

Chris Taggart

From: Yost, Sanna <SYost@mt.gov>
Sent: Thursday, October 7, 2021 9:15 AM
To: J.R. Iman; Roger Raynal (tcr@chsmgt.com); Rhonda King; Holling, Brian; Kingery, Robert; Schock, Larry; Behrends, Pete; Glunz, Greg; Rogers, Steve; Ron Price (pricecontracting@gmail.com); Chris Holman; Begley, J. Stephen; Ryce, Eileen; Saffel, Patrick; Skaar, Donald; Lindstrom, Jason; 'Lewis, Carly'; Richardson, Amber M -FS; Troop, Kristin - FS; 'Fox, David -FS'; 'Voelker, Vincent -FS'; Levi Dunn (ldunn@ravallielectric.com); 'Kyle Kearns'; Jacques, Thayer
Cc: Ravalli County Commissioners Office; Chris Taggart
Subject: [EXTERNAL] Painted Rocks Dam Feasibility Study Project Quarterly Progress Report (2021-Q3)
Attachments: 2021-Q3-PR_FS.pdf

Good Morning-

Attached, for your information, is the progress report for activities for the 3rd quarter of 2021 for the **Painted Rocks Dam Feasibility Study Project**.

Included in this progress report, but a separate project, is a status update for the **Painted Rocks Dam Toe Access Improvement Project**.

Thank you,

Sanna M. Yost P.E.
Engineering Project Manager

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PAINTED ROCKS DAM FEASIBILITY STUDY PROJECT AND TOE ACCESS ROAD IMPROVEMENT PROJECT

DNRC Contact - (406) 444-6665

Quarterly Status Update 3rd Quarter 2021

STAKEHOLDERS:

Name	Company	Ph: (406)
J.R. Iman, Pres.	PRWUA	360-8686
Roger Raynal, VP	PRWUA	369-1730
Rhonda King, Sec.	PRWUA	546-8558
Brian Holling	DNRC	444-5710
Rob Kingery	DNRC	444-6970
Larry Schock	DNRC	542-5885
Pete Behrends	DNRC	444-6650
Sanna Yost	DNRC	444-6665
Thayer Jacques	DNRC	363-1585
Greg Glunz	AECOM	303-740-3852
Steve Rogers	AECOM	720-810-0934
Ron Price	Price	406-370-4347
Chris Holman	HCE	406-543-3100

Name	Company	Ph: (406)
Stephen Begley	FWP	444-1229
Eileen Ryce	FWP	444-2448
Pat Saffel	FWP	542-5507
Don Skaar	FWP	444-7409
Jason Lindstrom	FWP	363-7169
Bill Schenk	FWP	444-4042
Carly Lewis	USFS/FWS	329-3091
Amber Richardson	USFS	363-7160
Kristin Troop	USFS	363-7138
David Fox	USFS	821-1212
Vince Voelker	USFS	821-1212
Levi Dunn	REC	642-8721
Kyle Kearns	REC	961-3001

PROJECT BACKGROUND

The goal of this project is to evaluate potential improvements that will allow Painted Rocks Dam to be operated safely for the foreseeable future. The project involves conducting a feasibility study to determine what improvements are necessary, desirable, and viable. AECOM was hired in October 2017 to conduct the feasibility study.

Potential improvements may involve alterations to the outlet works, spillway, stilling basin, dam crest, and gate house. The possibility of adding hydropower or increasing storage are also being evaluated.

A separate project, but also included in this contract with AECOM, is the final design, bidding phase and construction of proposed road improvements to provide reliable vehicular access to the downstream toe of the dam for ongoing operations and maintenance as well as for implementing future improvements to the dam. In addition to improving the existing road, a single lane bridge is being constructed over the West Fork of the Bitterroot River approximately ¼ mile downstream of the dam.

If there are any errors, omissions, or corrections that need to be addressed prior to the next status update, contact Sanna Yost at (406) 444-6665, or by email at syost@mt.gov

ACTIVITY SUMMARY

Project activities during the 3rd Quarter of 2021 were as follows:

- **Task 1 -Task 5 & Task 7 -Task 10** were previously completed.
- **Task 6 Alternatives**
 - AECOM finalized the Painted Rocks Dam Feasibility Study Alternatives Evaluation Report on September 20, 2021.
- **Task 11 Final Scope of Work**
 - Work started on this task. The final submittal will be presented as a Technical Memorandum.
- **Task 12 Toe Access Road/Bridge Improvement Project**

ENVIRONMENTAL	DATES
○ USFS BNF personnel finalized NEPA documents for a Categorical Exclusion (CE)	○ 7/1/2021
○ Received the USFS Private Road Special Use Permit WF-RD-16 authorizing the access road on federal lands.	○ 7/14/2021
○ The Construction Storm Water Pollution Prevention Plan (SWPPP) submitted by Price Contracting to MT DEQ was approved.	○ 8/25/2021
CONSTRUCTION PHASE	
GENERAL	
○ The construction contract with Price Contracting Inc. (Price) of Stevensville, MT was executed. The contract amount is \$1,167,000.	○ 6/16/2021
○ The Pre-Construction Conference was held in Helena.	○ 6/28/2021
○ Contract and Material Submittals are being submitted and reviewed. Price hired Holman Consulting Engineers of Missoula, MT to assist with required contract submittals and onsite quality control testing.	○ Ongoing
○ DNRC and Price worked with USFS Bitterroot National Forest and DNRC Forestry to obtain a Stage II Fire Restriction exemptions for construction work in Ravalli County.	○ July and August 2021
○ Applebury Surveying staked the clearing limits and project extents	○ 8/1/2021
○ Ravalli Electric Coop (REC) finalized designs, cleared trees, and relocated their existing utility line on the east side of the river (Side 1) from West Fork Road to approximately Station 23+00 on the west side of the river (Side 2).	○ 8/2/2021 through ○ 8/26/2021
○ Flows in the West Fork Bitterroot River will remain less than 60 cfs while the temporary river crossing is in use, which is expected to be until mid-December 2021.	○ 9/20/2021
WEEK 1: August 30,2021 – September 3, 2021	
○ Price Contracting mobilized to the site.	
○ Completed clearing, felling trees, and grubbing of Side 1 (east of river).	
○ Felled trees and began clearing and grubbing on Side 2 (west of river).	
○ Began installing erosion and sediment controls on Side 1.	
○ Slash removal: hauled debris, brush, tree limbs offsite to disposal site.	

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WEEK 2: September 7, 2021 – September 10, 2021	
o Finished installing erosion and sediment controls on Side 1.	
o Finished stripping and stockpiling topsoil on Side 1.	
o Slash removal: hauled debris, brush, tree limbs offsite to disposal site.	
o Hauled Imported Road Fill.	
o Began building road on Side 1: subgrade preparation, excavation, compacted road fill, and compacted imported fill.	
o Used water truck for dust control and proper road embankment soil moisture.	
WEEK 3: September 13, 2021 – September 17, 2021	
o Continued building road on Side 1: subgrade preparation, excavation, compacted road fill, and compacted imported fill.	
o Used water truck for dust control and proper road embankment soil moisture.	
o Hauled imported road fill, gravel, and rock riprap to the site.	
o Slash removal: hauled debris, brush, tree limbs offsite to disposal site.	
o Staged materials and supplies for building temporary work bridge.	
WEEK 4: September 20, 2021 – September 24, 2021	
o Built temporary work bridge abutments.	
o Mobilized bridge beams for temporary work bridge.	
o Installed dewatering controls, dewatered and installed rock riprap and keyway along east bank (Side 1) at bridge crossing location.	
WEEK 5: September 27, 2021 – October 1, 2021	
o Finished building road embankment on Side 1.	
o Started installing crushed base course aggregate on side 1 road embankment.	
o Finished building abutments and installed bridge beams for temporary work bridge.	
o Slash removal: hauled debris, brush, tree limbs offsite to disposal site.	
o Preparations for pile driving activities during Week 6.	
o Pay Request 1 was submitted, reviewed, and approved.	
CONSTRUCTION COORDINATION	
o DNRC and REC are in the process of finalizing a Memorandum of Understanding (MOU) to share the expenses for relocating the existing overhead utilities within the project extents.	Ongoing
o DNRC and MDT have executed an interagency MOU for MDT to provide in-plant inspection services at the Forterra Plant in Billings, MT during the fabrication of the 3 Bulb-Tee bridge girders.	8/18/2021
o Price, DNRC and REC coordinated tree felling, decking and removal efforts with USFS BNF.	9/2/2021
o DNRC's Forester in Hamilton, MT (Thayer Jacques) estimated the volume and value of timber that will be removed on State project's lands to construct the toe access road project. DNRC negotiated with Price to purchase & remove the decked timber from State property.	9/30/2021
o AECOM's senior project engineer, Steve Rodgers, PE, is the Resident Project Representative (RPR) for this project. Steve's duties include performing construction inspection and oversight services, contractor submittal reviews and responses, responses to contractor requests for information, quantity calculations, issuing	Ongoing

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Field Orders, making sure the project is being constructed in accordance with the project's plans and specifications.	
o DNRC staff Pete Behrends, Larry Schock, and Sanna Yost alternate conducting daily observations of the onsite construction activities, documenting construction conditions and activities.	Ongoing

- o **Task 13 Project Management/General**
 - o Weekly construction progress meetings are typically held on Tuesdays from 10:30-11:00 AM for the toe access road improvement project.

EXPENDITURES SUMMARY

Engineering

The total of AECOM's engineering contract is \$1,087,649.33. The amount invoiced through September 24, 2021 totals \$976,149.99. The remaining balance is \$111,499.34. The engineering portion of the project is approximately **90% complete**. See Table 1 for details.

Table 1. AECOM Contract Summary

TASK	DESCRIPTION	REVISED BUDGET	INVOICES TO DATE	CONTRACT BALANCE	% COMPLETE
	Completed Tasks 1-5 and 7-10	\$419,068.67	\$419,068.67	\$0.00	100.00%
Task 6	Develop and Evaluate Alternatives, Feasibility Report	\$217,214.00	\$217,153.95	\$60.05	99.97%
Task 11	Prepare Final SOW & Schedule	\$6,037.66	\$711.00	\$5,326.66	11.78%
Task 12	Toe Access-Final Design, Bid, Construction Services	\$377,590.00	\$280,074.86	\$97,515.14	74.17%
Task 13	Project Management and Meetings	\$67,739.00	\$59,141.51	\$8,597.49	87.31%
	TOTAL	\$1,087,649.33	\$976,149.99	\$111,499.34	89.75%

Construction

A construction contract in the amount of \$1,167,000.00 was awarded to Price Contracting Inc. of Stevensville Montana. Work started onsite on August 30, 2021. Invoice 1 was submitted September 30, 2021. The construction contract is approximately **25% complete**. See Table 2 for details.

CHANGES IN SCOPE AND BUDGET

There were no changes in scope or budget during the 3rd Quarter of 2021.

CHANGES IN SCHEDULE

The AECOM contract term ends June 30, 2022. Work on that contract is scheduled to be completed by March 31, 2022.

Price had planned to mobilize to the project site on August 16, 2021. Ravalli County Electric (REC) did not complete relocating existing powerlines along the project route from West Fork Road to approximately project Station 23+00 until August 26, 2021. This caused a two (2)

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week delay in Price Contracting's (Price) ability to mobilize to the site and begin road construction activities on the east side of the West Fork Bitterroot River. REC intends to relocate the remainder of the existing powerlines along the project route on the west side of the river from approximately project Station 23+00 to Station 34+00 beginning October 11th and estimates that the utility relocation efforts will take one week to complete, causing one additional week delay in road construction for Price. Price has stated that the REC delays effect the road construction schedule but not the bridge construction schedule.

It is anticipated that the bridge portion of the construction project will be substantially completed by December 31, 2021 and fully completed within 15 days thereafter. If onsite conditions do not allow for seeding or other final completion items to be completed in accordance with contract specifications, the final completion date for the road construction portion of the project will be extended until spring, 2022.

PROBLEMS OR CONCERNS ARISEN

1. Stage II Fire Restrictions issued in July and August 2021 in Ravalli County required obtaining exemptions from USFS BNF and DNRC-Forestry Division for construction work associated with this project.
2. Existing utility lines needed to be relocated prior to beginning construction of this road improvement project. REC's utility relocation efforts cause delays in the Contractor's road construction schedule.
3. More Imported Road Fill was required than was anticipated on the east side of the West Fork Bitterroot River to build the road to final design grade.

NEXT QUARTER'S ACTIVITIES

During the 4th quarter of 2021:

- **Task 6**
 - Electronic version of final Painted Rocks Dam Feasibility Study - Alternatives Evaluation Report and all appendices, will be distributed.
- **Task 11**
 - AECOM will prepare a Technical Memorandum detailing the final Scope of Work and a schedule for Environmental Review & Selection of the Preferred Alternative, Final Rehab Design, and Dam Rehabilitation Construction.
- **Task 12- Toe Access Improvement Project**

CONSTRUCTION PHASE

- It is anticipated that the construction project will be substantially completed by December 31, 2021 and fully completed within 2 weeks thereafter. The current construction schedule for Construction of the Painted Rocks Dam Toe Access Road Improvement Project is shown in Figure 1.

ENVIRONMENTAL PERMITTING/EXISTING UTILITIES ISSUES

- Ravalli Electric Coop (REC) intends to relocate the existing utilities from Stations 23+00 to 34+00 on the west side of the West Fork Bitterroot River the week of October 11th.

- DNRC will provide REC with an easement for the existing utility line across DNRC project lands. REC will provide the surveying necessary for the easement.
- **Task 13**
 - Project Management including weekly progress meetings and invoicing.

NEXT STATUS UPDATE - End of 4th Quarter, 2021

PREPARED BY: Sanna M. Yost, P.E.
Engineering Project Manager
DNRC-WRD; State Water Projects Bureau

Table 2. Construction Contract Summary (as of 10/1/2021)

ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED	MATERIALS PRESENTLY STORED	TOTAL COMPLETED AND STORED TO DATE	% Complete
1	Mobilization, Demobilization, & Prep Work	\$75,000	\$33,750		\$ 33,750	45%
2	Survey and Layout	\$14,000	\$4,900		\$ 4,900	35%
3	Temporary Construction Access	\$162,000	\$105,300		\$105,300	65%
4	Dewatering and Control of Water	\$14,000	\$5,600		\$5,600	40%
5	Erosion and Sediment Control	\$27,000	\$10,800		\$10,800	40%
6	Clear and Grub	\$22,000	\$9,900		\$9,900	45%
7	Excavation	\$25,340	\$3,500		\$3,500	14%
8	Road Fill (From Onsite Excavation)	\$28,960	\$1,760		\$1,760	6%
9	Road Fill (Imported)	\$67,725	\$23,400		\$23,400	35%
10	Riprap	\$121,500	\$52,500		\$52,500	43%
11	Crushed Base Course	\$57,200			\$ -	0%
12	Crushed Top Surfacing	\$29,900			\$ -	0%
13	Bridge Abutment Steel Piles	\$103,400		\$41,360	\$41,360	40%
14	Bridge Abutment Concrete	\$121,275			\$ -	0%
15	Precast Concrete Bridge	\$230,000			\$ -	0%
16	Double Swing Gate and Bollard	\$11,000			\$ -	0%
17	12-inch Reinforced Concrete Pipe Culverts	\$8,640			\$ -	0%
18	Seeding and Reclamation	\$27,500			\$ -	0%
19	Instrumentation	\$20,560			\$ -	0%
	TOTALS:	\$1,167,000	\$251,410	\$41,360	\$292,770	25%

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Figure 1. Construction Schedule

Task	# Day	# Labor	Man-days	June July August	30AUG	6 - 11	13 - 18	20 - 25	27SEP-	4 - 9	11 - 16	18 - 23	25 - 30	1 - 6	8 - 13	15 - 20	22 - 27	29NOV-	
					4SEP	SEP	SEP	SEP	20OCT	OCT	OCT	OCT	NOV	NOV	NOV	NOV	4DEC		
Administrative - (Preparation Phase)				Week #:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Bonds, Insurance, Order Time Sensitive Materials	1	1	1	7-Jun															
Pre-Work	1	1	1	28-Jun															
Submittals / Shop Drawing Reviews	15	1	15																
Schedule Subs & Vendors	5	1	5																
Project Staking - Applebury Surveying (NLT 16AUG)	3	2	6																
1 Mobilization & Project Setup (Safety and Site Layout)	5	2	10																
2 S1 - Clear and Grub	4	2	8																
3 S1 - Straw Wattles (As Per SWPPP)	2	2	4																
4 S1 - Strip & Stockpile Topsoil	1	2	2																
5 S1 - Excavation / Embankment & Imported Embankment	4	2	8																
6 S1 - Crushed Base Course (350cy)	3	2	6																
7 Assist Bridge Preparation	2	4	8																
8 S2 - Clear and Grub / Staw Wattles as per SWPPP	5	2	10																
9 S2 - Ravalli Electric Coop Work	4	2	8																
10 S2 - Strip & Stockpile Topsoil	1	2	2																
11 S2 - Excavation / Embankment & Imported Embankment	6	2	12																
12 Install Concrete Culverts	2	3	6																
13 S2 - Crushed Base Course (525cy)	4	2	8																
14 S1 & S2 - Final Gravel	3	4	12																
15 S1 & S2 - Seeding	5	3	15																
1 Bridge Building Mobilization -- Stage Materials / Supplies	5	3	15																
2 River Crossing	0.2	3	0.6																
3 Build Work Bridge Abutments	4	4	16																
4 Channel Water Past Riprap Keyways	3	4	12																
5 S1 - Keyway Riprap	2	3	6																
6 S1 - Pile Driving	2	3	6																
7 S1 - Abutment Form & Pour	5	4	20																
8 S1 - Pull Forms & Finish Riprap Against Cap	1	4	4																
9 Set Work Bridge & Build Approaches	3	4	12																
10 S2 - Keyway Riprap	2	3	6																
11 S2 - Drive Piling	2	3	6																
12 S2 - Abutment Form & Pour	5	5	25																
13 S2 - Pull Forms & Finish Riprap Against Cap	1	4	4																
14 Set Bulb-Tee Beams -& Weld Diaphragms, Grout	3	5	15																
15 Form & Pour Backwalls / Wingwalls	10	5	50																
16 Erect Bridge Railing & Conduits	2	4	8																
17 Strip Forms	2	6	12																
18 Backfill Bridge Abutment Systems / Riprap Wingwalls	5	6	30																
19 Install Ballards, Gate, Utility Boxes	1	3	3																
20 Gravel Bridge Approaches	2	3	6																
21 Remove Work Bridge and Stream Control Structures	5	3	15																
22 Landscape	2	3	6																
TOTALS:	143		425																
Average:	3																		

Notes:

- 1 Price Contracting will plan on 4 - 6 people being dedicated the this project with a additional help coming in for spike in labor force requirements
- 2 Tasks in Blue Annotate Potential Instream Work
- 3 Equipment: Shop Truck, Cargo Trailer, Fuel Truck, Forklift, Feller Buncher, 3-5 Excavators, Dozer, Grader, Vib Roller, Skidsteer, 3 Dump Trucks, Water Truck, Belly Dumps, Wackers, Pumps, 2 - Cranes (D&G Crane Service)