides a continuous route around the lake. The proactive nature of this project seeks to repair current erosion and stop it from progressing to a point where a major slope failure could occur and the repair will be more damaging and costly. The grant funding would help to preserve and protect the trail environment and lake water quality enjoyed by community residents.

Attachment A contains figures depicting a preliminary design layout. Utilizing both natural and manmade products, the shoreline of the McDowell Dam Reservoir will be protected and natural vegetation reestablished on eroded areas and those disturbed by construction.

The increased rate of erosion in this area is a function of several factors. The exposed eastern shoreline with significant wave action experienced during prevailing northwest wind is the first factor. The proposed project area is critical due to the steep nature of the uphill slope to the east. This project also will improve the habitat quality along the trail system, as well as water quality in the adjacent recreational lake. Protecting and restoring habitat will attract birds and animals to the area for residents and visitors to enjoy while utilizing the provided facilities.

The proposed project will take an innovative approach by considering both hard (riprap) and soft (vegetation) stabilization measures and applying them where they best provide the intended purpose.

If selected this project will likely be designed and constructed in 2021.

Please list the counties that would be impacted by this project:

Counties*: Burleigh

Is This Project Part of a Comprehensive Conservation Plan?* No

If Yes, Please Provide Copy of Plan:

Does Your Project Involve an Extenuating Circumstance?* No

Please Explain:

Provide a description of how you will manage and oversee the project to ensure it is carried out on schedule and in a manner that best ensures its objectives will be met. Include a brief background and work experience for those managing the project.

Management of Project*:

The project will be designed by Houston Engineering Inc. (HEI). HEI is an approved engineering consultant for BCWRD and is experienced in the design and construction of such projects.

Indicate how the project will be funded or sustained in future years. Include information on the sustainability of this project after OHF funds have been expended and whether the sustainability will be in the form of ongoing management or additional funding from a different source.

Sustainability*:

After construction and vegetation re-established, the project will be mostly self-sustainable and require minimal maintenance. Routine maintenance will be completed by the Bismarck Parks and Recreation District (BPRD) as part of the park management agreement.

Indicate how the project will be affected if less funding is available than that requested.

Partial Funding*:

If for some reason the grant is either not or only partially funded, BCWRD would work with BPRD to consider other alternatives to ensure the stability of the reservoir's bank. No additional funds are available from the BCWRD or other sources that we are currently aware of or contracted. Another approach would be to break the project into phases and spread construction over multiple years to spread out the costs over multiple budget years. An inquiry was made regarding Section 319 funding, however further discussions would be necessary and currently those funds are limited and may not be available.

If you are a successful recipient of Outdoor Heritage Fund dollars, how would you recognize the Outdoor Heritage Fund partnership? * There must be signage at the location of the project acknowledging OHF funding when appropriate. If there are provisions in that contract that your organization is unable to meet, please indicate below what those provisions would be.

Partnership Recognition*:

Yes, preliminarily our plans are to place two signs along the shared use path, one to the south of the restoration area and one to the north.

Do you have any supporting documents, such as maps or letters of support that you would like to provide? If so, please provide them in a single file.

Supporting Documents*: Yes

If Yes, Please Provide Copies in a Single File: 300 ft Buffer Grant Exhibit.pdf

Awarding of Grants - Review the appropriate sample contract for your organization. Sample Contract

Can You Meet All the Provisions of the Sample Contract?* Yes

If there are provisions in that contract that your organization is unable to meet, please indicate below what those provisions would be:

Provisions Unable to Meet:

Tasks

Tasks

Task	Start Date	Completion Date
Project Construction	04/01/2021	06/30/2021
Project Design	01/01/2021	01/31/2021
Solicitation of Quotes/Contractor Selection	02/01/2021	02/28/2021

Description of Tasks

Please Describe Tasks:

Deliverables

Deliverables

Deliverable	Quantity	Unit of Measurement, if applicable
Expenditure Report	1.000	
Final Project Acceptance	1.000	
Monthly Construction Progress Report	3.000	Each

Certification

Certification

Certification:

Name: Travis Johnson
First Name Last Name

Title: Engineer
Title

Date: 08/31/2020

Internal Application Number

#/ID:

Industrial Commission Action

Industrial Commission Action

Date of Commission meeting*:

**Did the Commission approve
funding?***

**If Yes, what is the approved
funding level?:**

Are there any contingencies?*

**If Yes, what are the
contingencies?:**

Minutes:



Remove and Replace Culvert

McDowell Dam Bank Stabilization

McDowell Dam Recreation Area

Trail Relocation

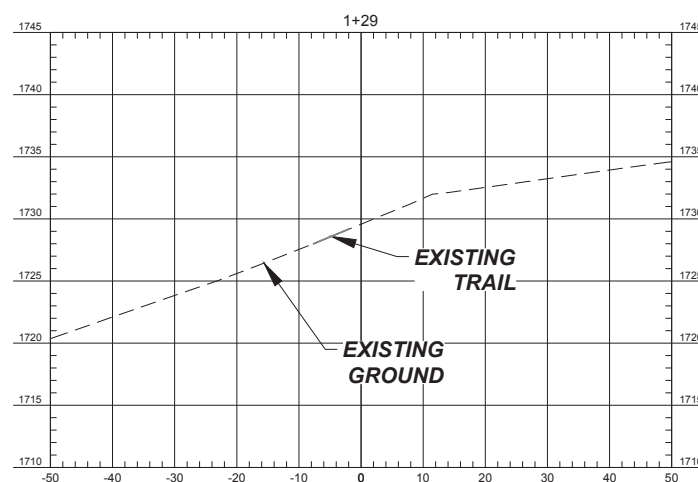
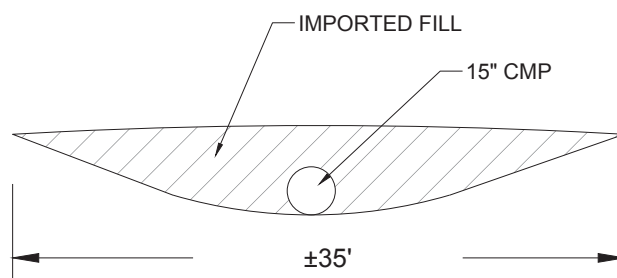
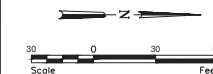
Add Culvert

Google Earth

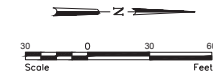
© 2020 Google



1000 ft



H:\JRM\10302\1032\10302-0100 McDowell East Buffer Concept\10302-0100 McDowell East Buffer Concept\10302-0100 McDowell East Buffer Concept.dwg Section View (2) 8/31/2020 3:09 PM (clarkw)



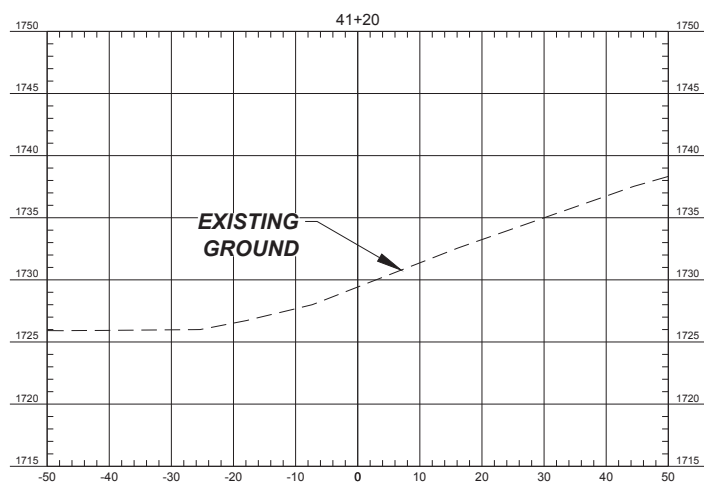
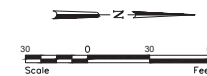
MCDOWELL DAM EXHIBITS		No.	Revision	Date	By
MCDOWELL DAM RECREATION CENTER					
BISMARCK, NORTH DAKOTA					
EXHIBIT A					



Fargo
P: 701.237.5065
F: 701.237.5101

DRAFTED BY	CB
REVIEWED BY	TJ
DATE	8/31/20
PROJECT NUMBER	1032-0100

2



Attachment B **McDowell Dam Bank Stabilization - Opinion of Probable Costs (Project Budget)**
Burleigh County Water Resource District
Outdoor Heritage Fund Grant Application
HEI Project No. 1032-0100
Date: 8/26/20
Revised:

TOTAL ESTIMATED QUANTITIES					
Item No.	Description	Unit	QUANTITY	Unit Price	Total Cost
1	CONTRACT BOND	LSUM	1	\$2,000	\$2,000.00
2	MOBILIZATION	LSUM	1	\$15,000	\$15,000.00
3	CLEARING AND GRUBBING	LSUM	1	\$15,000	\$15,000.00
4	15" CMP CULVERT	LF	40	\$90.00	\$3,600.00
5	IMPORTED FILL	CY	26	\$40.00	\$1,040.00
6	TREES - FURNISH ONLY	EA	50	\$60.00	\$3,000.00
7	TREE GATOR - FURNISH ONLY	EA	50	\$30.00	\$1,500.00
8	RIPRAP-TYPE RH	TON	400	\$110.00	\$44,000.00
9	GEOTEXTILE FABRIC TYPE RR	SY	900	\$4.00	\$3,600.00
BPRD In-Kind Contribution Work					
In-Kind	Skid Steer to Move Trail	HR	40	\$50.00	\$2,000.00
In-Kind	Skid Steer Operator	HR	40	\$35.00	\$1,400.00
In-Kind	General Laborer	HR	100	\$35.00	\$3,500.00
CONSTRUTION COST					\$88,740.00
BPRD In-Kind Contribution Value					\$6,900.00
ENGINEERING DESIGN/ENVIRONMENTAL/PERMITING					\$23,050.00
CONSTRUCTION MANAGEMENT SERVICES (CMS)					\$16,928.00
TOTAL PROJECT COST					\$135,618.00

Project Value	OHF	BCWRD	BPRD
	75% Const	25% Const	In-Kind
\$95,640.00	\$66,555.00	\$22,185.00	\$6,900.00
	10%	90%	
24.10% \$39,978.00	\$3,997.80	\$35,980.20	\$0.00
17.70% \$135,618.00	\$70,552.80	\$58,165.20	\$6,900.00

Combined Construction Costs and Engineering Fees \$135,618.00

		Share of Cost
Heritage Fund Grant Request (75% + 10% Eng/CMS)	\$ 70,552.80	52.02%
Burleigh County Water Resource District	\$ 58,165.20	42.89%
Bismarck Parks and Recreation In-Kind Contribution	\$6,900.00	5.09%
	\$ 135,618.00	100%