

**Gross Reservoir Expansion Project**  
**Construction Manager / General Contractor (CMGC) Request for Qualifications**  
**Submission Deadline: 2:00 pm (MT), November 19, 2018**

## 1. Project Background

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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 Gross Reservoir Expansion (GRE) project forward and is preparing for the delivery phase of the project. The U.S. Army Corps of Engineers granted Denver Water its 404 permit and Record of Decision in July 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 approximately 800,000 cubic yards of RCC. The raise will involve the following major work: aggregate development from an on-site borrow area, foundation preparation, and RCC and conventional concrete construction of the dam and spillway. Minor modifications to the outlet works and mechanical/electrical/operations enhancements are also planned.

The entire program costs (including permitting, mitigation, engineering, management and construction) are currently estimated at \$464 million. The new raised dam is scheduled for completion in 2025 with the first filling occurring in 2026.

## 2. Project Objectives

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The primary project objectives are:

- Responsibly develop new water supply and storage while clearly addressing project impacts through appropriate mitigation, enhancement, and minimization measures.
- Raise Gross Dam by 131 feet to create an additional 77,000 acre-feet of new storage volume.

## 3. Delivery Approach

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Denver Water is in the process of developing an Integrated Project Team (IPT) to deliver the GRE. Currently, the IPT is comprised of Denver Water's Program Manager and staff, the Owner's Representative (OR) Black & Veatch Corporation, and Design Engineer Stantec Consulting Engineers, Inc. The Construction Manager / General Contractor (CMGC) will be an integral member of the IPT. The general intent of the CMGC is for Early Contractor Involvement to provide positive influence on design and facilitate efficient construction. Denver Water has executed or will execute separate contracts directly with the OR, Design Engineer, and CMGC.

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The CMGC procurement process will be a value-based, competitive process involving two stages:

- The first stage is this Request for Qualifications (RFQ), where interested respondents will prepare and submit a qualification package.
- The second stage will be a Request for Proposals (RFP), where prequalified respondents will detail why they are the best CMGC for the project. The technical proposal will include the respondent's project execution plan, team organization, and other details. Additionally, the RFP will request a fee estimate for professional services during the design phase and indicative construction prices, including certain binding fees and unit prices during the construction phase.

During progression of the GRE, the CMGC will likely be engaged under two separate contracts. While providing consulting services during the design process, the CMGC will work under a professional services contract. When executing construction related services, the CMGC will work under a construction contract. Further information regarding the contracts will be provided with the RFP.

#### **4. Role and Responsibility of the CMGC**

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The CMGC will bring resources and expertise specific to aggregate processing and RCC dam construction to the IPT. Specifically, the CMGC will provide early contractor expertise related to:

- Safety and Security
- Site Access, Layout and Development
- Quarry Development and Aggregate Processing
- Cement and Flyash Sourcing and Delivery
- RCC Mix Design
- RCC Dam Facing Systems
- Foundation Excavation and Grouting next to the existing dam
- RCC and Conventional Concrete Cooling, Mixing, Delivery and Placement
- Construction Methods, Sequencing, Schedule and Cost
- Interaction with Involved Agencies / Key Stakeholders / Local Community

Denver Water expects that interested respondents will be qualified in large and complex RCC dam construction with a proven track record of safety and professional execution utilizing teamwork and innovative methods.

#### **5. General Scope of Services**

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A more detailed scope of services will be provided in the RFP document following the qualification process. In general, the CMGC will be responsible for providing early contractor expertise to positively influence the design for more efficient construction. The intent is for the CMGC to become the Construction Contractor and because of the early involvement and influence it is expected that best value will be obtained, and significant changes and delays will be avoided.

The CMGC involvement in the project is expected to commence 2<sup>nd</sup> quarter 2019 following the 30% dam design milestone. As part of the RFP process, the CMGC will review the 30% design documents and provide its comments and suggestions to enhance the design to facilitate construction, reduce construction time and costs, ensure quality and safety, and generally provide a better value project for Denver Water.

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The CMGC will be an actively involved member of the IPT through the 60%, 90% and 100% dam design milestones. The CMGC will be expected to provide its detailed construction execution plan including schedule and detailed estimate of costs following the 60% design submission. This information will be reviewed by the project team, discussions will be held, and consensus reached regarding the execution, schedule and cost. The CMGC will then update this information following the 90% design submissions, and again discussions will be held, and consensus reached regarding the work. If consensus cannot be reached following any of these design milestones, Denver Water will have the right to renegotiate or terminate the contract with the CMGC.

The CMGC effort will consist of two phases.

- Phase 1 - Design / Preconstruction. Expected period: 2019-2020. Fee based for assistance with design, unit price for investigative quarry and aggregate production for RCC mix design test program. Performance will be evaluated following 60%, and 90% dam design milestones with potential for the owner to terminate the contract at each milestone if results are not satisfactory or schedule / cost cannot be agreed upon.
- Phase 2 – Construction. Expected 2021-2025. It is expected that an agreed price will be negotiated following the 90% design, and then a construction contract will be executed (similar to conventional design, bid, build project). The IPT will remain in place during construction with continued open communication and teamwork.

## 6. Procurement Schedule

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The CMGC procurement process will include two stages, with the objective of issuing the Notice to Proceed by June 2019 and the start of the investigative quarry construction by early July 2019.

- The first stage, this RFQ, is designed to encourage prospective respondents to submit a Statement of Qualifications (SOQ) specific to the requirements of the GRE. SOQs will be used to evaluate and rank the most qualified teams possessing the best personnel and relevant experience. Interviews may be held, at Denver Water's discretion, to assist in the evaluation. The RFQ process is intended to require reasonable effort by respondents in order to encourage participation by as many as possible. Denver Water will then determine which firms are pre-qualified for the subsequent RFP process.
- The second stage, the RFP process, is designed to allow respondents to showcase innovative construction approaches, project risk reduction measures, and efficient execution methodologies. Approach to pricing including indicative construction costs and fee structure, which may become part of the contract, will also be requested as part of the proposal. The respondents will be required to address specific project challenges and participate in at least one in-person workshop at Denver Water during the proposal period. The RFP process will occur first quarter 2019.

The following procurement schedule is provided for planning purposes for interested CMGC firms and is subject to change. Final procurement documents will include updates to the procurement schedule.

Activity	Date
Informational Meeting	August 9, 2018 (complete)
Qualification Process	October 25 - November 19, 2018
Interviews (if requested)	November 27 – 29, 2018
Selection Notification	December 10, 2018
Post RFQ Feedback Meetings	December 17 - 18, 2018
Proposal Process	January – February, 2019
Mid-Proposal Discussion (3 Hours)	January, 2019
Negotiations	March – April, 2019
Contract Award / Notice to Proceed	May – June, 2019

## 7. Statement of Qualifications Submittal Requirements

Respondents must submit an SOQ tailored specifically to work related to the GRE. SOQs shall be limited to 22 single-sided pages and as noted in the sections below (minimum 10-point font for all text). A maximum of four 11x17 sheets are allowed and will each count as a single page. Cover page, Table of contents, tabs (if used), and the items required in sections 6 – 10 below shall not be counted toward this page limit. The SOQ shall follow the format presented below.

1. **Cover Letter (2-page limit):** Provide a cover letter that explains why the respondent should be prequalified and will provide the best value to Denver Water. The letter must be signed by an Authorized Officer. If applicable, clearly define the proposing team members and major sub-contractors proposed within the SOQ. If the respondent is a Joint Venture the leader of the venture shall be clearly identified and expected participation percentages stated along with any previous history of working together over the past 15 years.
  
2. **Qualification Summary (5-page limit):** Provide a qualification narrative focused on the respondent’s experience as related to the GRE. Specifically, the summary should highlight the firm’s experience and capabilities in constructing concrete and RCC dams with features similar to GRE. Expected similar features include:
  - a. RCC dam, and dam related, construction with no less than 1,000,000 cubic yards of RCC cumulative for all projects and no less than 500,000 cubic yards for a single project over the past 15 years.
  - b. RCC / concrete dam construction with heights exceeding 200 feet.
  - c. Controlled excavation and blasting near existing structures.
  - d. Dam foundation grouting.
  - e. Quarry aggregate production.
  - f. RCC and conventional concrete production including cooling and heating to maintain strict temperature requirements.
  - g. RCC and concrete delivery systems including conveyors.
  - h. Hoisting and forming systems.
  - i. Placing of high workability, set retarded, RCC (vebe time between 8 – 14 seconds) and use of Grout Enriched RCC (GERCC, GEVR) or Immersion Vibratable RCC (IVRCC).
  - j. Dam construction in environmentally sensitive and constrained sites.
  - k. Dam construction in mountainous steep terrain with cold harsh winter conditions.

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- l. Dam construction regulated by FERC, USACE, USBR, Colorado State Engineer's Office, or other similar State or Federal Agencies.
  - m. Quality Management.
  - n. Safety performance.
  - o. Experience with early contractor involvement in projects and working collaboratively with owners, engineers and other project stakeholders.

- 3. Organization Charts (4-page limit):** Provide organization charts for each of the two CMGC phases: Phase 1 – Design / Preconstruction and Phase 2 – Construction. The organization charts shall illustrate the team structure, including, corporate sponsors, any proposed teaming partners and major subcontractors, and their roles. Clearly indicate the project management staff and key technical positions with consideration for leaders of the following: Project Management, Scheduling, Cost Estimating, Construction Project Management and Supervision, Safety Management, Quality Management, Quarry and Aggregate Production, Concrete Production and Delivery, and Drilling and Grouting. In addition, other key staff and subject matter experts considered critical to the design process and construction should be included in the organization charts.

The expected resource commitment (i.e. full-time equivalency or fraction thereof) and physical location of all staff for the design assist period (2019 – 2020) shall be described in this section. Denver Water will require key personnel such as the Project Manager and / or Construction Manager to co-locate (part to full time depending on project phase) with the IPT at Denver West (Golden, Colorado). The organization chart should indicate the resources that are expected to be co-located with Denver Water and whether full-time or part-time.

Denver Water will include a provision in the contract(s) that provides compensation to Denver Water for replacement of key contractor personnel without written approval by Denver Water. Key personnel associated with the provision will be identified in the contract.

- 4. Summary of Experience (10-page limit):** Provide a biography of the most applicable construction projects completed in the last 20 years and describe the firm's roles and responsibilities as well as the roles and responsibilities of proposed team members on the projects. Project biographies shall include:
- a. A description of the project, including project name and location, and its similarity to the GRE Project.
  - b. Owner's name, address, telephone number and contact person.
  - c. Original contract amount and final contract amount.
  - d. Change order history and amounts – categorized as owner directed or other.
  - e. Disputes, Claims and Litigation summary (if any).
  - f. Liquidated damages applied (if any).
  - g. Schedule performance including original completion date and actual completion.
  - h. Dam size (height, crest length, concrete volume) and facing system.
  - i. Aggregate source and aggregate production equipment.
  - j. Type of RCC mix (cementitious content and flyash/cement ratio, ultimate strength requirement, workability / vebe time, use of set retarders).
  - k. RCC temperature at placement requirement and methods of cooling and heating (if any).
  - l. RCC mixing equipment, capacity and maximum hourly, daily and monthly production rates achieved.
  - m. Concrete delivery equipment / system.
  - n. Responsibility of the firm and percent of contract self-performed.
  - o. Key personnel involved (including subject matter experts) who are tied to this proposal and their specific role on the project.

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- p. Key project challenges and successes.
  - q. Safety performance statement with summary of any major incidents and recordable injuries as defined by OSHA.
5. **Minority and Women owned Business Participation:** Denver Water's Minority and Woman Business Enterprise (MWBE) Program seeks to provide small businesses and businesses owned by minorities or women an opportunity to work for Denver Water as consultants, contractors, subcontractors and suppliers. As such, provide a statement outlining MWBE partners or opportunities for future participation on the construction team. No MWBE participation partners or commitment is required for qualification. An MWBE participation goal has not yet been set by Denver Water.
  6. **Qualification of Personnel (not counted in page limit):** Provide resumes highlighting experience related to the GRE Project for all team members included in the Organization Chart. A maximum of two pages is allowed for each resume (please, no headshots).
  7. **Financial Statement (not counted in page limit):** Provide a recent financial statement relative to resources, including cash and bank credits available, most recent Certified and Audited Financial Statement, and a Noncertified and Audited Financial Statement no older than 3 months. If a Joint Venture is proposed, then financial information shall be provided for both firms.
  8. **Bonding Capability: (not counted in page limit):** Payment and Performance Bonds in the amount of each construction contract will be required. Provide current single project and aggregate bonding capacity. The bonding requirements will be further detailed in the RFP and finalized prior to issuing construction contracts.
  9. **Insurance (not counted in page limit):** Builder's Risk, General Liability and other typical insurances will be required in amounts appropriate for the project. The insurance requirements will be further detailed in the RFP and finalized prior to issuing preconstruction and construction contracts. Denver Water may, at its election, implement an Owner Controlled Insurance Program (OCIP) for the construction of this project. Lines of insurance coverage may include any or all of the following: Workers Compensation, Commercial General and Excess/Umbrella Liability, Contractor's Pollution Liability, Contractor's Professional Liability and Builders Risk. Denver Water reserves the right to determine who participates in the OCIP. Provide statement confirming ability to provide typical insurance and note any suggestions or concerns regarding insurance / OCIP.
  10. **Safety Culture (not counted in page limit):** Provide narrative regarding Safety Culture and provide Experience Modification Rates & OSHA Reportable Incident Statistics for the last 4 years (2014 – 2017). If a Joint Venture is proposed, then safety information shall be provided for both firms.

## 8. Selection Criteria

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### Cover Letter (5%)

1. Explanation of firm(s) benefits to the GRE Project and best value description
2. Clarity of firm(s) responsibilities

### Team Experience (20%)

1. Professional experience of firm(s) in RCC dam and dam related construction (cubic yard requirements)
2. Demonstrated expertise related to work germane to the GRE Project as described in Section 7, Part 2

Team Organization (15%)

1. Professional experience of the Project Manager and Deputy (if applicable)
2. Professional experience of key personnel including subject matter experts
3. Clarity of roles and responsibilities
4. Clarity of co-location plans
5. Clarity and thoughtfulness of MWBE participation

Project Experience (50%)

1. Applicability of listed project experience to the GRE Project as described in Section 7, Part 4
2. Project success based on cost, schedule and performance considerations
3. Continuity of proposed personnel to the listed projects (role and responsibility)
4. Project specific reference verification and assessment

Financial and Safety (10%)

1. Corporate and team financial metrics relative to industry standards
2. Apparent ability to meet threshold bonding and insurance standards
3. Corporate and team safety metrics relative to industry standards
4. Project specific safety information

## **9. Submittal Instructions**

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Submission deadline is 2:00 pm (MT), November 19, 2018. Respondents are requested to submit:

1. Eight (8) copies of the firm's SOQ.
2. One (1) electronic copy of the SOQ provided as a pdf on DVD or flash drive.

Responses shall be in the format noted. Denver Water reserves the right to disqualify any Response submitted incorrectly. Responses shall be addressed as follows:

Project Title: Gross Reservoir Expansion Project  
CMGC Request for Qualifications  
Attention: Mr. Jeff Martin, Program Manager  
Denver Water Engineering Division, Administration Building  
1600 West 12th Avenue  
Denver, Colorado 80204-3412

Submittal Instructions:

1. SOQ's may be either mailed or hand-delivered. If the proposal is sent by mail, please allow extra time for delivery before the deadline. Proposals received after the deadline will be discarded or returned to the Respondent unopened. (Note: No e-mailed or faxed proposals will be accepted.)
2. The SOQ shall contain the signature of a duly authorized officer or agent of the respondent's company empowered with the right to contractually bind the respondent.
3. SOQ's are considered part of the entire proposal process and become the property of Denver Water upon receipt. The content of proposals will be kept confidential until an award is made, after which the content will no longer be kept confidential, except as provided herein.

4. Contractors acknowledge that Denver Water may be required to disclose any or all of the documents submitted to it pursuant to the Colorado Open Records Act, C.R.S. § 24-72-201.1, et seq. Under C.R.S. § 24-72-204(3)(a)(IV), Denver Water may deny inspection of any confidential commercial or financial information furnished to Denver Water by an outside party. Therefore, a contractor must clearly designate any documents submitted that the contractor deems proprietary or confidential, to aid Denver Water in determining what must be disclosed in response to a request for documents under the Colorado Open Records Act. The designation of material as confidential must be reasonable or it will not be honored. For example, a contractor may not designate its entire submittal as confidential and proprietary.
5. SOQ's may be withdrawn or modified in writing prior to the proposal submission deadline. SOQ's that are modified shall be sealed and resubmitted according to the aforementioned instructions prior to the proposal submission deadline.

## **10. Communication during Qualification Period**

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Communication is encouraged throughout the RFQ process. All communication from respondents shall be directed to the Owner's Representative, Greg Zamensky, at [Greg.Zamensky@denverwater.org](mailto:Greg.Zamensky@denverwater.org). Respondent communication regarding the qualification process or proposal with other Denver Water personnel is prohibited and shall be grounds for disqualification.