

# LOWER GUNNISON PROJECT (LGP)

## RCPP PROGRESS REPORT #8 Q4;2020

### PROJECT SUMMARY

REPORTING PERIOD	AGREEMENT NUMBER	PROJECT MANAGER
October 1, 2020- December 31, 2021	68-8B05-A-15-03	Dave Kanzer

REPORT CREATION DATE	PREPARED BY
February 1, 2021	Shana Harness (RCPP Coordinator) Dave Kanzer (Project Manager)

### STATUS SUMMARY

**Introduction:** This progress report serves as a summary of activities implemented under the 2015 RCPP project entitled *Modernizing Agricultural Water Management in the Lower Gunnison River Basin: A Cooperative Approach to Increased Water Use Efficiency and Water-Quality Improvement* (hereinafter referred to as the *Lower Gunnison Project or LGP*). The purpose of this project is to protect and enhance targeted natural resources through the development and implementation of a coordinated off- and on-farm irrigation efficiency improvement program that modernizes and optimizes irrigation water conveyance and application systems in four focus areas within the Lower Gunnison Basin. These include improvements to water availability, water-quality, wildlife habitat, and soil health.

**Budget Summary Narrative:** The budget information below describes both the reporting period since the previous reimbursement request #23 (including part of the third and all of the fourth quarter of calendar year 2020 (July 20 - December 31) and the associated cumulative budget summary through Reimbursement Request Number 24 submitted to CO NRCS. The budget information includes both PL566 Watershed Authority and EQIP program expenditures as well as Lower Gunnison Project Partner Contributions (See Tables 1 and 2 below). The budget update is applicable to only those funds being managed by the River District and does not include a summary of funds potentially obligated and/or expended by CO NRCS as TA to support the LGP.

**Budget Adjustments Summary:** There are no budget adjustments for this reporting period.

**Table 1. Budget Summary Overview LGP RCPP, by TA/FA and by Program  
PL-566 Watershed Authority**

PL 566 - Watershed Authority			
TA Budget	TA Expenditures Reporting Period	TA Cumulative Expenditures	TA Balance
\$ 900,469.00	\$ 1,900.00	\$ 427,137.38	\$ 473,331.62
FA Budget	FA Expenditures Reporting Period	FA Cumulative Expenditures	FA Balance
\$ 4,624,441.00	\$ 3,995.00	\$ 3,614,466.31	\$ 1,009,974.69
Total Budget	Expenditures Reporting Period	Cumulative Expenditures	Balance
\$ 5,524,910.00	\$ 5,895.00	\$ 4,041,603.69	\$ 1,483,306.31

\* Current expenditures are for the period August 1, 2020 through December 31, 2020 (Reimbursement Request No. 24)

EQIP			
TA Budget	TA Expenditures Reporting Period	TA Cumulative Expenditures	TA Balance
\$ 253,660.00	\$ 11,216.50	\$ 166,633.68	\$ 87,026.32
FA Budget	FA Expenditures Reporting Period	FA Cumulative Expenditures	FA Balance
\$ 1,584,400.00	\$ -	\$ 433,731.17	\$ 1,150,668.83
Total Budget	Total Expenditures Reporting Period	Cumulative Expenditures	Balance
\$ 1,838,060.00	\$ 11,216.50	\$ 600,364.85	\$ 1,237,695.15

Overall Budget Summary			
Total TA Project Budget	Total TA Expenditures Reporting Period	Total TA Expenditures to Date	Balance TA Remaining to Date
\$ 1,154,129.00	\$ 13,116.50	\$ 593,771.06	\$ 560,357.94
Total FA Project Budget	Total FA Expenditures Reporting Period	Total FA Expenditures to Date	Balance FA Remaining to Date
\$ 6,208,841.00	\$ 3,995.00	\$ 4,048,197.48	\$ 2,160,643.52
Total Project Budget	Total Expenditures Reporting Period	Total Expenditures to Date	Balance Remaining to Date
\$ 7,362,970.00	\$ 17,111.50	\$ 4,641,968.54	\$ 2,721,001.46

**Table 2. Partner Contribution Summary**

	PL 83-566 (Off-Farm)	RCPP EQIP (On-Farm)	Total Partner Contribution
Previous Reported Contributions	\$7,540,330.00	\$134,308.00	\$7,674,639.00
Current Reported Contributions	\$2,029,430.00	\$55,211.51	\$2,084,641.51
<b>GRAND TOTAL:</b>	<b>9,569,760.00</b>	<b>189,519.51</b>	<b>9,759,280.51</b>
<b>Remaining Partner Contribution:</b>			<b>(\$1,759,281)</b>

- Negative number indicates that total required partner contributions have been exceeded

**Table 3. Detailed Partner Contribution Summary for the Reporting Period**

There were no documented partner contributions this reporting period

**Project Progress Summary Update:** Since the inception of the LGP, five of six off-farm projects have been completed. And one will be commencing construction.

- 1) *Fire Mountain Canal & Reservoir Company Rogers Mesa Segment 47 Pipeline (FMC Piping)* - The FMC pipeline construction has been completed with final NRCS inspections and project close-out complete.
- 2) *Uncompahgre Project Phase 9 Lateral Piping (GB & GBA Laterals)* – The Uncompahgre pipeline construction has been completed with final NRCS inspections and project close-out complete.
- 3) *Bostwick Park West Lateral Phase I Piping (West Lateral)* – The Bostwick pipeline construction has been completed with NRCS final inspections and project close-out complete.
- 4) *Needle Rock Ditch Company Head Gate Replacement & Piping Project (NRD Project)* - Head gate Replacement Project is complete with final NRCS inspections and close-out complete.
- 5) *Crawford 4C Ranch Regulating Reservoir-* Project is complete. It is ready for NRCS final project inspection and close-out.
- 6) *The Crawford Grand View-Aspen Piping Integration-* has commenced construction on the upper portion of the Aspen pipeline. The design for the lower portion (partner funded) has been completed by BOR and supplied to NRCS state office for review. The Upper Aspen pipeline is to be constructed separately by US Bureau of Reclamation using separate funding, however, directly related to this project is the RCPP-funded Grand View canal improvement (pipeline) project.

This Grand View canal improvement project is anticipated to begin construction very soon in the latter part of the first quarter of 2021 and includes 455 feet of buried pipeline, consistent with approved design and watershed plan.

**I. Watershed Authority Program (PL-566) / Off-Farm Improvements (See also Table 4 below)**

**General Summary**

- A. NRCS Watershed Plan EA Complete:** The EA was signed and approved by the NRCS Acting Chief on April 24<sup>th</sup>, 2018.
- B. Cultural Resource Mitigation Compliance:** Level I mitigation documentation was completed on April 30<sup>th</sup>, 2018.
- C. New NOA Developed and AFA Amendment No. 2:** A new NOA and AFA Amendment were signed June 22, 2018.
- D. Operation & Maintenance Plan & Agreement:** O&M Plan and Agreement templates approved and signed by Fire Mountain, Uncompahgre, Bostwick Park and Needle Rock, Grand View Canal Improvement Project plan and agreement are undergoing development and review.
- E. Quality Assurance Plan (QAP):** QAPs approved by CO NRCS Engineer for Fire Mountain, Uncompahgre, Bostwick Park and Needle Rock, with Grand View project under going review process.
- F. Engineered Plans and Construction Specifications:** Engineered designs, construction plans, and engineer’s opinions of probable for Fire Mountain, Uncompahgre, Bostwick, Needle Rock and 4C Ranch Regulating Reservoir underwent function review and received approval. Final engineered plans and associated functional reviews for the Grandview-Aspen Integration Piping Project anticipated soon.
- G. Real Property Assurances:** ADS-78 complete for Fire Mountain, Uncompahgre, Bostwick Park, and Needle Rock, with Grandview-Aspen Integration Piping Project anticipated soon.
- H. Final Project Inspections and Close-out:** Four of six projects have been closed out in 2020. An additional project (4C) is ready for inspection and close-out. The remaining will be closed by July 2021 (Grandview-Aspen Piping Integration).

**Project Specific Summary Report: Off-Farm Irrigation Delivery System**

**A. North Fork Water Conservancy District Focus Area**

**•Fire Mountain Canal Piping Rogers Mesa Segment 47 (jointly funded by RCPP, Reclamation Salinity Control Program, and Colorado Water Conservation Board)**

**Environmental and Cultural Resource Compliance:** Complete.

**Engineering Functional Reviews:** O&M and QAP Complete.

**Real Property Assurance:** Complete.

**Contracting:** Complete.

**Construction:** Complete.

**•Remote Monitoring & SCADA Implementation:** Final planning on SCADA implementation activities underway. Contracting and implementation anticipated in first quarter of 2021, with construction to be completed by July 2021.

**B. Uncompahgre Project Focus Area**

**•Phase 9 East Side Laterals Piping - RCPP segments GB & GBA Laterals - Complete.**

**•Remote Monitoring & SCADA Implementation:** Final planning on SCADA implementation activities underway. Contracting and implementation anticipated in first quarter of 2021, with construction to be completed by July 2021.

**•West Side System Optimization & Modernization Plan:** Complete.

**C. Crawford Water Conservancy District (CWCD) Focus Area**

**•Crawford Clipper Ditch Company (CCDC): C4 Regulating Reservoir, Remote Monitoring and SCADA:** Complete.

**NEPA and Cultural Resource Compliance:** Complete.

**Engineering Functional Review:** Not applicable at this time.

**Real Property Assurance:** Complete.

**Contracting:** Complete.

**Remote Monitoring & SCADA:** SCADA planning activities underway, the CWCD has signed a contract with Aquahawk to design and implement. Contracting imminent. Implementation anticipated in first quarter of 2021, with construction to be completed by July 2021.

**•Needle Rock Ditch Company (NRDC) Head gate Improvement, Piping & SCADA**

**NEPA and Cultural Resource Compliance:** Complete - NRCS Watershed Plan EA.

**Engineering Functional Review:** Engineering plan, QAP and O&M have undergone functional reviews and were approved.

**Real Property Assurance:** Complete.

**Contracting:** Complete.

**Local Monitoring & control:** Complete. Potential integration with Crawford Water Conservancy District anticipated

**Other:** The LGP Project Sponsor worked with NRDC and Colorado Trout Unlimited (CTU) to expand the benefits of the project to incorporate fish passage improvements at the site using State of Colorado Watershed Plan funding and CTU funds. Although this funded as a severable project from the federal NRCS RCPP project, it was completed in a cooperative fashion and as such it significantly expanded the fish and wildlife habitat benefits of the project.

**•Smith Fork Feeder Canal SCADA:** SCADA planning and design is near complete for a phased network and the first phase of the implementation activities are anticipated through mid-2021.

**•Grandview-Aspen Piping Integration Project** – RCPP funds leveraged with Reclamation Salinity Funds to create large, multi-beneficial project. Construction of the Upper Aspen Canal improvement (BOR-funded portion) in underway with contract awarded to BearCo.

**D. Bostwick Park Water Conservancy District (BPWCD) Focus Area**

**NEPA and Cultural Resource Compliance:** Complete.

**Engineering Functional Review:** QAP and O&M Complete.

**Real Property Assurance:** Complete.

**Contracting:** Complete.

**Construction:** Complete.

●**Remote Monitoring & SCADA:** A SCADA implementation plan has been submitted to the River District as a deliverable associated with State of Colorado RCPP TA funds. Contracting has been completed and implementation is planned through mid- 2021.

**Table 4. Off-Farm Project Summary**

<b>PROJECT (OFF-FARM)</b>	<b>ESTIMATED PERCENT COMPLETE</b>	<b>NOTES</b>
<b>1. Uncompahgre Project</b>		<i>See Summary Update Section I.3</i>
a. W. Side System Op & Modernization Plan	100%	Final planning report provided to CO NRCS.
b. Automation & SCADA	50%	NEPA & Cultural Resource Compliance complete.
c. Phase 9 Piping	100%	Final inspection and close-out complete.
<b>2. N. Fork WCD</b>		<i>See Summary Update Section I.2</i>
a. Watershed Planning: Rogers Mesa IWR	100%	Complete
b. FMC Watershed Planning: Demand Mgt & SOP (Ph1)	100%	Complete. Final watershed planning report provided to CO NRCS.
c. FMC Integration Planning Project	100%	Complete. Final watershed planning report provided to CO NRCS
d. FMC Piping Project (Ph1)	100%	Completed Spring 2020.
e. Automation & SCADA	50%	NEPA & Cultural Resource compliance complete for RCPP SCADA sites.
<b>3. Bostwick Park WCD</b>		<i>See Summary Update Section I.5</i>
a. West Lateral (Phase 1)	100%	Final inspection and close out complete.
b. Automation & SCADA	65%	Contract complete. Implementation currently in progress.
<b>4. Crawford WCD</b>		<i>See Summary Update Section I.4</i>
a. Needle Rock Ditch System Improvement	100%	Construction complete. NRCS has completed certification walk-thru
b. Upper Clipper Regulating Reservoir	100%	Construction is complete. Project ready for NRCS certification walk-thru
c. Smith Fork Main Diversion SCADA	50%	NEPA & Cultural Resource compliance complete. Level I Cultural Resource Mitigation documentation in progress. SCADA plan in development.

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d. Grandview-Aspen Integration Project	20%	Contracting and construction anticipated mid-2021.
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## **II. Detailed Progress Summary: On-Farm and Near-Farm Irrigation Improvements**

Of the 15 applications that have been awarded, 14 have their final construction designs completed and their construction contracts have been obligated for \$1,265,060.22. Five contracts have been completed and approved by the NRCS for final payment. There are three additional contracts currently in construction and nearing final completion. The remaining are anticipated for spring construction.

The project sponsor, in cooperation with the Delta Conservation District, and consistent with NRCS EQIP rules, regulations, and approvals, advertised 2 additional rounds of competitive Conservation Activity Plan applications. At the time of this report, four applications were deemed eligible and are proceeding toward completion with their selected TSPs. The project sponsor anticipates additional applications will be eligible to proceed to selection and development before July 2021.



Focus Area	Acres	System	Engineering Contract Obligated \$	Construction Contract Obligated \$	Contract Complete \$
Uncompahgre	14	near farm delivery	\$4,844.00	\$25,106.67	\$24,940.80
Uncompahgre	37	gated, near farm delivery	\$18,368.00	\$101,699.97	\$101,656.51
Uncompahgre	188	center pivot, big guns	\$39,782.00	\$319,058.06	
Uncompahgre	18.2	pod sprinklers	\$9,890.00	\$26,639.55	
Uncompahgre	7.1	wheel-line	\$9,402.00	\$34,962.00	
Uncompahgre	14	gated	\$7,419.00	\$18,757.70	\$18,220.16
Uncompahgre	36.75	center pivot, wheel-line	\$10,945.00	\$133,590.70	\$133,412.36
Uncompahgre	15	gated	\$6,361.00		
Crawford	14.8	center pivot, solid set	\$7,408.00	\$58,566.36	
Crawford	19.5	wheel-line	\$6,460.00	\$62,094.10	\$62,083.62
Crawford	17.89	center pivot, solid set	\$12,768.00	\$57,751.47	
North Fork	46.5	center pivot, wheel-line, big guns	\$13,906.00	\$139,020.38	
North Fork	17.5	gated, micro	\$17,066.00	\$64,623.29	
North Fork	71.5	center pivot, wheel-line, hand-line	\$28,456.00	\$211,712.72	
North Fork	8.4	near farm delivery	\$4,913.00	\$11,477.25	
<b>Total</b>	<b>526.14 Acres</b>		<b>\$197,988.00</b>	<b>\$1,265,060.22</b>	<b>\$340,313.45</b>

### III. Assistance Meeting Federal Regulatory Requirements

The LGP is committed to assisting water users and agricultural producers meet federal regulatory requirement.

**ON-FARM:** NEPA and cultural resource compliance activities are complete for all projects. John Andrews, CO-NRCS Engineer, has approved the final design plans on 14 projects that the NRCS deliverables have been met. John Andrews has certified 5 construction projects as completed for payment. Construction is anticipated on the remainder of the projects in the spring of 2021.

**OFF-FARM:** The River District has completed NEPA and Cultural Resource Compliance for all off-farm projects.

#### **IV. Efforts to Address Water Quality, Water Efficiency, Soil Health & Endangered Species**

**Water Quality:** Off-farm lateral piping projects within the LGP focus areas were targeted based on their ability to control and reduce selenium and salinity loading, along with ancillary benefits including nitrate and sediment load reduction (natural geological and anthropomorphic sources). Water quality benefits are estimated based upon best available data, modeling and trend analyses; water quality data continues to be collected downstream of the LGP project components. Downward trends for salt and selenium have been established by the USGS at the Whitewater compliance point (USGS gage location above Grand Junction.)

Consistent with documented decreasing trends in concentrations and loads of salinity and dissolved selenium at the Lower Gunnison River watershed compliance point, above Grand Junction, Colorado, it is expected that tributary water quality monitoring data locations will reflect a similar decreasing trend as the LGP projects are implemented. Changes in selenium and salinity load are being documented under the close cooperative partnership with the Gunnison Basin Selenium Management Program (SMP). Specifically, the water-quality monitoring in affected, local watershed monitoring points, downstream of the LGP irrigation improvement projects, continue between 4-6 times per year. These data are archived as part of the USGS NWIS database (publicly available on the internet).

Combined efforts are leading to a proposed down listing of the Gunnison River mainstream near Grand Junction and some related tributaries due to selenium impairment under the Clean Water Act.

**Water Availability:** Using similar techniques developed for water quality impact analysis, estimates of potential water availability benefits were developed based upon best available data, modeling and trend analyses. Robust water diversion and depletion data is being collected and analyzed in proximity of the LGP project components. It is premature to draw quantified conclusions, but anecdotal information related to water supply availability is positive; this was especially during the 2020 irrigation year that was characterized by severe drought.

**Soil Health:** Soil surveys, samples, and a corresponding soil health report for each RCPP CAP project have been completed with technical assistance funding from the Colorado Water Conservation Board via a Soil Health Technician. The technician was hired and managed by the Shavano Conservation District. Associated findings and related soil health education is promoted by the LGP at the annual Western Slope Soil Health Conference (held in February 2017-21); see <http://www.westerncoloradosoilhealth.org/> for more info.

Ongoing Soil health education and outreach is planned through mid-2021 through community field visits and site demonstrations. Covid precautions will be implemented and proper health board protocols being followed, as appropriate.

**Endangered Species:** The LGP anticipates reductions in selenium loading and associated benefits to endangered river fishes that occupy critical habitat in the Lower Gunnison and Colorado Rivers due to the LGP RCPP. The USFWS continues to document habitat

Progress Report Number 8 – Lower Gunnison Project (RCPP; 68-8B05-A-15-03) improvements via annual sufficient progress determinations, enabling water development to continue pursuant to the Gunnison Basin Programmatic Opinion and thereby providing regulatory certainty to LGP water users.

- V. Innovation in the Application of Conservation Practices** – SCADA network infrastructure design is on-going with anticipated implementation in the next reporting period. Soil health practices and minimum till practices are being encouraged.
- VI. Renewable Energy Production** – Not applicable.
- VII. Energy Conservation** – Solar power capabilities installed at SCADA sites; gravity pressurized systems are being implemented.
- VIII. Mitigating the Effects of Climate Change** – The project sponsor anticipates reductions in carbon emissions associated with fewer vehicle trips required to monitor key canal diversion sites through implementation of remote monitoring and SCADA. This information is documented in the Watershed Plan EA.
- VIII. Outreach and Education** (e.g. beginning farmers/ranchers, socially disadvantaged, limited resource, and veteran) - According to the 2012 Census of Agriculture, the average age of principal farm operators was 58.3 years. The LGP has received 7 applications from farmers identifying themselves as socially disadvantaged, beginning, and/or veteran farmers. Of the final projects selected for implementation, 2 have identified themselves as veterans, 2 beginning, and 1 beginning and socially disadvantaged. As required by NRCS, at least 30% of the above classifications need to be verified (i.e. 1/5). Verification of the veteran status of one of our landowners has occurred via the River District obtaining a copy of the veterans DD214.

Additional and significant outreach and education is being performed via the [gunnisonriverbasin.org](http://gunnisonriverbasin.org) website, social media, newsletters and related LGP webpages <http://gunnisonriverbasin.org/projects/lower-gunnison-project/> <https://gunnisonriverbasin.org/projects/no-chico-brush/> and at the previously referenced <http://www.westerncoloradosoilhealth.org/> .