



November 18, 2015

Jeff Shoemaker, Executive Director
The Greenway Foundation
1855 S Pearl, St #40
Denver, CO 80210

RE: CWCB WSRA Grant – Final Report (CMS#73958, Contract # CTGG12015-1721)

Mr. Shoemaker,

On behalf of the City and County of Denver (CCD) and Denver Parks and Recreation (DPR), it is my pleasure to submit to you a final report for the 2013 Colorado Water Conservation Board (CWCB) Water Supply Reserve Account (WSRA) grant awarded to The Greenway Foundation (TGF) for construction of the Overland to Grant Frontier stretch of the South Platte River Vision Implementation Plan (RVIP).

The WSRA funds were a critical component of the \$24.5 million River Vision Plan. Per the grant agreement, CWCB's grant dollars were allocated to the Overland River Reach, known as Schedule B (Sch B). This stretch of river along Overland Golf Course was in great need of reconstruction. The existing drop structure just south of the Florida bridge slowed river flows for $\frac{3}{4}$ of a mile upstream, creating a long stretch of ecologically dead water. The project included the removal and reconstruction of this drop structure as well as the redesign of the upstream channel. The overall benefits of this project align well with the goals of this grant funding: to remove invasive and exotic weed species, re-establish the riparian floodplain and restore interactions between the river and its riparian corridor.

The total construction budget for Sch B was \$3,848,110. The construction contract was competitively bid by the Urban Drainage and Flood Control District (UDFCD) among pre-qualified contractors. Naranjo Civil Constructors (NCC) was chosen as the low bidder and issued Notice To Proceed on October 6, 2014. NCC began work in late October 2014 and completed the project in October 2015. Although the extended high water levels of Spring 2015 posed challenges, the project was ultimately completed within budget and on schedule.

The following summary briefly describes the tasks and deliverables identified in the original scope of work. The attached spreadsheets and final pay application provide a summary and detail of how the CWCB grant funds were allocated and expended.

Task 1 – Construction Management

- Weekly Owner-Architect-Contractor (OAC) coordination meetings began on October 9, 2014 and continued through June 2015. From June-October 2015, bi-weekly meetings were conducted.

Task 2 – Water Control

- Dewatering operations necessary to construct the work in accordance with local, state and federal permitting requirements
- The project site was divided into a series of cells isolated from the main river flow by metal sheet piling cofferdams and dewatered within

Task 3 – Removals, Grading and Excavation

- Demolition and disposal of existing Florida drop structure
- Excavation and disposal of 17,300 CY of sediment built up behind drop structure
- Removal of rubble and other debris from channel and banks
- Erosion and sediment control bmp installation and maintenance

Task 4 – In River Work

- Regrading of riverbed to create sinuous low-flow channel defined by new floodplain bench construction
- Construction of new, multi-purpose drop structure south of Florida bridge
- Construction of in-river habitat structures including riffles, pools, rock vanes and boulder clusters

Task 5 – Bank Work

- Stabilization and armoring of river banks using soil riprap and vegetation
- Construction of concrete jetties to provide safe and accessible recreational access
- Reconstructing a series of Overlooks to provide gathering spaces for pedestrian and bicyclists

Task 6 – Trail Improvements

- Updating trail system to DPR standards: 12' integral color concrete trail with adjacent 4' soft surface pedestrian trail
- New trail underpass at Florida bridge
- Construction of boulder retaining walls to support expanded trail system

Task 7 – Planting and Revegetation

- Removal of invasive and exotic weed species throughout the corridor
- Soil amendment and grading
- Installation of native trees and shrubs
- Reseeding of riparian grasses and forbs with erosion control blanket and/or hydromulch

Task 8 – Wet Well Replacement

- Remove existing wet well and pump
- Install new wet well and pump system to provide water diversion to Overland Golf Course

Sincerely,

A handwritten signature in blue ink, appearing to read 'MB', is positioned above the typed name.

Michael Bouchard, PLA
Assistant Director for Capital Projects

South Platte River Vision - Schedule B: River Improvements along Overland Golf Course
Grant Funding Allocation Detail (Based on Naranjo Civil Constructors Final Pay Application #10)

November 12, 2015

BID ITEM	DESCRIPTION	Naranjo Bid Schedule				Funding Sources					
		QUANTITY	PAY UNIT	UNIT PRICE	TOTAL COST OF BID ITEM	NRD - Shattuck Chemical	Great Outdoors Colorado - 2 Trails	Great Outdoors Colorado - 3 GF	CWCB - WSRA 2013	Urban Drainage + Flood Control District	City and County of Denver
Task 1	Construction Management										
0	Project Coordination	1	LS	\$ 218,110.00	\$ 218,110.00	\$ 174,360.00			\$ 43,750.00		
2	Mobilization	1	LS	\$ 345,200.00	\$ 345,200.00					\$ 145,200.00	\$ 200,000.00
3	Surveying	1	LS	\$ 29,000.00	\$ 29,000.00						\$ 29,000.00
4	Traffic Control	0.81	LS	\$ 298,710.00	\$ 241,955.10			\$ 182,606.00		\$ 26,834.39	\$ 32,514.71
	Task 1 Total				\$ 834,265.10	\$ 174,360.00	\$ -	\$ 182,606.00	\$ 43,750.00	\$ 172,034.39	\$ 261,514.71
Task 2	Water Control										
5	Dewatering Operations	1	LS	\$ 495,669.00	\$ 495,669.00	\$ 199,129.05		\$ 296,539.95			
	Task 2 Total				\$ 495,669.00	\$ 199,129.05	\$ -	\$ 296,539.95	\$ -	\$ -	\$ -
Task 3	Removals, Grading + Excavation										
1	Clearing and Grubbing	3.5	AC	\$ 12,000.00	\$ 42,000.00	\$ 24,000.00			\$ 18,000.00		
6	Concrete Washout Area	1	EA	\$ 1,700.00	\$ 1,700.00					\$ 1,700.00	
7	Construction Fence	1060	LF	\$ 2.10	\$ 2,226.00					\$ 2,226.00	
8	Silt Fence	1150	LF	\$ 2.10	\$ 2,415.00					\$ 2,415.00	
9	Restore Staging Area	1	LS	\$ 9,455.00	\$ 9,455.00	\$ 9,455.00					
10	Vehicle Tracking Control	400	SY	\$ 24.80	\$ 9,920.00					\$ 9,920.00	
05-3	Straw Wattle	1000	LF	\$ 4.20	\$ 4,200.00					\$ 4,200.00	
11	Remove Structures and Obstructions	1	LS	\$ 90,624.00	\$ 90,624.00	\$ 26,303.00			\$ 64,321.00		
12	Remove Concrete Sidewalk / Trail	841	SY	\$ 9.60	\$ 8,073.60		\$ 8,073.60				
05-4	Rem Rubble/Boulder N of Florida	1	LS	\$ 11,076.00	\$ 11,076.00			\$ 11,076.00			
05-5	Remove Power Pole	1	LS	\$ 2,850.00	\$ 2,850.00					\$ 2,850.00	
06-2	Demo Pump Building	1	LS	\$ 3,430.00	\$ 3,430.00					\$ 3,430.00	
07-3	Riffle 5 Removal	1	LS	\$ 8,500.00	\$ 8,500.00					\$ 8,500.00	
13	Earthwork, Excavation and Fill On-Site	2700	CY	\$ 12.40	\$ 33,480.00	\$ 11,794.00			\$ 21,686.00		
14	Earthwork, Excavation	17300	CY	\$ 18.75	\$ 324,375.00	\$ 216,375.00			\$ 90,623.67	\$ 17,376.33	
15	Earthwork, Haul Offsite	17300	CY	\$ 11.25	\$ 194,625.00	\$ 129,816.00			\$ 64,809.00		
16	Earthwork, Tipping Fee	17020	CY	\$ 2.50	\$ 42,550.00	\$ 28,850.00		\$ 13,700.00			
17	Topsoil, Excavate, Stockpile, and Replace	390	CY	\$ 12.40	\$ 4,836.00				\$ 4,836.00		
38	Overlook Areas Demolition	3	EA	\$ 4,365.00	\$ 13,095.00			\$ 13,095.00			
	Task 3 Total				\$ 809,430.60	\$ 446,593.00	\$ 8,073.60	\$ 37,871.00	\$ 264,275.67	\$ 52,617.33	\$ -
Task 4	In River Work										
18	Boulder, Feature, 36-Inch	26	EA	\$ 386.00	\$ 10,036.00	\$ 10,036.00					
29	Rock Vane #1	1	LS	\$ 6,815.00	\$ 6,815.00			\$ 6,815.00			
30	Rock Vane #2	1	LS	\$ 10,223.00	\$ 10,223.00					\$ 10,223.00	
31	Riffle Structure #1	1	LS	\$ 71,875.00	\$ 71,875.00	\$ 71,875.00					
32	Riffle Structure #2	1	LS	\$ 77,279.00	\$ 77,279.00	\$ 77,279.00					
07-2	Riffle Structure #5	1	LS	\$ 55,347.00	\$ 55,347.00	\$ 55,347.00					
33	Florida Ave Multi-Purpose Drop	1	LS	\$ 268,600.00	\$ 268,600.00	\$ 158,081.00		\$ 110,519.00			
34	Floodplain Bench Toe Protection	1126	CY	\$ 93.00	\$ 104,718.00	\$ 74,491.00					\$ 30,227.00
43	Rock Vanes in Floodplain Benches	150	CY	\$ 72.00	\$ 10,800.00	\$ 7,571.00				\$ 3,229.00	
44	Coir Fabric in Floodplain Benches	2777	SY	\$ 9.30	\$ 25,826.10	\$ 25,826.10					
	Task 4 Total				\$ 641,519.10	\$ 480,506.10	\$ -	\$ 117,334.00	\$ -	\$ 13,452.00	\$ 30,227.00
Task 5	Bank Work										
19	Rock Stabilization Under Concrete Jetties	160	CY	\$ 68.85	\$ 11,016.00	\$ 4,406.40		\$ 6,609.60			
20	Soil Riprap, Type L	1239	CY	\$ 72.00	\$ 89,208.00	\$ 64,408.00		\$ 24,800.00			
36	Overlook #1	1	LS	\$ 17,892.00	\$ 17,892.00			\$ 17,892.00			
37	Overlook #2	1	LS	\$ 12,028.00	\$ 12,028.00			\$ 12,028.00			
07-1	Overlook #3	1	LS	\$ 12,028.00	\$ 12,028.00			\$ 12,028.00			
07-6	Rework Overlook	1	LS	\$ 2,889.20	\$ 2,889.20			\$ 2,889.20			
39	Sculpted Concrete Jetties	2	EA	\$ 26,137.00	\$ 52,274.00	\$ 27,274.00		\$ 25,000.00			
06-8	Jetty 2-Add Stabilization and Concrete	1	LS	\$ 28,101.00	\$ 28,101.00	\$ 28,101.00					
41	Type L Riprap	75	CY	\$ 72.00	\$ 5,400.00					\$ 5,400.00	
42	Type VH Riprap	325	CY	\$ 98.00	\$ 31,850.00						\$ 31,850.00

01-1	Import Topsoil	375	CY	\$ 21.70	\$ 8,137.50					\$ 8,137.50	
02-4	Import Topsoil	60	CY	\$ 21.70	\$ 1,302.00					\$ 1,302.00	
04-4	Import Topsoil	125	CY	\$ 21.70	\$ 2,712.50					\$ 2,712.50	
06-5	Import Topsoil	120	CY	\$ 39.98	\$ 4,797.60					\$ 4,797.60	
06-7	Import Topsoil	90	CY	\$ 29.00	\$ 2,610.00					\$ 2,610.00	
01-5	Retaining Wall	132	SF	\$ 70.25	\$ 9,273.00		\$ 9,273.00				
07-4	Raise Wing Walls at Pump House	1	LS	\$ 2,675.00	\$ 2,675.00		\$ 1,550.45			\$ 1,124.55	
07-7	Paint Concrete Wall and Old Pump Bldg	1	LS	\$ 441.00	\$ 441.00					\$ 441.00	
08-1	Guard Rail @ Old Pump Building	1	LS	\$ 6,217.00	\$ 6,217.00					\$ 6,217.00	
06-3	4' Boulder Wall N of Pump Building	50	LF	\$ 104.00	\$ 5,200.00		\$ 5,200.00				
06-4	3' Boulder Wall N of Pump Building	35	LF	\$ 72.00	\$ 2,520.00		\$ 2,520.00				
06-6	Add 2nd Row of Boulders N of Pump	85	LF	\$ 72.00	\$ 6,120.00		\$ 6,120.00				
08-2	Boulder Wall @ S Side Overlook 3	85	LF	\$ 62.20	\$ 5,287.00		\$ 5,287.00				
04-1	Add Boulder to Overlook 1	7	EA	\$ 386.00	\$ 2,702.00		\$ 2,702.00				
08-3	Add Boulder Steps to Jetty 2	1	LS	\$ 520.80	\$ 520.80					\$ 520.80	
04-3	Outfall Repairs	1	LS	\$ 4,578.50	\$ 4,578.50					\$ 4,578.50	
05-1	30" CMP Outfall	1	LS	\$ 2,584.00	\$ 2,584.00					\$ 2,584.00	
08-4	Misc Items Per PCO 32	1	LS	\$ 7,067.40	\$ 7,067.40					\$ 7,067.40	
09-1	Repairs due to Spring Flooding	1	LS	\$ 144,403.43	\$ 144,403.43	\$ 40,000.00		\$ 40,000.00		\$ 64,403.43	
Task 5 Total					\$ 481,834.93	\$ 164,189.40	\$ 32,652.45	\$ 141,246.80	\$ -	\$ 111,896.28	\$ 31,850.00
Task 6	Trails										
21	Concrete Sidewalk / Trail, 6" Thick to 8" Thick	841	SY	\$ 57.00	\$ 47,937.00		\$ 47,937.00				
22	Retaining Wall, Redi - Rock	480	SF	\$ 59.90	\$ 28,752.00		\$ 28,752.00				
23	Trail, Crusher Fines, 4-Inch Thick	1980	SY	\$ 26.75	\$ 52,965.00		\$ 52,965.00				
01-2	Reuse Type VH Riprap	-200	TN	\$ 29.60	\$ (5,920.00)		\$ (5,920.00)				
45	Trail, Crusher Fines, 2-Inch Thick-Sta-Lock	0	SY	\$ 69.00	\$ -						
01-4	3'-4' Grouted Boulder Wall	107	LF	\$ 167.00	\$ 17,869.00		\$ 17,869.00				
47	Grouted Boulder Retaining Wall	105	LF	\$ 163.00	\$ 17,115.00		\$ 17,115.00				
48	Stacked Boulders	0	SF	\$ 45.00	\$ -						
49	Rumble Strip (3' Width)	122	SY	\$ 89.00	\$ 10,858.00		\$ 10,858.00				
02-2	Rumble Strip Deduct - Modify Finish	-122	SY	\$ 3.10	\$ (378.20)		\$ (378.20)				
02-3	Addtl Cost to Reform Trail	1	LS	\$ 1,399.00	\$ 1,399.00		\$ 1,399.00				
07-9	Boulder Walls@Overlook 3+Jetty 2 Access	122	LF	\$ 62.20	\$ 7,588.40		\$ 7,588.40				
09-2	Curb Ramp Type 1 - South side of Florida	1	LS	\$ 1,448.00	\$ 1,448.00		\$ 1,448.00				
10-1	2' Boulder Wall and Jetty 1 Ramp	65	LF	\$ 62.20	\$ 4,043.00		\$ 4,043.00				
Task 6 Total					\$ 183,676.20	\$ -	\$ 183,676.20	\$ -	\$ -	\$ -	\$ -
Task 7	Planting + Revegetation										
25	Seeding, Riparian, Broadcast	0.25	AC	\$ 5,200.00	\$ 1,300.00	\$ 1,300.00					
26	Seeding, Upland, Broadcast	3.03	AC	\$ 5,500.00	\$ 16,665.00	\$ 16,665.00					
27	Seeding, Wetlands, Broadcast	0.8	AC	\$ 5,500.00	\$ 4,400.00	\$ 4,400.00					
28	Erosion Control Blanket, Straw/Coconut	12494	SY	\$ 5.40	\$ 67,467.60	\$ 43,825.85			\$ 23,641.75		
40	Tree Protection	3750	LF	\$ 2.10	\$ 7,875.00	\$ 7,875.00					
06-9	Weed Control by Arbor Force	0.66	LS	\$ 5,140.00	\$ 3,392.40	\$ 3,392.40					
01-3	3" PVC Sleeve	90	LF	\$ 12.40	\$ 1,116.00	\$ 1,116.00					
02-1	6" PVC Sleeve	20	LF	\$ 16.10	\$ 322.00	\$ 322.00					
03-1	3" PVC Sleeve under CF Trail	140	LF	\$ 12.40	\$ 1,736.00	\$ 1,736.00					
04-2	Willow and Cottonwood Poles	0.84	LS	\$ 21,824.50	\$ 18,332.58				\$ 18,332.58		
Task 7 Total					\$ 122,606.58	\$ 80,632.25	\$ -	\$ -	\$ 41,974.33	\$ -	\$ -
Task 8	Wet Well Replacement										
35	Remove and Replace Wet Well & Pump	1	LS	\$ 214,913.00	\$ 214,913.00					\$ 214,913.00	
04-5	6" PVC Pump Station Piping	280	LF	\$ 28.50	\$ 7,980.00					\$ 7,980.00	
04-6	6" PVC Fitting	1	EA	\$ 390.00	\$ 390.00					\$ 390.00	
05-2	Lower Net Well 2'	1	LS	\$ 1,087.00	\$ 1,087.00					\$ 1,087.00	
06-1	Provide Alternate Check Valve	1	LS	\$ 713.75	\$ 713.75					\$ 713.75	
07-5	Pump Access	1	LS	\$ 2,504.00	\$ 2,504.00					\$ 2,504.00	
07-8	Fee to Xcel Energy	1	LS	\$ 12,085.30	\$ 12,085.30					\$ 12,085.30	
10-2	Clean Wet Well and Modify Boulders	1	LS	\$ 3,903.50	\$ 3,903.50					\$ 3,903.50	
Task 8 Total					\$ 243,576.55	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 243,576.55
Task 9	Owner's Contingency										
	0.92%	1	LS	\$ 35,531.94	\$ 35,531.94					\$ 35,531.94	
Task 9 Total					\$ 35,531.94	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,531.94
BID TOTAL					\$ 3,848,110.00	\$ 1,545,409.80	\$ 224,402.25	\$ 775,597.75	\$ 350,000.00	\$ 350,000.00	\$ 602,700.20