

Gross Reservoir Expansion Project Informational Meeting for Design Engineer Denver Water Gross Reservoir Operations – May 24, 2017

Meeting Purpose

The purpose of this informational meeting is to present the scale of the Gross Reservoir Expansion Project, the anticipated project delivery schedule, and general scope of services to potential respondents for the Design Engineer contract.

Project Mission

The Gross Reservoir Expansion Project is crucial to providing water dependability to Denver Water's customers and in protecting against potential catastrophic events such as fires, landslides, drought, and infrastructure failures. Expanding Gross Reservoir will add a new element of sustainability to Denver Water's multi-pronged approach to meeting our customers' future needs which includes conservation, reuse water, and developing additional supply.

Project Background

Denver Water began efforts to expand Gross Reservoir more than a decade ago. Since that time, Denver Water has completed many of the permitting milestones necessary to move the project forward and is preparing for the delivery phase of the project. The U.S. Army Corps of Engineers expects to release the Record of Decision in 2017 and Denver Water expects the Federal Energy Regulatory Commission (FERC) to issue a License Amendment for the project in 2018.

The existing Gross Dam is an on-stream facility located on South Boulder Creek in Boulder County, Colorado, and in the Arapahoe-Roosevelt National Forest. The dam and reservoir, owned and operated by Denver Water, provides raw water storage for municipal use and hydroelectric power to Colorado's electric grid. The dam structure is a 340-foot-tall curved concrete gravity dam with a crest length of 1,050 feet (including spillway section) and is formed to a radius of 1,740 feet. The dam impounds Gross Reservoir and is capable of storing 41,811 acre-feet of water with the reservoir at the spillway crest, elevation 7,282 feet.

Denver Water proposes to raise Gross Dam by 131 feet to a final height of 471 feet, increasing storage volume from 41,811 acre feet to about 119,000 acre-feet. A downstream roller compacted concrete (RCC) buttress raise matching the existing curvature of the dam is planned and will require more than 900,000 cubic yards of RCC. The raise will involve: foundation preparation, RCC construction, outlet works modification, spillway construction, and mechanical/electrical/operations enhancements.

The estimated construction cost of the project is \$260 million (2015 dollars) and the entire program costs (including permitting, mitigation, engineering, and management) are estimated at \$380 million. The new raised dam will be completed and commissioned by 2025.

Project Objectives

The primary project objectives are:

- Responsibly develop new water supply and storage while clearly addressing project impacts through appropriate mitigation and enhancement measures.
- Provide an additional 18,000 acre-feet of water per year into Denver Water's Moffat (North) Collection System.
- Raise Gross Dam by 131 feet to create an additional 77,000 acre-feet of new storage volume, of which, 5,000 acre-feet is dedicated as an "environmental pool" to enhance flows in South Boulder Creek.

Delivery Approach

Denver Water intends to develop an *Integrated Project Team* comprised of Denver Water's Program Manager, the Owner's Representative (OR), Design Engineer, and a Design Assist Contractor to be responsible for project delivery. The responsibility of the Design Engineer is to design the dam raise and appurtenances and to develop construction drawings and specifications for letting a contract with a dam builder. Denver Water intends to execute separate contracts directly with the OR, Design Engineer, and Design Assist Contractor.

Role and Responsibility of the Design Engineer

The Design Engineer will bring resources and expertise in dam engineering specific to RCC dam design and construction to the *Integrated Project Team*. Specifically, the Design Engineer will be the Engineer of Record responsible for all aspects of the design, analyses, and contract documents. In addition, the Design Engineer must consider dam safety requirements of both the Colorado Office of the State Engineer (SEO) and the Federal Energy Regulatory Commission (FERC) for the design of high hazard dams.

It is Denver Water's expectations that interested respondents be qualified in RCC dam design and delivery with a proven track record in working with and gaining technical approval from regulatory agencies similar to the SEO and FERC, a Board of Consultants, and a technically versed Owner and OR.

Procurement Schedule

The following procurement schedule is provided for planning purposes for interested Design Engineer firms and may change. The final procurement documents will detail the final procurement schedule.

Activity	Date
Informational Meeting	May 24, 2017
Qualification Process	June – July, 2017
Proposal Process	August – October, 2017
Selection	November, 2017
Contract Award	December 2017
Final Design Initiation	January 2018

Logistics

The informational meeting is open to all consulting firms (primes and subconsultants) interested in providing the Design Engineering Services and other interested business partners who may have interest in future project phases. The informational meeting will be hosted May 24, 2017, at 9:00 a.m. local time, at the Denver Water Gross Reservoir Operations Garage located at 3817 Gross Dam Road, Boulder, Colorado. The informational meeting **is not a mandatory requirement** to submit a proposal and is intended to provide background information on the project and the Design Engineer scope of services to allow interested firms to make an informed decision as to whether to pursue the Design Engineer contract.

All consultants interested in proposing on the project must not be in a conflict-of-interest position regarding the ongoing work related to the Project's 404 permit application managed by the U.S. Army Corps of Engineers. It is the responsibility of the proposers to determine their conflict-of-interest position.

In consideration of space planning, Denver Water requests interested parties RSVP by email to jeff.martin@denverwater.org by May 19, 2017. Please contact Mr. Jeff Martin at 303-628-6508 or jeff.martin@denverwater.org with questions regarding this informational meeting, conflict-of-interest position, the Design Engineer scope of services, or the proposal process.