COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: July 2019

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	Water Horse Resources, LLC
Name of Water Project	Flaming Gorge Green River Project – Pre-Permitting Phase

CWP Grant Request Amount	$330,000
Other Funding Sources Central Colorado Water Conservancy District	$330,000
Other Funding Sources _____	$
Other Funding Sources _____	$
Applicant Funding Contribution	$1,041,824
Total Project Cost	$1,701,824

Applicant & Grantee Information

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Name of Grantee(s) Water Horse Resources, LLC
Mailing Address 1436 West Oak St. Fort Collins, CO 80521
FEIN 82-1804625
Organization Contact Aaron P. Million
Position/Title Managing Member
Email Million_1@hotmail.com
Phone 970-215-2603 (cell)
Grant Management Contact Nate Budd
Position/Title In-house Business Development
Email Nathaniel.Budd@gmail.com
Phone 719-213-1882
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).

Water Horse Resources, LLC and related companies have first in time priority filings on the Green River system to develop a new water supply, reservoir storage, and renewable energy PROJECT to benefit and enhance Colorado's water options and related system flexibility. The PROJECT, using a private/public/project (P3) business model, has been vetted by nationally recognized water, legal, engineering, and policy consultants. The water supply will originate from the Flaming Gorge/Green River system via surplus waters attributable to the Colorado River Basin and available via the Upper Colorado River Basin Compact (1948) Flaming Gorge provides approx. 3.8 million acre feet of available storage to be used for Colorado's benefit, in addition to development of new storage along Colorado's Front Range. The PROJECT will benefit the water supply/demand imbalance, provide water for environmental instream flows, assist to meet the Colorado Water Plan storage goals, and provide re-use opportunities to agricultural users to alleviate the dry-up of agricultural lands.

Previous Consultants:

- **William Hillhouse II** - Chief Legal Counsel; White and Jankowski, LLP,
- **Dr. Jeris Danielson** - Engineering and Colorado Political Consulting; Former Colorado State Water Engineer; Danielson and Associates; Hydrology ,
- **Gordon W. (Jeff) Fassett** - Engineering and Wyoming Political Consulting; Former Wyoming State Water Engineer, National Head of Water Resources, HDR Engineering; Director of Natural Resources – State of Nebraska,
- **Steve Freudenthal** - Lead Counsel relating to Wyoming State Issues; Freudenthal and Bonds; Former Wyoming Attorney General,
- **James Spensley** - EIS/NEPA permitting specialist; Spensley & Associates, Partner,
- **James Lochhead** –Consulted on Water Rights Issues; Brownstein, Hyatt, Farber, Schreck, LLP Current CEO Denver Water, Former Director Natural Resource Department – State of Colorado,
- **Larry Anderson** - Developed interstate water concept and assisted in Colorado River Compact Issues; Former head of the State of Utah's Water Resources,
- **Boyle Engineering** - Conducted original modeling of the water supply system and provided environmental sensitivity analysis,
- **Jody Williams** – Consulted on Legal and Utah Political Issues; Holme, Roberts and Owen L.L.P,
- **Joe Hall** – Consulted Federal Planning/Contracts, Former Executive Director, Bureau of Reclamation

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Current Project Team:

Pipeline Construction-
- GARNEY CONSTRUCTION – Kansas City, MO. National recognized pipeline construction firm
- MICHELS CORPORATION – Brownsville, Wis. Diversified pipeline, hydropower, transmission
- SOUTHLAND HOLDINGS, LLC – Roanoke, TX Water conveyance, transmission, delivery, tunneling

Engineering –
- SNC LAVALIN – Montreal, Canada. Internationally ranked infrastructure/hydro power firm
- BRIERLEY ASSOCIATES – Denver, CO Tunneling and engineering/consulting
- JR ENGINEERING – Denver, CO. Water resources, civil, survey, municipal/private
- TST ENGINEERING – Fort Collins, CO Public-private, civil engineering, construction services
- WENCK – Minneapolis, MN Environ. permitting, water/air resources, mining, civil/agricultural engineering

Heavy Civil/Reservoir Construction –
- PHILLIPS & JORDAN – Knoxville, TN Heavy civil, reservoir construction, storage, infrastructure

Pipeline services/Reclamation –
- ENSITE USA – Houston, TX. Pipeline engineering, routing, project management
- HANGING H/HUWA – Keenesburg, CO Environmental services, pipeline development, reclamation

Professional Pipeline Labor/Public Outreach –
- PIPELINERS LOCAL UNION 798 – Tulsa, Ok. National labor, public relations, and industry relations

Pipeline Supply/Manufacturing/Delivery –
- THOMPSON PIPEGROUP – Rialto, CA Pipe manufacturing, rail services, engineering

Family Office/Colorado and Wyoming Community Relations –
- MINERAL RESOURCES – Greeley, CO. Family office, management, public/private structure
- WOLD OIL AND GAS – Casper, Wyo. Family investment, public relations, oil and gas, alt. energy

Water Users -
- CENTRAL COLORADO WATER CONSERVANCY DISTRICT- Greeley, CO Colorado Front Range
- agricultural irrigation and municipal water district, CCWCB is the largest conservancy district on the South Platte

Legal -
- ANDY SPIELMAN, Special Counsel
- STOELRIVES – Utah/Wyoming Legal Counsel (Richard Hall)

Advisors to the Board (pending authorization*)
- ADAM SMITH – Vice President, SunTrust Bank

Hydro Power Infrastructure Supplier –
- GE RENEWABLE ENERGY – Global leader in wind, hydro, and solar

Construction Financing and Operations –
- SOCIETE GENERAL- Globally respected investment bank
- EPCOR – A Canadian based utility with over $7billion in North American water and transmission assets

Management Team -
- BUSTER GRAY – Project Management
- TOM WOOD – Project Management
- NATHANIEL BUDD – Business Development
- AARON P. MILLION – Principal

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.
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
X	**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.

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Type of Water Project (check all that apply)	
X	Study
	Construction
X	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):*	
	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):*	
	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. *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	Larimer County, Weld County, Morgan County, Logan County
Latitude	40.471110
Longitude	-104.727316

Water Project Overview

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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.
The pre-permitting/permitting phase of the Water Horse Resources, LLC PROJECT will build upon other previous, very successful, collaboration and community engagement and outreach efforts to develop vital new water supplies and storage in the Northern Colorado/South Platte River drainage in northeastern Colorado. The objective of the pre-permitting phase is to finalize the preferred reservoir size and appurtenant facilities and firm-up financial commitments of key Project partners so that applications for federal permits can be filed by the end of 2019. The Project sponsor has analyzed and anticipates the Fast 41 permitting process that has the potential to save many years and millions of dollars in the permitting phase of the project. (See attached regulatory analysis Wilmer Hale, and environmental permitting cost estimates ERO and ICF) Previous studies have documented that this very sustainable, regional, multi-purpose, water supply and storage project can provide very cost-effective storage that will maximize the use of nearly 4.2 million-acre feet of flows from the Green River system. The Project can provide drought mitigation; enhance environmental in-stream flows in the Poudre River and South Platte drainages, assist fish, wildlife, and waterfowl habitat with non-consumptive reservoir releases; preserve municipal, industrial, and agricultural water supplies; mitigate the impacts of climate change; and provide much needed recreational opportunities. The Project is expected to enhance tax revenues to the State of Colorado and local governments and will provide a minimum of 55,000 acre feet of new water supplies, tie into 3.8 million acre feet of existing storage or more, and assist in developing 40,000-400,000 acre-feet of new water storage. If the higher end of the storage is implemented, the Project has tremendous potential to help the State of Colorado address Colorado River Compact Administration issues. The Flaming Gorge/Green River Project is well aligned with the Colorado Water Plan, and has been formally identified in the South Platte BIP and by the State of Colorado as one of four new water supply Projects to benefit Colorado's water supply and storage interests (See SWSI docs)

Measurable Results	
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:	
40,000-400,000 acre-feet (further refinement of storage included in this work)	New Storage Created (acre-feet)
55,000 acre-feet (plus reuse potential)	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Non-consumptive
3.8 million acre-feet	Existing Storage Preserved or Enhanced (acre-feet)

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Further refinement of storage included in this work	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
Further refinement of storage included in this work	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	
Further refinement of storage included in this work	Number of Coloradans Impacted by Engagement Activity	
	Other	Explain:

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 Colorado Water Plan has a measurable objective of attaining an additional 400,000 acre-feet of water storage by 2050 (CWP, page 32). The purpose of the Flaming Gorge Green River Project is to conserve and put to beneficial use some of the approximately 4.2 million acre feet of water that flows in the Green River System, over half of which is generated from flows originating in Colorado. This Project would provide additional water supplies and storage that would benefit numerous private, local, state and federal stakeholders, including substantial annual tax revenues to the local economy and the State of Colorado. The new reservoirs would provide additional recreational resources for northeast Colorado, as well as possible pumped storage hydro power. The project also has the potential to be used by the State of Colorado for Colorado River Compact Administration. The project has been reviewed by State of Colorado interests via the Flaming Gorge Task Force, has accomplished extensive due diligence on available surplus water flows, projects costs, feasibility studies, renewable energy and hydro power analysis, and has the has the ability to provide additional water supplies to meet part of the projected long-term future demands for the State of Colorado users, including environmental, agricultural, and municipal.

The project addresses multiple types of needs, involves multiple participants and through this grant will consult and engage a broader set of stakeholders. The project: is included in the South Platte BIP, meets the defined water supply and storage need in the South Platte Basin in the SWSI with the goal of supporting environmental, and watershed health through in stream flows and maximizing the use of water resources (through reuse, firming the yield of existing supplies.

The project has brought together the necessary Industrial, Legal, Environmental and Financial team members to maximize overall cost-effectiveness, ensure adequate water supply and proceed with work upon receipt of necessary funding and permits.

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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.

Agency/Basin Developed:

- Feb. 2006 – Record of Decision – Operation of Flaming Gorge Dam
- May 2011 – Flaming Gorge Task Force Situation Assessment Report
- April 2015 – South Platte Basin Implementation Plan

Water Horse Resource Developed:

- Hydropower Analysis
- Overall Hydraulic Gradeline
- Overall Pipeline Route
- Detailed Quadrant Map
- Federal Lands Map
- Wildlife Mapping and Route
- Hydropower Design-Hydraulic Solutions
- Pipeline Routing Design Report-Bighorn Pipeline Design
- Reservoir Site Selection and Wyco Reservoir Services
- Central Water and Power Supply Final Report
- Construction ROW
- Delivery System Pump Station Layout
- General Delivery System Pump Station
- Intake Pump Station
- Intake Pump Design Criteria
- Low Head Pump Station
- Points of Diversion - Wyoming
- Pressure Reducing Station
- Pump Station Site Layout
- Reservoir Intake Pump Station Site
- Storage Reservoir Outlet Structure
- Water Body Crossings
- Water Quality Report
- Water Treatment Facilities Functional Diagram
- Water Treatment Facilities
- Boyle Summary of Preliminary Findings
- Flow Availability Analysis for the Green River
- Proposed Green River Diversion Modeling Report
- Bureau of Reclamation Letter to Upper Colorado River Commission
- USBR Modeling Green River Pipeline PowerPoint
- Williams & Weiss Water Availability Analysis

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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N/a

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.
N/a

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)
	Photos/Drawings/Reports
x	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)
x	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)

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(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)?
The overall PROJECT goal is to develop a new water supply for Colorado from the Green River basin. The project will support an enhance additional and existing storage options for Colorado, provide water management flexibility by diversifying supply options, promote conservation thru water re-use benefits, and expand renewable energy availability. Creating a new water supply has major positive public outreach and education opportunities, allows public participation in current environmental science including global warming, scarcity, and socio-economic issues, and will support innovation by developing a new large water supply with conservation goals in the forefront, benefitting current public wants and needs including environmental in-stream flows, recreation, fishery restoration, demand/supply imbalances, and assist in preventing agricultural dry-up.
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
The federal process requires and demands public engagement throughout the permitting process. Additionally, the project proponents have worked extensively with university interests and will continue to engage and collaborate with parties, both pubic, private, and NGO based, for input and incorporation of collaborative issues into project development.
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)
The project initiated the process with a respected and nationally recognized consulting team. The team spent several years on collaborative efforts and informational meetings with public and NGO based organizations. The current project team is a North American based engineering, construction, environmental services, and project management group with project ownership based in Colorado. Several million dollars of private funding has been spent to date developing the project
Describe how you plan to measure and evaluate the success and impact of the project?
Measurable results will be tailored to environmental, policy, and economic benefits generated from the project. Independent economic firms and university support will be utilized where available to determine, estimate, and quantify measurable results.
What research, evidence, and data support your project?
Numerous and extensive studies have been accomplished including legal, engineering, cost estimates, etc. with well over 200 plus due diligence documents.
Describe potential short- and long-term challenges with this project.
Short term challenges include funding and the federal permitting process, long term challenges include incorporating a new water supply into the system and Sate of Colorado engagement

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.

Develops a new 55,000 acre foot water project with significant re-use and aquifer recharge opportunities. Re-use enhances conservation and land use benefits. New water supplies and storage should help alleviate agricultural dry-up. New reservoirs will assist goals for storage. Diversifying basins will alleviate stress on the existing mainstem Colorado River watershed. New water allocated for in-stream flows will enhance river flows and benefit recreation. Assistance from CWCB for funding will help meet the goals previously identified with substantial private funds spent to date.
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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Innovation Track

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**July 31, 2019**
Name of Grantee:	**Water Horse Resources, LLC**
Name of Water Project:	**Flaming Gorge/Green River Project**
Funding Source:	**Colorado's Water Plan Grant Fund**
Water Project Overview:	
The pre-permitting/permitting phase of the Flaming Gorge/Green River Project PROJECT will build upon other previous, very successful, collaboration and community engagement and outreach efforts to develop vital new water supplies and storage in the Northern Colorado/South Platte River drainage in northeastern Colorado. The objective of the pre-permitting/permitting phase is to finalize the preferred reservoir size and appurtenant facilities and firm-up financial commitments of key Project partners so that applications for federal permits can be filed by the end of 2019. The Project sponsor is utilizing the Fast 41 permitting process that has the potential to save many years and millions of dollars in the permitting phase of the project. (See attached regulatory analysis Wilmer Hale, and environmental permitting cost estimate ICF) Previous studies have documented that this very sustainable, regional, multi-purpose, water supply and storage project can provide very cost-effective storage that will maximize the use of nearly 4.2 million-acre feet of flows from the Green River system. The Project can provide drought mitigation; enhance environmental in-stream flows in the Poudre River and South Platte drainages, assist fish, wildlife, and waterfowl habitat with non-consumptive reservoir releases; preserve municipal, industrial, and agricultural water supplies; mitigate the impacts of climate change; and provide much needed recreational opportunities. The Project is expected to enhance tax revenues to the State of Colorado and local governments and will provide a minimum of 55,000 acre feet of new water supplies, tie into 3.8 million acre feet of existing storage or more, and assist in developing 40,000-400,000 acre-feet of new water storage. If the higher end of the storage is implemented, the Project has tremendous potential to help the State of Colorado address Colorado River Compact Administration issues. The Flaming Gorge/Green River Project is well aligned with the Colorado Water Plan, and has been formally identified in the South Platte BIP and by the State of Colorado as one of four new water supply Projects to benefit Colorado's water supply and storage interests (See SWSI docs)	
Project Objectives:	

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New water supply, expansion of new and existing storage, assist environmental in-stream flows, develop renewable energy, minimize dry-up of agricultural lands, maximize re-use and direct flow opportunities of water supplies for agriculture

Tasks

Task 1 – Evaluation of new and existing storage

Description of Task:

Asses the availability of existing water storage capacity and the potential for new water storage capacity within the study area, which is defined within the State of Colorado from east of the Laramie River basin to the South Platte River Basin east of Sterling Colorado. An alternatives analysis will be conducted to identify potential reservoir locations for the Flaming Gorge/Green River Project.

Method/Procedure:

See attached Wenck, environmental consulting and engineering company PROPOSAL

- **Literature Review**
- **Legal and Regulatory**
- **Historical Flows**
- **Water Availability**
- **Demand Water Quality**
- **Storage Alternatives**
- **Cost Estimates and Assessments**

Tasks

Deliverable:

Deliverables

Each of the above components will be presented in a document which discusses the information that has been gathered, compiled, and generated, presenting it through text, tables, figures, and supplemented through applicable appendices. The document will contain the following components:

- Executive Summary
- Introduction
- Previous Studies
- Legal and Regulatory
- Historical Flow Analysis
- Available Water Storage
- Demand
- Storage Alternatives
- Cost Evaluation
- Conclusions and Recommendations
- References
- Additional information – Tables, Figures, Appendices

Schedule

Upon notice of award we anticipate the evaluation will take approximately 6 months. The following schedule is presented, but it is understood that if items related to this evaluation change that the schedule could be adjusted as needed. While individual task durations are presented below in a sequential presentation it is understood that most items can run parallel to each other and finished within the 6-month projected timeframe.

Task	**Duration**	**Sequential Time Frame**
Notice of Award	Day 1	
Data Gathering and Review		Day 2 through Week 8
Gathering and Review of Existing Information	3 Weeks	
Legal and Regulatory	2 Weeks	
Historical Flow Analysis	3 Weeks	
Available Water Storage	3 Weeks	
Evaluation and Analysis		Week 8 through 16
Demand	3 Weeks	
Storage Alternatives	3 Weeks	
Cost Evaluation	2 Weeks	
Presentation of Information		Week 16 through 24
Document Preparation	6 Weeks	
Presentation of Results	2 Weeks	

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Tasks
Task 2 – Agency and Environmental Services
Description of Task:
Initiate and implement coordination with lead and cooperating agencies including Federal, State and local interests. Develop stakeholder meetings and related public outreach, Support Plan of Development documentation with focus on storage components and environmental opportunities. Assist siting and routing. See attached Exhibit ERO Resources, Scope of Work for Environmental Services
Method/Procedure:
Agency and Project Coordination; Plan of Development; Plan of Study; Routing and Siting See attached Exhibit ERO Resources, Scope of Work for Environmental Services See attached Exhibit McDonough Law, LLC Proposal
Deliverable:
As per proposal Exhibit ERO Resources

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Tasks
Task 3 – Economic Impact Analysis
Description of Task:
Economic Impact Analysis; Additional Water Supply, Destination Area Socio-Economic, Economic analysis Construction and Operations. See attached Exhibit Summit Economics, Scope of Work for Environmental Services
Method/Procedure:
Analysis 1 – Economic Impact of Having Additional Water Supply Analysis 2 – Socio-Economic Impact of Having Additional Water Supply in Destination Analysis 3 – Economic Impact of Construction and Annual Operations of Pipeline See attached Exhibit Summit Economics Conceptual Proposal for Economic Impact
Deliverable:
As per proposal Exhibit Summit Economics

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Tasks
Task 4 – Watershed and Hydrological Analysis
Description of Task:
Initiate hydrological impacts analysis on the Colorado Front Range. Provide detailed description of end users and operations, develop GIS coverages and mapping, track water flows to demand centers and return flows to river systems, assist in water user meetings, public outreach, tech memos, and project communications. See attached Exhibit (pending) Williams and Weiss Hydrological Consultants.
Method/Procedure:
Water supply, storage, Federal, State, and end user coordination and development using the following methods/procedures: • Riparian impacts • Aquatics • Water quality • Water temperature • Steam Morphology
Deliverable:
As per proposal (pending) Williams and Weiss Hydrological Consultants Exhibit ERO Resources

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Tasks

Task 5 – [Name] Third – Party NEPA Contractor Services

Description of Task:

Initiate and implement coordination with lead Federal agency and all cooperating Federal State, and local entities. Develop and manage public scoping meetings, draft environmental impacts statement, coordinate EIS public meeting and comments, prepare final EIS, support Record of Decision, and Administrative record.

See attached Exabit ICF Third-Party NEPA Contractor Services

Method/Procedure:

See attached Exabit ICF Third-Party NEPA Contractor Services

Deliverable:

As per proposal Exhibit ICF

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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 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 Updated: July 2019

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit B
Budget and Schedule

Prepared Date: August 1, 2019

Name of Applicant: Water Horse Resources LLC

Name of Water Project: Flaming Gorge Green River Project

Project Start Date: November 1, 2019 (pending CWCB Board Approval)

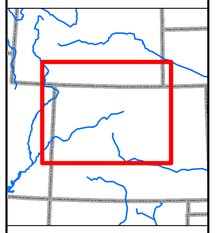
Project End Date: December 31, 2020

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	**Evaluation of New and Existing Storage**	**11/1/2019**	**12/31/2020**	**$ 101,200**		**$101,200**
1a	Literature Review	11/1/2019	12/31/2020			
1b	Legal & Regulatory	11/1/2019	12/31/2020			
1c	Historic Flows	11/1/2019	12/31/2020			
1d	Water Availability	11/1/2019	12/31/2020			
1e	Demand	11/1/2019	12/31/2020			
1f	Water Quality	11/1/2019	12/31/2020			
1g	Storage Alternatives	11/1/2019	12/31/2020			
1h	Cost Evaluation	11/1/2019	12/31/2020			
2	**Agency Environmental Services**	**11/1/2019**	**12/31/2020**			**$162,190**
2a	Agency & Stakeholder Coordination	11/1/2019	12/31/2020	$ 21,000	$ 21,000	
2b	Standard Form 299	11/1/2019	12/31/2020		$ 3,000	
2c	Plan of Development	11/1/2019	12/31/2020	$ 4,000	$ 4,000	
2d	Plan of Study	11/1/2019	12/31/2020	$ 14,000	$ 14,000	
2e	ROW Application	11/1/2019	12/31/2020		$ 23,460	
2f	Routing and Siting	11/1/2019	12/31/2020	$ 8,900	$ 8,900	
2g	DDCT Analysis	11/1/2019	12/31/2020		$ 39,930	

3	**Economic Impact Analysis**	**11/1/2019**	**12/31/2020**			**$61,000**
3a	Additional Water Supply	11/1/2019	12/31/2020	$ 14,000	$ 14,000	
3b	Destination Area Socio-Economic	11/1/2019	12/31/2020	$ 7,500	$ 7,500	
3c	Construction & Operations	11/1/2019	12/31/2020	$ 9,000	$ 9,000	
4	**Watershed and Hydrological Analysis**	**11/1/2019**	**12/31/2020**			**$375,000**
4a	End User and Operations	11/1/2019	12/31/2020		$ 25,000	
4b	GIS Coverages and Mapping	11/1/2019	12/31/2020		$ 25,000	
4c	Tracking of Flows	11/1/2019	12/31/2020		$ 50,000	
4d	Riparian Impacts	11/1/2019	12/31/2020	$ 12,500	$ 12,500	
4e	Aquatics	11/1/2019	12/31/2020	$ 12,500	$ 12,500	
4f	Water Quality	11/1/2019	12/31/2020	$ 12,500	$ 12,500	
4g	Water Temperature	11/1/2019	12/31/2020		$ 25,000	
4h	Stream Morphology	11/1/2019	12/31/2020	$ 12,500	$ 12,500	
4i	Tech Memo	11/1/2019	12/31/2020		$ 100,000	
4j	Project Communications	11/1/2019	12/31/2020	$ 18,490	$ 31,510	
5	**NEPA Services**	**11/1/2019**	**12/31/2020**			**$752,434**
5a	Data Review	11/1/2019	12/31/2020		$ 33,600	
5b	Project Kickoff	11/1/2019	12/31/2020		$ 15,902	
5c	Scoping Meetings and Report	11/1/2019	12/31/2020	$ 30,500	$ 35,012	
5d	Draft EIS Preparation	11/1/2019	12/31/2020		$ 368,040	
5e	Draft EIS Public Meetings and Comments	11/1/2019	12/31/2020	$ 51,410	$ 51,410	
5f	Final EIS Preparation	11/1/2019	12/31/2020		$ 131,327	
5g	Support ROD Preparation	11/1/2019	12/31/2020		$ 12,436	
5h	Administrative Record Support	11/1/2019	12/31/2020		$ 22,797	
6	**Management**	**11/1/2019**	**12/31/2020**		**$ 250,000**	**$250,000**
			Total	$330,000	$ 1,371,824	$1,701,824

Green Sun Storage Hydro Power Project (GRSSHPR) Grasshopper

Proposed Diversions and Water Infrastructure



Proprietary Information Water Horse Resources LLC

N Pumped Storage

Potential Pipeline Facilities

- Pump Station
- Regulating Tank
- Hydropower Stations

USA Federal Lands

- BLM
- Existing Pipelines & Collection Systems
- 6666 Continental Divide

Potential Participants

Range of Involvement (ac-ft)

- 0 - 5000
- 5001 - 10000
- 10001 - 20000
- 20001 - 30000
- 30001 - 40000
- 40001 - 50000

PipelineRoute

Route_Name

- FG POD 2 - Term
- River POD
- WIC POD
- WamsutterNE
- Lakes
- State Boundaries
- Rivers
- CO Counties

Elevation in Feet

High : 14800

Low : 3500

- WY Core sage-grouse breeding and nesting habitat
- WY Big Game Crucial Habitat. Big Game Includes: Antelope, Big Horn Sheep, Elk, Mule Deer, Moose Rocky Mountain Goat, & White Tail Deer.

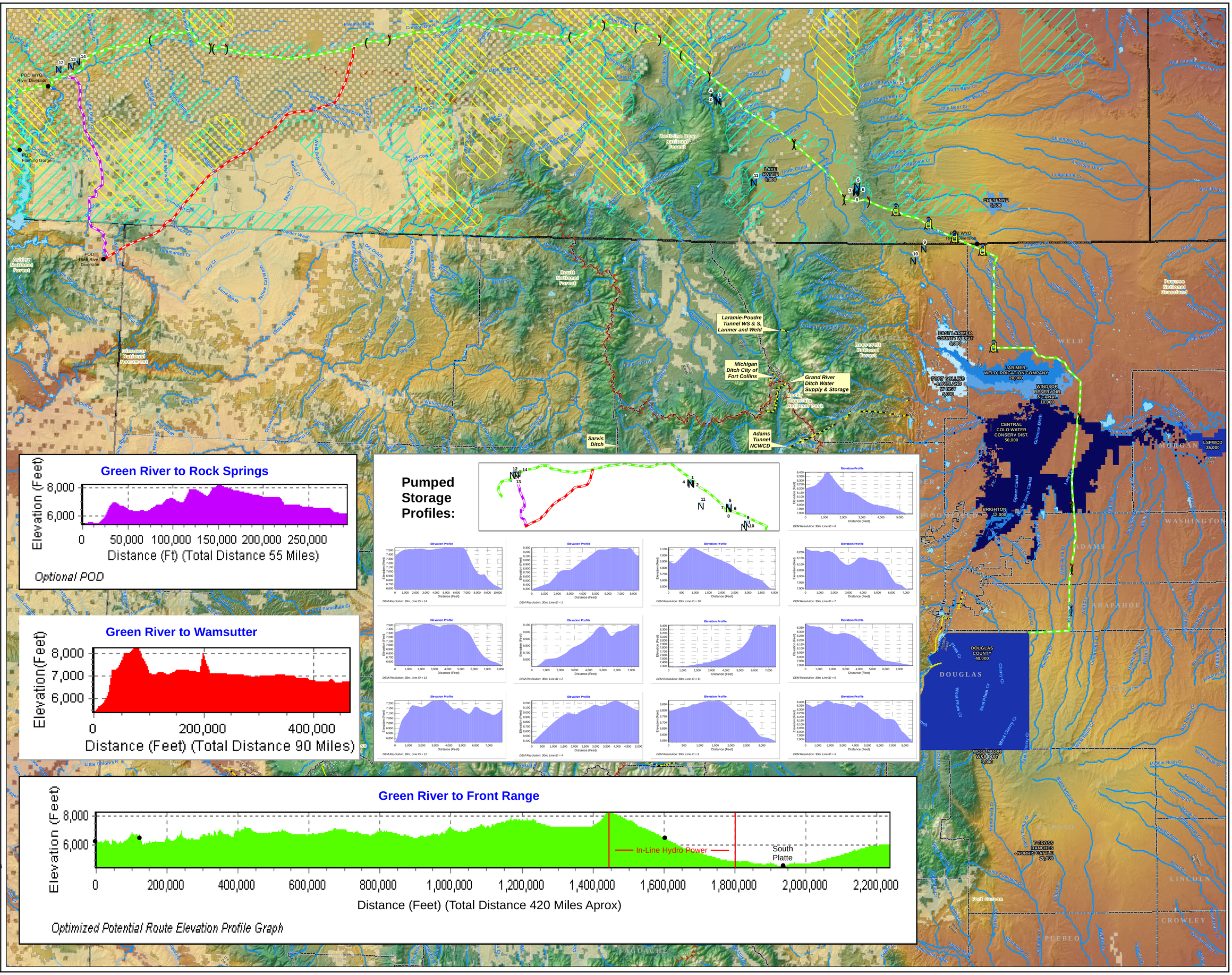
Infrastructure Data obtained from CWCB Basin fact sheets and USGS National Hydrograpny Dataset

1 in = 10 miles

0 2.75 5.5 11 16.5 22 Miles

Printed On: 1/24/2018

Coordinate System: UTM
Zone: 13
Datum: NAD 27
False Easting: 500000.0
False Northing: 0.0
Central Meridian: -105.0



To: CWCB July 31, 2019

Attn: Anna Maus

Re: Water Horse Resources, LLC Flaming Gorge/Green River Project

Dear Ms. Maus,

Central Colorado Water Conservancy District (Central) has provided both a Letter of Demand for water supply and authorized preliminary funding to support development of the Water Horse Resources, LLC Flaming Gorge/Green River water project (PROJECT). The PROJECT is seeking grant funding for storage analysis, benefitting Colorado's water storage alternatives and capacity, with ancillary benefits related to environmental in-stream flows, re-use of water supplies, agricultural production, and renewable energy/hydro power.

Central strongly supports this grant application to further evaluate storage opportunities. The primary focus will be both existing and new build reservoir storage in the Poudre River basin and the South Platte River basin, with a broader regional focus related to same. Central has developed 30,000 acre-feet of storage over the past 30 years and continues to develop additional storage projects in the South Platte for the benefit of constituents in our district boundaries. A new water supply has the benefit of complimenting current supplies and future opportunities for district uses. New storage capacity combined with a new firm water supply will have major positive benefits for water management flexibility, protect the irrigated agricultural base, and offer opportunities for environmental in-stream flows in the Poudre River and South Platte River.

Central recognizes that the Water Horse Resources, LLC Flaming Gorge Project has invested private funding to develop this project for Colorado's benefit. Central has approved funding for Project development which may possibly be used for additional matched funding (subject to completing the contingencies of the agreement between CCWCD and Water Horse Resources, LLC).

Central respectfully requests that the Colorado Water Conservation Board review and approve grant funding for this Project.

Sincerely,

Randy W. Ray

CCWCD Executive Director

July 29, 2019

Colorado Water Conservation Board
Attn: Anna Mauss
1313 Sherman St., Room 718
Denver, CO 80203

RE: Water Horse Resources, LLC Flaming Gorge/Green River Project

Dear Ms. Mauss,

The East Larimer County (ELCO) Water District previously provided a Letter of Demand for water supply regarding development of the Water Horse Resources, LLC Flaming Gorge/Green River water project. The project, now part of the State of Colorado Water Plan via the SWSI new supply alternative analysis, is seeking grant funding for storage analysis, benefitting Colorado's water storage alternatives and capacity, with ancillary benefits related to environmental in-stream flows, re-use of water supplies related to agricultural production, and renewable energy/hydro power.

ELCO supports this grant application to further evaluate storage opportunities. The primary focus will be both existing and new reservoir storage in the Poudre River and South Platte River basins, with a broader regional focus related to same.

ELCO strongly supports storage solutions in the Poudre and South Platte River basins that may provide a benefit to water providers in the region. A new water supply would have the benefit of helping to meet growing water supply needs both inside our service area and regionally. Additional storage capacity (existing and new construction) combined with a new firm water supply will provide significant benefits for water resource management flexibility, as well as helping to protect irrigated agriculture, and will offer opportunities for environmental in-stream flows in the Poudre and South Platte River basins.

ELCO recognizes that the Water Horse Resources, LLC Flaming Gorge Project has spent several million dollars in private funding to develop this project for Colorado's benefit and respectfully requests that the Colorado Water Conservation Board review and approve grant funding for this project.

Sincerely,

Loren R. Maxey

Loren Maxey
East Larimer County Water District
Board of Directors

232 South Link Lane, P.O. Box 2044 • Fort Collins, Colorado 80522 • Phone (970) 493-2044 • Fax (970) 493-1801

Due Diligence Index

1. Financial

1.1. Financial Modeling

1.1.1. Financial Model

- *Modeled revenues and construction costs for pipeline and associated hydro and transmission for 55,000-acre foot project at market rates.*

1.1.2. Financial Model Write Up Financial Model Write Up

- *Summary of process and assumptions for Financial Model outlined*

1.1.3. Seed, A, B, Sale

- *Modeled financing rounds, dilution, and investment returns*

1.2. Interest & Demand – Users

1.2.1. Interest and Demand for Water from Project

- *Summary of letters of interest submitted to Corps of Engineers 1-20-2010*

1.2.2. User Submittal

- *Compiled letters of interest totaling 358,000 acre-feet*

1.2.3. CCWCD Renewed Interest (2018)

- *Central Colorado Water Conservancy District expression of continued interest in project waters*

1.2.4. 1.2.4 T Cross LOI (2018)

- *T-Cross Ranches renewed letter of Interest in project waters*

1.3. Project Costs

1.3.1. Cost Estimate FERC vs. Corps

- *An EIS process estimated cost comparison between FERC and the Army Corps of Engineers*

1.3.2. Olsson Natural & Cultural Resource Study Cost Estimate

- *Rough order of magnitude cost estimate Natural and Cultural Resources Baseline Studies for the GRSSHPPR*

1.3.3. Estimated Project Construction Costs

- *Project and Unit cost graphical analysis vs System Yield*

1.3.4. Project Cost Variance Summary

- *Table summarizing segment and acre-foot delivery total cost and $/ac ft*

1.3.5. Reconnaissance Level Cost Estimates for Agricultural and New Supply Strategy Concepts Technical Memorandum

- *CWCB & IBCC update of the descriptions and reconnaissance level cost estimates including the Green Mountain Reservoir and Blue Mesa concepts. This analysis does not include the Colorado River Reconnaissance concept.*

1.3.6. ERO Resource Corp EIS SOW Estimate.pdf

- *ERO cost estimate for scope of work to Record of Decision*

1.3.7. SWCA EIS SOW Estimate

- *SWCA cost estimate for scope of work to Record of Decision*

1.3.8. Olsson Associates EIS SOW Estimate

- *Olsson cost estimate for scope of work to Record of Decision*

1.3.9. Kleinfelder EIS SOW Estimate.docx

- *Kleinfelder cost estimate for scope of work to Record of Decision*

1.3.10. ICF EIS Estimates

- *Conceptual Proposal for Economic Impact*
- *Third-Party NEPA Contractor Services (Technical)*
- *Third-Party NEPA Contractor Services (Price)*
- *Pre-Application Scope of Work & Cost*

1.4. Water Market Analysis

1.4.1. WestWater Research - Water Market - South Platte Q1 2016

- *Summary of South Platte Basin Market Participants, Trading Volumes and Average Price of water between 2005-2015 reflecting $30,000/acre-foot water valuation*

1.4.2. WestWater Research - Water Market Outlook 2017

- *Western US water market overview looking at areas of demand, asset classes, market drivers, values and volumes and alternative market performance comparison*

1.4.3. Alternative Water Costs

- *Overview of recently completed and proposed regional alternatives and associated costs*

1.4.4. FRWC Water and the Colorado Economy PPT

- *A PowerPoint developed by the Front Range Water Council to illustrate the economic value of water, examine economic interdependence of Colorado regions, and determine economic contribution of Colorado's regions to the state economy.*

2. Legal

2.1. Opinions

2.1.1. Lochhead letter to Secretary of the Interior

- *Written by Jim Lochhead to provide background on project need, issues related to a "private project," environmental impacts, and compact issues for Secretary of the Interior Ken Salazar*

2.1.2. Richardson Attorney Analysis

- *Memorandum from UT Attorney Chris Bramhall to Arlo Richardson regarding GRSSHPPR Project.*

2.1.3. Colorado DNR Opinion

- *The Department of Natural Resources letter to the Bureau of Reclamation and Army Corps of Engineers regarding a potential water supply coalition*

2.1.4. WY Attorney General Opinion

- *The Wyoming State Engineers June 4, 2010 opinion regarding the "export" of water outside Wyoming state lines without violating the terms of the Upper Colorado River Basin Compact*

2.1.5. WilmerHale Memorandum on Federal Permitting Reforms

- *Summary of reforms and associated timelines associated with expeditious permitting process*

2.1.6. WilmerHale Memorandum on FAST-41

- *Summary of criteria and likely qualification of project for FAST-41 acceptance in current favorable political environment*

2.1.7. Potential FERC Jurisdiction

- *Analysis of the circumstances that could trigger need for FERC license, exempt the project from FERC licensing, and FERC's environmental review and consultation requirements.*

2.1.8. Public Utilities Commission Memo

- *Addresses the definition of a "public utility" under Colorado law and describes the entities that are regulated or exempt from regulation by the PUC within the context of water providers.*

2.2. Colorado River Policy

2.2.1. 1922 Colorado River Compact

- *The senior doctrine regarding division and apportionment of the use of the waters of the Colorado River System.*

2.2.2. 1939 Reclamation Project Act

- *An act to provide a feasible and comprehensive plan to protect the investment of the United States in such projects as Flaming Gorge Dam.*

2.2.3. 1948 Upper Colorado River Basin Compact

- *The State of Arizona, the State of Colorado, the State of New Mexico, the State of Utah and the State of Wyoming, subject to the provisions of the Colorado River Compact, determine the rights and obligations of each State respecting the uses and deliveries of the water of the Upper Basin of the Colorado River*

2.2.4. 1968 Colorado River Basin Project Act

- *Provides a program for the further comprehensive development of the water resources of the Colorado River Basin and for the provision of additional and adequate water supplies for use in the upper as well as in the lower Colorado River Basin.*

2.2.5. 2005 Resolution of the Upper Colorado River Commission

- *Identifies at least 5.76 million acre-feet available annually for use by the Upper Basin*

2.2.6. Colorado River Compact Entitlements

- *Identifies Colorado's 51.75% and Wyoming's 14% allocation of the Upper Basin's apportionment of the Colorado River*

2.2.7. Colorado River Storage Project-Authority to Construct, Operate and Maintain

- *Outlines the purpose of Flaming Gorge Reservoir for regulating flow, storing water and beneficial consumptive use.*

2.3. Agreements

2.3.1. Lake Hattie Executed Option Agreement

- *The executed option agreement for between Pioneer Canal-Lake Hattie Irrigation District and Project.*

2.3.2. EPCOR EOI

- *Letter outlining EPCOR's interest in the project's success and the ultimate intention to consider a teaming arrangement for project implementation.*

2.3.3. American Water LOI

- *Letter outlining American Water's interest in attracting financing and technical partners interested in completing the development.*

2.3.4. Bartow Street Capital Engagement Agreement

- *Agreement for Financial Services*

2.3.5. CCWCD Water Purchase EOI

- *Central Colorado Water Conservancy District letter outlining board vote to pursue $330,000 water purchase option*

2.4. Water Supply Applications and Ownership

2.4.1. Application for Permit WY

- *Application with WY the SEO for 400 cubic feet per second*

2.4.2. Revised and Final Water Right Permit Application for Permit WY

- *A revised compilation of maps and figure that accompanied the Wyoming SEO application for permit on the Green River.*

2.4.3. Application for Permit UT

- *Application with WY the SEO for 55,000 acre-feet*

2.4.4. Notice in Federal Register

- *Official notice of the request for a Standby Contract to secure the first right to contract up to 165000 acre-feet annually of water from Flaming Gorge Reservoir dated 8-22-07*

2.4.5. Stamped Received Utah Foreign LLC Registration WHR.pdf

- *UT Registration to do business*

2.4.6. UT Appropriation Response

- *WilmerHale (Mike Connor) Response to UT State Engineer Request for additional Information on Application to Appropriate (Water # 41-3747 (A81080))*

2.4.6.1. Exhibits to UT Application A81080

- *Exhibits accompanying WilmerHale response to UT State Engineer*

3. Info & Analyses

3.1. Agency Responses & Project Facts

3.1.1. Project Fact Sheet

- *A summary of the status, dangers of delay, authorizations, water availability, administration, compact call, protections of Colorado water resources, endangered species protections, advantages of a public – private model, and requests for support for this project as of 9-14-07*

3.1.2. Response to Supplemental Info Request

- *Responses to Army Corps of Engineers request for additional information regarding river/reservoir withdrawals, PODs and Colorado River Compact*

3.1.3. Response to Colorado DNR Questions

- *Answers to questions proposed on 1-15-08 by the Department of Natural Resources regarding project engineering and financial feasibility, water rights, Colorado river compact compliance, environmental compliance, contracting, ownership and management.*

3.2. State of Colorado Efforts & Analyses

3.2.1. CWCB State of Colorado 2050 Municipal & Industrial Water Use Projections

- *A reconnaissance-level water use forecast that employs consistency in data collection and forecast methodology across the state and maximizes available data. The methods utilized in this approach are for the purpose of general statewide and basin wide planning and are not intended to replace demand projections prepared by local entities.*

3.2.2. Statewide Water Supply Initiative

- *With this Statewide Water Supply Initiative (SWSI) 2010 update, the Colorado Water Conservation Board (CWCB or Board) has confirmed and updated its analysis of the state's water supply needs and recommends Colorado's water community enter an implementation phase to determine and pursue solutions to meeting the state's consumptive and non-consumptive water supply needs.*

3.2.3. Colorado Water Plan 2015

- *Governor Hickenlooper and the Colorado Water Conservation Board This plan is a roadmap that leads to a productive economy, vibrant and sustainable cities, productive agriculture, a strong environment, and a robust recreation industry. It sets forth the measurable objectives, goals, and actions by which Colorado will address its projected future water needs and measure its progress—all built on our shared values*

3.2.4. IBCC Draft Conceptual Agreement on Trans-Mountain Diversions

- *Inter Basin Compact Committee mutually agreed upon principals for new Colorado River Trans-Mountain Diversions*

3.3. Third Party Project Analyses

3.3.1. MWH Internal Analysis Summary

- *MWH's internal analysis summary PowerPoint concluding that RWSP is a legally viable project that will proceed to the environmental process with relative ease and then onto the detailed planning process.*

3.3.2. Project Aquarius Analysis

- *Northwest Pipe internal analysis summary concluding it is an opportunity to invest early in the hopes of helping a good project move from concept to construction.*

3.3.3. WENCK NEPA Risk Evaluation

- *WENCK Inc. analysis of minimal NEPA risk for project*

3.4. Bureau of Reclamation Colorado River Basin Water Supply & Demand Study

3.4.1. Executive Summary Final Dec 2012

- *Defines current and future imbalances in water supply and demand in the Basin and the adjacent areas of the Basin States that receive Colorado River water over the next 50 years (through 2060), and to develop and analyze adaptation and mitigation strategies to resolve those imbalances.*

3.4.2. Study Report Final Dec 2012

- *Represents the most comprehensive analysis ever undertaken within the Colorado River Basin looking at current and future imbalances in water supply and demand in the Basin and the adjacent areas of the Basin States that receive Colorado River water over the next 50 years.*

3.4.3. Appendices

- *Contains All appendices to related study.*

4. Environmental

4.1. Army Corps EIS Docs

4.1.1. Army Corps of Engineers EIS Briefing

4.1.1.1. Army Corps of Engineers EIS Briefing

- *A copy of the Corps of Engineers home site for their work with the Regional Watershed Supply Project*

4.1.2. Purpose and Need - Final Deliberative Draft

- *A detailed summary of the purpose and need for the Regional Watershed supply Project in both Wyoming and Colorado.*

4.1.3. Comments on Project Description Submittal

- *Description of the specifics of the project: Water withdrawal, Access Roads, Water Treatment Facilities, Structural Materials, Electrical Substation Requirements, Water Withdrawal Volumes and Rates, Off-Channel Interim Storage, Effects on Flaming Gorge, Effects on Fontenelle Reservoir, Pipeline Characteristics, Construction Phases, Special Construction Areas, Temporary Workplace Areas, Ancillary Facilities.*

4.1.4. CoE Involvement with EIS

4.1.4.1. 2009 4-19 Why the Corps is Preparing an EIS

- *The Corps, through requirements contained in Section 404 of the Clean Water Act, regulates activities involving the discharge of dredged or fill material into waters of the U.S. Any individual or agency, public or private, must receive authorization from the Corps before conducting such discharges, and documentation of compliance with the National Environmental Policy Act (NEPA) must occur before a permit may be issued. For projects where the potential impacts to the environment are significant, an EIS is required.*

4.1.4.2. 2009 7-31 Corps Request Additional Info from MCRG

- *Information on potential users and their water needs for the proposed Regional Watershed Supply Project has been officially requested by the U. S. Army Corps of Engineers.*

4.1.4.3. 2010 1-20 Water Users Submittal

- *Water Horse Resources, LLC's submittal to the Corps regarding their request for additional information.*

4.1.5. EIS Terminated

4.1.5.1. 2011 7-22 Permit Application Withdrawal

- *The U. S. Army Corps of Engineers notification that it has withdrawn the Section 404 Clean Water Act permit application for the proposed 'Regional Watershed Supply Project' submitted in 2008, and has terminated the process to develop a Draft Environmental Impact Statement (DEIS).*

4.1.6. Maps and Diagrams

4.1.6.1. 2009 3-27 Overall Project Location Map

-

4.1.6.2. 2009 4-17 Lake Hattie Reservoir (Near Laramie, WY)

-

4.1.6.3. 2009 4-17 Proposed Cactus Hill Reservoir (Near Fort Collins, CO)

- **4.1.6.4.** 2009 4-17 Proposed T-Cross Reservoir (Near Pueblo, CO)
- **4.1.6.5.** 2009 4-17 West End Retention Reservoir (Near Green River, WY)
- **4.1.6.6.** 2009 6-23 Flaming Gorge Reservoir East Bank Diversion
- **4.1.6.7.** 2009 6-23 Flaming Gorge Reservoir West Bank Diversion
- **4.1.6.8.** 2009 6-23 Green River Diversion
- **4.1.6.9.** 2009 6-23 Seedskadee Diversion
- **4.1.6.10.** 2009 6-24 Overview of Alternative Diversion Points & Pipeline Routes near Flaming Gorge Reservoir

4.1.7. Public Notices

- **4.1.7.1.** 2009 3-20 Federal Register Notice of Intent
- **4.1.7.2.** 2009 5-8 Federal Register Notice of Intent
- **4.1.7.3.** 2009 8-11 Federal Register Notice of Intent
- **4.1.7.4.** Public Notice #1-Comment Period and Public Scoping Meeting
- **4.1.7.5.** Public Notice #2-Comment Period Extension
- **4.1.7.6.** Public Notice #3-Comment Period Extension

4.1.8. Public Scoping

- **4.1.8.1.** 2009 4-1 Public Scoping Meeting Posters and Maps
- **4.1.8.2.** 2009 6-4 Public Scoping Brochure
- **4.1.8.3.** 2010 2-12 Scoping Summary Report
- **4.1.8.4.** Scoping Comments-Citizen Comment Forms

- **4.1.8.5.** Scoping Comments-Citizen Emails
- **4.1.8.6.** Scoping Comments-Citizen Letters
- **4.1.8.7.** Scoping Comments-Counties
- **4.1.8.8.** Scoping Comments-Federal
- **4.1.8.9.** Scoping Comments-Municipalities
- **4.1.8.10.** Scoping Comments-Organizations
- **4.1.8.11.** Scoping Comments-State and Regional
- **4.1.8.12.** Scoping Comments-Tribal Organizations
- **4.1.8.13.** Scoping Comments-Water Conservation and Special Districts
- **4.1.8.14.** Scoping Comments-Public Meeting Notes

4.2. FERC Documents

- **4.2.1.** Application for Preliminary Permit
- **4.2.2.** Deficient Preliminary Permit Application Request Additional Info
- **4.2.3.** Response to Request for Additional Information
- **4.2.4.** Notice of Preliminary Permit Application Accepted for Filing
- **4.2.5.** Notice of Preliminary Permit Application Accepted in Federal Register
- **4.2.6.** FERC Order Dismissing Preliminary Permit Application

-

4.3. Flaming Gorge Environmental ROD

4.3.1. Flaming Gorge DEIS 2004

- *An overview of the proposed action analyzed in the Operation of Flaming Gorge Dam Draft Environmental Impact Statement (DEIS). It is intended to provide a concise report of the proposed action, alternatives, and environmental consequences which are explained and analyzed in detail in the DEIS.*

4.3.2. Faming Gorge Flow Recs

- *The purpose of this report is to assess flow-habitat relationships of the endangered fishes and refine flow and temperature recommendations specified in the 1992 Biological Opinion. The purpose of the Recovery Program is to recover the endangered fishes while allowing existing and new water development to proceed in the upper basin.*

4.3.3. Flaming Gorge Record of Decision

- *The purpose of the proposed action is to operate Flaming Gorge Dam to protect and assist in recovery of the populations and designated critical habitat of the four endangered fishes, while maintaining all authorized purposes of the Flaming Gorge Unit of the Colorado River Storage Project (CRSP), including those related to the development of water resources in accordance with the Colorado River Compact.*

5. Technical

5.1. Hydropower Analysis

5.1.1. Overall Hydraulic Gradeline

-

5.2. Maps

5.2.1. Overall Pipeline Route

-

5.2.2. Detailed Quadrant Map

-

5.2.3. Federal Lands Map

-

5.2.4. Wildlife Mapping and Route

-

5.3. Pipeline, Reservoir and Hydropower Preliminary Engineering

5.3.1. Hydropower Design-Hydraulic Solutions

- *This report contains a final recommendation for hydropower generation along the Regional Watershed Supply Project's proposed pipeline route. It examines several alternatives, which are included in this report.*

5.3.2. Pipeline Routing Design Report-Bighorn Pipeline Design

- *This report contains an in-depth analysis of three Route Alternatives following Us 30, I-80 and US 287. These alternatives have been compared to the original route using overall material costs; labor costs; environmentally sensitive areas; pumping costs and turbine gains; and urban, river and road crossings as criteria*

5.3.3. Reservoir Site Selection and Wyco Reservoir Services

- *This report will provide you with: Breakdown of the project's analysis; The criterion and how each one was analyzed; Sample calculations; Each reservoir site's info: storage, location, fill amount, ownership, estimated cost; The top five reservoir site alternatives for the given criterion and criterion weights.*

5.3.4. Central Water and Power Supply Final Report

- *Design of pumped storage sites along the Flaming Gorge Hydropower and Water Infrastructure mainline route. To meet the objective of 500-1000 MW of power generation, two pumped storage sites have been designed to produce the requested power. The following report includes the design process and final design recommendation for the pumped storage systems.*

5.4. Technical Layouts

5.4.1. Construction ROW

-

5.4.2. Delivery System Pump Station Layout

-

5.4.3. General Delivery System Pump Station

-

5.4.4. Intake Pump Station

-

5.4.5. Intake Pump Design Criteria

-

5.4.6. Low Head Pump Station

-

5.4.7. Points Of Diversion - Wyoming

-

5.4.8. Pressure Reducing Station

-

5.4.9. Pump Station Site Layout

-

5.4.10. Reservoir Intake Pump Station Site

-

5.4.11. Storage Reservoir Outlet Structure

-

5.4.12. Water Body Crossings

-

5.4.13. Water Quality Report

-

5.4.14. Water Treatment Facilities Functional Diagram

-

5.4.15. Water Treatment Facilities

-

5.5. Water Availability Analysis

5.5.1. Boyle Summary of Preliminary Findings

- *Boyle Engineering preliminary water availability, water demand, project layout, environmental consideration, and project schedule analysis.*

5.5.2. Flow Availability Analysis for the Green River

- *Danielson & Associates analysis of flow availability on the Green River near Green River Wyoming.*

5.5.3. Proposed Green River Diversion Modeling Report

- *This model suggests that 185,000 acre-feet per year could be diverted from Flaming Gorge over the period from 2008 to 2050 without creating a risk to the operation of the power plant at Flaming Gorge Dam. However, as the basin reaches its full level of development near 2060, this model suggests a*

much lower diversion level is sustainable. After 2050, this model suggests that a diversion rate of 120,000 acre-feet per year could be sustained without risk to the operation of the power plant at Flaming Gorge Dam.

5.5.4. Bureau of Reclamation Letter to Upper Colorado River Commission

- *The Bureau estimates water available from Flaming Gorge for the next 40 years at 165,000 acre-feet annually.*

5.5.5. USBR Modeling Green River Pipeline PowerPoint

- *Bureau of Reclamations PowerPoint of modeling results for the Green River*

5.5.6. Williams & Weiss Water Availability Analysis

- *To support the application for a water right in the State of Utah, estimates for flow availability have been developed for the Green River below Flaming Gorge Reservoir*

6. Miscellaneous

6.1. Lake Powell Pipeline

6.1.1. Intro to Lake Powell Pipeline Project PPT

- *Utah's Department of Natural Resources PPT presentation to the BLM and FERC regarding their Lake Powell Pipeline Project (an analogous project) dated 7-19-07*

6.1.2. Lake Powell Pipeline Cost Summary

- *Utah's Preliminary Application Document with the Federal Energy Regulatory Commission*

6.1.3. Lake Powell FERC PAD Documents

- *Utah's Preliminary Application Document with the Federal Energy Regulatory Commission*