Title: Supplemental Agreement: Florin Reservoir Air Quality Improvements to the Back-Up Engine Project

Location: District 6

Recommendation: Pass a Motion authorizing the City Manager or the City Manager’s designee to execute Supplemental Agreement No. 1 to City Agreement 2018-0656 with HydroScience Engineers Inc. to provide additional design services and construction support services for the Florin Reservoir Air Quality Improvements to the Back-Up Engine Project, for an amount not-to-exceed $141,653, bringing the agreement’s total not-to-exceed amount to $269,061, and extending the agreement term to June 30, 2020.

Contact: Megan Thomas, Project Manager (916) 808-1729; Michelle Carrey, Supervising Engineer (916) 808-1438; Dan Sherry, Engineering & Water Resources Division Manager, (916) 808-1419; Department of Utilities

Presenter: None

Attachments:
1-Description/Analysis
2-Supplemental Agreement No. 1
Description/Analysis

**Issue Detail:** Staff recommends Council approve Supplemental Agreement No. 1 with HydroScience Engineers, Inc. to provide additional design services and construction support services for the Florin Reservoir Air Quality Improvements to the Back-Up Engine Project. All of the improvements associated with this design are to ensure a safe working environment for staff and better monitoring of the water flow and pressures through the facility.

**Policy Considerations:** The proposed supplemental agreement exceeds the City Manager’s approval authority, requiring Council approval. This work is consistent with the criteria set forth in the Department of Utilities (DOU) Capital Improvement Project Programming Guide to rehabilitate, replace, and expand critical infrastructure to ensure reliability and safety.

**Economic Impacts:** None.

**Environmental Considerations:** Per the California Environmental Quality Act (CEQA) Guidelines Section 15061(b)(3), approval of the proposed Supplemental Agreement is exempt from the CEQA, under the general rule that CEQA only applies to actions with potential to significantly affect the environment. Approval of this Supplemental Agreement for additional engineering services will not affect the environment. Appropriate evaluation and documentation of the environmental effects of the project as required by CEQA will be completed prior to future project approval.

**Sustainability:** The proposed project is consistent with the 2035 General Plan by improving infrastructure reliability, which will ensure continued safe operation and maintenance of the existing facilities at Florin Reservoir and Pump Station.

**Commission/Committee Action:** Not applicable.

**Rationale for Recommendation:** Originally, there were three separate projects in design to make improvements to the Florin Pump Station. Upon further review, City staff evaluated the designs and determined it would be more cost effective to combine these projects, due to common impact points such as parallel conduit installation, concrete work, and shutdown needs at the site. The proposed supplemental agreement will provide support services necessary for the separate projects to proceed as one coherent project.

In addition, since the project contains structural, air quality, and electrical improvements that are not typically assessed by in-house staff, Supplemental Agreement No. 1 provides special inspection to ensure the construction is built per plans and meets regulatory requirements.
Financial Considerations: The original Florin Reservoir Back-Up Engine contract has a not-to-exceed amount of $127,408. The proposed Supplemental Agreement No. 1, with HydroScience Engineers, Inc. in the amount of $141,653 will increase the not-to-exceed amount to $269,061. Sufficient funds are available in the Florin Reservoir Back-Up Engine Project (Z14130100) to execute the agreement.

There are no General Funds allocated or planned for this project.

Local Business Enterprise (LBE): HydroScience Engineers, Inc. is an LBE.

Background: The City of Sacramento Florin Reservoir, including the Florin Pump Station, is a vital component of the City’s water distribution system. Besides being a significant water storage site, the pump station is used to manage water pressure throughout the distribution system.

The pump station was originally constructed in 1972 with three engine driven pumps and provisions for future storage and pumping capacity. Since that time, with the routine use of all three pumps, there is concern of not having adequate redundant pumping to allow for preventative maintenance on the pumps.

In response to this concern, DOU contracted with Carollo Engineers, Inc. to complete a pre-design report for the site including a review of pump sizing and selection, the potential installation of electric pumps and motors, assessment of the site access, assessment of the air quality and venting of the building, and review of the electrical system and controls.

Based on the results of the report, staff established the Florin Reservoir Back-Up Engine Project, consisting of several enhancements designed to improve the reliability of the Florin Reservoir. Part of these improvements include the design and construction of an improved venting system, upgrades to the secondary emergency exit, and replacement flow meters to the site.

The existing agreement with HydroScience addressed only the design for the improved venting system. The design for the flow meters and the secondary exit were already completed but had not yet gone out for construction. Supplemental Agreement No. 1 will extend the contract with HydroScience to merge the completed designs for the venting system, secondary exit, and flow meters into a single construction bid set. The supplemental will also provide needed specialty inspection and construction support when these improvements go out for public bid later this year.
SUPPLEMENTAL AGREEMENT

Project Title and Job Number: Folsom Reservoir AG Improvements to the Back-up Engine, Z14130002
Purchase Order #: SACTO-0000044245

The City of Sacramento ("City") and HydroScience Engineers, Inc. ("Contractor"), as parties to that certain Professional Services Agreement designated as Agreement Number 2018-0656, including any and all prior supplemental agreements modifying the agreement (the agreement and supplemental agreements are hereafter collectively referred to as the "Agreement"), hereby supplement and modify the Agreement as follows:

1. The scope of Services specified in Exhibit A of the Agreement is amended as follows:

   The Scope of Services is amended as set forth in Attachment 2 to Exhibit A, attached hereto and incorporated herein. Payment for these services shall be in accordance with Attachment 2 to Exhibit B, attached hereto and incorporated herein. The sunset date of this agreement is extended to June 30, 2020.

2. In consideration of the additional and/or revised services described in section 1, above, the maximum not-to-exceed amount that is specified in Exhibit B of the Agreement for payment of Contractor's fees and expenses, is increased by $141,653.00, and the Agreement's maximum not-to-exceed amount is amended as follows:

   Agreement's original not-to-exceed amount: $127,408.00
   Net change by previous supplemental agreements: $0.00
   Not-to-exceed amount prior to this supplemental agreement: $127,408.00
   Increase by this supplemental agreement: $141,653.00
   New not-to-exceed amount including all supplemental agreements: $269,061.00

3. Contractor agrees that the amount of increase or decrease in the not-to-exceed amount specified in section 2, above, shall constitute full compensation for the additional and/or revised services specified in section 1, above, and shall fully compensate Contractor for any and all direct and indirect costs that may be incurred by Contractor in connection with such additional and/or revised services, including costs associated with any changes and/or delays in work schedules or in the performance of other services or work by Contractor.

4. Contractor warrants and represents that the person or persons executing this supplemental agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this supplemental agreement and bind Contractor to the terms hereof.

5. Except as specifically revised herein, all terms and conditions of the Agreement shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by this supplemental agreement.

Approval Recommended By:

[Signature]
Project Manager

Approved By:

[Signature]
Contractor

[Signature]
City of Sacramento

Approved As To Form By:

[Signature]
City Attorney

Attested To By:

[Signature]
City Clerk

(Rev. 9-17-12)
February 23, 2019

Megan E. Thomas, PE  
City of Sacramento  
Department of Utilities  
Engineering and Water Resources  
1395 35th Avenue  
Sacramento, CA 95822

Subject: Amendment Request – Additional Engineering Services  
Florin Pump Station Ventilation Improvement Project

Dear Ms. Thomas:

HydroScience Engineers is providing design and will provide engineering during construction services to improve the ventilation of the Florin Pump Station. The City has requested a budget proposal for additional engineering services to (1) assist the City in incorporating flowmeter and secondary exit improvements (prepared by others) into a single biddable package of plans and specifications, and (2) providing inspection support during construction. This letter provides a proposed scope and fee for these services.

Scope of Work

Our proposed scope of work for additional services is as follows. These tasks would be incorporated into the existing contracted Tasks 1-3.

Task 2.1 – Incorporation of Additional Plans and Specifications

HydroScience will incorporate plans and specifications prepared by others for the following additional improvements to the Florin Pump Station:

- Secondary Exit Improvements (Carollo Engineers)
- Flowmeter Replacement (City)

These additional drawings and specifications will be incorporated into a single biddable set of plans and specifications containing three distinct sections.

The work of this task will be as follows:

- City to provide draft plans and specifications for above items in editable file format.
- HydroScience to review draft documents for compatibility with draft ventilation plans, including coordination of callouts and references.
- HydroScience to review electrical, instrumentation and controls design to check for interdisciplinary compatibility, coordinated conduit numbering, and proper incorporation of
ventilation elements. HydroScience to propose modifications to fan callouts on the secondary exit improvements sheets.

- HydroScience to perform a cursory check of the designs for correctness and clarity. HydroScience is not taking design responsibility for or stamping the designs prepared by others, but will identify any issues that are observed.
- HydroScience to prepare up to 5 sheets of additional civil/electrical details for the flowmeter replacement.
- HydroScience to prepare up to three general sheets including cover sheet and notes pages.
- HydroScience to mark up plans and specifications with any proposed changes and submit to City for review and comment. Any proposed changes on exit improvements plans will be forwarded by the City to Carollo Engineers.
- After City concurrence, HydroScience will modify the City-prepared flowmeter plans in AutoCAD.
- HydroScience to assist the City in customizing the City’s boilerplate front-end specifications for the project.
- HydroScience to consolidate technical specifications for the three project parts, review these specifications, verify that all technical items are covered, and propose any changes to the specifications.

**Deliverables:**

- Markups on draft plans provided by City
- 99% DRAFT combined plans and specifications in PDF
- 100% combined plans and specifications in PDF and native CAD and Word formats

**Meetings**

- One coordination meeting at City offices

**Task 3.1: Additional Engineering Services During Construction**

HydroScience will provide an additional 5 RFI reviews and 10 submittal responses to supplement the quantities covered in the contracted scope of work. These additional reviews shall be utilized to address the flowmeter and exit improvement elements.

**Deliverables:**

- 5 RFI responses
- 10 submittal responses

**Task 4: Inspection Support**

HydroScience will provide inspection support to the City during the construction phase, up to an average of 4 hours per day for 6 months (520 hours maximum), as follows:

- Support the City’s Resident Engineer
- Verify that the work being performed is in compliance with the plans, specifications, and City requirements.
- Fill out daily inspection reports utilizing the City’s web-based format
- Take a minimum of 10 photos per day and upload them to the City’s web-based system
- Provide up to 5 days of night work support, included in the total hours above.
- Provide Structural Special Inspection for rebar, anchors, and concrete.

HydroScience will provide an electrical engineer to provide up to four site visits of 2 hours each to verify that conduit and wire are installed in accordance with the contract documents and City standards.

**Deliverables:**
- Inspection reports
- Photos

**Budget**

For completion of the additional scope of work described above, HydroScience proposes a not-to-exceed budget of $141,653, as detailed in Attachment A. All work would be performed on time-and-materials basis up to this not-to-exceed amount.

Given the potential for building plan check review and subsequent comments, we recommend that the City hold a contingency for additional engineering services, should they be required. A contingency of $10,000 should be considered and is shown in Attachment A. HydroScience would present any scope deviations for the City’s consideration and obtain written City approval prior to utilizing any contingency budget.

We appreciate your consideration of this amendment request. Please contact me if there are any questions about this proposal.

Sincerely yours,

HYDROSCIENCE ENGINEERS, INC.

Bill Slenter, P.E.
Vice President

Attachments
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<thead>
<tr>
<th>Task Description</th>
<th>Bill Slenter - PM</th>
<th>Mike Jensen - QA/QC</th>
<th>Mike Marandi - Electrical</th>
<th>Mike Hernandez - Electrical Support</th>
<th>Drafting Support</th>
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Bill Slenter
HydroScience Engineers
10569 Old Placerville Rd.
Sacramento, Ca 95827

Subject: PROPOSAL FOR CONSTRUCTION AND SPECIAL INSPECTION
Florin Reservoir Pump Station Improvements
Sacramento, California

Dear Mr. Slenter:

Blackburn Consulting (BCI) prepared this proposal at your request for the Florin Reservoir Pump Station Improvements Project in Sacramento, California. This proposal includes Basis of Proposal, Scope of Services, and Fee Estimate.

**BASIS OF PROPOSAL**

We based our scope of services and fee estimate on the:

- Florin Reservoir Pump Station Improvement Plans dated February 2017,
- Meter Replacement at Florin Pump Station Plans dated August 2017,
- Florin Pump Station Ventilation Improvements Project Plans dated September 2018, and
- City of Sacramento Standard Specifications.

**SCOPE OF SERVICES**

BCI proposes the following scope of services for materials testing:

**Construction Inspection**

- Perform daily construction inspection to verify materials and work performed are in conformance with the contract documents (500 hours).
  - BCI will provide as needed inspection to support the City of Sacramento at an average of four hours per day. We understand that construction inspection could be needed from as little as 1 to 2 hours per day up to 8 hours per day.
- Perform construction inspection during night shift operations to verify materials and work performed are in conformance with the contract documents (assumed 5, 4-hour days).
- Provide photo documentation of construction activities with a minimum of 10 photographs per day of construction inspection.
- Complete daily inspection reports using web-based field reporting software.
- Refresher training for confined spaces will be provided to our proposed staff prior to the start of the project.
PROPOSED STAFF

We propose Donald Black as the primary inspector for this project. Don’s experience and availability make him a great choice to cover the services required. We also have a deep bench of other qualified inspectors to support Don should backup or replacement be required. We include brief bios of key staff below.

**Don Black, Senior Inspector**
Mr. Black has 24 years of experience working as a construction manager and senior inspector on public works projects. He proficiently monitors and documents construction progress, tracks labor, equipment, and materials quantities, tracks change order and force account work, verifies grades, and documents construction activities in accordance with project requirements. He proactively communicates with project stakeholders to support timely and efficient construction progress.

**Bryce Moore, Director of Construction Services/Senior Inspector**
Bryce Moore serves as BCI’s Director of Construction Services and has been with the company for over 12 years. Bryce’s experience of over 16 years includes management, inspection, and materials testing for pump stations, pipelines, public works infrastructure, city and county roadways, levees, Caltrans roadways and bridges, subdivisions, and schools’ projects. He is Caltrans, ICC, and ACI certified. Bryce has performed construction inspection of roadways, airports, pipelines, and pump stations and currently is the acting Construction Manager for the Sperry Avenue Improvements Project in Patterson, CA.

FEE ESTIMATE

We estimate a fee of $89,010 to provide the materials testing scope of services described above. An itemization of our fee estimate is attached. Our estimate is based on limited information, and depends greatly on factors unknown now, such as potential changes to the Plans and Specifications, the contractor’s schedule, re-testing, engineering involvement, etc. Our experience shows that our fee could be up to 15% more or less than our estimate. We will notify you in a timely manner if we anticipate exceeding our estimate.

Thank you for including Blackburn Consulting on your project team. We look forward to working with you. Please let us know if you have questions or need more information.

Sincerely,

BLACKBURN CONSULTING

Reviewed by:

Bryce W. Moore  
Field Services Manager

David J. Morrell, P.E., G.E.  
Senior Project Manager

Attached: Fee Estimate Itemization
### Fee Itemization for Construction Inspection

**Florin Reservoir Pump Station Improvements, Meter Replacement, and Ventilation Improvements**  
Sacramento, CA

**March 4, 2019**  

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**Total Estimated Fee**  

**$89,010**