



## ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

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**ORIGINATING SECTION: FACILITIES ENGINEERING**  
**CONTACT: Mona Olmsted / Rhett Alzona**

**AGENDA DATE:** November 14, 2018

**ITEM NO. 7a**

**SUBJECT:** Contract Amendment for the PPWTP Upgrades and Ozonation Project

### **SUMMARY:**

- The Board previously authorized a professional services agreement with CDM Smith for planning and design engineering services for the project known as the PPWTP Upgrades and Ozonation Project (PPWTP Project) for a total not-to-exceed amount of \$4,160,000. As the project progressed to 30% design, additional out-of-scope items were identified, resulting in a \$200,000 contract amendment authorized by the Board in March 2018, increasing the total contract to a not-to-exceed amount of \$4,360,000.
- As the PPWTP Project is close to finalizing the design for advertisement for bids, another amendment is needed to address additional out-of-scope items.
- Additional out-of-scope items include design of new plant entrance gate for site security & safety, new fire protection pump system, additional electrical work, other miscellaneous items, and design clarifications applying lessons learned from the DVWTP Ozonation Project.
- Staff recommends that the General Manager be authorized to negotiate and execute an amendment to the professional services contract with CDM Smith, for the identified engineering services in an amount of \$300,000, increasing the total contract to a not-to-exceed amount of \$4,660,000.
- Overall, CDM Smith's effort for the project has been efficient and represents less than 6% of the estimated project construction costs (approximately 6.5% including approval of this amendment). These engineering efforts typically range 8% to 10% of construction costs.

### **FUNDING:**

Funding for the PPWTP Upgrades Project is from Fund 120 – Renewal & Replacement/System-Wide Improvements (30%) and Fund 130 – Expansion (70%). Funding for the PPWTP Ozonation Project is from Fund 120 – Renewal & Replacement/System-Wide Improvements (50%) and Fund 130 – Expansion (50%). Funding is available in Fund 120 and Fund 130, with the ozone construction phase cost share of Fund 120 to be debt financed.

### **RECOMMENDED ACTION:**

Adopt the attached resolution.

### **BACKGROUND:**

At the April 2016 Board meeting, the Board authorized a professional services agreement with CDM Smith for planning and design engineering services for the PPWTP New Media Filters and Clearwell Project (now known as the PPWTP Upgrades and Ozonation Project) in an amount not-to-exceed \$2,200,000, which included a 10% contingency. At the time, the PPWTP Project scope included construction of three new media filters with a combined capacity of 12 MGD to replace the capacity of

the existing ultrafiltration (UF) plant and a new clearwell with 5 MG of usable capacity to help meet peak hourly and maximum day demands.

At the December 2016 Board meeting, the Board authorized an amendment to the CDM Smith contract for the PPWTP Project to include the scope for planning and design services for PPWTP Ozonation related facilities and improvements, increasing the authorized contract amount by \$1,960,000, for a total not-to-exceed amount of \$4,160,000, which included a 10% contingency. The combined project was renamed the PPWTP Upgrades and Ozonation Project.

At the March 2018 Board meeting, the Board authorized a \$200,000 amendment to the design services contract, for a total cost not-to-exceed \$4,360,000. This amendment and the remaining contingency covered design of additional necessary project elements that were identified in the 30% design that were not included in the initial project scope. This included additional chemical systems and upsizing of electrical systems; a backup chlorine contact time (CT) basin; site drainage improvements and piping modifications; demolition of the UF facilities; and relocation of the ferric chloride facilities.

**DISCUSSION:**

As the PPWTP Project is close to finalizing the design for advertisement of bids, additional, necessary out-of-scope design elements items were identified. These include: design of a new gate entrance, guard shack, control systems, and associated modifications to the culvert on Patterson Pass Road; a fire pump system to meet fire protection system hydraulic requirements; overflow piping systems from the clarifiers to the detention pond to meet State permit requirements; demolition and replacement of a portion of the sludge line and sludge valve vault in conflict with the location of ozone facilities; and additional electrical design clarifications to apply lessons learned from the DVWTP Ozonation Project construction in order to minimize confusion for contractors and avoid potential change orders that may be costly and/or delay the project schedule. The cost for this additional design work effort and clarifications is approximately \$275,000. One of the lessons learned was designing electrical facilities to mitigate PG&E non-responsiveness which, in turn, adds electrical service reliability and allows the contractor to schedule and construct electrical facilities more efficiently during construction.

Staff recommends a contract amendment to CDM Smith in the amount of \$300,000, for the additional design effort and contingency for clarifications in addenda during the bid advertisement period.

The bid package is expected to be completed soon, with bid opening and construction contract award planned for January.

**ATTACHMENT:**

Resolution

ZONE 7  
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY  
SECONDED BY

***Contract Amendment for the PPWTP Upgrades and Ozonation Project***

WHEREAS, Zone 7 is currently in the design phase of the PPWTP Upgrades and Ozonation Project; and

WHEREAS, CDM Smith Inc., is the design consultant for the PPWTP Upgrades and Ozonation Project; and

WHEREAS, during the course of design, additional elements were identified that need to be incorporated into the plans and specifications to implement the project; and

WHEREAS, the authorized design amount for CDM Smith's contract is not sufficient to cover the design costs of these additional scope elements.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby authorize the General Manager to negotiate and execute an amendment to the professional services contract with CDM Smith, for planning and design engineering services in an amount of \$300,000, increasing the CDM Smith's contract total to a not-to-exceed amount of \$4,660,000.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on November 14, 2018.

By \_\_\_\_\_  
President, Board of Directors