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## 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 | Anna.Mauss@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 | The Logan Irrigation District |
| Name of Water Project | Prewitt Reservoir Dredging Project |

| | |
|---|---|
| CWP Grant Request Amount | $1,500,000 |
| Other Funding Sources _____ | $ |
| Other Funding Sources _____ | $ |
| Other Funding Sources _____ | $ |
| Applicant Funding Contribution | $1,738,280 |
| Total Project Cost | $ |

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| Applicant & Grantee Information |
|---|
| Name of Grantee(s) The Logan Irrigation District |
| Mailing Address: P.O. Box 333 - 112 North 8th Ave. Sterling, CO 80751 |
| FEIN 84-0815083 |
| Organization Contact: Mr. Jim Yahn, PE |
| Position/Title: General Manager |
| Email: jim@northsterling.org |
| Phone: 970-522-2025 |
| Grant Management Contact: Mr. Jim Yahn, PE |
| Position/Title: General Manager |
| Email: jim@northsterling.org |
| Phone: 970-522-2025 |
| Name of Applicant<br>(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 Logan Irrigation District was formed under the Irrigation District Law of 1905 on December 19, 1910 and is the majority owner of the Prewitt Reservoir. There are two additional owners of Prewitt Reservoir, the Iliff Irrigation District and the Morgan Prewitt Reservoir Company. The three entities together comprise The Prewitt Operating Committee (The Committee) which is a management organization used to perform the maintenance and operation of Prewitt Reservoir. The water from the Prewitt Reservoir is a supplemental supply for over 250 landowners/shareholders irrigating approximately 30,000 acres and an augmentation source for over 550 wells. The Committee is governed by a Governance Contract adopted January 31, 2006. |

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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) | |
|---|---|
| | Study |
| X | 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.<br>*Applicable Exhibit A Task(s):*<br><br>*Task 1) Project Coordination*<br>*Task 2) Alternative Analysis*<br>*Task 3) Conceptual Design*<br>*Task 4) Permitting*<br>*Task 5) Preliminary Design*<br>*Task 6) Final Design*<br>*Task 7) Pre-Qualification*<br>*Task 8) Bidding*<br>*Task 9) Construction Administration*<br>*Task 10) Construction Observation*<br>*Task 11) Project Close-Out* |
| | Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning.<br>*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. |

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| | | |
|---|---|---|
| | *Applicable Exhibit A Task(s):* | |
| | Agricultural - Projects that provide technical assistance and improve agricultural efficiency.<br>*Applicable Exhibit A Task(s):* | |
| | Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation.<br>*Applicable Exhibit A Task(s):* | |
| | 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 | Logan and Washington Counties |
| Latitude | 40° N, 25-minutes and 39-seconds |
| Longitude | 103° E, 22-minutes and 9-seconds |

## 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 Prewitt Reservoir Dredging Project is a multi-purpose project that will restore about 1,604 ac-ft of storage to Prewitt Reservoir, while using dredged materials to create an island habitat environmental enhancement site. The proposed project will dredge a variable width channel about 7,000-ft long that will connect the existing dam's outlet works to a dead pool. Channel widths will vary between 50 and 100-ft, depending upon the type of material encountered. Hydraulic cutterhead dredging was recommended within the project's CWCB funded feasibility study (attached).

Environmental enhancements from the hydraulic dredging activities would be used to create the island habitat. The island development would be constructed to provide both migratory bird and waterfowl nesting habitat. Islands can provide diverse ecological benefits in addition to avian habitats, including potential riparian, aquatic, and fringe wetland habitats. Wetland communities are recognized for their broad biodiversity and ecological benefits. The significant quantity of dredged material would provide up to 5-acres of surface area for the island habitat.

The project includes additional study to identify the preferred dredging methodology. It also includes final design, bidding, and construction of the selected alternative.

## 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 Nonconsumptive | |
| 1,604 | 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 | |
| 5 acres of habitat | Other | Explain: The project proposes to develop island habitat using dredged materials. |

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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;)

- The proposed project demonstrates a commitment to collaboration (CWP, Section 9.4, pp. 9-43):
  - Address more than one type of need. The proposed environmental enhancements would provide financial, ecological and social benefits.
  - Involving multiple participants. The Prewitt Operating Committee consists of three separate entities comprising over 250 landowners/shareholders. The project also has the support of the Parker Water and Sanitation District and Ducks Unlimited (letters of support are attached).
- The proposed project addresses an identified water gap (CWP, Section 9.4, pp. 9-44) by:
  - Providing 1,604 ac-ft of storage within the South Platte Basin. The South Platte Basin Implementation Plan (BIP) identified a current agricultural storage gap of 379,000 ac-ft/yr (pp. 2-33 to 2-34).
- The proposed project demonstrates sustainability (CWP, Section 9.4, pp. 9-44):
  - Maximizing the use of water resources through firming the yield of existing supplies. Operational model simulations indicate that the proposed project would provide 476 ac-ft/yr of additional yield during dry years.
  - Avoiding economic and social impacts on agricultural and rural communities. The proposed project would likely benefit nearby rural communities such Sterling and Fort Morgan by providing additional dry-year crop yields which will equate to revenue for local farmers.
- The project's CWCB funded feasibility study (attached) has found the project to be fiscally and technically feasible (CWP, Section 9.4, pp 9-44):
  - Overall cost effectiveness. Initial cost opinions indicate a price of $2,248 to $2,725/ac-ft for storage gained. This is significantly less than similar projects identified within the South Platte Storage Study such as Jackson Lake Reservoir and Julesburg Reservoir, which have estimated costs of $3,700 and $5,400 per ac-ft of storage gained, respectively.
  - Financial capability to repay debt. The Prewitt Operating Committee, including the Logan Irrigation District, submitted financial statements to the CWCB during the project's feasibility study which indicate their capability to repay the debt.
  - Technical and legal availability of water supplies for the project. The proposed dredging operations are technically feasible and would restore 1,604 ac-ft of existing permitted storage capacity (Permit Priority No. 75A-Storage of 32,300 ac-ft at a rate of 695-cfs, May 25, 1910; and Permit Priority No. 75R-Storage of 34,960 ac-ft at a rate of 695-cfs, Dec. 31, 1929)
  - Readiness to proceed upon receipt of necessary funding and permits. The proposed project was identified as a preferred alternative within its CWCB funded feasibility level study.

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## 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.

- South Platte Storage Study (HB16-1256)
    - The project assists in the implementation of the South Platte Storage Study (SPSS) by providing 1,604 ac-ft of additional storage.
        - The SPSS indicates that an annual median of 293,00 ac-ft/yr of water in excess of the South Platte Compact was delivered to Nebraska between 1996 and 2015 (pp 106). The proposed project will capture some of this excess water within Prewitt Reservoir to the benefit of the 250-plus reservoir shareholders.
        - The SPSS indicates that most storage projects contemplated are constrained by diversion and conveyance capabilities from the South Platte (pp 106, 108). Prewitt Reservoir features existing diversion and conveyance infrastructure, thereby avoiding this potential constraint and allowing for project feasibility and success.
        - The SPSS indicates that storage options in the lower basin tend to be more efficient (pp 107). The proposed project is in the lower basin.

## 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.

The Logan Irrigation District currently has a loan with the CWCB on behalf of the Prewitt Operating Committee for the construction of the Prewitt Spillway, but has never received grant funds.

## 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.

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| |
|---|
| The Logan Irrigation District considers itself exempt from Taxpayer Bill of Rights issues.. |

| 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) |
| X | Engineer's statement of probable cost (projects over $100,000) |
| X | Letters of Matching and/or Pending 3rd Party Commitments(1) |
| Exhibit C | |
| X | Map (if applicable)(1) |
| X | Photos/Drawings/Reports |
| X | Letters of Support (Optional) |
| X | Certificate of Insurance (General, Auto, & Workers' Comp.) (2) |
| X | Certificate of Good Standing with Colorado Secretary of State(2) |
| X | 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). |

| |
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| |
| 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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|---|
| **Water Plan Grant - Exhibit A** |

| Statement Of Work | |
|---|---|
| **Date:** | **1-31-19** |
| **Name of Grantee:** | **The Logan Irrigation District** |
| **Name of Water Project:** | **Prewitt Reservoir Dredging Project** |
| **Funding Source:** | **The Prewitt Operating Committee General Funds and CWCB Loan (Pending)** |

**Water Project Overview:**

The Prewitt Reservoir Dredging Project is a multi-purpose project that will restore about 1,604 ac-ft of storage to Prewitt Reservoir, while using dredged materials to create environmental enhancements for wildlife habitat. The proposed project will use dredging operations to create a variable width channel about 7,000-ft long that will connect the existing dam's outlet works to a dead pool. Channel widths will likely vary between 50 and 100-ft, depending upon the type of material being dredged. Hydraulic cutterhead dredging was recommended within the project's CWCB funded feasibility study (attached).

The environmental enhancements from the hydraulic dredging activities would be used to develop an island habitat site. The island development would provide up to 5-surface acres of area. Islands can provide diverse ecological benefits including potential riparian, avian, aquatic, and fringe wetland habitats.

The project includes some additional study and evaluation to identify the preferred dredging methodology. It also includes final design, bidding, and construction of the selected alternative.

**Project Objectives:**

1) Restore access to 1,604 ac-ft of decreed storage through dredging;
2) Address South Platte Basin Implementation Plan (BIP) identified agricultural storage gap;
3) Efficient disposal and beneficial use of dredged materials;
4) Environmental enhancements for wildlife habitat and recreation.

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| Tasks |
|---|
| **Task 1 – Project Coordination** |
| Description of Task: |
| Task 1 – Project Coordination is necessary to facilitate the efficient execution of the work and for quality assurance and control. The Engineer's Project Manager will coordinate project activities both internally and externally. Project coordination will include ongoing communication with the Logan Irrigation District and Prewitt Operating Committee, local, state and federal agencies, landowners, and the public as needed; project management to control scope and schedule; work product review for quality assurance; and grant administration assistance to the Logan Irrigation District and Prewitt Operating Committee. |
| Method/Procedure: |
| • Complete weekly coordination meetings<br>• Manage and track project schedule through earned value analysis or other methods<br>• Develop a project management plan for quality assurance<br>• Review work products at the conceptual (30%), preliminary (60%), and final (95%) for quality control<br>• Coordinate the work with potential permitting agencies such as the US Army Corps of Engineers, US Fish and Wildlife Service, US EPA, and Colorado Department of Natural Resources<br>• Coordinate the work with the Project Owners, the Prewitt Operating Committee<br>• Coordinate the work with other potential project proponents such as Colorado Parks and Wildlife, Ducks Unlimited, and Parker Water and Sanitation District |
| Deliverable: |
| • Agenda and minutes from coordination meetings<br>• Project management plan<br>• Monthly updates accompanying each invoice submittal<br>• CWCB Progress Reports, as required |

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| Tasks |
|---|
| **Task 2 – Alternatives Analysis** |
| Description of Task: |
| Task 2 – Alternatives Analysis will identify the preferred dredging methodology and/or environmental enhancement site to advance through final design and implementation. This will require more advanced evaluation of the potential enhancement project. Dredging and island development options will be evaluated based upon their technical merits, permitting complexity, and costs. |
| Method/Procedure: |
| • Agency outreach to US Army Corps. of Engineers, US Fish and Wildlife Service, US EPA, Colorado Department of Natural Resources, Colorado Parks and Wildlife, and/or Ducks Unlimited to determine permitting constraints and opportunities for the island habitat development site<br>• Schematic designs of the dredge channel and potential island development site<br>• Cost opinions for the dredge channel and potential enhancement site<br>• Coordination meeting to evaluate alternatives |
| Deliverable: |
| • Technical memorandum describing results of the activity and recommending the preferred dredging methods and environmental enhancement site<br>• Schematic design drawings of the dredge channel and preferred site<br>• Class IV Opinion of Probable Construction Costs<br>• Coordination meeting minutes and agenda |

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| Tasks |
|---|
| **Task 3 – Conceptual Design** |
| Description of Task: |
| Task 3 – Conceptual Design will use the alternative selected during Task 2 to a 30% design level for intermediate review and permitting submittals. Conceptual (30%) drawings will be developed for the dredging activities and environmental enhancement alternative along with estimated construction costs. |
| Method/Procedure: |
| • Conceptual (30%) Drawings of the dredge channel, including alignment and typical sections<br>• Conceptual (30%) Drawings of the selected environmental enhancement site, including plan and section views<br>• Other Conceptual (30%) Drawings including general series and initial detail sheets. Establish appropriate base and reference files and develop sheet-set manager in Civil 3D<br>• Develop Opinion of Probable Construction Costs<br>• Conceptual (30%) design meeting |
| Deliverable: |
| • Conceptual (30%) construction drawings<br>• Class III Opinion of Probable Construction Costs<br>• Progress meeting agenda and minutes |

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| Tasks |
|---|
| **Task 4 – Permitting** |
| Description of Task: |
| Task 4 – Permitting seeks project authorization from the US Army Corps of Engineers (USACE), which requires wetland delineation and reporting, USACE jurisdictional determination, and permit application preparation and submittal. The Conceptual Drawings developed during Task 3 will be used for permitting submittals. This task assumes a Regional General Permit or Section 404 Nationwide Permit will be required from the US Army Corps of Engineers for the project. |
| Method/Procedure: |
| • Complete pedestrian wetland delineations in the dredge disposal/environmental enhancement area<br>• Complete a desktop review of threatened and endangered species<br>• Complete a 404 Nationwide Permit Pre-Construction Notification or General Permit application |
| Deliverable: |
| • Pre-Construction Notification to the US Army Corps of Engineers for 404 Nationwide Permit<br>• Wetland delineation report for dredged disposal/enhancement area<br>• Desktop threatened and endangered species report for dredge disposal/enhancement area |

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| Tasks |
|---|
| **Task 5 – Preliminary Design** |
| Description of Task: |
| Task 5 – Preliminary Design will advance the project to a Preliminary (65%) design level for intermediate review. Preliminary (65%) drawings of the dredge areas and environmental enhancement site will be developed, along with preliminary project manual for the preliminary construction package, which will include bidding documents and opinion of probably construction costs. |
| Method/Procedure: |
| • Develop preliminary (65%) Drawings of the dredge channel, including alignment and typical sections<br>• Develop preliminary (65%) Drawings of the selected environmental enhancement site<br>• Develop other preliminary (65%) Drawings including general series and sheet(s)<br>• Develop preliminary project manual including bidding and construction documents<br>• Develop opinion of probable construction costs for preliminary construction package<br>• Lead preliminary (65%) design meeting |
| Deliverable: |
| • Preliminary (65%) construction drawings<br>• Preliminary (65%) project manual<br>• Class II Opinion of Probable Construction Costs<br>• Coordination meeting agenda and minutes |

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| Tasks |
|---|
| **Task 6 – Final Design** |
| Description of Task: |
| Task 6 – Final Design will advance the project to a Final (95%) design level for final review of the dredge channel areas and environmental enhancement site. The necessary drawings, project manual, opinion of probable cost and final construction package will be developed. |
| Method/Procedure: |
| • Develop final (95%) Drawings of the dredge channel, including alignment and typical sections<br>• Develop final (95%) Drawings of the selected environmental enhancement site<br>• Develop other final (95%) Drawings including general series and sheet(s)<br>• Develop final project manual including bidding and construction documents<br>• Develop opinion of probable construction costs for final construction package<br>• Lead final (95%) design meeting |
| Deliverable: |
| • Preliminary (95%) construction drawings<br>• Preliminary (95%) project manual<br>• Class I Opinion of Probable Construction Costs<br>• Coordination meeting agenda and minutes |

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| Tasks |
|---|
| **Task 7 – Pre-Qualification** |
| Description of Task: |
| Task 7 – Pre-Qualification will pre-qualify potential bidders for the project. A pre-qualification package for the project and request for qualifications (RFQ) will be developed. Solicitation and coordination of the RFQ, and responses to questions and inquiries will be completed. |
| Method/Procedure: |
| • Develop a pre-qualification package for the project<br>• Solicit and coordinate a request for qualifications (RFQ)<br>• Attend and lead a pre-qualification meeting<br>• Respond to questions/inquiries and issue Addenda, as required<br>• Review pre-qualifications and recommend Contractor's for pre-qualified status |
| Deliverable: |
| • Request for qualifications (RFQ) package<br>• Advertisement in local paper of record<br>• Pre-qualification meeting agenda and minutes<br>• Addenda, as required<br>• Pre-qualification review and recommendation correspondence |

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| Tasks |
|---|
| **Task 8 – Bidding** |
| Description of Task: |
| Task 8 - Bidding will solicit bidding and construction documents for the project from pre-qualified contractors. A pre-bid meeting will be held. Bids will be reviewed, and recommendations will be made for contract award. |
| Method/Procedure: |
| • Solicit bidding and construction documents to pre-qualified dredging contractors<br>• Lead a pre-bid meeting<br>• Respond to questions/inquiries and issue Addenda, as required<br>• Attend bid opening<br>• Review Bids and recommend award |
| Deliverable: |
| • Advertisement in local paper of record<br>• Pre-bid meeting agenda and minutes<br>• Addenda, as required<br>• Bid reconciliation, review, and recommendation |

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| Tasks |
|---|
| **Task 9 – Construction Administration** |
| Description of Task: |
| Task 9- Construction Administration will ensure that construction activities are administered successfully, including completing appropriate communication, meetings and documentation. This task assumes a standard EJCDC contract framework. |
| Method/Procedure: |
| • Lead a pre-construction conference<br>• Assemble bonds and insurance certificates<br>• Attend weekly construction coordination meetings<br>• Interpret the construction documents and respond to requests for information (RFI's), as required<br>• Process Change Orders, as required<br>• Process Contractor payment applications<br>• Issue Work Change Directives or Field Orders, as required |
| Deliverable: |
| • Pre-construction conference agenda and minutes<br>• Weekly construction coordination meeting agenda and minutes<br>• Clarifications and responses to requests for information (RFI's), as required<br>• Change Orders, as required<br>• Processed Contractor payment applications<br>• Work Change Directives or Field Orders, as required |

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| Tasks |
|---|
| **Task 10 – Construction Observation** |
| Description of Task: |
| Task 10 – Construction Observation will consist of construction monitoring to help ensure conformance of the work with the Construction Documents. Observations will be documented and used to document ongoing project progress. |
| Method/Procedure: |
| • Staff the project with a resident project representative (RPR)<br>• Provide at least half-time observation of construction activities<br>• Notify the Contractor of non-conforming work, and reject non-conforming work as required<br>• Document construction activities observed in field reports and photo logs<br>• Document deviations from the Drawings on Record Drawing set |
| Deliverable: |
| • Field reports<br>• Photo logs<br>• Field set of Record Drawings |

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| Tasks |
|---|
| **Task 11 – Project Close-Out** |
| Description of Task: |
| Task 11 – Project Close-Out will be used to facilitate project completion. This will include completing necessary documentation, such as completion certificates, project record drawings, and the CWCB project completion report. |
| Method/Procedure: |
| • Issue certificates of substantial completion and project punch-list<br>• Gather and assemble lien waivers and warranties<br>• Issue notice of final completion<br>• Complete warranty inspection<br>• Complete mitigation monitoring, as required<br>• Complete final project record drawings |
| Deliverable: |
| • Certificate of Substantial Completion and Punch-List<br>• Notice of Final Completion<br>• Mitigation monitoring reports, as required<br>• Final Record Drawings<br>• CWCB Final Report |

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## Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

## Reporting Requirements

**Progress Reports:** The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

**Final Report:** At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

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.

## 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

| Performance Measures |
| --- |
| payment.<br>(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.<br>(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. |

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

# Colorado Water Conservation Board

## Water Plan Grant - Detailed Budget Estimate
## Fair and Reasonable Estimate

**Prepared Date:** 1/31/2019
**Name of Applicant:** The Logan Irrigation District
**Name of Water Project:** The Prewitt Reservoir Dredging Project

## EXAMPLE C: Construction

**Task 1 - Construction**

| *Sub-task* | Unit | Quantity | Unit Cost | Total Cost | CWCB Funds | Matching Funds |
|---|---|---|---|---|---|---|
| Mobilization | LS | 1 | $ 267,500.0 | $ 267,500 | $ 133,750 | $ 133,750 |
| Hydraulic Dredging | CY | 175,000 | $ 13 | $ 2,275,000 | $ 1,137,500 | $ 1,137,500 |
| Island Infrastructure | LS | 1 | $ 250,000 | $ 250,000 | $ 125,000 | $ 125,000 |
| Site Reclamation | AC | 5 | $ 30,000 | $ 150,000 | $ 75,000 | $ 75,000 |
| **TOTAL** | | | | $ 2,942,500.00 | $ 1,471,250 | $ 1,471,250 |

## Colorado Water Conservation Board

**Water Plan Grant - Detailed Budget Estimate**
**Fair and Reasonable Estimate**

**Prepared Date:** 1/31/2019
**Name of Applicant:** The Logan Irrigation District
**Name of Water Project:** The Prewitt Reservoir Dredging Project

## EXAMPLE B: Engineering

| Task 1 - Project Coordination | Water Consultants | | | | | Subcontracts | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sub-task | Senior Principal Engineer | Senior Water Resources Engineer/ Consultant | Water Resources Engineer | Environmental Resource Analyst | | Geotechnical | Environmental and Cultural Resources | (Other) | | Project Total | CWCB Funds | Matching Funds |
| | $ 185 | $ 155 | $ 105 | $ 145 | Subtotal | Lump sum | Lump Sum | | Subtotal | | | |
| | Estimated Hours | | | | | Estimated | | | | | | |
| 1.1 PM Plan | | 4 | | | $ 620 | | | | $ - | $620 | $310.0 | $310.0 |
| 1.2 Progress Meetings | 12 | 26 | | | $ 6,250 | | | | $ - | $6,250 | $3,125.0 | $3,125.0 |
| 1.3 Sub-Coordination | | 12 | | | $ 1,860 | | | | $ - | $1,860 | $930.0 | $930.0 |
| 1.4 Stakeholder Coordination | 16 | 40 | | | $ 9,160 | | $ 2,000 | $ 1,500 | $ 3,500 | $12,660 | $6,330.0 | $6,330.0 |
| **Task 2 - Alternative Analysis** | | | | | | | | | | | | |
| 2.1 Agency Outreach | 4 | 8 | | 4 | $ 2,560 | | $ 2,000 | | $ 2,000 | $4,560 | $2,280.0 | $2,280.0 |
| 2.2 Dredging/Island Evaluation | 4 | 16 | | 32 | $ 7,860 | $ 4,000 | | | $ 4,000 | $11,860 | $5,930.0 | $5,930.0 |
| 2.3 Evaluation Tech Memo and OPCC | 6 | 24 | | 16 | $ 7,150 | | | | $ - | $7,150 | $3,575.0 | $3,575.0 |
| **Task 3 - Conceptual Design** | | | | | | | | | | | | |
| 3.1 Dredge Channel | 2 | 6 | | | $ 1,300 | | | | $ - | $1,300 | $650.0 | $650.0 |
| 3.2 Enhancement Site | 4 | 16 | | 24 | $ 6,700 | | | | $ - | $6,700 | $3,350.0 | $3,350.0 |
| 3.3 CAD Setup/Drawings | | 4 | 40 | | $ 4,820 | | | | $ - | $4,820 | $2,410.0 | $2,410.0 |
| 3.4 Class III OPCC | 2 | 6 | | | $ 1,300 | | | | $ - | $1,300 | $650.0 | $650.0 |
| **Task 4 - Permitting** | | | | | | | | | | | | |
| 4.1 Pedestrian Surveys | | | | 32 | $ 4,640 | | | $ 1,500 | $ 1,500 | $6,140 | $3,070.0 | $3,070.0 |
| 4.2 Desktop T and E | | | | 32 | $ 4,640 | | $ 5,000 | | $ 5,000 | $9,640 | $4,820.0 | $4,820.0 |
| 4.3 USACE PCN | 4 | 8 | | 32 | $ 6,620 | | $ 6,000 | | $ 6,000 | $12,620 | $6,310.0 | $6,310.0 |
| **Task 5 - Preliminary Design** | | | | | | | | | | | | |
| 5.1 Dredge Channel | 2 | 4 | 8 | | $ 1,830 | | | | $ - | $1,830 | $915.0 | $915.0 |
| 5.2 Enhancement Site | 4 | 12 | 16 | 24 | $ 7,760 | $ 2,000 | | | $ 2,000 | $9,760 | $4,880.0 | $4,880.0 |
| 5.3 Drawings | 2 | | 40 | | $ 4,570 | | | | $ - | $4,570 | $2,285.0 | $2,285.0 |
| 5.4 Project Manual | 6 | 24 | | | $ 4,830 | | | | $ - | $4,830 | $2,415.0 | $2,415.0 |
| 5.5 Class II OPCC | 2 | 12 | | | $ 2,230 | | | | $ - | $2,230 | $1,115.0 | $1,115.0 |
| **Task 6 - Final Design** | | | | | | | | | | | | |
| 6.1 Dredge Channel | 2 | 4 | 6 | | $ 1,620 | | | | $ - | $1,620 | $810.0 | $810.0 |
| 6.2 Enhancement Site | 6 | 12 | 8 | 16 | $ 6,130 | $ 2,000 | | | $ 2,000 | $8,130 | $4,065.0 | $4,065.0 |
| 6.3 Drawings | 6 | 12 | 40 | | $ 7,170 | | | | $ - | $7,170 | $3,585.0 | $3,585.0 |
| 6.4 Project Manual | 6 | 24 | | 16 | $ 7,150 | | | | $ - | $7,150 | $3,575.0 | $3,575.0 |
| 5.5 Clas I OPCC | 4 | 12 | | | $ 2,600 | | | | $ - | $2,600 | $1,300.0 | $1,300.0 |
| **Task 7 - Pre-Qualification** | | | | | | | | | | | | |
| 7.1 Pe-Qual Packet | 2 | 40 | | | $ 6,570 | | | $ 1,000 | $ 1,000 | $7,570 | $3,785.0 | $3,785.0 |
| 7.2 Coordination | 0 | 8 | | | $ 1,240 | | | | $ - | $1,240 | $620.0 | $620.0 |
| 7.3 Pre-Qual Meeting | 4 | 10 | | | $ 2,290 | | | | $ - | $2,290 | $1,145.0 | $1,145.0 |
| 7.4 Addenda | 2 | 6 | | | $ 1,300 | | | | $ - | $1,300 | $650.0 | $650.0 |
| 7.5 Review and Recommendation | 2 | 4 | | | $ 990 | | | | $ - | $990 | $495.0 | $495.0 |
| **Task 8 - Bidding** | | | | | | | | | | | | |
| 8.1 Coordination | 2 | 8 | | | $ 1,610 | | | $ 1,000 | $ 1,000 | $2,610 | $1,305.0 | $1,305.0 |
| 8.2 Pre-Bid Meeting | 4 | 10 | | | $ 2,290 | | | | $ - | $2,290 | $1,145.0 | $1,145.0 |
| 8.3 Addenda | 2 | 8 | 12 | | $ 2,870 | | | | $ - | $2,870 | $1,435.0 | $1,435.0 |
| 8.4 Opening | | 10 | | | $ 1,550 | | | | $ - | $1,550 | $775.0 | $775.0 |
| 8.5 Recon and Recommendation | 2 | 6 | | | $ 1,300 | | | | $ - | $1,300 | $650.0 | $650.0 |
| **Task 9 - Construction Administration** | | | | | | | | | | | | |
| 9.1 Coordination | 4 | | | | $ 740 | | | | $ - | $740 | $370.0 | $370.0 |
| 9.2 Pre-Con Meeting | 6 | 12 | 8 | | $ 3,810 | | | $ 1,000 | $ 1,000 | $4,810 | $2,405.0 | $2,405.0 |
| 9.3 Progress Meetings | 24 | 24 | 24 | | $ 10,680 | | | | $ - | $10,680 | $5,340.0 | $5,340.0 |
| 9.4 RFIs | 2 | 6 | | | $ 1,300 | | | | $ - | $1,300 | $650.0 | $650.0 |
| 9.5 Change Orders, Field Orders | 2 | 16 | | | $ 2,850 | | | | $ - | $2,850 | $1,425.0 | $1,425.0 |
| 9.6 Progress Payments | 2 | 8 | 16 | | $ 3,290 | | | | $ - | $3,290 | $1,645.0 | $1,645.0 |
| **Task 10 - Construction Observation** | | | | | | | | | | | | |
| 10.1 Field Observation | 20 | 80 | 600 | | $ 79,100 | | | $ 9,000 | $ 9,000 | $88,100 | $44,050.0 | $44,050.0 |
| 10.2 Field Reports | | 8 | 60 | | $ 7,540 | | | | $ - | $7,540 | $3,770.0 | $3,770.0 |
| **Task 11 - Close Out** | | | | | | | | | | | | |
| 10.1 Punch-List/Warranty Walkthrough | 4 | 6 | 6 | | $ 2,300 | | | | $ - | $2,300 | $1,150.0 | $1,150.0 |
| 10.2 As-Builts | | | 32 | | $ 3,360 | | | | $ - | $3,360 | $1,680.0 | $1,680.0 |
| 10.3 Pedestrian Surveys | | | | | $ - | | $ 7,500 | | $ 7,500 | $7,500 | $3,750.0 | $3,750.0 |
| 10.4 Final Report | 2 | 6 | 6 | | $ 1,930 | | | | | $1,930 | $965.0 | $965.0 |
| **TOTAL** | | | | | | | | | | **$295,780** | $147,890.0 | $147,890.0 |