STATE OF COLORADO

Colorado Water Conservation Board
Department of Natural Resources
1580 Logan Street, Suite 600
Denver, Colorado 80203
Phone: (303) 866-3441
Fax: (303) 894-2578
www.cwcb.state.co.us

January 9, 2014

Purgatoire River Water Conservancy District
Attn: Jeris Danielson
314 West Main Street
Trinidad CO 81081

RE: Notice to Proceed - WSRA Grant – Purgatoire River Reach 3 – Habitat Improvement Project

Dear Jeris,

This letter is to inform you that the purchase order to assist in the Purgatoire River Reach 3 – Habitat Improvement project was signed on January 8, 2014. The original P.O. will be mailed to you.

With the executed P.O., you are now able to proceed with the project and invoice the State of Colorado for costs incurred through June 30, 2014. Upon receipt of your invoice(s), the State of Colorado will provide payment no later than 45 days. I wish you much success in your project.

If you have any questions or concerns regarding the project, please contact me.

Sincerely,

//s//

Chris Sturm
Stream Restoration Coordinator
Watershed and Flood Protection Section
Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman St., Room 721
Denver, Co 80203
Phone: (303) 866-3441 ext. 3236
Fax: (303) 866-4474
chris.sturm@state.co.us
www.cwcb.state.co.us

WATER CONSERVATION BOARD
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Buyer: MAGGIE VAN CLEEF
Phone Number: 303-866-3292
Agency Contact: DORI VIGIL
Phone Number: 303 866 3441

DATE: 01-08-14

IMPORTANT
The PO# and Line # must appear on all invoices, packing slips, cartons and correspondence

ACC: 01-07-14

PURCHASE ORDER
STATE OF COLORADO

P.O. # OE PDA 14IBC000025 **Page#** 01

State Award #

BID #

FEIN 840716341 **Phone:** 719-846-7285
Vendor Contact:
Purchase Requisition #:

VENDOR
PURGATOIRE RIVER WTR CONSRVNCY DIST
314 WEST MAIN STREET
TRINIDAD CO 81082

Invoice in Triplicate
To: DIVISION OF WATER CONSERVATION
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Payment will be made by this agency

Ship To: DIVISION OF WATER CONSERVATION
1313 SHERMAN STREET, ROOM 721
DENVER, CO 80203

Delivery/Installation Date: 06-30-14
F.O.B. DESTINATION STATE PAYS NO FREIGHT

INSTRUCTIONS TO VENDOR:

1. If for any reason, delivery of this order is delayed beyond the delivery/installation date shown, please notify the agency contact named at the top left. (Right of cancellation is reserved in instances in which timely delivery is not made.)
2. All chemicals, equipment and materials must conform to the standards required by OSHA.
3. NOTE: Additional terms and conditions on reverse side.

SPECIAL INSTRUCTIONS:

LINE ITEM	COMMODITY/ITEM CODE	UNIT OF MEASUREMENT	QUANTITY	UNIT COST	TOTAL ITEM COST
001	91843000000 CMS#64465 PURGATORIE RIVER REACH 3 HABITAT IMPROVEMENT PROJECT				$25,250.00

DOCUMENT TOTAL = $25,250.00

THIS PO IS ISSUED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS
This PO is effective on the date signed by the authorized individual.
EPSPO PAA

FOR THE STATE OF COLORADO

Authorized Signature

11/8/14
Date

DP-01 (R-02/06)

Purgatoire River Reach 3 Project

City of Trinidad
&
Purgatoire River Water Conservancy District

Colorado Water Conservation Board Grant Application

Submitted to:
Chris Sturm
chris.sturm@state.co.us
Colorado Water Conservation Board
1313 Sherman Street, Suite 721
Denver, CO 80203

Scope of Work

GRANTEE and FISCAL AGENT (if different)
Purgatoire River Water Conservancy District

PRIMARY CONTACT
Jeris Danielson P.E. Ph.D. – General Manager

ADDRESS
Purgatoire River Water Conservancy District
314 West Main Street, Trinidad, CO 81082

PHONE
(719) 980-0075

PROJECT NAME
Purgatoire River Reach 3 Project

GRANT AMOUNT
$25,250.00

INTRODUCTION AND BACKGROUND
The City of Trinidad has through its history been plagued by several damaging flood events. Significant flooding occurred in 1905, and again in the 1920's and 1930's. In 1958, the US Congress authorized construction of the Trinidad Dam and Reservoir (Trinidad Project) under the Flood Control Act of 1958. The primary purpose of the project was to provide flood control, as well as storage for irrigation and recreational use. Construction of the dam began in 1971, and was completed by 1976. Filling of the reservoir began following construction, and the reservoir began operations in 1979.

The Trinidad Project dam and reservoir have altered the natural flow regime of the Purgatoire River. The pre-project river hydrology was principally snow-melt driven, with additional influence from high-intensity, short duration storm events during the summer monsoon season. The Trinidad Project has flattened out the annual hydrograph, limiting the peak run-off flows below the dam, and significantly extending the period of higher than natural flows beginning earlier in the spring through the late summer into fall. Releases from the dam correspond to a designated irrigation season, and flows during the non-irrigation season are limited to flood control, stock-watering, and municipal/industrial (M&I) uses. In a typical year, irrigation releases begin in mid-April, and extend through mid-October. Flows through the study reaches typically exceed 200 cfs, and occasionally peak at over 600 cfs during summer thunderstorm events. During the non-irrigation season from mid-October to mid-April, releases from the dam are frequently zero, with the only flows in the project reaches coming from Raton Creek and a few other intermittent tributaries.

Interviews with long-time residents and local fishermen indicate that a remnant population of trout does persist in the study reaches, and many of the river's stakeholders in the region are

convinced that the creation of an urban recreational fishery is in the best economic and social interests of the community. Although a self-sustaining population of trout might be difficult to establish, there is an opportunity to create a seasonal "put-and take" fishery within the city limits of Trinidad, which would provide recreation enhancements including easier and more controlled access to the river corridor for residents. Enhancements could provide velocity shelter and in-channel holding cover for stocked fish during the sustained higher flow period. A project could provide seasonal fishing opportunities from April through October each year, and would address many of the access, dispersed recreation, and bank stability issues.

A demonstration project was undertaken in the river within Reach 4 in February 2012. The goals and objectives of the demonstration were principally focused on providing exceptional recreation and fishing opportunity within an urban setting. To this end, the demonstration project provides for adequate suitable habitat to sustain a stocked fishery during the summer months. The reach has benefitted from improved velocity shelter, cover, and additional useable habitat through the selective placement of in-channel structure. Holding cover and velocity shelter in the low gradient riffles is substantially improved, with 78 new boulder clusters installed in the reach. In addition to the in-channel habitat features, the handicap fishing component of the project has created a unique river fishing opportunity for the community. Fisherman use in the project reach appears to be better than expected, and several "fish tales" have already begun to circulate among the locals. In terms of creating a recreational fishery, it would appear that the project stakeholders are making very good progress toward this goal, and now desire to build upon this effort. The Reach 3 project has been identified as the next priority in their long term goal of creating an urban recreational fishery in the City of Trinidad.

OBJECTIVES

Project Objectives:

- Improved habitat and holding cover for stocked rainbow trout
- Stabilization of approximately 370 feet of river bank in the project reach
- Increased angler access and recreation opportunity in an urban setting
- Improved safety

Reach 3 will benefit from improved pocket water cover and pool habitat. This will be accomplished through the strategic placement of boulder clusters and J-hook vanes throughout the 2,000 foot long reach. Boulder vanes and J-Hook vanes will provide additional pocket water holding areas, as well as reducing near bank shear stress and bank erosion. Boulder vanes or J-Hook structures will be installed along 370 feet of river bank in the reach. Multiple boulder clusters will provide necessary velocity shelter in pocket water limited riffles. The project is expected to increase available fish holding water (i.e., fishable water) within this reach, thereby providing more angling opportunity, less crowding, and greater angler satisfaction.

TASKS
Provide a detailed description of each task using the following format. Detailed descriptions are only required for CWCB funded tasks. Other tasks should be identified but do not require details beyond a brief description.

TASK 1 – Project Development / Design / Permitting / Project Management

Description of Task
Work under this task order includes project development, site surveys, Clean Water Act Section 404 permitting, sub-contracting equipment & materials, project construction management, and post project permit reporting.

Method/Procedure
Project management will be provided by Fin-Up Habitat Consultants, Inc. of Manitou Springs, CO

Deliverable
Project design documents, Section 404 Permit, Post Project "As-Built" documentation and Section 404 permit 90 day reporting document.

TASK 2 – J-Hook Vane / Boulder Vane Installation

Description of Task
Up to ten boulder vanes and J-Hook vanes installed along the south bank to provide additional pocket water holding areas, as well as reducing near bank shear stress along the outside bank of this meander bend. The failed jetty jack structures along the 370 foot segment of the river will remain and not be disturbed.

Method/Procedure
Project management will be provided by Fin-Up Habitat Consultants, Inc. of Manitou Springs, CO. Chaparral Construction of La Veta, CO will provide the heavy equipment and operators necessary to complete the work. Materials for the vanes will consist of boulders approximately 1 cubic yard in size, and will be installed utilizing a single 160 series excavator, equipped with a hydraulic thumb, and a large front loader.

Deliverable
Ten boulder vanes and/or J-Hook vanes. 370 feet of river bank stabilized. Approximately 1,500 square feet of additional holding cover and velocity shelter habitats for resident fishes.

TASK 3 – Other In-Channel Habitat Enhancements

Description of Task
Outside of the 370 foot segment of the river where the Jetty Jacks will be removed and replaced with vanes, additional habitat features and holding cover will be installed along the 2,000 ft length of Reach 3. Features will include additional J-Hook vanes, micro-vortices, and boulder clusters.

Method/Procedure

Project management will be provided by Fin-Up Habitat Consultants, Inc. of Manitou Springs, CO. Chaparral Construction of La Veta, CO will provide the heavy equipment and operators necessary to complete the work. Materials for the enhancement features will consist of boulders approximately 1 cubic yard in size and large wood available on-site (cottonwood). Habitat features will be installed utilizing a single 160 series excavator, equipped with a hydraulic thumb, and a large front loader. Short sections will be worked on and completed before moving downstream to the next segment. It is not anticipated that more than 400 feet of channel will be disturbed at any given time.

Deliverable

Two additional J-Hook Vanes. Up to 20 additional micro vortex structures / clusters. Approximately 2,500 square feet of additional useable habitat for resident fish.

TASK 4 – Project River Bank Re-Vegetation

Description of Task

All disturbed areas, including stockpiling sites, access routes, and site-specific disturbances, such as anchor points for the J-Hook and boulder vanes will be graded, seeded and re-vegetated utilizing native vegetation, including locally harvested willow and sedge.

Method/Procedure

Rough grading of stockpile sites, obliteration of access routes, and removal of spoils will be accomplished by the project contractors. Final grading and re-vegetation will be accomplished by volunteers, including the Purgatoire River Anglers Chapter of Trout Unlimited. One volunteer workday is anticipated immediately following installation of the project to accomplish this task.

Deliverable

Approximately 0.25 acres of riparian and 1 acre of upland areas reclaimed.

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion 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 Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Budget & Timeline Table

Task 1 - Project Management

Description	Target Start Date	Target Completion Date	Quantity	Unit Cost	CWCB Funds	Other Funding Cash*	Other Funding In-Kind*	Total
Project Dev. ,Design & Permitting	12/31/2012	12/31/2013	LS	$ 3,500.00	$ 1,500.00	$ 2,000.00		$ 3,500.00
Project Management	12/15/2013	12/31/2013	LS	$ 8,750.00	$ 8,750.00			$ 8,750.00
Post Project Reporting Requirements	3/31/2014	3/31/2014	LS	$ 3,000.00		$ 3,000.00		$ 3,000.00
							Total Project Management - TASK 1	$ 15,250.00

Task 2 - J-Hook Vane / Boulder Vane Installation

Description	Target Start Date	Target Completion Date	Quantity (tons or Equipment)	Unit Cost	CWCB Funds	Other Funding Cash*	Other Funding In-Kind*	Total
Equipment Mobilization	12/15/2013	2/28/2014	2	$ 800.00		$ 1,600.00		$ 1,600.00
Boulders	12/15/2013	2/28/2014	180	$ 38.00		$ 6,840.00		$ 6,840.00
Installation (Excavator & Loader)	12/15/2013	2/28/2014	LS	$ 7,500.00	$ 7,500.00			$ 7,500.00
							Total J-Hook / Boulder Vane Installation - TASK 2	$ 15,940.00

Task 3 - Other In-Channel Habitat Enhancements Installation

Description	Target Start Date	Target Completion Date	Quantity (tons)	Unit Cost	CWCB Funds	Other Funding Cash*	Other Funding In-Kind*	Total
Boulders	12/15/2013	2/28/2014	120	$ 38.00		$ 4,560.00		$ 4,560.00
Installation (Excavator & Loader)	12/15/2013	2/28/2014	LS	$ 7,500.00	$ 7,500.00			$ 7,500.00
							Total Other Channel Habitat Installation - TASK 3	$ 12,060.00

Task 4 - Project River Bank Revegetation (TU Volunteers)

Description	Target Start Date	Target Completion Date	Quantity (hrs)	Unit Cost/Hr	CWCB Funds	Other Funding Cash*	Other Funding In-Kind*	Total
Project Prep & Supervision	3/1/2014	3/31/2014	48	$ 20.00			$ 960.00	$ 960.00
Project Volunteers (10 persons @ 6 hrs)	3/1/2014	3/31/2014	1,200	$ 20.00			$ 24,000.00	$ 24,000.00
							Total Other Channel Habitat Installation - TASK 3	$ 24,960.00

Summary of Tasks & Costs

Description	Target Start Date	Target Completion Date	Total Cash Funds		CWCB Funds	Other Funding Cash*	Other Funding In-Kind*	Total
Purgatoire River Reach 3 Project	12/15/2013	3/31/2014	$ 43,250.00		$ 25,250.00	$ 18,000.00	$ 24,960.00	$ 68,210.00
							TASKS 1-4	$ 68,210.00