



Santa Clara Valley Water District

File No.: 17-0190

Agenda Date: 4/25/2017

Item No.: 5.1.

BOARD AGENDA MEMORANDUM

SUBJECT:

Amendment No. 2 to Agreement No. A3675A with GEI Consultants, Inc., for Planning and Environmental Consultant Services for a Not-To-Exceed Fee of \$1,316,011, Resulting in a Total Not-To-Exceed Fee of \$6,219,841, and Extend the Agreement Term for Calero and Guadalupe Dams Seismic Retrofits Project, Project No. 91084020 (San Jose) (District 1).

RECOMMENDATION:

Approve Amendment No. 2 to Agreement No. A3675A with GEI Consultants, Inc., for Planning and Environmental Consultant Services for Calero and Guadalupe Dams Seismic Retrofits Project, for a not-to-exceed fee of \$1,316,011, resulting in a total not-to-exceed fee of \$6,219,841, and extend the Agreement term.

SUMMARY:

The District is undertaking the Calero and Guadalupe Dams Seismic Retrofits Project (Project) to address seismic stability deficiencies, rehabilitate aging appurtenant facilities, and to ensure compliance with current dam safety standards. The staff recommended alternatives have been selected for retrofit of the dams and Project design is underway.

Agreement A3675A with GEI Consultants, Inc. (Consultant) includes scope to complete the environmental analysis and documentation to comply with the California Environmental Quality Act (CEQA) and the acquisition of permits for construction. Approval of Amendment No. 2 is recommended in order to extend the Agreement term by three years and increase the not-to-exceed fee so that the Consultant can perform these remaining services.

Project Background and Previous Board Actions

In August 2009, the District retained URS Corporation to perform a Seismic Stability Study (Study) for Calero and Guadalupe Dams. The Study concluded that during a large earthquake, the foundation of the dam could liquefy and the downstream slope of the Calero Dam embankment could become unstable. Similar evaluation of Guadalupe Dam indicated that the dam embankment could experience large deformations leading to excessive cracking of the dam during a large earthquake. Additionally, the study concluded that such an earthquake would also adversely impact Guadalupe Dam's intake structure.

Since 2005, both dams have been operated under reservoir level restrictions which were reviewed and accepted by the California Department of Water Resources, Division of Safety of Dams (DSOD). The reservoir restrictions have been implemented for these dams as interim risk reduction measures while the seismic retrofit projects are being designed.

On August 27, 2013, the Board approved a consultant agreement with GEI Consultants Inc. to perform Planning and Environmental Services for the Project. The resulting Planning Study Reports for Calero Dam and Guadalupe Dam were provided to the Board via non-Agenda Memoranda in June 2015 and December 2015, respectively.

On October 13, 2015, the Board approved a consultant agreement with HDR Engineering Inc. to perform Design Services for the Calero Dam Seismic Retrofit Project. On March 8, 2016, the Board approved a consultant agreement with GEI Consultants Inc. to perform Design Services for the Guadalupe Dam Seismic Retrofit Project.

On February 28, 2017, staff recommended Board approval of the subject item. The Board requested that staff prepare and provide additional information to support staff's recommendation. The sections that follow provide the Board-requested information regarding:

- The Consultant's work performed to date;
- The increased work effort and time required to complete the Project's design phase due to the discovery of additional deficiencies at both Calero and Guadalupe Dams in the planning phase;
- An explanation of the process by which staff ensures that consultant deliverables are of good quality.

Consultant Work Performed to Date

The planning and environmental services Agreement for the Calero and Guadalupe Dams includes the following tasks to be performed by GEI:

- Task 1 - Project management
- Task 2 - Planning study (engineering planning)
- Task 3 - Environmental documentation and permit support
- Task 4 - Develop on-site borrow and spoil requirements
- Task 5 - Design support
- Task 6 - Supplemental services

The Agreement's planning phase tasks (Tasks 2 and 4) have been completed within their allocated budgets. The key deliverables from these tasks were two Planning Study Reports (one for each dam), which defined the problems, summarized the development and evaluation of project alternatives, and documented the Staff-Recommended Alternatives. The Reports were prepared in 2015; both were provided to the Board.

During the planning phase work, field investigations were conducted as a part of Task 3, to collect baseline environmental data information for the environmental impact analysis. The remainder of Task 3 work is the preparation of an Environmental Impact Report for each dam retrofit project and preparation of permit applications. This work is currently underway in parallel with design phase preparation of plans and specifications.

Expanded Project Scope and Schedule

The detailed investigations conducted during the planning phase resulted in additional findings of deficiencies at both Calero and Guadalupe Dams. Based on staff's and DSOD reviews of consultant findings, the project scope for both Calero and Guadalupe Dams has been expanded. Table 1 presents a comparison of the original and updated scope of work for each dam.

Table 1 - Baseline Scope vs Expanded Scope

Baseline Scope of Seismic Retrofit	Expanded Scope of Seismic Retrofit as Determined during Planning Phase
<u>Calero Dam</u> • Stabilize dam embankment to withstand maximum credible earthquake Investigate and identify problems with spillway, intake structure, outlet pipe and other outlet works • Breach Fellows Dike and relocate historic structures	<u>Calero Dam</u> • Stabilize dam embankment to withstand maximum credible earthquake • Breach Fellows Dike and relocate historic structures • New sloping, multi-level intake structure • New outlet pipe in an accessible tunnel • New spillway crest structure
<u>Guadalupe Dam</u> • Stabilize dam embankment to withstand maximum credible earthquake • Investigate and identify problems with spillway, intake structure, outlet pipe and other outlet works Relocate the intake structure	<u>Guadalupe Dam</u> • Stabilize dam embankment to withstand maximum credible earthquake • New sloping multi-level intake structure • New outlet pipe in a tunnel • New spillway crest structure • New bridge over the spillway from Hicks Road

The additional work for both dams will increase the work effort and extend the time to complete the design phase and environmental documentation and permit acquisition task (Task 3).

Table 2 presents a comparison of the baseline and updated project schedule for both dams.

Table 2 - Baseline Schedule vs Updated Schedule

Calero Dam Seismic Retrofit Project										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Updated Schedule										
Baseline Schedule										
Guadalupe Dam Seismic Retrofit										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Updated Schedule										
Baseline Schedule										

Staff Management of Consultant Agreements

Staff has been actively monitoring and managing the Consultant's performance to ensure quality deliverables are produced on time and within budget. Weekly progress meetings and monthly design meetings are held with the Consultant to assess progress of the projects. As generally required in all District consultant agreements, consultants are required to submit detailed monthly progress / status reports with their invoices. These reports are scrutinized by District staff before approval of any payment to the consultants.

Another general requirement in the District's consultant agreements is the consultant's preparation and implementation of an internal Quality Assurance and Quality Control (QA/QC) Plan for all deliverables transmitted to the District. As part of the deliverable acceptance process, the District also performs QA/QC review of all deliverables received from the Consultant for compliance with project scope, budget, and schedule.

For the subject Agreement, the implementation of both the Consultant's and the District's QA/QC processes has ensured that good quality deliverables acceptable to the District and the DSOD are consistently produced by the Consultant.

Amendment No. 2 to Agreement No. A3675A

Amendment No. 1 revised the Agreement to remove restrictions on the planning services consultant which precluded them from submitting a proposal for the design services for Guadalupe Dam. This

amendment had no monetary impact, and was approved by the CEO on June 11, 2015.

Staff recommends approval of Amendment No. 2, which will extend the term of the Agreement by three years, and increase the fees for project management, environmental documentation, permit acquisition support, design support, and supplemental services tasks. A three-year extension is necessary to complete the CEQA documents (estimated to be a two-year process for each dam) and for permit acquisition (estimated to be a one-year process). The total not-to-exceed fee for Amendment No. 2 is \$1,316,011. The tasks and their not-to-exceed additional fees are summarized below:

- Additional project management services for three years to manage the completion of the CEQA documents as well as acquisition of permits. (Task 1: \$420,921)
- As a result of project development during the planning phase, staff determined that additional environmental document preparation and review cycles were necessary to complete the CEQA process. (Task 3: \$279,052)
- Additional design support services. Previously, the 30%, 60%, and 90% design deliverables were to be reviewed by the Consultant. However, to facilitate the design process, review of a preliminary design set has been added. (Task 5: \$16,038)
- Increase in the Supplemental Services to support additional environmental and engineering analysis and documentation that may be necessary to complete the CEQA and permitting process. The original fee for Supplemental Services was used during the planning phase work to pay for additional investigation and analysis of Calero Pond; Calero Dam flood routing evaluation; and preparation of design-level geotechnical investigation work plans for both Calero and Guadalupe Dams. (Task 6: \$600,000)

The current not-to-exceed fee for this Agreement is \$4,903,830. Approval of this proposed amendment would increase the not-to-exceed fee to \$6,219,841. A summary of the tasks and fees for the proposed amendment is presented in Table 3.

Table 3 - Summary of Tasks and Fees for Amendment No.2

Task	Description	Original NTE* Fee	Amendment No. 1 NTE Fee	Amendment No. 2 NTE Fee	Revised NTE Fee
1	Project Management	\$559,722	N/A	\$420,921	\$980,643

2	Planning Study	\$1,642,112	N/A	\$0	\$1,642,112
3	Environmental Documentation and Permit Support	\$1,529,310	N/A	\$279,052	\$1,808,362
4	Develop On-Site Borrow and Spoil Requirements	\$360,862	N/A	\$0	\$360,862
5	Design Support	\$120,339	N/A	\$16,038	\$136,377
6	Supplemental Services	\$691,485	N/A	\$600,000	\$1,291,485
Total NTE Fee		\$4,903,830	\$0	\$1,316,011	\$6,219,841

*** Not-to-Exceed**

Staff also recommends extending the expiration date of the Agreement from May 17, 2017 to May 17, 2020 to allow adequate time for preparation of the CEQA documents and acquisition of permits.

FINANCIAL IMPACT:

The current estimated Project cost for planning, environmental documentation, design, and construction of both the Calero and Guadalupe Dams is about \$150 million. There are adequate funds in the Project's Board-adopted Fiscal Year 2016-2017 budget to encumber this fiscal year's planned expenditure for the Consultant's scope of work as proposed in this Amendment No. 2.

CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment. Once Project development is complete, a CEQA environmental analysis will be provided for the Board to consider as part of its Project approval process.

ATTACHMENTS:

Attachment 1: Amendment No. 2

UNCLASSIFIED MANAGER:

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