



Meeting Date: 07/22/2008

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
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____

Prepared By: Anthony Emmert

Agenda Item No. I-20

Reviewed By: City Manager [Signature]

City Attorney [Signature]

Finance [Signature]

Public Works [Signature]

**DATE:** July 14, 2008

**TO:** City Council

**FROM:** Mark S. Norris, Assistant Public Works Director  
Public Works Department [Signature]

**SUBJECT:** **First Amendment to Agreement with Kennedy/Jenks Consultants for Blending Station No. 3 Desalter Project**

**RECOMMENDATION**

That City Council approve and authorize the Mayor to execute the first amendment to the agreement with Kennedy/Jenks Consultants ("Kennedy/Jenks") to increase the amount by \$124,000 for a total of \$498,000 for the preliminary design and construction administration of the Blending Station No. 3 Desalter Project (Agreement No. A-6924) located at 1700 Solar Drive and extend the agreement expiration date to December 31, 2009.

**DISCUSSION**

The Blending Station No. 3 Desalter will help to maintain or reduce the total dissolved minerals in the City's blended potable water product by treatment of brackish water (groundwater) by reverse osmosis. In addition, the steady implementation of the City-approved Groundwater Recovery Enhancement and Treatment Program ("GREAT Program") will lead to increased groundwater well production using City wells, including the four existing wells at the Blending Station No. 3 Facility. The GREAT Program also calls for limiting purchases of imported State Water Project water at current levels or reducing them with the phased implementation of demineralization treatment facilities. Imported State Water Project water is low in dissolved minerals and local groundwater is high in dissolved minerals. In order to maintain the City's mineral water quality, dissolved minerals must be removed from some of the groundwater before blending it with other water sources.

The City is currently constructing its first desalter facility at Blending Station No. 1 located at 251 South Hayes Avenue, as part of the GREAT Program. The Blending Station No. 1 Desalter is scheduled to be operational in late 2008. The Blending Station No. 3 Desalter should be operational in 2011. The Blending Station No. 3 Desalter will initially produce up to 5 million gallons per day of treated water, with an expansion capacity of up to 10 million gallons per day.

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The California Department of Water Resources recently awarded the City a Proposition 50 Chapter 6 Water Desalination grant for the Blending Station No. 3 Desalter Feasibility Study and Preliminary Design. Out of a total of 23 projects funded by the grant, the City of Oxnard received funding for two projects: \$2.9 million for the construction of the Blending Station No. 1 Desalter Project, and \$187,000 for the preliminary design of the Blending Station No. 3 Desalter Project.

Site constraints and property line setback requirements have created the need to construct several raw and finish water storage structures below grade. Amendment No. 1 to the agreement with Kennedy Jenks includes:

- Additional preliminary design documentation for the Blending Station No. 3 Desalter.
- Additional geotechnical investigation at the Blending Station No. 3 site.
- Revised geotechnical recommendations for the proposed below-grade facilities and seismic design criteria based on the 2007 California Building Code.
- Develop basic ground motion parameters for use in code-based seismic design.

## **FINANCIAL IMPACT**

The cost of the First Amendment is \$124,000, bringing the total cost of the agreement to \$498,000. There are sufficient funds in Account No. 179-6554-821-8201, Project 066011 Blending Station No. 3 Desalter Design, to cover the cost of the agreement.

AAE:vp  
G:\AdminSvcs\Agenda Items\FY 2007-2008\07-22-08 Kennedy Jenks A-6924 Amendment 1.doc

Attachment #1 – Amendment No. 1 to Agreement No. A-6924

**FIRST AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES**

This First Amendment to Agreement for Consulting Services ("First Amendment") is made and entered into on July 22, 2008, by and between the City of Oxnard, a municipal corporation ("City"), and Kennedy/Jenks Consultants ("Consultant"), and amends that certain Agreement for Consulting Services ("the Agreement") entered into on the 3<sup>rd</sup> day of October 2007.

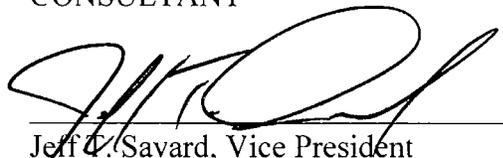
- A. City and Consultant agree that the Agreement is amended as follows:
  1. In section 13a of the Agreement, the figure "\$374,000" is deleted and replaced with the figure "\$498,000".
  2. In section 12 of the Agreement, the expiration date of "October 31, 2008", is deleted and replaced with the date "December 31, 2009".
  3. Exhibit A of the Agreement Scope of Services is supplemented by Exhibit A1, attached hereto and incorporated herein by reference.

B. City and Consultant further agree that as amended by the First amendment, the Agreement remains in full force and effect.

CITY OF OXNARD

CONSULTANT

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Dr. Thomas E. Holden, Mayor

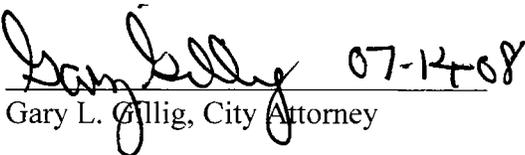
  
\_\_\_\_\_  
Jeff C. Savard, Vice President  
Kennedy/Jenks Consultants

ATTEST:

\_\_\_\_\_  
Daniel Martinez, City Clerk

APPROVED AS TO FORM:

APPROVED AS TO INSURANCE:

 07-14-08  
\_\_\_\_\_  
Gary L. Gillig, City Attorney

  
\_\_\_\_\_  
James Cameron, Risk Manager

APPROVED AS TO CONTENT:

  
\_\_\_\_\_  
Ken Ortega, Public Works Director

  
\_\_\_\_\_  
Anthony Emmert, Project Manager

## Exhibit A1

### Blending Station No. 3 Desalter Preliminary Design

This First Amendment includes the preparation of additional preliminary design documents for the Blending Station No. 3 ("BS3") Desalter as well as providing additional geotechnical investigation at the BS3 site. The additional scope is described below:

#### Task 1 – Additional Preliminary Design Documents

The preliminary design documents shall include the following additional items:

- Addition of fluoride and zinc orthophosphate chemical feed systems.
- Consolidation of the sodium hypochlorite and ammonium hydroxide chemical systems into single storage and feed systems to serve both the blending station and Desalter needs.
- Centralization of the chemical unloading area for all chemicals to be adjacent to the new chemical storage area (currently, ammonia and hypochlorite unloading for the blending station are located at the north end of the facility). This will require rerouting of the chemical feed lines to the existing storage tanks.
- Evaluation of the Desalter system following the feasibility study to determine that the ultimate system capacity could be increased from 10 mgd to 15 mgd.
- Accommodation of the Desalter building dimensional constraints with the increased ultimate Desalter capacity - i.e. interior tank depth no deeper than 13 ft to stay above water table; building height limited to single story no higher than 35 ft with City preference to stay closer to 20 ft; building setback issues on the east and south sides of the building.

Deliverables associated with Task 1 will be in accordance with the original agreement.

#### Task 2 – Additional Geotechnical Investigation

The previous geotechnical report by Leighton (2003) indicates that geotechnical recommendations were provided for pipelines and at-grade structures, and the seismic design recommendations were based on the 1997 Uniform Building Code (UBC). The additional scope includes providing revised geotechnical recommendations for the proposed below-grade facilities and seismic design criteria based on the 2007 California Building Code (CBC).

##### Task 2.1 - Data Review and Pre-Exploration

Fugro will review relative existing geologic and geotechnical data available in their files as well as data provided to them for the blending station site (such as Leighton, 2003). Fugro will visit the site to select and mark proposed subsurface exploration locations and evaluate accessibility issues for the exploration equipment. Prior to performing the proposed subsurface exploration, Fugro will contact Underground Service Alert so locations of existing underground utilities can be marked by others. Marking of utilities will allow Fugro to evaluate potential conflicts between existing utilities and proposed exploration locations. Fugro will not be responsible for damage or other consequences involving mislocated or unlocated utilities.

## **Task 2.2 - Field Exploration**

Fugro will perform a field exploration program for the project that will consist of conducting two to three cone penetrometer test (CPT) soundings in the area of the proposed facilities. Fugro will use data from the existing drill holes and the additional CPTs to characterize the subsurface and groundwater conditions. The CPTs will be advanced to a depth of about 50 to 65 feet using a piezocone to help evaluate depth to groundwater. Consultant anticipates that the CPTs can be completed in one working day, and Consultant assumed that no permits or rights-of-entry will be required for the exploration work.

## **Task 2.3 - Seismic Evaluation per the 2007 California Building Code**

On the basis of information provided in Leighton (2003), the subsurface soils are likely susceptible to liquefaction. As a result, the subsurface soils can be characterized as meeting the requirements of Site Class F per Table 1613.5.2 of the 2007 CBC. In general, the CBC (and ASCE 7) requires a site response analysis and a site-specific ground motion hazard analysis be performed for design projects where Site Class F conditions are present. However, Section 20.3.1 of ASCE 7 indicates that site response and ground motion hazard analyses are not required for Site Class F conditions if the fundamental periods of vibration of the structure(s) are equal to or less than 0.5 seconds.

For this project, the fundamental periods of vibration for the permeate tank/desalter building and other facilities are not known, but could be greater than 0.5 seconds.

Because the requirements of the code-based seismic design are not well defined at this time, Consultant developed a basic scope of services (Task 2.3a) and an optional scope of services (Task 2.3b) to be used as a basis for seismic design recommendations for the project.

**Basic Scope of Services, Task 2.3a.** For the basic level of services, Fugro will develop basic ground motion parameters for use in code-based seismic design assuming site response and site-specific seismic hazard analyses will not be required. This assumption is reasonable if the exception listed in Section 20.3 of ASCE 7 is considered applicable to the structure and the project overall. In this case, Consultant will develop a general site response spectra based on mapped spectral values and typical 5 percent damping conditions using the general procedures in Section 11.4 of ASCE 7 (CBC Chapter 1613.5).

**Optional Scope of Services, Task 2.3b.** Services to be provided for this task will consist of performing a site response analysis and developing design ground motion parameters based on a site-specific seismic hazard analyses as described in Sections 21 of ASCE 7.

## **Task 2.4 - Geotechnical Evaluation and Reporting**

Fugro will summarize findings and recommendations based on the data review and on the CPT soundings. Fugro will provide the geotechnical recommendations for the following aspects of the project:

- Soil and groundwater conditions.
- Ground motion and seismic design data in accordance with the 2007 CBC (developed from the Basic Scope of Services Task 2.3a, or Optional Scope of Services Task 2.3b).

- Liquefaction potential and estimated settlements from liquefaction and strong ground shaking using published empirical methods (the development of schemes for mitigating the occurrence of liquefaction at the site is considered beyond the scope of services of this study).
- Earthwork and grading consisting of remedial grading for foundations and pavements (overexcavation), fill selection, placement and compaction and suitability of onsite soil for use as fill.
- Excavation, groundwater considerations, and subgrade preparation.
- Permanent slopes, temporary slopes and shoring.
- Footing design criteria, including allowable bearing pressures, safety factors, and transient loads.
- Modulus of subgrade reaction for mat-type foundations.
- Lateral earth pressure design parameters for retaining and below-grade walls (drained, undrained), definitions of restrained and unrestrained walls, uplift pressures, and surcharge loads from foundations and traffic.

Deliverables associated with Task 2 will be in accordance with the original agreement.