COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: June 2020

Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as "project") funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage Projects	Matthew.Stearns@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to *waterplan.grants@state.co.us*
in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary

Name of Applicant	St. Vrain and Left Hand Water Conservancy District
Name of Water Project	Copeland Reservoir Liner Feasibility Study

CWP Grant Request Amount	$ 82,000
Other Funding Sources _____	$
Other Funding Sources _____	$
Other Funding Sources _____	$
Applicant Funding Contribution	$ 123,000
Total Project Cost	$ 205,000

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Applicant & Grantee Information
Name of Grantee(s)
Mailing Address: 9595 Nelson Road, Longmont, CO 80501
FEIN: 84-6113250
Organization Contact: Jason Roudebush
Position/Title: Water Resource Specialist
Email: Jason.roudebush@svlhwcd.org
Phone: 970-231-8317
Grant Management Contact: Jason Roudebush
Position/Title: Water Resource Specialist
Email: Jason.roudebush@svlhwcd.org
Phone: 970-231-8317
Name of Applicant (if different than grantee)
Mailing Address
Position/Title
Email
Phone

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The St. Vrain and Left Hand Water Conservancy District was formed in 1971 to develop, manage and protect water resources in the Longmont area by providing cutting edge water education, acting as stewards for a very precious natural resource, helping people and governmental agencies find creative solutions to meet their water needs, fighting threats to local water supplies and protecting existing water rights, and ensuring high quality water is available for future generations.

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Type of Eligible Entity (check one)	
	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
X	**Public (Districts):** Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.
	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes.

Type of Water Project (check all that apply)	
X	Study
	Construction
	Identified Projects and Processes (IPP)
	Other

Category of Water Project (check the primary category that applies and include relevant tasks)	
X	Water Storage - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap. *Applicable Exhibit A Task(s):* ***Reservoir seepage issues to be addressed through geotechnical study and liner option evaluations. Non-functional infrastructure to be evaluated and redesigned to 30% drawings.***
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. *Applicable Exhibit A Task(s):*
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. *Applicable Exhibit A Task(s):*
	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s):*
X	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s):* ***Feasibility study will develop the construction plan to bring the reservoir back into service. In service, Copeland supports a cold-water fishery. Releases from Copeland during the dry summer months support the downstream willow***

	carr community. Copeland Reservoir is located in the Wildbasin of Rocky Mountain National Park. Wildbasin is extremely popular and the picnic area around Copeland is highly used.	
	Other	Explain:

Location of Water Project

Please provide the general county and coordinates of the proposed project below in **decimal degrees**. The Applicant shall also provide, in Exhibit C, a site map if applicable.

County/Counties	Boulder
Latitude	40.218924
Longitude	-105.53758

Water Project Overview

Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain.
The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.

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The St. Vrain and Left Hand Water Conservancy District ("District") owns Copeland Reservoir ("Copeland"), a 6.08 surface acre reservoir located within a 35-acre Rocky Mountain National Park inholding. Copeland is filled with North St. Vrain Creek surface water and its 75.5 acre-feet absolute water right, 100 acre-feet conditional right, and 37.5 annual acre-feet of return flow replacement water is one of the District's key sources of supply for the Augmentation Program. Over time, Copeland has developed severe seepage issues which were quantified to exceed 65% of total volume during a 2014 seepage evaluation conducted by Deere and Ault Consultants.

To evaluate the current conditions and plan a future course of action to address the seepage losses and improve all reservoir facilities up to modern conditions, the District is proposing a comprehensive feasibility study. The study will include cadastral surveying to develop costs for lining the reservoir, extensive geotechnical investigations (drilling) of the embankment and reservoir bottom, laboratory soils testing, logistical planning with the Federal government for construction inside a National Park, and environmental permitting.

Project deliverable is a final report which will describe or include:

- Desktop study of existing information
- Description of permitting requirements for feasibility investigations and construction of improvements
- Geotechnical investigations, results, and recommendations
- Liner type and structural improvement investigation, cost estimates and recommendations
- 30% Design drawings and opinion of costs for the liner, creek diversion, reservoir outlet, and spillway improvements

Measurable Results

To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:

	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Non consumptive	
75.5 (abs.), 100 (cond.)	Existing Storage Preserved or Enhanced (acre-feet)	
	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Quantity of Water Shared through Alternative Transfer Mechanisms	
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
	Number of Coloradans Impacted by Engagement Activity	
	Other	Explain:

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Water Project Justification

Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)

COLORADO WATER PLAN

This project supports several measurable objectives under Section 10.3 (Critical Action Plan) of the Colorado Water Plan. Specifically, following is a description of critical action items this project will contribute toward:

10.3.A Supply Demand Gap – by restoring Copeland's full decreed storage capacity, the District can reduce the basin's supply demand gap through full administration of the Augmentation Program. The Augmentation Plan provides replacement water to St. Vrain Creek and its tributaries to allow out-of-priority depletions without injury to senior water rights.

10.3.D Agriculture - by maintaining Colorado's agricultural productivity, support of rural economies, and food security (p. 10-10). Our work specifically addresses the second and third critical agricultural action items listed in this part of the plan by providing financial and technical assistance to both planning and implementation efforts to update and improve ageing infrastructure.

10.3.E Storage - by lining Copeland and restoring full functionality of the North St. Vrain Creek diversion and reservoir outlet structure, the District will realize a 65% gain in storage capacity at the site. In this high mountain location, Copeland is a unique and valuable storage asset within an inholding property surrounded by Rocky Mountain National Park, which would be nearly impossible to develop today. Restoring storage in Copeland is one of St. Vrain and Left Hand Water Conservancy District's highest priorities.

10.3.F Watershed Health, Environment and Recreation - by supplementing flows in North St. Vrain Creek which directly supports the rare Copeland willow carr riparian shrubland community. "Copeland Willow Carr is a rare riparian shrubland community along North St. Vrain Creek, located on the Eastern edge of Rocky Mountain National Park. It is the largest willow carr on the Front Range. It supports possibly the highest density of breeding neotropical migratory birds in the Front Range. This site is part of a much larger natural area encompassing the entire North St. Vrain canyon — the only un-roaded large canyon system in the Front Range. American beaver is also present and active on the site" (Boulder County, 2013).

As an ancillary benefit, augmentation releases also supplement flows downstream through a canyon with world class kayaking features.

SOUTH PLATTE BASIN IMPLEMENTATION PLAN

Environmental & Recreational Gap – although the BIP did not specifically identify Environmental and Recreational gaps due to the lack of methodology at the time of publication, the authors did however develop Environment and Recreation goals.

SP BIP referenced the St. Vrain as one of two tributaries to the South Platte River that have the largest annual potential for water availability. Moreover, the BIP stated, with such a wide range of uses and an intense focus of study, the St. Vrain poses an excellent opportunity to balance river health with water users' needs through completion of a Stream Management Plan ("SMP").

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The St. Vrain and Left Hand Water Conservancy District recently completed a CWCB funded basinwide SMP. The SMP calls for improvements to existing water infrastructure to meet current and future demands. Funding this feasibility study is a logical next step in the progression from BIP to Colorado's Water Plan.

This project directly addresses the Environmental and Recreation goals set forth in the South Platte BIP, stated as: Fully recognize the importance of, and support the development of environmental and recreational projects and multipurpose projects that support water availability for ecologically and economically important habitats and focus areas. Within this goal, the proposed project related to all three measurable outcomes.

Related Studies

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

Copeland Reservoir Decree - Case No. W-6673 on June 1, 1926 with an appropriation date of June 30, 1913.

Augmentation Plan Decree - Case No. 02CW334, the District changed the use of the Copeland Reservoir water rights to add commercial, industrial recreation, fish and wildlife propagation, augmentation, replacement and exchange for use by the District anywhere within its present and future boundaries.

Deere & Ault Consultants - Copeland Reservoir Seepage Analysis and Augmentation Plan Usage Project No. 0155.001.00 (February 2, 2016).

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.

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The St. Vrain and Left Hand Water Conservancy District is the applicant and grantee on the following CWCB contracts:

Grants
Loan Feasibility Study grant Lake 4 outlet pipeline repair (issued 10/1/2016). $5,000. POGG1 PDAA 201700000468.

Watershed Health grant ($150,000) and South Platte Basin Roundtable WSRF grant ($50,000). St. Vrain and Left Hand Creeks Stream Management Plan (issued 4/23/18). $200,000 total. CMS#109536. CTGG1 2018-1979

Loans
Emergency Repair Project – Rockin' WP Ranch Lake No. 4 (issued 7/7/14). $4,545,000. CMS: 71730/CORE No: CT2016-2452

Lake No.4 Outlet Pipeline Repair (issued 3/10/17). $619,130. CMS: 96802/ CORE No: CT2017-3213

Loan Increase – Lake No. 4 Outlet Pipeline Repair (issued 1/28/2019). $245,430. CMS: 96802/ CORE No: CT2017-3213

Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

None. The District "De-Bruced" in 2016. Moreover, this study is being conducted under a Water Activity Enterprise.

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Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
X	Statement of Work (1)
X	Budget & Schedule (1)
	Engineer's statement of probable cost (projects over $100,000)
	Letters of Matching and/or Pending 3rd Party Commitments (1)
Exhibit C	
X	Map (if applicable) (1)
	Photos/Drawings/Reports
	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)
	Certificate of Good Standing with Colorado Secretary of State (2)
	W-9(2)
	Independent Contractor Form (2) (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
	Engagement & Innovation Supplemental Application (1)

(1) Required with application.
(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado's Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado's water communication, outreach, education, and public engagement efforts; advance Colorado's water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as "project" in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?

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Overview (answer for both tracks)
Describe how you plan to measure and evaluate the success and impact of the project?
What research, evidence, and data support your project?
Describe potential short- and long-term challenges with this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."
Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).

Describe how the project achieves the basin roundtable's PEPO Education Action Plans.

Innovation Track
Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.
Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.
Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**11/25/2020**
Name of Grantee:	**St. Vrain and Left Hand Water Conservancy District**
Name of Water Project:	**Copeland Reservoir Liner Feasibility Study**
Funding Source:	**CWP Grant and St. Vrain and Left Hand Water Conservancy District**

Water Project Overview:

The St. Vrain and Left Hand Water Conservancy District ("District") owns Copeland Reservoir ("Copeland"), a 6.08 surface acre reservoir located within a 35-acre Rocky Mountain National Park inholding. Copeland is filled with North St. Vrain Creek surface water and its 75.5 acre-feet absolute water right, 100 acre-feet conditional right, and 37.5 annual acre-feet of return flow replacement water is one of the District's key sources of supply for the Augmentation Program. Over time, Copeland has developed severe seepage issues which were quantified to exceed 65% of total volume during a 2014 seepage evaluation conducted by Deere and Ault Consultants.

To evaluate the current conditions and plan a future course of action to address the seepage losses and improve all reservoir facilities up to modern conditions, the District is proposing a comprehensive feasibility study. The study will include cadastral surveying to develop costs for lining the reservoir, extensive geotechnical investigations (drilling) of the embankment and reservoir bottom, laboratory soils testing, logistical planning with the Federal government for construction inside a National Park, and environmental permitting.

Project deliverables include:

- Desktop study of existing information and description of logistical planning with the National Park Service
- Description of permitting requirements for feasibility investigations and construction of improvements
- Geotechnical investigations, results, and recommendations
- Liner type and structural improvement investigation, cost estimates and recommendations
- 30% Design drawings and opinion of costs for the liner, creek diversion, reservoir outlet, and spillway improvements

Project Objectives:

1. Coordinate with the National Park Service on all aspects of the engineering study and future reservoir construction activities
2. Description of permitting requirements for feasibility investigations and construction improvements
3. Geotechnical investigations, results, and recommendations
4. Liner type and structural improvement investigation, cost estimates and recommendations
5. 30% Design drawings and opinion of costs for the liner, creek diversion, reservoir outlet, and spillway improvements

Tasks

Task 1 – Coordination and planning with the National Park Service

Description of Task:

The Copeland Reservoir property is a Rocky Mountain National Park in-holding which will require coordination with the National Park Service to mobilize heavy equipment for the feasibility study, develop the environmental permitting requirements, and determine the course of action for reservoir construction.

Over the course of the project, we expect to hold several meetings and field tours with National Park Service personnel to understand the costs and potential limitations of the proposed reservoir improvements. Upon completion of the geotechnical and engineering assessments, St. Vrain and Left Hand Water Conservancy District staff will reengage with Park Service personnel to develop the implementation plan for construction of the Copeland infrastructure and liner improvements.

Method/Procedure:

- Site visits (field tours) with National Park Service personnel to understand the areas of concern for disturbance
- Coordination with the National Park Service to determine environmental permitting requirements for feasibility investigations and construction improvements
- Coordinate with the National Park Service to develop a public access plan (restricted areas) during the feasibility investigations and future construction activities.

Deliverable:

The final report will include a desktop study of existing information, description of the coordination plan (materials, equipment, access, schedule) with the National Park Service for the feasibility investigations and future construction activities.

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Tasks
Task 2 – Environmental permitting requirements
Description of Task:
Copeland Reservoir is located in the Wild Basin region of Rocky Mountain National Park, an area rich in biotic diversity. Given the sensitive nature of the area, this Task 2 of the proposed feasibility study will address the environmental permitting associated with the geotechnical investigations, surveying, and future improvements to Copeland reservoir. Permitting covers four general areas of concern: 1. Wildlife 2. Vegetation 3. Clean Water Act - Section 404 4. National Park Service Special Use Permits
Method/Procedure:
To ensure compliance with all county, state, and federal laws associated with the feasibility investigations and reservoir improvement activities, we are proposing a two-step process: 1. Obtain a legal opinion from an attorney specializing in environmental law to guide the scope of work for an environmental consultant. 2. Using the scope of work developed by St. Vrain and Left Hand Water Conservancy District and the environmental attorney, solicit bids for an environmental consultant and execute a single contract for all relevant permitting work.
Deliverable:
The final report will detail the environmental permitting requirements for the four areas of concern (wildlife, plants, Clean Water Act, Nation Park Service).

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Tasks
Task 3 – Geotechnical Investigations
Description of Task:
Copeland Reservoir was constructed over 100 years ago and has degraded over time. Task 3 of the feasibility study will comprehensively evaluate the seepage problem and the condition of the dam and spillway through geotechnical analyses. Specifically: <u>Evaluate the reservoir bottom</u> Determining the suitability of materials in the bottom of the reservoir for potential amendment will require extensive surface and subsurface exploration and sampling through test pits, boring, sampling, and laboratory testing. Areas outside of the reservoir footprint will also be sampled to determine the extent of suitable borrow materials available onsite. <u>Evaluate the Integrity of the existing embankment</u> Evaluation of the existing earthen embankment for safety and functionality requires detailed foundational data that may only be obtained by drilling, sampling, and testing that is concentrated on specific site areas or problems. The data will provide engineers with the information necessary to determine the extent of dam rehabilitation, whether toe drains are needed, and the adequacy of existing slopes.
Method/Procedure:
We are proposing to solicit bids and subcontract with a geotechnical engineer to perform the test bore drilling, pit excavations, sampling, and analyses. The geotechnical engineer will develop sampling and drilling methodology, and submit soil sample for laboratory analyses (clay content, tri-axial sheers, proctor, and others)
Deliverable:
The final report will include the geotechnical sampling methodology, soils descriptions, and recommendations. The geotechnical section of the report will be prepared by a licensed geotechnical engineer or professional geologist. The report will guide final design and construction activities.

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Tasks
Task 4 – Survey & Liner Type Investigations
Description of Task:
In Task 4 of the feasibility study we are proposing to subcontract with a civil engineering firm to perform a cadastral survey of the reservoir and embankment to develop an opinion of costs for installing a membrane liner and addressing the aging earthen dam. Specifically: <u>Liner Investigations</u> Developing an accurate cost estimate for the various liner types/options requires a detailed understanding of site topography. A full cadastral (and bathymetric, if necessary) survey of the site will be completed to inform the membrane liner cost estimates. The survey will be used to create a digital surface model for determining the quantity of liner and sand required for installation. <u>Embankment Survey</u> Copeland Reservoir was originally constructed over 100 years ago with an earthen embankment. The earthen embankment also serves as the main access road for recreators in Rocky Mountain National Park which has influenced the crest elevation and spillway functionality. To help address any settling, erosion, and improper slopes, a detailed as-built topographic survey will be completed to allow civil engineers the ability to comprehensively make evaluate the embankment and design improvements.
Method/Procedure:
We are proposing to collect comprehensive elevation data for the reservoir footprint, embankment, and potential borrow areas. The data will be tied in with the recent ALTA boundary survey and the professional engineers will develop a digital surface model of the reservoir using Computer-Aided Design (CAD) and drafting software. The digital surface model is necessary to develop an accurate opinion of costs for the liner and to three-dimensionally evaluate the embankment. The completed work will form the basis for future construction activities.
Deliverable:
The final report will contain a contour map of the reservoir, 30% engineering drawings, and the opinion of cost for installing a membrane liner and sand bed.

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Tasks
Task 5 – Infrastructure Reconnaissance & 30% Design Drawings
Description of Task:
All components of the aging reservoir infrastructure require investigation to determine their current functionality and future lifespan. In task 5, we will utilize the same civil engineering firm described in Task 4 to evaluate the following infrastructure components and develop 30% Design drawings for each of the areas in need of rehabilitation or replacement: • North St. Vrain Creek diversion • Inlet ditch (main conveyance feature) • Measurement structures on the inflow and outflow to Copeland • Reservoir staff gage • Reservoir outlet structure and conveyance back to North St. Vrain Creek • Trail and road crossing culverts • Reservoir Spillway Task 5 will conclude with a comprehensive report describing the findings of the feasibility study, construction recommendations, and 30% Design drawings. The report will form the basis for financing (CWCB Loan) construction improvements.
Method/Procedure:
Engineering field reconnaissance will form the foundation for Task 5 and ultimately inform the infrastructure rehabilitations or replacements. Using CAD software, professional engineers will develop 30% Design drawings and cost estimates for construction implementation.
Deliverable:
The final report will describe the permitting requirements, findings of the geotechnical and civil engineering evaluations, construction costs and recommendations, and 30% Design drawings. The report will form the basis for financing (CWCB Loan) construction improvements. The 30% Design drawings will form the basis for a construction ready engineering plan set that will improve the reservoir up to modern conditions.

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Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to CWCB in hard copy and electronic format as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:
(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
(b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

06 - Beaver Dam-Irr Dam

07 - Trail

08 - Trail Culvert

09 - Road Culvert

10 - Flume at Inlet

11 - Spillway Channel

12 - Picnic Area

03 - Beaver Dam

04 - Beaver Dam-Clear

05 - Beaver Dam-Clear

13 - Restroom

01 - Beaver Dam

02 - Monitoring Station

14 - Picnic Area Entrance

00 - River Diversion

15 - Outlet Grate

17 - Outlet Flume

16 - Gate Outlet

DEERE & AULT CONSULTANTS, INC.

St. Vrain & Left Hand WCD
Copeland Lake Site Features

JOB NO: 0155.001.00 | SCALE: 1:3,600 | FIGURE: 1

Copeland Reservoir Location