Meeting Date: 3/22/2011

ACTION	TYPE OF ITEM
☐ Approved Recommendation	■ Info/Consent
☐ Ord. No(s). _____	☐ Report
☐ Res. No(s). _____	☐ Public Hearing
☐ Other _____	☐ Other _____

Prepared By: Anthony Emmert, Water Resources Manager _____ Agenda Item No. I-11

Reviewed By: City Manager _____ City Attorney _____ Finance _____ Public Works _____

DATE: March 14, 2011

TO: City Council

FROM: Rob Roshanian, Interim Public Works Director
Public Works Department

SUBJECT: **Third Amendment to Agreement with Hopkins Groundwater Consultants, Inc. for Hydrogeologic Design, Technical Review, and Consulting Support Services (Agreement A-7115)**

RECOMMENDATION

That City Council:

1. Approve and authorize the Mayor to execute the Third Amendment to the agreement with Hopkins Groundwater Consultants, Inc. ("Hopkins Groundwater") to increase the amount by $87,200 for a total of $387,200 for the preparation of a supplemental Aquifer Storage & Recovery (ASR) well siting study, preparation of preliminary well designs, assistance with wells permitting, and preparation of plans and specifications for wells construction.

2. Approve a special budget appropriation to transfer funds in the amount of $87,200 to the GREAT ASR Wells Project No. 116505 from the Recycled Water Distribution Project 116504.

DISCUSSION

The City currently has several projects under construction associated with the Groundwater Recovery Enhancement and Treatment (GREAT) Program. The ASR wells are a vital component to successful and practical operation of the recycled water system, as they will serve as below-ground storage for recycled water. This will allow the AWPF to operate at a steady pace despite the typical wide swings in demand for recycled water. The ASR wells will also help to stabilize hydraulic pressures in the recycled water distribution system. Although they will normally be used for injection of recycled water, the ASR wells can also be used to retrieve some of the stored recycled water, in order to meet peak demands on the recycled water distribution system or to serve as an alternative recycled water source during AWPF plant shutdowns.

Due to the compression of the GREAT Program's schedule by the Title XVI grant funding requirements, and the operational characteristics of the first group of recycled water customers, it is important to move forward with siting, design and construction of the ASR wells. The scope of work includes:

- Evaluation of possible sites for construction of the ASR wells that will not interfere with existing wells or groundwater restrictions and that will be approved by governing jurisdictions.
- Development of preliminary ASR well designs that are suitable for the site specific aquifer conditions and the project constraints identified by the City and evaluation of target aquifer zones.
- Assistance with regulatory compliance and permitting of the ASR wells.
- Preparation of well construction technical plans and specifications.

Following a competitive process, in November of 2008, the City and Hopkins Groundwater executed an agreement for one (1) year for hydrogeologic consultation, including well design, technical and regulatory assistance, and groundwater resources-related planning, with an option to extend up to three (3) additional one-year terms, for a total cost not to exceed $400,000. Hopkins Groundwater has completed the second year of hydrogeologic design and consulting support services. Execution of the Third Amendment would enable the City to advance the ASR component of the GREAT Program, in order to improve the reliability, efficiency and operational flexibility of the recycled water system.

FINANCIAL IMPACT

The total cost of the amendment is $87,200. There are sufficient funds available to fund this project.

The proposed Special Budget Appropriation will transfer funds in the amount of $87,200 to the GREAT ASR Wells Project No. 116505 Account No. 609-6551-821-8209 from the Recycled Water Distribution Project 116504 Account No. 609-6551-821-8610.

AAE:joh

Attachment #1 - Third Amendment to Agreement A-7115
#2 - Special Budget Appropriation

Agreement No. A-7115

THIRD AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES

This Third Amendment ("Third Amendment") to the Agreement for Professional Services ("Agreement") is made and entered into in the County of Ventura, State of California, this 22nd day of March, 2011, by and between the City of Oxnard, a municipal corporation ("City"), and Hopkins Groundwater Consultants, Inc. ("Consultant"). This Third Amendment amends the Agreement entered into on November 25, 2008, by City and Consultant. The Agreement previously has been amended on December 15, 2009, by a First Amendment and on December 14, 2010, by a Second Amendment.

City and Consultant agree as follows:

1. Exhibit A of the Agreement is supplemented by Exhibit A-2, attached hereto and incorporated herein by reference.

2. Section 13 a. is supplemented with the following, "During the calendar year 2011, City agrees to pay Consultant an additional $87,200 for services provided in the attached Exhibit A-2."

3. As so amended, the Agreement remains in full force and effect.

CITY OF OXNARD

Dr. Thomas E. Holden, Mayor

CONSULTANT

Curtis J. Hopkins, Principle Hydrogeologist
Hopkins Groundwater Consultants, Inc.

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO INSURANCE:

James Cameron, Risk Manager

APPROVED AS TO CONTENT:

Rob Roshanian, Interim Public Works Director

APPROVED AS TO FORM:

Alan Holmberg, City Attorney

Anthony Emmert, Water Resources Manager

APPROVED AS TO AMOUNT:

Edmund F. Sotelo, City Manager

EXHIBIT A-2
SCOPE OF WORK

Consultant will support the City of Oxnard (City) with locating and designing groundwater storage facilities to accommodate operation of the Groundwater Recovery Enhancement and Treatment (GREAT) Program, which is presently under construction. Due to potential system constraints, well locations located along the east side of the City may now be advantageous and the City desires to review the hydrogeological feasibility of placing facilities in that area. Subsequently, Consultant will assist the City with aquifer zone selection and prepare preliminary Aquifer Storage and Recovery (ASR) well designs for up to 4 well locations.

Well location and aquifer zone selection will require consultation with numerous public agencies along with the responsible regulatory agencies. Based on the information provided by the City, the work scope is divided into four (4) separate work tasks for project organization. These tasks include; 1) a supplemental well siting study, 2) preparation of preliminary well designs, 3) regulatory agency compliance and permitting, and 4) preparation of well construction project plans and specifications.

Task No. 1 – Supplemental Well Siting Study - $20,600

For the proposed well siting study, Consultant will meet with City staff to confirm the rates and capacities of daily and seasonal recycled water storage requirements and the potential east side areas that may be most accommodating to the proposed conveyance system. It is Consultant's understanding that the City intends to couple the proposed ASR storage component with above ground storage in an attempt to provide a cost effective and operationally flexible storage operation. The area of hydrogeological study will be focused along the transmission pipeline routes identified by the City. Groundwater data to be analyzed for this study will be acquired from the City, the Ventura County Watershed Protection District, United Water Conservation District, and Consultant's library. These data will be used to determine where aquifer conditions appear favorable for the proposed ASR storage alternative. Consultant will identify the location of active wells in the study area and their reported uses (i.e., agricultural, domestic, etc.) to develop an understanding of existing groundwater producers that could impact or be impacted by the proposed storage alternative.

As part of the study Consultant will identify the potential injection and production capacities of aquifer zones that comprise both the upper aquifer system and the lower aquifer system in the area of study. Groundwater gradients will be considered, to develop an understanding of the potential for injected plume migration which could result in a loss of the superior quality water being stored and potential for impact to down gradient wells. Native groundwater quality issues will also be reviewed (based on available data) to identify potential impacts on the stored water quality. Upon completion of the review, Consultant will provide a draft report to the City for its review and comment. Upon receipt of City comments, Consultant will finalize the report and submit eight (8) bound copies and one (1) electronic copy for its use.

Consultant estimates the successful completion of this work will require approximately 140 staff-hours of time and a budget of $20,600. It is the Consultant's understanding that the City desires the performance of these services as soon as possible. For this project Consultant will begin work immediately upon authorization and coordinate directly with City staff for the timely completion of the study. Consultant anticipates providing a draft document for City

review by the beginning of June 2011, and finalizing the document immediately following receipt of City comments.

Task No. 2 – Preparation of Preliminary Well Designs - $14,200

For this work task Consultant will develop preliminary ASR well designs that are suitable for the site specific aquifer conditions and the project constraints identified by the City. Well designs will be based on; a) the findings of the hydrogeological feasibility studies, b) the results of discussions with regulatory agencies and potentially affected parties, and c) the City's selection of well locations and target aquifer zones. Consultant' work will be augmented by the subconsultant services of Mr. David Pyne, with ASR Systems, LLC., who is presently part of Consultant's expert team that is under contract with the City. Mr. Pyne will be utilized to provide peer review of the ASR well facility designs, discussions with City staff about conveyance piping and well pump operational constraints (including down hole control valves), and professional experience with California regulations regarding aquifer storage of recycled water.

Consultant anticipates work to provide these specialty services will require approximately 60 staff-hours of principal staff time and a budget of approximately $14,200. Consultant understands the urgency for completing this task and Consultant proposes to begin immediately upon completion of Task No. 1. The deliverable for this work task will be preliminary well design drawings for up to four (4) wells. It is anticipated that these well design drawings will be utilized for discussions with regulatory agencies and included in the well construction plans and specifications. Consultant anticipates providing a draft design for City review by the beginning of August 2011, and finalizing the document immediately following receipt of City comments.

Task No. 3 – Regulatory Agency Compliance and Permitting - $16,800

For successful installation and operation of the proposed ASR well facilities to support the City GREAT Program, it is anticipated that numerous meetings will be required with local and state public agencies. Consultant will provide the technical support required to address concerns and address issues raised by private interests and public agencies that may include: California Department of Public Health (CDPH), California Regional Water Quality Control Board (CRWQCB), United Water Conservation District (UWCD), Fox Canyon Groundwater Management Agency (FCGMA)/Ventura County Watershed Protection District, City of Ventura, City of Port Hueneme, Channel Islands Beach Community Services District, mutual water companies and private well owners. Discussions with the lead regulatory agencies will guide the test procedures required by the permitting process to prove compliance with applicable regulations, given the high quality of the recycled water after advanced purification. Given the amount of time necessary to coordinate and conduct these crucial meetings, it is anticipated that this work will begin immediately and be conducted concurrently with the hydrogeological study and well design work.

It is estimated that preparation and attendance at up to 12 meetings will be required to complete this task. An estimated budget of $16,800 should be established for Consultant's technical preparation, travel time, and attendance at these meetings. Consultant anticipates providing meeting support services for the City through December 2011.

Task No. 4 – Preparation of Well Construction Technical Plans and Specifications - $35,600

As the City completes its CEQA review, its negotiations to obtain/secure the well sites, and preliminary regulatory concurrence on the proposed ASR program, Consultant will assist the City with preparation of the special provisions section of the ASR well construction plans and specifications. For this work task, Consultant will identify logistical, permitting, construction, or right-of-way constraints to be considered when compiling the project plans and specifications. Consultant will work directly with City staff to determine if certain accommodations could be provided by the City for the contractor which would result in lower project costs (i.e., construction water, and area for cuttings disposal, etc.). Based on the findings of this effort, Consultant will prepare the special provisions section of the project bid document package that will be required to solicit bids from qualified construction contractors. The special provisions section will include thorough specifications and requirements for the: a) drilling process to be used, b) drilling fluids properties to be maintained, c) the borehole geophysical logs required, d) the type of materials and installation methods to be used, e) the well development procedures to clean the well and gain production, and f) the final testing of the well that will provide recommendations for permanent pump capacity and setting.

Well construction specifications will provide a detailed description of the specific materials, methods, and procedures required to accomplish the following project components:

1. Mobilization/Demobilization
2. Conductor Casing Installation
3. Pilot Borehole Drilling
4. Geophysical Logging
5. Pilot Bore Reaming
6. Caliper Survey
7. Well Casing, Screen, Gravel Tube, and Sounding Tube Assemblages
8. Gravel Pack Envelope
9. Cement Sanitary Seal
10. Well Alignment Test
11. Standby Time
12. Mechanical and Chemical Development
13. Test Pump Installation and Removal
14. Hydraulic Well Development
15. Production Testing
16. Well Disinfection
17. Concrete Pad or Pedestal
18. Site Clean-up

A unit of payment for each project component will be identified and will be based on either an hourly rate, linear footage, lump sum, or other quantity cost. All well construction conditions will be in accordance with the requirements of the State of California and the County of Ventura.

Consultant will prepare an engineer's opinion of probable costs for well construction activities that are based on current construction costs, anticipated hydrogeological conditions, preliminary ASR well design, and project permit conditions.

Three (3) copies of an 80 percent draft of the technical specifications document will be provided to the City for its review and comment. The draft will include a well location map and the preliminary well design drawing to supplement the written text. Upon receipt of City review comments, Consultant will finalize the project plans and specifications and deliver one (1) bound copy, one (1) electronic copy to the City for incorporation into the final specifications document. Consultant understands that the City will combine these technical specifications sections with the City's standard construction project requirements to produce a final and complete project specifications document.

During the project bid period it is anticipated that Consultant will attend a pre-bid meeting with the contractors and City personnel to review the critical aspects of the technical specifications for well construction and answer questions about site conditions or specified materials, methods and procedures. It is anticipated that Consultant will assist the City with preparation of any technical addendum that may be required during the bidding period to provide clarification of the work specified. Subsequently, Consultant will assist the City by reviewing the formal bids and determining the lowest responsive bidder's drilling qualifications.

Well construction plans and specifications are unique to the conditions and constraints of each physical location. Consultant will reuse core sections describing well drilling methods, well casing and screen materials, and well development and testing procedures to minimize the cost of specifications preparation. These sections will be augmented with specified materials, methods and procedures that are site specific to address noise, nuisance, and public safety issues that will arise during the course of the work. The level of effort to provide this work is estimated to require approximately 80 staff-hours per well and require a budget of approximately $8,900 (per well). The total estimated cost to prepare plans and specifications for four (4) well sites is estimated at $35,600. Consultant anticipates providing draft specifications for City review by the beginning of December 2011, and finalizing the document(s) immediately following receipt of City comments.

CITY OF OXNARD

REQUEST FOR SPECIAL BUDGET APPROPRIATION

To the City Manager: March 22, 2011

Request is hereby made for an appropriation of total . . . . . $ 87,200

Reason for appropriation: To fund the Third Amendment for for aquifer storage and recovery (ASR) well site determination, well designs, compliance and permitting assistance and preparation of well technical plans and specifications for construction.

FUND	DESCRIPTION/ACCOUNT	AMOUNT
Water Bonds 2010 (609)	Recycle Water Dist System 609-6551-821-8610 (Project 116504)	(87,200)
Water Bonds 2010 (609)	GREAT ASR Wells 609-6551-821-8209 (Project 116505)	87,200
	Net Estimated Change to Fund Balance	0

Manager

REQUIRES CITY COUNCIL APPROVAL

CHIEF FINANCIAL OFFICER

James Cameron

Disposition

Approved _____

Rejected _____

Transfer by Journal Voucher _____

City Manager