

Colorado Water Conservation Board

Water Supply Reserve Fund

Water Project Summary					
Name of Applicant	Ducks Unlimited				
Name of Water Project	Tamarack State Wildlife Area: Well 17				
Basin Account Request Subtotal		\$75,000.00			
Applicant Cash Match		\$338,026.00			
Applicant In-Kind Match		\$0.00			
Basin Requests					
Metro		\$75,000.00			
Sources of Funding					
SPWRAP		\$300,000.00			

Grant Details

Water Project Justification

The intent of this project is to complete the construction of the last of 17 wells and associated recharge basins decreed under the Tamarack Managed Groundwater Recharge Project that will support drought resiliency. This application comes at the request of the SPBRT and MBRT.

Applicant	& Grantee In	formation
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Name of Grantee: Ducks Unlimited

Mailing Address: 2114 Midpoint Dr. Suite 1 Fort Collins CO 80525

FEIN: 13,563,799

Organization Contact: Katharine Cody

Position/Title: Biologist Email: kcody@ducks.org

Phone: (970) 218-4167

Organization Contact - Alternate: John Denton

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Programs

Phone: (308) 258-4682

Grant Management Contact: Katharine Cody

Position/Title: Biologist Email: kcody@ducks.org

Phone: (970) 218-4167

Grant Management Contact - Alternate: Katharine Cody

Position/Title: Biologist Email: kcody@ducks.org

Phone: (970) 218-4167

Agency Information

Agency Type Other

Current Assessment

Number of Shareholders or Customers

Number of Shares

Number of Taps

Average Monthly Water Bill

Annual Water Delivery (acre-feet)

Description of Grantee/Applicant

Wetland conservation and restoration agency

Location	of \	Water	Proi	iect
Locution	•	rratoi		

Latitude 40.843189 Longitude -102.783500

Lat Long Flag Other: Coordinates based on other boundaries or locations

Water Source South Platte River
Basins South Platte
Counties Logan

Districts 64-South Platte: Balzac to Stateline; 65-Arikaree River

Water Project Overview

Major Water Use Type Environmental

Type of Water Project Design & Construction

Scheduled Start Date - Design 10/20/2023 Scheduled Start Date - Construction 7/1/2024

Description

Installation of the last of 17 groundwater wells necessary for the Tamarack Managed Groundwater Recharge Project (TMGRP) on Tamarack State Wildlife Area (SWA). Colorado has obligations under the Platte River Recovery Implementation Program (PRRIP) to re-time flows in the lower South Platte River within the state of Colorado when no river call is in effect; the purpose of this re-timing is to enhance flows through a stretch of the Platte River in Nebraska which has been designated as critical habitat for threatened and endangered species. The funding requested here will assist with covering the costs of construction of the final well, associated pipelines, and two groundwater recharge ponds. These groundwater recharge ponds will also increase the environmental and recreational value of the SWA, as they will provide critical habitat for over-wintering waterfowl, and be equipped with features allowing for accessible hunting and wildlife viewing opportunities.

Measurable Results					
43	New Storage Created (acre-feet)				
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive				
	Existing Storage Preserved or Enhanced (acre-feet)				
43	New Storage Created (acre-feet)				
	Length of Stream Restored or Protected (linear feet)				
1,940.00	Length of Pipe, Canal Built or Improved (linear feet)				
	Efficiency Savings (dollars/year)				
	Efficiency Savings (acre-feet/year)				
10	Area of Restored or Preserved Habitat (acres)				
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement				
	(acre-feet)				

Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning Number of Coloradans Impacted by Engagement Activity

Other

3,000 gallons per minute (200 horsepower) well and pump



Colorado Water Conservation Board				
Water Supply Reserve Fund				
Exhibit A - Statement of Work				
Date:	April 19, 2024			
Water Activity Name:	Tamarack State Wildlife Area: Well 17			
Grant Recipient:	Ducks Unlimited, Inc.			
Funding Source:	Water Supply Reserve Fund			
Water Activity Overview:				

Ducks Unlimited, Inc. (DU), in partnership with Colorado Parks and Wildlife (CPW) and South Platte Water Related Activities Program, Inc. (SPWRAP) requests \$75,000 from the Metro Basin Round Table Water Supply Reserve Fund to assist with the installation of the last of 17 groundwater wells necessary for the Tamarack Managed Groundwater Recharge Project (TMGRP) on Tamarack State Wildlife Area (SWA). Colorado has obligations under the Platte River Recovery Implementation Program (PRRIP) to re-time flows in the lower South Platte River within the state of Colorado when no river call is in effect; the purpose of this re-timing is to enhance flows through a stretch of the Platte River in Nebraska which has been designated as critical habitat for threatened and endangered species. The funding requested here will assist with covering the costs of design and construction of the final well, associated pipelines, and two groundwater recharge ponds. These groundwater recharge ponds will also increase the environmental and recreational value of the SWA, as they will provide critical habitat for over-wintering waterfowl, and be equipped with features allowing for accessible hunting and wildlife viewing opportunities.



Objectives:

The intent of this project is to complete the construction of the last of 17 wells and associated recharge basins decreed under the Tamarack Managed Groundwater Recharge Project (TMGRP). With installation of all wells complete, Tamarack State Wildlife Area (SWA) will be better able to fulfil its obligations under the Platte River Recovery Implementation Plan (PRRIP) and ensure that TMGRP can reach its annual recharge target consistently.

The WSRF funds will be used to design, permit, and construct the 17th well and associated infrastructure necessary to efficiently manage water and produce quality habitat for wetland dependent species. Therefore, the main objectives of the project are to:

- 1) install the last of the degreed groundwater wells,
- complete the necessary pipeline to re-time South Platte River flows, and
- 3) build two recharge ponds associated with the well, which will also provide opportunities for increased quality wetland habitat.

Tasks

Provide a detailed description of each task using the following format:

Task 1 - Survey & Design

Description of Task:

This task entails the identification, development, and specification of the set of activities (earth-work, conveyance rehabilitation, water-control structure installation, and other constructed structures) required to complete the infrastructure decreed under the TMGRP.

Method/Procedure:

1.) Topographical surveys. DU's bio-engineering team will work with Refuge staff to define critical areas on Tamarack SWA where project activities are likely to take place. Within a modified grid of these areas, DU will perform topographical surveys by utilizing GPS receivers to record geolocated elevation data. Important features including, but not limited to, existing embankments, ditches and other conveyance features, water-control structures, and roads will be fully covered by our survey efforts. Supplemental elevation data supplied by existing LIDAR data sets will be used to verify, validate, and extend the survey data collected by our personnel.

Tasks

- 2.) Surface Models & Other Analysis. Survey data produced by DU and obtained from other sources (i.e., existing LIDAR data sets) will be validated and analyzed to produce a high-resolution surface model of the project area. We typically compute models capable of producing 6-inch topographic contour maps across our work areas and even higher resolutions in specific areas where we install priority water-control structures or other facilities. An adequate surface model of the natural landforms, aquatic features, and artificial structures will be produced such that conceptual design and, ultimately, construction plansets may be developed with a high degree of fidelity to the site's existing condition and to the desired final landform.
- 3.) Conceptual Designs. Based on the produced surface models, other hydrologic information, and our experience in large-scale wetland restoration, DU's bio-engineering team will determine the best-fit location and set of activities necessary for well and recharge pond installation. We will identify areas where earthmoving and shaping will be necessary for efficient use of the system and evaluate existing infrastructure which may affect that efficiency. The conceptual design will be presented to CPW and SPWRAP staff assisting with the project, and the associated impact, cost, and risk will be discussed with all partners during this step. These conversations will allow for the identification of permissible activities, scope the highest priority work, and result in the scheduling of construction activities and guide development of a complete construction planset.
- 4.) Construction Plansets. DU engineers will draft and stamp a set of final construction plansets that provide the location, position, size, specification, and detail of the construction activities on the SWA. These final plansets will provide complete information required for project permitting and will serve as the basis for construction sub-contractor bidding and procurement.

Grantee Deliverable:

- 1.) A set of validated elevation coordinate data describing the project area will be collected and stored (electronically).
- 2.) A surface model of the project area will be produced and published as topographic maps.
- 3.) Conceptual designs of all project activities will be produced in map format.
- 4.) Construction plansets, stamped by a Colorado-certified Professional Engineer, detailing and specifying all project construction activities will be produced.



Tasks

CWCB Deliverable:

Full construction plansets, stamped by a Colorado-certified Professional Engineer, specifying all project construction activities will be provided to the CWCB upon completion of this task.

Task 2 - Project Permitting

Description of Task:

Construction work necessary to achieve the desired project outcome entails activities that must comply with a complex of federal, state, and local permitting regimes. Work under this task represents our efforts to coordinate permitting work with CPW staff and with other interested parties. Because this project is partially funded with federal funds, enough of a federal 'nexus' exists that we must comply with the process and rule of the National Environmental Policy Act, the Endangered Species Act, and the National Historic Preservation Act at a minimum. Certain activities may also be governed by the Clean Water Act and require a permit under that federal rule. Finally, state and local rules may apply to particular activities that we choose to pursue.

Method/Procedure:

Much of the permitting work will be performed in coordination with Tamarack SWA staff to ensure compliance with NEPA, ESA, NHPA, and other federal laws that govern our restoration work. DU staff will produce documents, maps, designs, data, and other materials in support of personnel evaluating and permitting our proposed activities. Further, DU enjoys a contractual relationship with the U.S. Fish & Wildlife Services' Colorado Ecological Services office allowing for expedited review of NEPA, ESA, and NHPA compliance on our projects.

We will review current Clean Water Act rules and, in consultation with the U.S. Army Corps of Engineers, determine whether permits are required under that Act (as per current interpretation of decree and rule). If required, we will pursue compliance with Clean Water Act under General Nationwide Permits #3 or #27 as circumstances dictate.

We are unaware of any other permitting requirements for the type of construction and restoration work proposed here. However, if any additional arise, we will use the resources made available under this Task to address those requirements.

Grantee Deliverable:

- 1.) A written statement from USFWS confirming project compliance with the National Environmental Policy Act.
- 2.) A written statement from USFWS confirming project compliance with Section 7 of the Endangered Species Act.
- 3.) A written statement from USFWS confirming project compliance with the National Historic Preservation Act and any entailed consultation with the State of Colorado's State Historic Preservation Office.
- 4.) If required, a written statement from the U.S. Army Corps of Engineers confirming project compliance with various sections of the Clean Water Act.
- 5.) If required, documentation of compliance with any state, county, or other permits governing construction activities on Tamarack SWA.

CWCB Deliverable:

Federal and state (if required) permit documents will be collected and made available to the CWCB upon completion of this task.

Task 3 - Project Construction

Description of Task:

DU will bid, contract, and manage construction of the groundwater well and associated infrastructure under a construction contract. Construction activities detailed below will all be completed such that existing water supplies are efficiently applied at rates and times necessary to fulfil Colorado's obligations under the PRRIP.

Method/Procedure:

Based on the final, stamped construction planset, DU publishes a bid package to a nationwide register of certified contractors. Within a restricted time period, all eligible contractors are allowed to bid on the specified construction project. DU selects the lowest bidder from this set and enters into a standard construction contract with that bidder. Our process observes all pertinent federal procurement rules and regulations. While this national listing allows for a broad range of contractors to consider the work, in practice we tend to receive competitive bids from a small set of contractors located within Colorado and the regions within which we work.



Construction typically proceeds with the following elements:

- 1.) Mobilization. DU's subcontractors safely move heavy equipment, personnel, and required materials to the project site. Work like that envisioned here often uses bulldozers, track hoes, belly loaders, graders, and/or dump trucks. Materials may include, amongst other pre-fabricated control structures, sticks of pipe of various dimensions, and a couple of different grades of rip-rap for erosion control points.
- 2.) Site preparation. DU's subcontractors work with our construction managers to delimit and prepare specified areas for construction activities. This includes the removal and stockpiling of topsoil layers, cordoning of sensitive areas, establishment of travel routes, removal of old structures, fencing, and other materials. It may also include dewatering of certain areas to allow for construction work to proceed.
- 3.) Earth-moving & shaping. Heavy machinery is used to remove, replace, or reshape earth at elevations, slopes, and compaction rates monitored by DU construction managers.
- 4.) Water conveyance installation. Pipeline will be constructed to ensure that the overall pattern of waterflow through the system is efficient. Any necessary channel widths, bank heights, waterway courses, and obstructions will be modified in a way that aides manager's ability to move water at the appropriate time and flow rate.
- 5.) Water-control structure installation. Our subcontractors will either purchase or fabricate water-control structures designed and specified by our engineering team to maximize manager's ability to move water when necessary. New or rehabilitated structures will not only allow more efficient use of available water supplies, but they also allow managers more flexibility and a finer touch in using hydrology to drive vegetation community establishment (and, thus, habitat quality) in the recharge ponds developed during this project.
- 6.) Facilities & infrastructure. Installation and repair of access roads, gates, livestock control structures, appropriate fences, water measurement devices and other facilities and infrastructure will ensure that management of the system will be easily accessible and function as intended.
- 7.) Erosion control. Appropriately sized natural rock rip-rap and other manufactured product (e.g. erosion-control fabric) is placed in areas of high flows or around water-control structures when necessary to ensure that the longevity of installed infrastructure is extended and that management of water through the system can focus on habitat goals and not maintenance of constructed facilities.



Grantee Deliverable:

- 1.) One (1) construction contracts.
- 2.) Constructed (and de-constructed) elements of the project plan including one groundwater well and associated pipeline, infrastructure, and recharge ponds.

CWCB Deliverable:

We will provide the CWCB with photo and video documentation of our construction activities.

Task 4 - Project Administration, Actuation, & Evaluation

Description of Task:

DU will manage project workplans, financial plans, matching funds, and coordinate with partners to achieve project objectives on Tamarack SWA. DU will work with CPW, CWCB, and SPWRAP to evaluate project impacts. DU will summarize all of these activities in semi-annual project reports and in a Final Project Report submitted to the CWCB and the Basin Roundtable.

Method/Procedure:

- 1.) Project administration. DU will coordinate all project activities, track project expenditures, correspond with all project partners, and publish all required project reports.
- 2.) Project actuation. DU will work with CPW staff to bring project elements online in a way that both protects new water infrastructure and elicits any issues with project design or operation. Should project deficiencies arise during this period of actuation, DU will lead the redesign and construction touch-ups required in these early stages of project operation; and,
- 3.) Project evaluation. With project actuation complete and operation commencing, DU will work with CPW and SPWRAP staff and other interested parties (including interested representatives of the Basin Roundtable) to engage in project evaluation and produce findings in the final project report.

Grantee Deliverable:

1.) The installation of the last decreed groundwater well for the TGMRP and the associated pipeline and recharge ponds.



CWCB Deliverable:

- 1.) Ten (10) Semi-annual progress reports.
- 2.) One (1) Final Project report summarizing project activities and identifying water resources and wetland habitats conserved.

Budget and Schedule

Exhibit B - 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 <u>excel format</u>. A separate <u>excel formatted</u> Budget is required for engineering costs to include rate and unit costs.

Reporting Requirements

Progress Reports: The grantee 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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

Final Report: At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

Payments

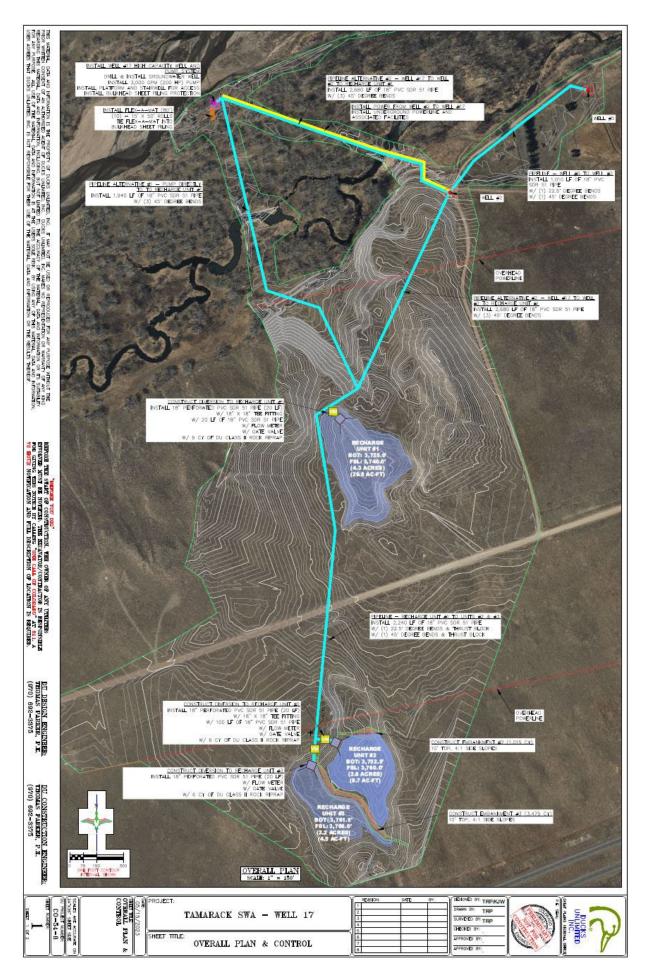
Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in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

The CWCB will pay the last 10% of the <u>entire</u> water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
- (b) Accountability: Per the 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 the 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.



Last Update: 5/30/2022



Department of Natural Resources

Colorado Water Conservation Board

Water Supply Reserve Fund

EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs

Date: 10/13/2023

Water Activity Name: Tamarack SWA: Well 17

Grantee Name: Ducks Unlimited, Inc.

Task No. (1)	<u>Description</u>	Start Date ⁽²⁾	End Date	Matching Funds (cash & in-kind) ⁽³⁾	l Funds		<u>Total</u>
1	Survey & Design	5/1/2024	12/31/2024	\$ 33,157	\$	- \$	33,157
2	Project Permitting	5/1/2024	3/1/2025	\$ 22,294	\$	- \$	22,294
3	Project Construction	7/1/2025	1/30/2029	\$ 565,100	\$ 75,00) \$	640,100
4	Project Oversight, Administration, & Evaluation	5/1/2024	1/30/2029	\$ 17,476	\$	- \$	17,476
			Total	\$ 638,027	\$ 75,00) \$	713,027

(1) The single task that include costs for Grant Administration must provide a labor breakdown (see Indirect Costs tab below) where the total WSRF Grant contribution towards that task does not exceed 15% of the total WSRF Grant amount.

(2) Start Date for funding under \$50K - ~ 45 Days from Director Approval; Start Date for funding over \$50K - ~90 Days from Board Approval.

- Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)
- NTP will not be accepted as a start date. Project activities may commence as soon as the grantee enters contract and receives formal signed State Agreement.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of the CWCB staff project manager. Once the Final Report has been accepted, the final payment has been issued, the water activity and purchase order (PO) or contract will be closed without any futher payment. Any entity that fails to complete a satisfactory Final Report and submit to the CWCB with 90 days of the expiration of the PO or contract may be denied consideration for future funding of any type from the CWCB.

- Additionally, the applicant shall provide a progress report every 6 months, beginning from the date of contract execution
- Standard contracting proceedures dictate that the Expiration Date of the contract shall be 5 years from the Effective Date.



Colorado Water Conservation Board

Detailed Budget Estimate

Date: 10/13/2023

PROJECT TOTAL

Water Activity Name: Tamarack SWA: Well 17 Grantee Name: Ducks Unlimited, Inc.

Materials and Construction Expenses WSRF CWCB **WSRF Request** Estimated Estimated Unit Subtotal Total Funds Quantity Cost per Unit **Matching Funds** (Request) Task 1 - Survey & Design \$118.80 **DU Project Blologist** HR 40 \$4,752.00 \$4,752.00 \$4,752.00 \$2,235.20 \$2,235.20 16 \$139.70 \$2,235.20 **DU Managing Biologist** HR HR 160 \$118.80 \$19,008.00 \$19,008.00 \$19,008.00 DU Project Engineer 40 \$139.70 \$5,588.00 \$5,588.00 \$5,588.00 **DU Managing Engineer** HR \$990.00 DU Hotel/Meals 5 \$198.00 \$990.00 \$990.00 DAY \$584.00 DU Auto Expense MI 800 \$0.73 \$584.00 \$584.00 TASK 1 TOTAL \$33,157.20 \$0.00 \$33,157.20 Task 2 - Project Permitting \$7,128.00 DU Project Biologist HR 118.80 \$ 7,128.00 \$7,128.00 1,117.60 \$1,117.60 \$1,117.60 **DU Managing Biologist** HR 139.70 \$ \$950.40 \$950.40 DU Project Engineer HR 118.80 \$ 950.40 **DU Managing Engineer** HR 139.70 \$ 1,117.60 \$1,117.60 \$1,117.60 \$396.00 \$396.00 DAY 2 198.00 \$ 396.00 DU Hotel/Meals 800 \$ 0.73 \$ 584.00 \$584.00 \$584.00 **DU Auto Expense** MI \$ 11,000.00 **\$** 11,000.00 \$11,000.00 \$11,000.00 Permitting Contract (Archaeological) LS 1 \$22,293.60 **TASK 2 TOTAL** \$ 22,293.60 \$0.00 \$22,293.60 Task 3 - Project Construction Mobilization 55,000.00 \$55,000.00 \$55,000.00 LS 1 \$ 55,000.00 **\$** 22,000.00 \$22,000.00 \$22,000.00 Site preparation LS 1 \$ 22,000.00 \$ \$22,540.00 \$22,540.00 **Embankment Construction** CY 4508 \$ 5.00 \$ 22,540.00 Pipeline Supply and Install LF 7870 \$ 88.00 \$ 692,560.00 \$692,560.00 \$75,000.00 \$130,060.00 LF 1450 101,500.00 \$101,500.00 \$101,500.00 Electricity to Pump \$ 70.00 \$ 200,000.00 \$200,000.00 \$200,000.00 Pump Supply and Install LS 1 \$ 200,000.00 \$ Flow Meter Supply and Install LS 3 \$ 21,000.00 \$ 63,000.00 \$63,000.00 \$63,000.00 LS 46,000.00 \$46,000.00 \$46,000.00 Other contractor charges 1 \$ 45,000.00 \$ **TASK 3 TOTAL** \$ 1,202,600.00 \$1,202,600.00 \$75,000.00 \$640,100.00 Task 4 - Project Oversight, Administration, & Evaluation \$950.40 DU Project Biologist HR 118.80 **\$** 950.40 \$950.40 \$7,128.00 7,128.00 \$7,128.00 DU Project Engineer 60 118.80 \$ HR \$2,235.20 \$2,235.20 **DU Managing Engineer** HR 16 \$ 139.70 \$ 2,235.20 40 5,588.00 \$5,588.00 \$5,588.00 **DU Managing Blologist** HR \$ 139.70 \$ **DU Auto Expense** MI 800 \$ 0.73 \$ 584.00 \$584.00 \$584.00 DU Hotel/Meals DAY 5 198.00 \$ 990.00 \$990.00 \$990.00 **TASK 4 TOTAL** \$ 17,475.60 \$17,475.60 \$0.00 \$17,475.60

\$1,275,526.40 \$75,000.00 \$713,026.40

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