



Topic: **Reservoir Committee Agenda Item 1-4**

2020 April 17

Subject: **Contract and Task Order for Service Area HC - Engineering Conveyance (CH2M Hill Engineers, Inc.)**

Requested Action:

Approve a consulting agreement with CH2M Hill Engineers, Inc. (CH2M) for Service Area HC – Engineering Conveyance and approve an initial task order and budget in the not to exceed amount of \$597,023.00 for services through August 31, 2020.

Detailed Description/Background:

Staff has worked with CH2M Hill Engineers, Inc. to negotiate a Consulting Services Agreement for Service Area HC – Engineering Conveyance and developed an initial task order utilizing funds from the approved Phase 2 Amendment 1B Budget to support the Engineering task thru August 31, 2020. The standard form of the Authority consulting agreement is being used for this work with a few minor exceptions requested by the consultant which Authority legal counsel reviewed and approved.

Prior Action:

August 22, 2019: Approved the General Manager to enter into negotiations with CH2M Hill Engineers, Inc.

June 20, 2019: Approved the release of the Engineering Services RFQ-19-03.

Fiscal Impact/Funding Source:

Sufficient funding for this task order has been assigned from the Phase 2 Amendment 1B Work Plan approved by the Authority Board of Directors and the Reservoir Committee.

Staff Contact:

Joe Trapasso

Attachments:

Attachment A: Task Order #1 and billing rates



Sites Reservoir Project

Sites Project Authority Engineering – Conveyance Task Order

Consultant: CH2M Hill, Inc.

Task Order No. 1.0

Task Order No. 1.0 provides work activities for CONSULTANT on their Consulting Agreement with the Authority for Engineering - Conveyance services for the period of performance from April 23, 2020 through August 31, 2020.

Scope of Services

This task order scope of services which includes tasks, deliverables and assumptions for these tasks is provided in Attachment 1.

Budget

The total not to exceed budget amount for this task order is \$597,023.00. Budgets for each individual task within the scope of services may be further refined in the early stages of the task order as the priorities for each task are further defined by the Authority Staff. The budget is provided in Attachment 2.

Schedule

The period of performance for this task order is April 23, 2020 through August 31, 2020.

Labor Rate Table

The CONSULTANT labor rate table for this task order is included in Attachment 4.

Funding Agreement

The Sites Project is funded by several funding sources. The CONSULTANT agrees they will comply with fund reporting requirements and with supporting Program reporting requirements. As not all funding agreements have been executed; reporting requirements continue to develop. In general, record-keeping and invoicing shall comply with Generally Accepted Accounting Principles and as implemented in established Program procedures and documentation.

Random internal audits of all Service Areas will be conducted by Project Controls during the project period of performance. These audits will be conducted to review internal controls for the fair presentation of record keeping and invoicing.

The Project will be subject to state and/or federal audits besides the standing annual project audits which will be conducted by an external CPA. It is the intention of Project Controls to develop reports which will satisfy these audits, however, the CONSULTANT will be required to provide support.

Commercial Terms

Annual salary increases shall not be related to any specific Consumer Price Index, applied summarily to all staff. Allowable increases shall be based, at this time, on individual merit increases plus GSA FAR approved overhead (where available) and 10% profit. Each firm will be allowed to submit their revised, updated rate sheet on an annual basis. The new rates should be submitted 30 days prior to the effective date of increase.

The only exception to this annual increase restriction is a merit increase related to the acquisition of Professional Engineer licensure or acquisition of other professional, technical licensure related to the work they are providing under this task order. The Program will honor salary increases related to acknowledgement of competency in the form of professional, technical licensure based on their effective date.

The Authority will reimburse non-labor/other direct cost only at the CONSULTANT's actual cost

This Task Order, incorporating the above Attachments and Additional Contract Documents, is hereby executed by duly authorized representatives of the parties.

CONSULTANT

Sites Project Authority

By: _____ By: _____

Printed Name: _____ Printed Name: _____

Date: _____ Date: _____

Attachment 1

Scope of Services for Task Order HC01 – Initial Services for Conveyance Engineering

This scope of services involves initial Conveyance Engineering efforts needed to support the Sites Project Authority (Authority) through the completion of work from April 23, 2020 through August 31, 2020. In general, this scope includes activities in support of the scope outlined in the Authority’s Request for Qualifications (RFQ) No. 19-03 and the Statement of Qualifications (SOQ) prepared by CH2M HILL.

BACKGROUND

Engineering efforts will be undertaken to support the environmental impact assessment of the Preferred Project identified through the value planning process (VP7).

Work will include completing feasibility level designs of project features, developing feasibility level drawings of project features for use in estimating quantities and assessing impacts, assessing haul routes, identifying construction activities and schedules and identifying key operation and maintenance activities. The effort will also include completing real estate efforts (by others) with respect to obtaining access and assessing potential alignments and associated impacts. The work will be completed at a level of detail to support the environmental impact evaluations, and to support the future development of a Class IV cost estimate.

Work will be performed by the HC (CH2M HILL) and HR (AECOM) service providers through separate contracts with the Authority. The division of the feasibility level designs of facilities will reflect the intent of Table 6.3: Facilities By Engineering Service Area (HC vs HR) and Planned Engineering Role from the Sites Project Authority Request for Qualifications, Engineering Services RFQ No. 19-03, July 5, 2019. It should be noted that a number of the facilities in Table 6:3 are no longer relevant.

Task HC01—Project Coordination

This task involves coordination and meetings between CH2M HILL, the Authority and its Consultants.

Task HC01.1—Study Team Meetings

CH2M Hill will coordinate a project kick off meeting with the Authority and the HC and HR service providers. At the meeting, the scope of work, functional organization, roles and responsibilities, Quality Control and Assurance Plan (QCAP), and deliverables schedule will be discussed.

CH2M Hill will coordinate and attend bi-weekly study team meetings with the Authority to discuss project progress and issues that may affect project feasibility design or schedule. Appropriate consultant team members will attend as needed. CH2M Hill will document project meetings and distribute meeting notes to appropriate project team members. Resolution will be reached on the technical aspects of the project.

It is expected that coordination with the Authority, other consultant teams, agencies and stakeholders will occur throughout the duration of the project.

Assumptions:

- Project Kickoff meeting would be full day meeting in Sacramento attended by 2 consultant staff.
- The study team meetings will be attended via conference call by one consultant staff member..
- CH2M Hill has budgeted 26 hours for this task.

Deliverables:

Meeting agenda's and action items as applicable

Task HC01.2—Agency Meetings

CH2M Hill will prepare for and attend a total of 3 meetings. Attendance may be for a work group, the Reservoir Committee or an Authority Board meetings as requested.

Assumptions:

- Work Group, Reservoir Committee or Authority Board meetings will be attended in person by one individual in either Maxwell or Sacramento
- CH2M Hill has budgeted 18 hours for this task.

Deliverables:

- none

Task HC02—Engineering Support for Project Description of Preferred Project from Value Planning.

Task HC02.1 Coordinate with Integration and HR teams to identify CADD and GIS standards

CH2M HILL will coordinate with the integration and HR teams to identify CADD and GIS standards. Consideration will be given to effectively use the CADD and GIS products developed for the previous EIR/S and feasibility design efforts. The process for efficiently converting the CADD drawings to GIS will be established.

CH2M Hill will obtain all the previous applicable facility drawings and Figures related to Conveyance Facilities from AECOM and organize into our Project Wise system.

Assumptions:

- There would be a meeting with the GIS lead , the CADD lead and Design Lead from CH2M HILL with HR consultant and Integration consultant.
- CH2M Hill has budgeted 24 hours for this Task.

Task HC02.2 Coordinate with the Environmental Team (ICF)

Consultant will coordinate with the environmental team to confirm the Preferred Project as identified through the value planning process for the EIR/S and related engineering support. .

Assumption: CH2M Hill has budgeted 8 hours for this Task.

Task HC02.3 Coordinate with Operations Team (Jacobs/CH2M Hill)

Operations modeling will be ongoing. CH2M Hill will coordinate with the Operations Team to finalize the storage and conveyance capacities for use in feasibility design. The operations team will provide the capacities that will be serve as the basis of design for storage and conveyance facilities. Currently CH2M Hill is assuming 1,000 cfs for outlet conveyance design.

Assumption: CH2M Hill has budgeted 16 hours for this task.

Task HC02.4 Assist Authority in Obtaining Information from Reclamation

The HR service provider will develop a list of information and materials needed from Reclamation to support the Authority's project description and feasibility report so that the Authority can coordinate with Reclamation to determine approach to leverage material developed for Reclamation's Feasibility Study.

Assumptions:

- CH2M Hill will coordinate with HR service provider for any Conveyance Facility needs
- CH2M Hill has budgeted 10 hours for this Task.

Task HC02.5 Prepare Project Base Map for Feasibility Design

CH2M Hill will take the lead on developing the digital aerial and topographic base map using best available information. The HR service provider will coordinate with and support CH2M Hill to prepare project base. The HR service provider will provide the CH2M Hill with topography used for their previous activities.

Assumption: CH2M Hill has budgeted 160 hours for this task.

Task HC02.6 Prepare Basis of Feasibility Design

Develop a Basis of Feasibility Design technical memorandum that describes the key project features, the accepted project design criteria and considerations by major engineering discipline, that will be carried through the feasibility design. Development of the basis of feasibility design will give appropriate consideration to the criteria employed for the Reclamation Feasibility Study .

Assumption: CH2M Hill has budgeted 352 hours for this task. Our subconsultants Vanderweil and Geosyntek will be contributing to this task.

Deliverables: A draft and final Basis of Feasibility Design Technical Memorandum

Task HC02.7 Conduct Field Visit of Key Project Facilities.

Conduct field visits of key project facilities in coordination with Authority to gain site access. The purpose of the site visits will be to observe site characteristics and constraints that may influence the feasibility level design. Since project facilities are scattered over a wide geographic area, this is assumed to take one full day for 9 key team members.

Assumption: CH2M Hill has budgeted 72 hours for this task.

Task HC02.8 Coordinate With Real Estate Team

Coordinate proposed conveyance alignments, facility site areas, and facility site access with the Authority and the real estate team, so that the real estate team can identify needs and associated project costs.

Assumption: CH2M Hill has budgeted 16 hours for this task.

Task HC02.9 Complete feasibility level design, technical studies and TMs of key features

Complete the feasibility level designs, CADD drawings and supporting technical studies to support a Class IV construction cost estimate. The study methodology, findings and recommendations will be documented in technical memorandums or in sections of a basis of design report. Evaluations for the respective key project features may include:

- Geology and Seismicity – The HR service provider will coordinate the Project Geology and Seismicity TM with input and review from CH2M HILL.
- Geotechnical
- Hydraulic design
- Site Civil
- Structural
- Mechanical
- Electrical
- Power Transmission
- Substations

Assumptions:

- Groundwater/dewatering impacts, Instrumentation & Control, Hydraulic modeling, HVAC, and converting drawings to GIS for the Environmental Team will be part of the Amendment 2 Work Plan (beginning September 1st, 2020).
- A Class IV Construction Cost Estimate will only be done for the conveyance facilities that have changed significantly as a result of the Value Planning effort. CH2M Hill has budgeted 160 hours for cost estimating.
- CH2M Hill has budgeted 882 hours for this task including the cost estimating listed above. Our subconsultants Vanderweil and Geosyntek will be contributing to this task.

Deliverables: TM's and calculations to support the environmental effort as limited by the assumptions above.

Task HC02.10 Complete feasibility level design CADD Drawings of key features

Complete the feasibility level design CADD drawings of key features to support a Class IV construction cost estimate.

Assumptions:

- The majority of the drawings will be taken from the HR Service Provider's previous work. CH2M Hill anticipates approximately 20 new drawings.
- CH2M Hill has budgeted 384 hours for this task. Our subconsultants Vanderweil and Geosyntek will be contributing to this task.

Deliverables: Drawings to support the environmental effort as limited by the assumptions above.

Task HC98—Project Management

This task involves work associated with project management and quality control in support of operations analyses conducted for the Sites Project.

Task HC98.1— Project Management

This task includes managing and monitoring the design contract scope, schedule and budget for the project activities. It also includes monitoring project controls task budgets, reviewing labor and expense effort, and coordinating staffing requirements. CH2M Hill will follow the Authorities required controls and will provide monthly progress reports that document project activities and update the project schedule and budget status. CH2M Hill will develop a Project Management Plan that includes organization, scope of services, schedule, budget, communications, document control, cost controls, invoicing and reporting procedures.

This task may consist of, but not be limited to, the following activities:

- Generate and review invoice, including preparation of progress report
- Manage subconsultants (contracting, invoice review, etc.)
- Manage staff workload (including weekly tracking of burn rate)
- On-board new staff (approval by client, etc.)

Assumption CH2M Hill has budgeted 124 hours for this task.

Deliverables:

- Monthly invoice to client
- Subconsultant contracts/amendments
- Scope of work for next task order
- Draft and Final Project Management Plan

Task HC98.2— Quality Control

Our team will provide internal quality control reviews for each deliverable provided to the Authority. This task includes time for our reviewers to adequately review and document comments on HC project deliverables.

Develop a draft and final Quality Control and Assurance Plan, which will provide the policies and specific actions that will be taken to ensure that deliverables and supporting documents are complete, conform to standards and are of high quality.

Assumption: CH2M Hill has budgeted 104 hours for this task.

Deliverables:

- Draft and final Quality Control and Assurance Plan

Task HC99—Expenses

This task includes subconsultant costs and all expenses related to travel, meals, etc.

HC99.1 – Subconsultants

Subconsultants will include the following:

Geosyntec – Engineering and geotechnical services related to Funks Reservoir Improvements and the Terminal Regulating Reservoir. Budget for labor and expenses is \$75,000.

Vanderweil Engineering – Engineering and cost estimating services related to power transmission, substations, and interaction with PGE and WAPA. Budget including labor and expenses is \$75,000.

HC99.2 – Travel, Parking, and Meals

Expenses will cover the following to support the engineering tasks.

- 3 round trips from Sacramento to Maxwell
- 5 round trips from Redding to Maxwell
- 10 round trips from Redding to Sacramento
- 10 parking fees for meetings in Sacramento
- 5 lodging nights in Sacramento
- 10 travel meals
- Reprographics, express deliveries, and miscellaneous

Attachment 2 Fee Table

Task ID	Task Name	Fee
HC01	Project Coordination	\$15,378.36
HC02	Engineering Support for Project Description of Preferred Project from Value Planning	\$370,475.17
HC98	Project Management	\$55,469.21
HC99	Expenses & Subconsultants	\$155,700.00
Total Fee		\$597,022.74

Attachment 4 - HC Service Provider Staff Rates

Counter	Service area	Firm (Identify Sub)	Employee (Last, First)	Role	2020 Billing Rate
1)	HC	Jacobs	Alliger, Lisa	Site Development Lead	\$ 272.56
2)	HC	Jacobs	Caulfield, John	Tunnel Lead	\$ 426.40
3)	HC	Jacobs	Cavalleri, Nick	Cost Estimator	\$ 153.27
4)	HC	Jacobs	Cave, Dave	Lead Technician	\$ 173.48
5)	HC	Jacobs	Cusworth, Craig	Electrical	\$ 204.35
6)	HC	Jacobs	Douglas, Ed	GIS Lead	\$ 143.01
7)	HC	Jacobs	Fehringer, Ron	Sr. QC Reviewer	\$ 247.30
8)	HC	Jacobs	Liebersbach, Dennis	Mapping	\$ 99.21
9)	HC	Jacobs	Fox, Bill	Surveying and Mapping Lead	\$ 310.31
10)	HC	Jacobs	Harris, Dean	Reservoir Design	\$ 244.46
11)	HC	Jacobs	Hein, Kim	QC Manager	\$ 202.14
12)	HC	Jacobs	Hendrickson, Lisa	Project Controls	\$ 169.15
13)	HC	Jacobs	Heuhmer, Tyler	GIS	\$ 255.69
14)	HC	Jacobs	Highstreet, Allan	Contract Administration and Compliance	\$ 379.01
15)	HC	Jacobs	Black, Lyna	Environmental Lead	\$ 198.55
16)	HC	Jacobs	Horrick, Nancy	Word Processing	\$ 82.77
17)	HC	Jacobs	Johnson, Michael	SCADA / Communications Lead	\$ 210.56
18)	HC	Jacobs	Kellogg, Ashley	Site Civil/Roads/Traffic	\$ 159.17
19)	HC	Jacobs	Kellogg, Jeremy	Structural	\$ 218.05
20)	HC	Jacobs	Lawson, Peter	Engineering - Groundwater Modeling	\$ 257.05
21)	HC	Jacobs	Martinez, Kevin	Mechanical/HVAC	\$ 130.51
22)	HC	Jacobs	Maschke, Nancy	Pipeline Design	\$ 149.93
23)	HC	Jacobs	McCullough, Nason	Reservoir Design	\$ 255.26
24)	HC	Jacobs	Memeo, Brad	Engineering - General Assistance	\$ 211.92
25)	HC	Jacobs	Mercado, Cynde	Civil Engineer	\$ 104.37
26)	HC	Jacobs	Parker, Steve	Control Systems	\$ 174.48
27)	HC	Jacobs	Randall, Mark	Lead Structural	\$ 237.46
28)	HC	Jacobs	Randall, Mike	Engineering - General Assistance	\$ 220.74
29)	HC	Jacobs	Reiser, Sonja	Reservoir Design - Sr. QC	\$ 200.41
30)	HC	Jacobs	Riess, Mike	Pump/Generating Plant Lead	\$ 204.81
31)	HC	Jacobs	Rude, Pete	Project Manager	\$ 350.94
32)	HC	Jacobs	Sandifer, Austen	Technical Editor	\$ 112.48
33)	HC	Jacobs	Smith, Jeff	Conveyance Lead	\$ 343.08
34)	HC	Jacobs	Smith, Joel	Conveyance Technician	\$ 145.14
35)	HC	Jacobs	Twede, Mark	Geotechnical Lead	\$ 194.43
36)	HC	Jacobs	Montgomery, Carol	Graphics	\$ 86.51