

May 3, 2019

Chris Cline
Ecotoxicologist/ NRDA Project Manager
U.S. Fish and Wildlife Service
Utah Ecological Field Office
West Valley City, UT

RE: Big Bend Habitat Restoration Project – Phase 4 Final Design and Implementation Plan for the River Re-Meander

Dear Ms. Cline,

Thank you for the opportunity to work with you to develop a plan for implementation of the Sharon Steel Natural Resource Damage Assessment and Restoration (NRDAR) Funds on the West Jordan Big Bend Habitat Restoration Project – Phase 4 (River re-meander). This memorandum provides the details you have requested in order to facilitate administrative transfer of funding from the United States Fish and Wildlife Service (USFWS) NRDAR account to the Utah Department of Environmental Quality (UDEQ), and hence to West Jordan for use in design and implementation of the habitat restoration. Below we provide a proposed plan for use of the funds (Table 1), a proposed funding strategy for getting the entire Phase 4 project completed in the next three to five years (Table 2), ac cost estimate for the river re-meander (Table 3), and a proposed schedule to complete the work in a timely manner (Table 4).

In our discussions with you and the other stakeholders, it has been determined that \$805,000 is available from the NRDAR fund for use on the Big Bend Project and that funding will be administered by the UDEQ and passed to the City of West Jordan in incremental payments. The general breakdown proposed for the use of the funds is provided in Table 1.

Table 1. West Jordan Big Bend Habitat Restoration Planned use of NRDAR Funds (FY 2020-2023)		
State Fiscal Year (Starts July 1)	Amount	Notes
2020	\$150,000	Use of funds for partial installation of irrigation system to provide for establishment of native and recreational landscapes and design of river and riparian improvements
2020	\$205,000	Final design of river and riparian improvements and beginning installation of those features
2021	\$250,000	Implementation of river and riparian improvements
2022	\$150,000	Finalization of river and riparian improvements
2023	\$50,000	Establishment monitoring and maintenance
TOTAL	\$805,000	Completed Project

These funds will be leveraged against both federal and non-federal funds to provide the adequate amount of funding to implement this ambitious project. A wide variety of funding sources are being sought and work is ongoing to identify and acquire funds to get the river re-meander completed. The total estimated cost for implementation of the Phase 4 river re-meander is approximately \$3,310,000 and a breakdown is shown in Table 2.

Table 2 - West Jordan Big Bend Funding for Implementation - Phase 4 River and Riparian Habitat - Year 1 begins July 1, 2019				
Source	Amount	State Fiscal Year	Running Total	Notes
West Jordan (YR 1)	\$50,000	2020	\$50,000	Project Administration
USFWS NRDA (YR 1)	\$355,000	2020	\$405,000	River and riparian design and administration
UDWQ Nonpoint source*	\$330,000	2022	\$1,975,000	Implementation of river and riparian
UFFSL*	\$25,000	2020	\$430,000	Implementation of river and riparian
West Jordan (YR 2)	\$50,000	2021	\$480,000	Project Administration and Design
USFWS NRDA (YR 2)	\$250,000	2021	\$730,000	Implementation of river and riparian
Jordan River Commission*	\$85,000	2021	\$815,000	Implementation of river and riparian
West Jordan (YR 3)	\$150,000	2022	\$965,000	Project Administration and design of river and riparian
USFWS NRDA (YR 3)	\$150,000	2022	\$1,115,000	Implementation of river and riparian
Jordan River Commission*	\$50,000	2022	\$1,165,000	Implementation of river and riparian
NFWF Environmental Solutions*	\$80,000	2022	\$1,245,000	Implementation of river and riparian
WRI/Habitat Council	\$65,000	2022	\$1,310,000	Implementation of river and riparian
Utah Outdoor Recreation*	\$150,000	2022	\$1,460,000	For river access points
Utah FFSL *	\$185,000	2022	\$1,645,000	Funding from State Lands for implementation
Utah State Parks RTP*	\$125,000	2022	\$2,100,000	Water trail access points - Utah boater access grant
Salt Lake County*	\$75,000	2022	\$2,175,000	Stormwater funding
Private foundations*	\$75,000	2022	\$2,250,000	Implementation of river and riparian
West Jordan (YR 4)	\$350,000	2023	\$2,600,000	Project Administration and Implementation
USFWS NRDA (YR 4)	\$50,000	2023	\$2,650,000	Project Administration and Implementation
Jordan River Commission*	\$50,000	2023	\$2,700,000	Implementation of river and riparian
UDWQ Nonpoint Source*	\$35,000	2023	\$2,735,000	Implementation of river and riparian
Utah FFSL Tree Grant*	\$250,000	2023	\$2,985,000	Implementation of river and riparian
UWRI/Habitat Council	\$35,000	2023	\$3,020,000	Implementation of river and riparian
UDAF ISM*	\$15,000	2023	\$3,035,000	Riparian improvements
Salt Lake County*	\$100,000	2023	\$3,135,000	Implementation of river and riparian
Utah Outdoor Recreation*	\$100,000	2023	\$3,235,000	Implementation of river and riparian
Private Foundations*	\$75,000	2023	\$3,310,000	Implementation of river and riparian
TOTAL 2019-2023			\$3,310,000	TOTAL

* denotes planned requests from agencies and private interests.

The implementation plan has also been broken down into different specific line items and is shown in Table 3.

Table 3 - Phase 4 - River Re-meander Cost Estimate					
	Units	Item	Cost per unit	Total line item	Subtotal
Mobilization/Demobilization/Bonding/Insurance	1	LS	\$203,569	\$203,569	
Construction Survey and Stake	1	LS	\$16,436	\$16,436	
Erosion and Sediment Control - Entire Site	1	LS	\$38,169	\$38,169	
Care of Water / Temporary Water Management	1	LS	\$50,892	\$50,892	
Traffic Control	1	LS	\$8,000	\$8,000	\$317,066
Excavation and Haul Offsite	39000	CY	\$16	\$624,000	
Stream Boulders	70	EA	\$100	\$7,000	
Large Woody Debris	90	EA	\$750	\$67,500	
Streambed Alluvium	13000	CY	\$10	\$130,000	
Diversion Structure and Associated Work	1	LS	\$227,392	\$227,392	
Confluence Area and Associated Work	1	LS	\$177,411	\$177,411	
Excavation from river channel & embankment	55700	CY	\$8	\$445,600	\$1,678,903
Wood Post and Rail Fence	2625	LF	\$15	\$39,375	\$39,375
Native Wetland Seed Mix	11	ACRE	\$3,000	\$33,000	
Native Upland Seed Mix	16	ACRE	\$2,000	\$32,000	
Wood Fiber Mulch	27	ACRE	\$2,000	\$54,000	
Trees	320	EA	\$300	\$96,000	
Shrubs	1155	EA	\$40	\$46,200	\$261,200
Additional Irrigation Pump	1	EA	\$35,000	\$35,000	
Additional Irrigation System	35	ACRE	\$7,500	\$262,500	\$297,500
				Sub Total:	\$2,594,044
Contingency (10%)					\$259,404
Project Site - Final Engineering and Permitting (9%)					\$256,810
Construction Management (7%)					\$199,741
PHASE 4 TOTAL					\$3,310,000

A proposed schedule for implementation is provided in Table 4.

Table 4. Proposed Implementation Schedule for Big Bend Phase 4					
	2020	2021	2022	2023	2024
Action ↓					
Design of Phase 4					
Installation of irrigation					
Minor revegetation effort					
Excavation of channel					
Rough grading of channel					
Planting and establishment					
Final excavation and grading of channel					
Major revegetation effort					
Finalization of all habitat improvement actions					
Follow up establishment period					

We look forward to working with you to finalize this preliminary plan, which will provide the basis for the transfer of NRDAR funds to the UDEQ for use in design and implementation of the West Jordan Big Bend Habitat Restoration Project.

Sincerely,

Chuck Tarver
CDBG Manager
West Jordan, Utah