



CITY OF LOMITA CITY COUNCIL REPORT

TO: City Council **Item No. CC 7f**

FROM: Ryan Smoot, City Manager

PREPARED BY: Mark A. McAvoy, P.E., Public Works Director/City Engineer

MEETING DATE: November 7, 2017

SUBJECT: Consider Approval of Amendment No. 3 to an Agreement with Hazen and Sawyer for the Cypress Water Production Facility Upgrades Project

RECOMMENDATION

It is recommended that City Council:

1. Approve Amendment No. 3 to a Professional Services Agreement with Hazen and Sawyer Engineers and Scientists for the Cypress Water Production Facility Upgrades Project, in the amount of \$287,560; and
2. Budget an additional \$102,358 for the project in the 2017-18 budget, as outlined in the fiscal impact section; and
3. Provide feedback on potential funding sources for construction of Granular Activated Carbon Filtration at the Cypress Water Production Facility.

BACKGROUND

The Cypress Water Production Facility (CWPF) provides a mixture of treated groundwater and imported surface water to pressure zone 1 (portion of the City north of Pacific Coast Highway). At the July 22, 2015 City Council meeting, an agreement was approved with Hazen and Sawyer Engineers and Scientists (Hazen) to prepare a design for providing blended water to pressure zone 2 (portion of the City south of PCH and north of 263rd St) as well as to reduce the cost of imported surface water and use more of the City's groundwater rights, and include other changes necessary to improve operations at the CWPF and enhance chloramination residual management that the State Drinking Water Division requested. The original scope of work included the following items:

- Additional upgrades to CWPF at the recommendation of the State Drinking Water Division and Hazen to address chloramination residual management

- Modifications to CWPF for the pressure zone 2 blended water connection
- Upgrades to CWPF to address deficiencies from the original TetraTech design, related to plant automation and other operations
- New 14” transmission main from Appian Way Pressure Reducing Station to CWPF for the pressure zone 2 blended water connection.

At the May 3, 2016 Council meeting, Amendment No. 1 to Hazen’s contract was approved to defer the majority of pipeline work until a later date, due to right-of-way constraints as well as system hydraulic considerations. To continue moving forward with increasing the use of the City’s existing groundwater rights and continue the process of improving the overall quality of water produced through CWPF and meet State Division of Drinking Water requirements, Hazen’s new scope included the following:

- Chlorine demand characterization at CWPF
- Assessment of a treatment technology for removing the organic sulfides from groundwater
- Assessment of additional treatment processes that may be needed to improve the quality of various blends of water
- Revision of design at CWPF to accommodate unforeseen changes and modifications
- Development of pipeline alignment design and cross section in Chevron property for license agreement to bring in MWD water to new blending location

Those tasks were completed, and a public water subcommittee meeting was held on June 14, 2016, and at the August 2, 2016 Council meeting Amendment No. 2 to Hazen’s professional services agreement was approved. Amendment No. 2 was to investigate more ways to improve taste and odor and ways to reduce hardness and total dissolved solids (TDS) as necessary, to allow the City to utilize more groundwater while continuing to meet all federal and state drinking water standards. The additional scope included:

- Review Water Quality Data for previous years
- Develop Sampling Plan for the Distribution System
- Evaluate Granular Activated Carbon (GAC) for Odor Removal at CWPF
- Data Analysis and Reporting

In addition, isolated testing of water on private property (both inside the house and immediately out front of the house) at select locations was performed. Initial results of aeration showed that it was not effective in sulfide odor removal, so the next odor removal technology recommended for bench testing was the use of granular activated carbon (GAC) filtration. These tasks were completed earlier this year, and were presented to City Council at the June 6, 2017 meeting via several technical memoranda, in addition to the public water subcommittee meetings held in August and November 2016, and March 2017.

Based on the results of Hazen’s work, presented to the City Council in June 2017, and discussion with the water subcommittee, installing granular activated carbon (GAC)

filtration facilities at CWPF will address the aesthetic concerns of taste and odor to allow for maximization of the City's adjudicated water rights and reduction of imported surface water purchases. In addition, installation of a combined reverse osmosis / nanofiltration facility (RO/NF) could be added at a point in the future, as funding allows, to address any remaining aesthetic concerns related to TDS and hardness. The water subcommittee recommends that the City Council pursue the GAC facility as a first phase, and design it to allow for the addition of an RO/NF facility as a future second phase subject to identifying funding.

The first phase of installing a GAC facility at CWPF is estimated to have a construction cost of \$2.2 million, consisting of GAC facilities at approximately \$1.7 million and additional work on the existing CWPF facility of approximately \$500,000 to make modifications to existing structures and equipment. This does not include costs for design, project management, and construction management. Staff has investigated several possible funding sources, including MWD's local resource program, and is proposing that the cost come from a combination of the following sources: Water Capital Fund, General Fund loan, and/or State Water Revolving Fund loan. MWD's local resource program was determined not to be a viable source of funding, on account of the usage of additional treated groundwater being less expensive than imported surface water. As the exact amount is not yet known until the GAC facility is designed, no action from the City Council related to construction funding is requested at this time except for initial feedback on the use of general fund and/or SRF loans that would be paid back over a set period from savings in the water fund due to decreased imported water purchases.

Staff analyzed the potential savings from increased use of groundwater, including using the remaining adjudicated rights as well as leasing additional rights from others within the West Coast Basin. Over the past three years, the City has used on average about 600 acre feet of groundwater and purchased about 1450 acre feet of imported water. With the GAC facilities installed, the City could pump its remaining adjudicated rights, to the maximum 1352 acre feet, and supply an 80/20 blend to Zone 1. Additionally, the City could lease groundwater from others in the West Coast Basin, and supply 100% groundwater to Zone 1, and potentially Zone 2 as well.

It was determined that annual savings upon completion of the GAC facilities would be between \$295,000 (use of remaining rights) and \$500,000 (leasing additional rights and supplying Zone 1 and Zone 2). This would be the primary source of loan repayment, and presents a conservative, low-risk approach to financing the project costs.

The next step for this project, while staff continues to identify exact funding requirements, is to award a design contract for the facility improvements.

DESIGN SERVICES SELECTION PROCESS

Staff considered issuing a request for proposals (RFP) for these design services, but also requested that Hazen provide a cost to do this design in lieu of the standard RFP process. Staff is requesting a sole source purchase for this work, in accordance with the Purchasing Ordinance (Municipal Code sections 2-6.16 and 2-6.18) that allows for a

sole source when it would be economically advantageous for the City, and when it would not be feasible to obtain multiple proposals.

Hazen has a unique understanding of the CWPF, having been a part of the process over the past four years of meeting with the State Division of Drinking Water to understand their required upgrades and modifications to CWPF and its impacts on the distribution system. They have assisted in the public water subcommittee meetings, and performed the aforementioned water quality testing of the distribution system to fully understand how to meet the aesthetic standards to allow additional use of the City's groundwater. They performed third party review of the previous TetraTech design, and were willing to "take over" the TetraTech design to modify and tier off with the additional modifications that the State is requiring.

Their work on the original scope of work and the subsequent amendments have resulted in there being partial design of several components of the CWPF Upgrades project, which will result in a lower overall design cost for this next phase of work. Procuring a different consulting firm would result in a "redo" of several components of the project.

The Hazen proposal was reviewed by staff, and the final negotiated fee that is being presented tonight is for \$287,560. With an estimated cost of \$2.2 million for construction, this amount is reasonable and represents some savings due to maximization of the existing design work that Hazen has already performed with the existing agreement scope of work. Staff therefore recommends that Council approve Amendment No. 3 with Hazen in the amount not to exceed \$287,560.

OPTIONS:

1. Approve Amendment No. 3 to the Hazen Professional Services Agreement.
2. Provide alternative direction.

FISCAL IMPACT

The proposed cost of Amendment No. 3 is \$287,560, for a total agreement amount of \$441,093. To date, \$153,533.00 has been spent under the agreement including previous amendments.

The capital project account for this project has \$184,642 available in the 2017-18 budget. An additional \$102,358 is needed from Water Capital funds (Fund 520) to fully fund the agreement.

ATTACHMENTS

- 1) Amendment No. 3
- 2) Hazen Proposal

Reviewed by:



Gary Y. Sugano
Assistant City Manager

Approved by:



Ryan Smoot
City Manager

Prepared by:



Mark A. McAvoy, P.E.
Public Works Director/City Engineer

THIRD AMENDMENT TO
AGREEMENT BETWEEN THE CITY OF LOMITA AND
HAZEN AND SAWYER ENVIRONMENTAL ENGINEERS AND SCIENTISTS
FOR PROFESSIONAL SERVICES

This Third Amendment to the Agreement between the City of Lomita ("City") and Hazen and Sawyer Environmental Engineers and Scientists ("Consultant") for Professional Services for the Cypress Water Production Facility Upgrades and Zone 2 Connection projects is made and entered into this 7th day of November, 2017.

WHEREAS, the City and Consultant are parties to an Agreement for professional services for the above referenced projects dated July 22, 2015 ("the Agreement"); and

WHEREAS, the City and Consultant amended the Agreement on May 3, 2016 (First Amendment); and

WHEREAS, the City and Consultant amended the Agreement on August 2, 2016 (Second Amendment); and

WHEREAS, the City and Consultant desire to amend the Agreement (Third Amendment) to include a revised scope of services as described in Exhibit A of this Third Amendment; and

WHEREAS, the City desires to extend the term of the Agreement until the services described in Exhibit A of this Third Amendment are completed;

NOW, THEREFORE, in consideration of the promises and mutual covenants contained therein, City and Consultant hereby agree as follows:

1. Consideration and Compensation. Pursuant to Paragraph 1 of the Agreement, the compensation shall be modified per Exhibit A of this Third Amendment, for a revised amount not to exceed \$409,596.

2. Scope of Services. Pursuant to Paragraph 2 of the Agreement, the scope of services shall be modified per Exhibit A of this Third Amendment.

3. Term of Agreement. Pursuant to Paragraph 7 of the Agreement, the term of the Agreement shall be modified to extend the completion date of all services to December 31, 2018, unless extended in writing in advance by both parties.

4. No other changes. All terms, conditions and other provisions of the Agreement, including all Exhibits thereto, not affected by this Third Amendment shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment on the 7th day of November, 2017, at Lomita, California.

HAZEN AND SAWYER

CITY OF LOMITA

By _____
Lynn Grijalva, P.E.
Vice President

By _____
Ryan Smoot
City Manager

Attest:

Sandra Medina
City Clerk

October 13, 2017

Mr. Mark A. McAvoy, P.E.

Public Works Director/City Engineer
City of Lomita
24300 Narbonne Ave.
Lomita, CA 90717

Re: Proposal for Cypress Water Production Facility Design Services

Dear Mr. McAvoy:

Hazen is pleased to submit this proposal for professional services for the design of improvements that will increase the production and water quality of groundwater at the Cypress Water Production Facility (CWPF). This proposal is in response to the City's request to revise the scope of work to include the well water treated for odor as well as improving the disinfection system to meet the California State Department of Water Resources, Division of Drinking Water (DDW) requirements to stabilize the chlorine disinfection system and remove the methane found in the groundwater at Well No. 5.

Hazen's original scope was to provide design services to improve the day-to-day operations at CWPF and update their existing piping connections to meet compliance with DDW and provide support to the City in obtaining their sewer connection permit. During this time, the City had authorized Hazen, as part of an additional scope (Amendment #1), to evaluate the water quality in their system, optimize the chemical dosing process, and performed jar testing to assess an odor removal process technology. Around this time, the City authorized Hazen to evaluate the odor complains in their distribution system (Amendment #2), which included a historical review of the water quality in the system and customer complaint log. This lead to pilot testing of granular activated carbon (GAC), which proved to be an effective method for odor removal from the source water.

The purpose of this amendment (#3) is to revise the initial design proposal described in the original contract to include additional process units and modifications necessary to carry out the improvements. This will increase utilization of the City's local groundwater resource by removing the taste and odor compounds found in the water produced from Well No. 5 using GAC filters. Additionally, increasing utilization of source water will increase the overall production from CWPF as the City continues to blend with MWD water. The CWPF On-Site package is for treating the groundwater from Well No. 5, located within the facility for taste and odor and then blending the groundwater with MWD water for an approximate 50/50 ratio blend for distribution to the City's Zone 1 and Zone 2 Water supply.

The CWPF Improvements consist of modifying the existing treatment facilities and connecting the Zone 1 System to the treated groundwater and blended with MWD water. Additionally, miscellaneous improvements throughout CWPF will be performed to facilitate the day-to-day operations at the facility and meet compliance with all regulatory agencies. The improvements and modifications consist of the following elements:

- Adding a blower and a methane gas monitor to the existing concrete storage reservoir,

- Adding a pretreatment system to remove sand and other debris from the well water supply,
- Adding an odor treatment system by using granular activated carbon (GAC).
- Modifying yard piping and the existing polyphosphate chemical feed system to have automated controls to the central control system (SCADA) for monitoring and controlling the chemical feed system,
- Decommission equipment that is not in service, which includes the MIOX chlorine generation system and the standby power generator. The generator may be relocated and used throughout the City and will in turn provide space for the additional process units required to treat the water.
- Relocate and modify the ammonia and chlorine feed systems controls to the central control system and update the SCADA system,
- Additional chlorine dosing systems to allow for chemical trimming to improve the overall chlorine residual in distribution system and ultimately reduce the risk for disinfection byproduct (DBP) formation,
- Replace the existing chlorine storage tank with a double wall storage tank for safety operations and compliance,
- Adding a pressure relief valve and additional flow meters for controlling the blending ratio of the MWD water supply with the treated well water supply and for controlling disinfection with chlorine and ammonia before discharging into the Zone 1 and 2 water distribution system.
- Separate the domestic waste sewage flows from the industrial wastewater and provide a flow meter with totalizer, and add a sampling station upstream of the domestic sewage connection.
- Assist the City to update their Sewer Connection Permit with the Los Angeles County Sanitation District (LACSD)
- Connect the Zone 2 water supply to the Treatment Plant within the Chevron Property, south of the site.
- The design of "Off-Site" pipe modification for blending connection in the original scope of work may not be needed. The blending pipeline hydraulic analysis will be reviewed to verify the need for the "Off-Site" pipeline. It is assumed for this proposal that "Off-Site" pipeline will not be needed.

The specific items anticipated to be included in the professional services are presented below.

SCOPE OF SERVICES:

CWPF ON-SITE IMPROVEMENTS:

Task 1 Project Management

- 1.1. Kickoff Meeting with Discussion of Draft Basis of Design Presentation. The purpose is to establish process operations and design direction to implement the CWPF improvements.
- 1.2. Conduct Project Review Meeting, 50% Review with the City Staff. The purpose is for the City to present their review comments and discuss the project going forward.
- 1.3. Conduct Project Review Meeting, 90% Review with the City Staff. The purpose is for the City to present their review comments and discuss the finalization of the project and any remaining activities to bring the project to bid and award for construction.

- 1.4. Provide Project Management and communication with the City on a monthly basis, or as requested, including monthly billing and project status updates.

Task 2 Design Engineering Services

- 2.1. Review available record drawings and reports.
- 2.2. Prepare Basis of Design Draft Presentation.
- 2.3. Conduct one (1) **Site Visit** to walk the site to verify the existing conditions.
- 2.4. Prepare a review of the Zone 2 pipe network hydraulic analysis. The purpose is to verify that the new MWD connection for the Treatment Plant will not cause low pressure within the City's water distribution system. *The City will need to provide all pertinent information to accomplish this task.*
- 2.5. Prepare a Basis of Design PowerPoint presentation. It is assumed this presentation will serve as the preliminary design. This will assure the propose treatment system design will be correctly sized and controlled before producing final drawings. This effort will include estimated costs of the treatment equipment by contacting vendors for quotes on selected equipment.
- 2.6. Prepare construction plans for a **50% Review** by the City. The 50% submittal will show the improvements to the existing treatment facility). Also included, in the submittal will be standard details. Custom details will not be provided in this submittal. See the Sheet List provided in Table 1. It is assumed the City will engage a surveyor to provide As-Built information and elevations for the design. Hazen will provide a detailed mark-up of desired locations needing field survey information.
- 2.7. Prepare construction plans for a **90% Review** by the City. The 90% submittal will provide the final design information such as points of connection, custom details as required, sections and call outs. Comments from the 50% Review will be addressed and included in the submittal.
- 2.8. Prepare construction plans for **100% Submittal** to the City. This will be considered the final submittal with all the City's comments addressed and ready for the Engineer's Stamp and Signature.
- 2.9. Prepare project cost estimate. An Engineer's Estimate of Probable Cost will be provided for the 50% Submittal, 90% Submittal and the 100% Submittal.
- 2.10. Prepare Specifications and Bid Documents with design complete, and construction plans ready for bid. All City comments will be incorporated into the final plan submittal. The project Specifications will be provided with a Table of Contents at the 50% Submittal. The 90% Submittal will provide a Draft "Front End" documents and the Technical Specifications will be provided. The 100% Submittal will provide the Final Specifications, edited and complete ready for final bidding. Also included will be copies of the permits such as Los Angeles County Flood

Control Connection Permit and Los Angeles County Sanitation Districts (LACSD) Sewer Connection Permit. Hazen and Sawyer will provide their completed plans, specifications, estimates and supporting calculations in electronic form such as AutoCAD, Microsoft Word and Microsoft Excel in a CD for the City's records.

A list of drawings is provided in the table below:

Table 1. Drawing Sheet List

SHEET	SHEET TITLE
G-1	TITLE SHEET, LOCATION MAP, VICINITY MAP AND KEY MAP
G-2	GENERAL NOTES, ABBREVIATIONS AND LEGEND
G-3	SYSTEM HYDRAULIC PROFILE
C-1	SITE PLAN AND HORIZONTAL LAYOUT
C-2	12 INCH STORM DRAIN - PLAN AND PROFILE
C-3	RESERVOIR PLAN
C-4	SEWER - PLAN AND PROFILE SECTION
C-5	PUMP HOUSE - SECTIONS
C-6	ZONE 2 CONNECTION - PLAN AND PROFILE SECTION
C-7	CIVIL DETAILS - 1
C-8	CIVIL DETAILS - 2
D-1	MECHANICAL DEMOLITION PLAN
D-2	ELECTRICAL DEMOLITION PLAN
S-1	STRUCTURAL GENERAL NOTES
S-2	RESERVOIR ROOF APPURTENANCES PLAN, SECTION AND DETAILS
S-3	TREATMENT PROCESS - SLAB PLAN AND SECTION
S-4	CHEMICAL FEED ROOM - SECTION AND DETAILS
S-5	CHEMICAL FEED SYSTEMS - CANOPY SECTION AND DETAILS
S-6	STRUCTURAL DETAILS - 1
M-1	TREATMENT FACILITIES PROCESS FLOW DIAGRAM - 1
M-2	TREATMENT FACILITIES PROCESS FLOW DIAGRAM - 2
M-3	TREATMENT FACILITIES - SITE PLAN
M-4	PRETREATMENT FILTERS - PLAN AND SECTIONS
M-5	GAC PROCESS - PLAN AND SECTIONS
M-6	CHEMICAL FEED SYSTEMS - PLAN AND SECTIONS - 1
M-7	CHEMICAL FEED SYSTEMS - PLAN AND SECTIONS - 2
M-8	TREATMENT FACILITY PIPING - SECTIONS
M-9	MECHANICAL DETAILS - 1
M-10	MECHANICAL DETAILS - 2

SHEET	SHEET TITLE
E-1	ELECTRICAL LEGENDS AND SYMBOLS
E-2	ELECTRICAL SITE AND RESERVOIR PLAN
E-3	TREATMENT FACILITIES ELECTRICAL SITE PLAN
E-4	ENLARGED ELECTRICAL PLANS
E-5	ENLARGED ELECTRICAL PLANS
E-6	SINGLE LINE DIAGRAM
E-7	CONTROLS ONE LINE DIAGRAM
E-8	SCHEDULES
E-9	ELEMENTARY CONTROL SCHEMATICS
E-10	ELECTRICAL DETAILS - 1
E-11	ELECTRICAL DETAILS - 2
I-1	INSTRUMENTATION SYMBOLS AND ABBREVIATIONS
I-2	SCADA SYSTEM ARCHITECTURE DRAWING
I-3	RESERVOIR - P&ID
I-4	TREATMENT PROCESS - P&ID
I-5	CHEMICAL FEED SYSTEM - P&ID
I-6	INSTRUMENTATION DETAILS

	Drawings included in original contract
	Drawings added in Amendment #3

Task 3 Permitting and Miscellaneous Meetings

- 3.1. Prepare for and attend one (1) meeting with the City for the Zone 2 pipeline connection in the Chevron owned property.
- 3.2. Prepare for and attend one (1) meeting with the City for amendment to the City's Water Production Permit with the California State Water Resources Control Board, Division of Drinking Water (DDW).
- 3.3. Prepare for and attend one (1) meeting with the Los Angeles County Flood Control District for the Storm Drain Connection Permit in Cypress Street storm drain upsizing from 6 inch storm drain pipeline to a 12 inch pipeline.
- 3.4. Prepare for and attend one (1) meeting with the Los Angeles County Sanitation Districts (LACSD) for a Sewer connection Permit.

Task 4 Engineering Services Assisting the City during Bidding

- 4.1. Attend one (1) Pre-Bid meeting with the City including a site visit for the prospective bidders.

- 4.2. Prepare responses to questions and requests for additional information from the contractor during the bid period. For the purposes of this proposal, two sets of responses are provided.

Services not included:

Not included in this contract are Engineering Services during construction. It is assumed the City will request a separate Engineering Services Proposal for such engineering services as responding to Request for Information (RFI), Submittal Reviews, Change Orders, Special Inspections, Commissioning and Record Drawings. Also not included are the environmental permits, if any.

Assumed Support by the City:

This scope was developed with assumption that the City will provide any pertinent information necessary, which includes, but not limited to the following:

- Hydraulic models of water system
- It is assumed that no building permit is required, and if so, the City shall coordinate directly with the City Building Department
- The City shall also assess the condition of the inactive booster pump located at CWPF.
- The City shall perform pump tests to evaluate whether it is still functional and operational to allow CWPF to supply flow into Zone 2. If the pump proves to be inoperable, replacement may be necessary.
- The Contractor will retain the City-approved Control System Integrator to complete the instrumentation and controls (I&C) for this project
- The City's Control System Integrator is to prepare and provide the performance specification for to support the improvements
- The City's Control System Integrator is to perform any the improvements described within this scope

Schedule and Budget:

The Design Schedule for this project is estimated from the Notice to Proceed (NTP) based on the number of weeks is show below:

- | | |
|--------------------------------|---|
| • 50% Submittal | 9 weeks after receiving Notice to Proceed |
| • City Review of 50% Submittal | 3 weeks with a 50% Review Workshop |
| • 90% Submittal | 16 weeks after City's 50% Review Workshop |
| • City Review of 90% Submittal | 3 weeks with a 90% Review Workshop |
| • <u>100% Submittal</u> | <u>3 weeks after City's 90% Review Workshop</u> |
| Approximate Total = | 34 weeks |

The project schedule is anticipated to start design in November 2017, completion of design in Mid-July 2018 and continue until completion of the construction and commissioning of the CWPF at end of the June 2019. Our proposed budget for design services is **\$287,560**, which includes the completion of the original scope of work integrated with the scope of Amendment #3. The updated contract amount as of Amendment 2 was **\$184,970**. The remaining balance of **\$31,437** will be subtracted from the total contract amount. The revised total contract amount is **\$441,033**. A revised fee schedule is provided below.

We are able to begin as soon as we receive a notice to proceed. Hazen and Sawyer's Project Manager, Kenny Chau, will be responsible for coordination of team members, schedule and deliverables to satisfy the City's expectations and needs. We look forward to assisting the City of Lomita in maximizing the use of its reliable local groundwater supply by providing modifications to the CWPF Treatment Facility. If you have any questions or require additional information on our proposal please call my office 213-234-1080 or cell 213-505-6723, or contact me by email at LGrijalva@hazenandsawyer.com.

Sincerely,
HAZEN AND SAWYER

A handwritten signature in black ink that reads "Lynn Grijalva". The signature is written in a cursive, flowing style.

Lynn Grijalva, PE
Vice President

Table 2. Fee Schedule Summary

Key Staff and Hourly Rates																
Task Description	Client Service Manager Lynn Grijalva	Senior Associate Jerry Gantney / Ian Mackenzie	Project Manager Kenny Chau	Project Engineer Nathan Boyle	Project Engineer Sam Valdez	Project Engineer Vivvy Dong	Electrical Sr. Associate Chris Thunhorst	Electrical Asst Engineer Hector Benavides	I&C Sr. Associate Dan Edwards	I&C Engineer Colton Kolesa	Structural Engineer Wyatt Dressler	QA/QC	CAD	Est. Labor Cost	Other Direct Costs	Est. Cost
Task 1 Project Management	6	18	40	6	0	0	6	0	2	2	4	0	0	\$14,880	\$700	\$15,580
Task 2 Design Engineering Services	4	61	316	66	44	204	58	198	22	84	87	97	554	\$255,325	\$2,900	\$258,225
Task 3 Permitting and Miscellaneous Meetings	2	8	26	0	0	0	0	0	0	0	0	0	0	\$5,930	\$400	\$6,330
Task 4 Engineering Services Assisting the City During Bidding	1	11	12	0	0	0	4	0	4	4	4	0	0	\$7,325	\$100	\$7,425
Total Hours	13	98	394	72	44	204	68	198	28	90	95	97	554			
														\$283,460	\$4,100	\$287,560

Original Contract - CWPf Plant Upgrades and Zone 2 Connection Design	Budget	Spent
Treatment Plant Design Improvements (On-Site) Fee	\$85,000	\$51,171
Design Improvements (Off-Site Pipeline) Fee	\$73,850	\$2,392
Amendment #1 - Additional Services Fee	\$48,167	\$48,167
Amendment #2 - Evaluation of Odor Complaints in Distribution System in Zones 1 and 2 Fee	\$51,803	\$51,803
Amendment #2 also Removed Off-Site Pipeline from Budget	(\$73,850)	
TOTAL AMOUNT APPROVED:	\$184,970	
TOTAL AMOUNT SPENT:	\$153,533	
REMAINING AMOUNT (CREDIT):	\$31,437	
Amendment #3 GAC Design Integrated with CWPf On-Site Upgrades Fee	\$287,560	
Total Contract Amount	\$441,093	