



Meeting Date: 07/17/2012

ACTION	TYPE OF ITEM
<input type="checkbox"/> Approved Recommendation	<input checked="" type="checkbox"/> Info/Consent
<input type="checkbox"/> Ord. No(s). _____	<input type="checkbox"/> Report
<input type="checkbox"/> Res. No(s). _____	<input type="checkbox"/> Public Hearing (Info/consent)
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other

Prepared By: *LB* Lou Balderrama, City Engineer Agenda Item No. I-4
 Reviewed By: City Manager *JEB* City Attorney *[Signature]* Finance *[Signature]* Public Works

DATE: July 5, 2012

TO: City Council

FROM: Rob Roshanian, Interim Public Works Director *s.r.*
Public Works

SUBJECT: Third Amendment to the Consulting Services with CH2M Hill, Inc. for the Advanced Water Purification Facility (Agreement No. A-6841)

RECOMMENDATION

That City Council approve and authorize the Mayor to execute a Third Amendment to the Consulting Services Agreement with CH2M Hill, Inc. (Agreement No. A6841) to increase the amount by \$219,531 for a total of \$9,151,435 for extended post design services, Advanced Water Purification Facility optimization, architectural services, storm water treatment technical memorandum, and determination of a total dissolved solids surcharge fee.

DISCUSSION

On March 13, 2007, the City Council approved Agreement No. A-6841 with CH2M Hill in the amount of \$4,894,411 for the final design of the Advanced Water Purification Facility (AWPF) Phase 1. In June 2008, the City was informed it had received a \$20 million grant from the Federal Bureau of Reclamation (BOR) for the Groundwater Recovery Enhancement and Treatment (GREAT) Program. The grant had several requirements, one key element was a 2-year timeline to spend the grant funds. In order to fit into the tight deadlines, the AWPF construction schedule estimated at 3 years had to be compressed into a 2-year period. Staff determined that several long-lead items would need to be procured ahead and/or concurrent with the solicitation of construction bids for the process plant. On September 16, 2008, Council approved a First Amendment in the amount of \$3,879,885 for additional design services required to develop specifications and coordinate pre-procured vendor contracts dealing with the Micro Filtration/Ultraviolet Filtration (MF/UF) filters, the membranes, electrical control systems, and Ultra Violet (UV) disinfection systems, and set up and monitor the AWPF pilot testing program, as well as provide support services during the pre-bid period. On February 8, 2011, Council approved a Second Amendment in the amount of \$157,608 for the re-design of the administration building, providing civil, architectural, and structural modifications.

Third Amendment to the Consulting Services with CH2M Hill, Inc. for the Advanced Water Purification Facility (Agreement No. A-6841)

July 5, 2012

Page 2

The Third Amendment in the amount of \$219,531 is required to address several mechanical systems and operational changes made during the construction of the AWPf. There was a change from the initial design of using 2 pressure systems (high pressure to the north and low pressure to the east) to a more efficient single pressure output system. Engineering staff determined that the high and low pressure systems could be combined into a single medium pressure system and feed both the Ventura Road recycled water line heading north, and the recycled water line heading east on Hueneme Road. The Consultant will review the aggregate changes made to insure proper operating parameters. The amendment also addresses the time extension of the construction contract due to weather, change orders, and their impacts. The tasks are detailed in Exhibit A3 –Scope of Work. A summary of the additional work items included in the Third Amendment to the agreement is listed below:

TASK 7 – AWPf Additional Project Meetings (\$26,000)

TASK 8 – AWPf Additional Submittal Reviews (\$26,904)

TASK 9 - AWPf Additional Architectural Design Services (\$42,305)

This task is for the Signage Program, Exhibit System, Monument Sign and Front Plaza Coordination, and for Preliminary Design of the Wetlands Interpretive Center.

TASK 10 – AWPf Optimization (\$40,000)

The Consultant will provide technical assistance with operational procedures during the first year of AWPf operation and will assist in optimizing the system performance for various scenarios and flows.

TASK 11 – Storm Water Treatment Technical Memorandum (\$23,726)

The City is evaluating options for storm water management that includes treatment of flow from the Oxnard Industrial Drain and the J-Street Drain. One option is to route flow through the Advanced Water Purification Facility. The feasibility of treating storm water flow through the AWPf will be evaluated.

TASK 12 – Determination of Total Dissolved Solids Surcharge Technical Memorandum (\$39,100)

The City has experienced an increase in the Total Dissolved Solids (TDS) concentration of the secondary effluent from the wastewater treatment facility. To this end, the City is considering establishing a surcharge for wastewater that has a high TDS concentration. This Technical Memorandum (TM) will define the threshold for establishing a TDS surcharge for existing sewer users. Identification of the high TDS impact on the operation and design of the Reverse Osmosis (RO) process, and impact to the activated sludge process will form the basis for the TDS surcharge. The Consultant will define the baseline conditions and establish Operation & Maintenance (O&M) costs for the Base-line, evaluate the impact of high TDS concentrations on RO performance and O&M Costs, and prepare a Technical Memorandum.

Third Amendment to the Consulting Services with CH2M Hill, Inc. for the Advanced Water Purification Facility (Agreement No. A-6841)

July 5, 2012

Page 3

TASK 13 - Project Management for Tasks 10 thru 12 (\$21,096)

The purpose of this task is to manage, coordinate and lead the Consultant's team activities and perform administration of the finished-water pump station evaluation services.

FINANCIAL IMPACT

Funds are available in the AWPf Project No. 066010 from the 2010 Series Water Revenue Bonds Account No. 609-6553-821-8209 and from the Title 16 Federal Bureau of Reclamation Grant 276-6553-821-8209 for the cost of \$219,531 from the Third Amendment.

Attachment #1 - Third Amendment to Agreement No. A-6841

THIRD AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES

This Third Amendment (“Third Amendment”) to the Agreement for Consulting Services (“Agreement”) is made and entered into in the County of Ventura, State of California, this 17th day of July, 2012, by and between the City of Oxnard, a municipal corporation (“City”), and CH2M Hill, Inc. (“Consultant”). This Third Amendment amends the Agreement entered into on March 6, 2007, by City and Consultant. The Agreement previously has been amended on September 9, 2008, by a First Amendment, and on February 8, 2011, by a Second Amendment.

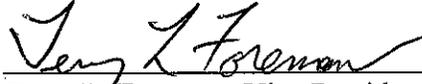
City and Consultant agree as follows:

1. In Section 14a of the Agreement, the figure “\$8,931,904” is deleted and replaced with the figure “\$9,151,435.”
2. In Section 12 of the Agreement, the date “December 31, 2012” is deleted and replaced by the date “December 31, 2013.”
3. Exhibit A, A1 and A2 are supplemented by Exhibit A3, attached hereto, and incorporated herein by reference.
4. Exhibit B is supplemented by Exhibit B1, attached hereto, and incorporated herein by reference.
5. Exhibit C is supplemented by Exhibit C1, attached hereto, and incorporated herein by reference.
6. Consultant agrees that the execution of this Third Amendment by the City and the performance of the obligations hereunder by either party shall not be construed as and are not a waiver of any claims City may now have or which may have against Consultant related to the Agreement or the project described in the Agreement. All such claims and potential claims are expressly reserved by the City.
7. As so amended, the Agreement remains in full force and effect.

CITY OF OXNARD

CONSULTANT

Dr. Thomas E. Holden, Mayor



Terry L. Foreman, Vice President

ATTEST:

APPROVED AS TO INSURANCE:

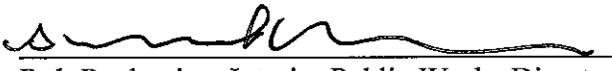
Daniel Martinez, City Clerk



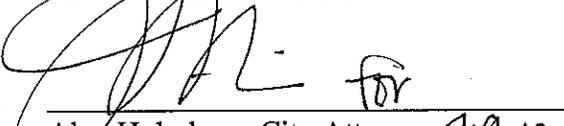
James Cameron, Risk Manager

APPROVED AS TO CONTENT:

APPROVED AS TO FORM:



Rob Roshanian, Interim Public Works Director

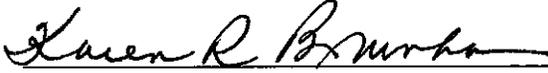
 for

Alan Holmberg, City Attorney 7.9.12

APPROVED AS TO AMOUNT:



Lou Balderrama, City Engineer



Karen R. Burnham, Interim City Manager

EXHIBIT A3
City of Oxnard AWPf
Advanced Water Purification Facility
Design Contract Amendment

SCOPE OF WORK

TASK 7 ADVANCED WATER PURIFICATION FACILITY ADDITIONAL PROJECT MEETINGS (\$26,000)

Work will include time to attend weekly meetings for one (1) person for four months. Meetings include weekly or bi-weekly construction meetings, weekly change order and other project construction related meetings. Eighteen (18) meeting days

TASK 8 ADVANCED WATER PURIFICATION FACILITY ADDITIONAL SUBMITTAL REVIEW (\$26,904)

Work will include time to review 61 submittals more than two times. Cost is estimated based on two (2) hours for each additional review.

TASK 9 ADVANCED WATER PURIFICATION FACILITY ADDITIONAL ARCHITECTURAL DESIGN SERVICES (\$42,305)

Task 9.1 Signage Program

- a. Coordination with City staff on 'way-finding' signage to augment guided tours of AWPf.
- b. Coordination with City staff on 'educational-oriented' signage that will compliment visitor exhibits.
- c. Provide drawings denoting locations and design of signage.
- d. Provide coordination as required with sign company or coordinator hired to do final design & construction of signs.
- e. Two (2) meetings for coordination and one site coordination walk.

Task 9.2 Exhibit System

Work will include, but not be limited to, interactive and static exhibit systems for AWPf Visitors Center and Conference Center.

- a. Assist Exhibit Consultant and the City on defining the Exhibit Program prior to deciding on the details and design of the exhibit system
- b. Assist Exhibit Consultant and City staff on selecting/specifying the most appropriate interactive systems and programs to engage visitors
- c. Provide CAD generated floor plans and 3-D modeling to delineate location, alternative scenarios, and final design of exhibits
- d. To update Exhibit budget, provide support coordination with Exhibit Consultant and City staff

- e. Three (3) meetings with the whole team to review, discuss and select the system most appropriate for the project

Task 9.3 Monument Sign and Front Plaza Coordination

Work will include coordination and design of monument signage structure at the AWPF entry plaza.

- a. Assist City staff on refining an appropriate design and budget for an AWPF monument sign
- b. Provide CAD generated site plan and 3-D modeling of alternative designs and views
- c. Review design with Planning Department
- d. Two (2) Meetings

Task 9.4 Preliminary Design of Wetlands Interpretive Center

Provide CAD generated site plan and 3-D modeling of alternative designs
Two (2) meetings

TASK 10 ADVANCED WATER PURIFICATION FACILITY OPTIMIZATION (\$40,400)

The Advanced Water Purification Facility (AWPF) as designed will produce 6.25 MGD of Title 22 recycled water that is intended for groundwater recharge and other non-potable uses. During the initial year or more of operation, the demand for recycled water will be less than 6.25 MGD. Because the demand will be less than the design flow, the AWPF facility will need an interim operational strategy until the full demand is realized. The Operations Plan (Task 6) will provide a guide for initial operation of the AWPF. This task is for Consultant to provide technical assistance with operational procedures during the first year of AWPF operation and to assist in optimizing the system performance while delivering the lower flows. This task will be performed on an on-call basis with charges for time and expenses. The fee was estimated based on assistance to the City by a Consultant technology lead engineer of 10 hours per month for the first twelve months of operation following successful performance testing of the process systems.

TASK 11 STORMWATER TREATMENT TECHNICAL MEMORANDUM (\$23,726)

The City is evaluating options for stormwater management that includes treatment of flow from the Oxnard Industrial Drain and the J-Street Drain. One option is to route flow through the Advanced Water Purification Facility. The feasibility of treating stormwater flow through the AWPF will be evaluated. Consultant will perform the following:

- Up to 2 Consultant staff will attend one meeting with the City to receive from the City the available stormwater flow and water quality information for the J-Street Drain and the Oxnard Industrial Drain

- Review stormwater flow data and water quality data
- Identify impacts of the stormwater quality on the AWWP treatment units including the Membrane Filtration (MF), Reverse Osmosis (RO), Ultra Violet/Advance Oxidation Peroxide (UV/AOP) and post treatment units
- Identify pretreatment requirements that may be necessary to treat the stormwater at the AWWP
- Identify requirements to direct and control stormwater flow to the AWWP
- Prepare a technical memorandum discussing the potential feasibility to treat stormwater through the AWWP
- Meet with City to review the draft Technical Memorandum and incorporate City review comments
- Submit final Technical Memorandum

Assumptions

- Information regarding the stormwater quality and flow for the J-Street Drain and Oxnard Industrial Drain is available and will be given to the Consultant by the City
- Consultant will not prepare a cost estimate for stormwater treatment

Deliverables

- Draft Technical Memorandum, five hard copies and one electronic pdf file
- Final Technical Memorandum, five hard copies and one electronic pdf file

**TASK 12 DETERMINATION OF TOTAL DISSOLVED SOLIDS SURCHARGE (TDS)
TECHNICAL MEMORANDUM (\$39,100)**

The City has experienced an increase in the TDS concentration of the secondary effluent from the wastewater treatment facility. To this end, the City is considering establishing a surcharge for wastewater that has a high TDS concentration. This Technical Memorandum (TM) will define the threshold for establishing a TDS surcharge for existing sewer users. Identification of the high TDS impact on the operation and design of the RO process, and impact to the activated sludge process will form the basis for the TDS surcharge.

The key objectives of this study are:

- Identification of a baseline TDS concentration for sewer users
- Identification of the impact of TDS above the baseline concentration in the RO treatment process
- Identification of the impacts of the TDS above the baseline concentrate in the activated sludge process

- Determination of a reasonable TDS surcharge (\$/lb) that should be assessed to sewer users who discharge wastewater with TDS concentrations greater than the identified baseline strength.

The TM will recommend the maximum limit for TDS concentrations in wastewater based on the City's historical values and identify the cost of treatment for TDS. The cost for TDS treatment will be used to establish a surcharge for users who discharge above the maximum limit.

The design of the AWPf RO system was based on Oxnard Wastewater Treatment Plant (OWTP) wastewater characteristics identified in the contract documents for the purchase of the RO system in July 2007. This will be used to establish a baseline for TDS treatment. Consultant will estimate the operating cost of the RO system using the design conditions as specified in the contract documents. The estimated cost for the RO system and its operation relative to TDS will be determined and used to establish the cost of treatment.

The effect of increase in TDS concentration on the RO system size and operating costs will be used to determine the TDS threshold and determine a reasonable TDS surcharge (\$/lb) that should be assessed to the sewer users who discharge wastewater with TDS concentrations greater than the identified base-line strength.

Consultant will perform the following tasks:

- Attend Meetings - Up to 2 Consultant staff will attend up to two meetings with the City to request information regarding the most recent industrial wastewater characterization and proposed changes in wastewater composition and to review pertinent information and assumptions.
- Define the Baseline Condition and Establish O&M Costs for the Base-line - The design wastewater characteristics as defined in the "Contract Documents for the purchase of Reverse Osmosis system", July 2007 will be used to define the baseline condition. The operating cost for the RO system will be calculated for the base-line condition.
- Evaluate the Impact of High TDS Concentrations on RO Performance and O&M Costs - Increased TDS concentration has impact on O&M costs of the RO. Generally every 100 mg/L increase in TDS will increase the RO feed pressure by 1 psi. The components of the TDS (i.e., bicarbonate ion (alkalinity), calcium, barium, sulfate, carbonate, fluoride) and silica content are important since they can limit RO recoveries and dictate pretreatment needs thereby influencing O&M cost of the RO system. At certain TDS concentration and water composition, the design RO water recovery and/or permeate water quality is no longer met. This point will be determined by using one of the proprietary RO design software such as ROSA, IMS design. Within the base-line and maximum allowable TDS range, up to five simulations will be performed to estimate O&M costs under varying TDS concentrations and compositions.
- Prepare TM - These O&M costs will then be used to determine a reasonable TDS surcharge (\$/lb) that should be assessed to the sewer users who discharge wastewater with TDS concentrations greater than the identified base-line strength.

Deliverables

- Draft Report – Five hard copies
- Final Report - One electronic copy and five hard copies

Assumptions

- All meetings/workshops will be held in the City of Oxnard's wastewater facility. The City will bring all desired representatives at City's expense.
- The City will provide a copy of the most recent industrial wastewater characterization documents and proposed changes in wastewater composition for Consultant review
- The City will provide necessary historical plant records and lab reports.

TASK 13 PROJECT MANAGEMENT FOR TASKS 10 THRU 12 (\$21,096)

The purpose of this task is to manage, coordinate and lead the Consultant's team activities and perform administration of the finished-water pump station evaluation services. Consultant will perform the following:

- Contract administration includes the activities associated with administration of the contract and coordination with the City. It will include communications with the City, preparation of monthly progress reports and billing statements, and record keeping.
- The Consultant's Project Manager will attend up to 6 meetings with the City to discuss progress of the work. This task also allocates time for internal project coordination meetings when appropriate. Consultant will prepare and distribute minutes of each meeting.

Deliverables

Monthly progress reports and invoices

EXHIBIT B1
PROJECT SCHEDULE

Task	Days to Complete after Notice to Proceed
Task 7 – AWPf Additional Project Meetings	244 days
Task 8 – AWPf Additional Submittal Reviews	244 days
Task 9 – AWPf Additional Architectural Services	182 days
Task 10 – AWPf Optimization	365 days*
Task 11- Stormwater Treatment TM	90 days
Task 12 – Determination of TDS Surcharge TM	90 days
Task 13 – Project Management Tasks 10-12	365 days

*For one year following successful performance testing of AWPf

EXHIBIT C1

Labor Rates Schedule

Functional Category	Rate
Principle-in-Charge	\$270.00
Principal Professional	\$247.00
Senior Project Manager	\$228.00
Senior Engineer	\$208.00
Project Engineer	\$195.00
Staff Engineer	\$168.00
Senior Technician II	\$138.00
Senior Technician I	\$161.00
Staff Technician	\$126.00
Office/Clerical	\$101.00

EXPENSES		
Expense Type	Estimating Method	Rate
Health & Safety Assessment *	Service Center	\$1.75
Auto Mileage	Travel	Current IRS Rate
Auto Rental	Travel	Actual
Other Travel (FTR Guidelines)	Travel	Actual
Equipment Rental	Operating Expense	Actual
Postage/Freight	Operation Expense	Actual
Reprographics	Outside Service	Actual
Subcontractors	Outside Service	10%

* Assessment applies to all Health & Safety trained individuals

Rates subject to change on January 1, 2013