



Meeting Date: 09/16/08

ACTION	TYPE OF ITEM
<input type="checkbox"/> Approved Recommendation	<input type="checkbox"/> Info/Consent
<input type="checkbox"/> Ord. No(s). _____	<input checked="" 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: Anthony Emmert

Agenda Item No. 0-2

Reviewed By: City Manager [Signature]

City Attorney [Signature]

Finance [Signature]

Public Works [Signature]

**DATE:** September 9, 2008

**TO:** City Council

**FROM:** Ken Ortega, Public Works Director  
Public Works Department [Signature]

**SUBJECT:** First Amendment to Agreement with CH2M Hill for Phase I of the Advanced Water Purification Facility, located at Perkins Road north of Magellan Way.

**RECOMMENDATION**

That City Council:

1. Approve and authorize the Mayor to execute the first amendment to the agreement with CH2M Hill (Agreement No. A-6841) to increase the amount by \$3,879,885 for the total of \$8,774,296 for the final and post design services for Phase I of the Advanced Water Purification Facility Phase I.
2. Approve a Special Budget Appropriation to transfer funds in the amount of \$4,000,000 to Project 066010.

**DISCUSSION**

Phase I of the Advanced Water Purification Facility (AWPF) of the City approved Groundwater Recovery Enhancement and Treatment (GREAT) Program will produce 6.25 million gallons per day of highly purified recycled water. The quality of the recycled water will meet the stringent state requirements for groundwater injection, following microfiltration/ultrafiltration (MF/UF), reverse osmosis (RO), and advanced oxidation treatment. The City is designing the AWPF to be expandable to ultimately produce up to 25 million gallons of recycled water per day.

The recycled water will be used for landscape irrigation, industrial processes, agricultural irrigation, and groundwater injection. The use of recycled water for landscape irrigation and industrial processes will directly offset the use of potable water for existing and new water customers. The use of recycled water for agricultural irrigation and groundwater injection will produce groundwater credits, which the City will use to pump groundwater from areas not subject to seawater intrusion. The AWPF is a critical component of the GREAT Program, a holistic water resources project, which will improve the City's

water supply reliability and water quality, reduce dependence on imported water, and help local groundwater aquifers recover from chronic over pumping and seawater intrusion.

Amendment No.1 to Agreement No. A-6841 with CH2M Hill includes additional final design services in the amount of \$568,193, post design services in the amount of \$2,894,591, and post construction services in the amount of \$417,101 as follows:

- **Services During Design (SDD) - \$568,193**

Additional design services include: preparing an AWPf commissioning plan; providing assistance to the City for installation, start-up, operations, and testing of the constructed demonstration pilot wetland; performing services associated with education components of the GREAT Program Visitor's Center; coordinating design elements with the Recycled Water Backbone System project; and designing an interim disposal system for excess finished water produced prior to construction of the pilot Aquifer Storage and Recovery (ASR) wells.

- **Services During Construction (SDC) - \$2,894,591**

Post design services include: providing assistance to the City in addressing technical questions during the bid process; conducting a pre-bid meeting; and preparing addendums, reviewing construction bids, reviewing shop drawings, responding to Request for Information's (RFI's), performing special equipment inspections, reviewing change order requests, responding to claims and disputes, providing construction schedule updates, participating in weekly construction progress meetings.

- **Post Construction Services \$417,101**

Post construction services include: conducting AWPf start-up; conducting operators training, providing construction phase Leadership in Energy and Environmental Design (LEED) certification services; preparing operation and maintenance (O&M) manuals; preparing record drawings; and warranty services.

## **FINANCIAL IMPACT**

The cost of this First Amendment is \$3,879,885, bringing the total cost of the agreement to \$8,774,296. Existing appropriations to cover these costs will be transferred from Project 066001, Account No. 601-6539-821-8605 in the amount of \$2,000,000, and existing appropriations to cover these costs will be transferred from Project 066011 Account No. 601-6554-821-8604 in the amount of \$2,000,000.

Attachment #1 - Amendment No. 1 to Agreement No. A-6841  
#2 - Special Budget Appropriation

**FIRST AMENDMENT TO AGREEMENT FOR CONSULTING SERVICES**

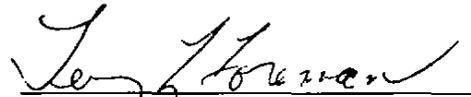
This First Amendment to Agreement for Consulting Services, dated September 9, 2008 is entered into by and between the City of Oxnard, a municipal corporation ("City"), and CH2M Hill ("Consultant"), and amends that certain Agreement for Consulting Services ("the Agreement") entered into on the 7<sup>th</sup> day of March 2007.

- A. City and Consultant agree that the Agreement is amended as follows:
  - 1. In section 14a of the Agreement, the figure "\$4,894,411" is deleted and replaced with figure "\$8,774,296".
  - 2. In Section 12 of the Agreement, the date "September 30, 2008" is deleted and replaced by the date "December 31, 2012".
  - 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 shall remain in full force and effect.

CITY OF OXNARD

CONSULTANT

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Dr. Thomas E. Holden, Mayor

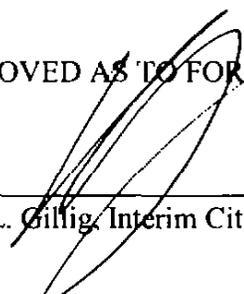
  
\_\_\_\_\_  
Terry L. Foreman, Vice President  
CH2M Hill, Inc.

ATTEST:

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

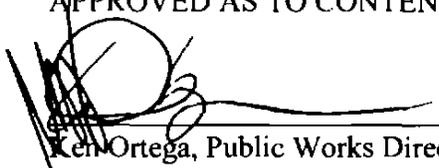
APPROVED AS TO FORM:

APPROVED AS TO INSURANCE:

  
\_\_\_\_\_  
Gary L. Gillig, Interim City Attorney

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

APPROVED AS TO CONTENT:

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

## EXHIBIT A1

# City of Oxnard Advanced Water Purification Facility Project – Scope of Work

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## Services During Design (SDD)

### TASK 1 - DESIGN PHASE SERVICES (\$568,193.00)

This task involves; documenting the City project requirements during the design phase and preparing a commissioning plan, defining requirements for supply of the pilot wetland trailer to be connected to the RO concentrate stream from the pilot RO system and providing assistance for installation, start-up, operations and testing of the pilot wetland, performing services associated with educational components of the GREAT Program Visitor's Centers, coordinating design elements essential for Advanced Water Purification Facility (AWPF) and Recycled Water Backbone (RWB) System projects, designing an interim disposal system for excess finished water produced prior to construction of the Aquifer Storage and Recovery (ASR) wells and extending design services beyond the original schedule, and assistance during contract procurement (prebid meeting, addendums, bid review).

## Services During Construction (SDC)

### TASK 2 – CONSTRUCTION PHASE SERVICES (\$2,894,591.00)

The Consultant shall provide services to assist in coordinating the site activities, administering the contract for construction, monitoring the contractor's performance, responding to design and technical submittals, and closing out the contract for construction.

#### Task 2.1 Project Management

- **Project Administration.** The Consultant shall provide project instructions, work planning, scheduling, budget control, records management, communication protocols and related functions for management of the Consultant's Project Team. The Consultant shall prepare monthly invoices and project status reports for the City.
- **Communications.** The Consultant shall provide routine communications with the City. All formal communications will only be with the City.
- **Coordination.** As requested by the City, the Consultant shall coordinate periodic site-visits by members of the design team to review progress and general quality of the work. The Consultant shall coordinate the activities of its subconsultants.
- **Kick-Off Meeting.** The Consultant shall prepare for and attend a project kick-off meeting with the City. The purpose of this meeting will be to review roles and responsibilities, procedures, record keeping and other information pertinent to the performance of the work. The City will prepare minutes of this meeting and distribute to attendees.

- **Preconstruction Conference.** The Consultant shall attend the pre-construction conference with the Contractor and the City. The City will prepare materials for this meeting, lead it, and prepare meeting minutes.
- **Partnering Meetings.** The Consultant shall attend an initial meeting and up to three additional partnering workshops to be held with the Contractor and the City. The City will provide the partnering facilitator and prepare meeting minutes.

### **Task 2.2 Submittal Review**

- **Document Tracking.** The Consultant will receive, log, distribute, track and return shop drawings, other submittals and documents from the City.
- **Shop Drawing Review.** The Consultant shall review the Contractor's shop drawings, samples, and other submittals for compliance with the requirements of the Contract Documents. The Consultant's submittal review shall include a maximum of two submissions by the Contractor for each shop drawing, sample or submission. Should additional reviews be required, the Consultant shall track these costs in order to be entitled to additional compensation consistent with the provisions of the Contract Documents. The Consultant shall utilize the full version of Adobe Acrobat, Version 7.0, and electronic signatures for processing email or Web based submittals.
- **Certifications, O&M Manuals, and Record Documents.** The Consultant shall review for compliance with the Contract Documents, track, and monitor these documents. The City will assemble the final manuals prior to Final Completion of the work.
- **Schedules and Other Administrative Submittals.** The City will receive and track the submission of schedules and other administrative submittals. The City will be responsible for monitoring progress schedules and comparing them with the schedule of submittal submissions and schedule of values to verify conformance with the requirements of the Contract Documents. Communication of required actions to the Contractor shall be performed by the City.

### **Task 2.3 Modifications (Change Orders)**

- **Substitution of Materials and Equipment.** The Consultant shall assist the City in reviewing and responding to the Contractor's requests for substitution of materials and equipment. Consultant shall review such requests and will advise the City as to the acceptability of such substitutions.
- **Construction Changes.** The Consultant shall assist the City in reviewing Contractor initiated changes to the Construction Contract. The Consultant shall make recommendations to the City regarding the acceptability of changes and assist the City, if requested, in negotiating the requested change. Upon agreement and approval, if requested, the Consultant shall assist the City in preparing documentation for the change order.

### **Task 2.4 RFI's and Clarifications**

- The Consultant shall review the Contractor's requests for information (RFI's) and/or clarification of the Contract for Construction forwarded to the Consultant by the City. The Consultant shall coordinate such review with the consultant design team and with the City as appropriate. The Consultant shall coordinate and issue responses to the requests and will log and track the Contractor's requests.

## **Task 2.5 Construction Meetings**

- The Consultant shall attend routine construction progress meetings with the City and the Contractor. The Consultant shall also attend other meetings as may be required to review particular issues.

## **Task 2.6 Health and Safety**

- The Consultant shall manage the health, safety and environmental activities of its staff and the staff of its subconsultants to achieve compliance with applicable health and safety laws and regulations.

The Consultant shall coordinate its health, safety and environmental program with the responsibilities for health, safety and environmental compliance specified in the Contract for Construction. The Consultant shall coordinate with responsible parties to correct conditions that do not meet applicable federal, state and local occupational safety and health laws and regulations, when such conditions expose Consultant staff, or staff of Consultant subconsultants, to unsafe conditions.

The Consultant shall notify affected personnel of any site conditions posing an imminent danger to them which Consultant observes.

The Consultant is not responsible for health or safety precautions of construction workers. The Consultant is not responsible for the Contractor's compliance with the health and safety requirements in the contract for construction, or with federal, state, and local occupational safety and health laws and regulations.

## **Task 2.7 Claims and Disputes**

- Consultant shall assist the City, with reviewing the letters and notices with respect to compliance with the contract requirements and participating in discussions with the Contractor and City to understand these letters and notices. Consultant shall advise the City regarding the Contractor's compliance with the contract requirements for such letters and notices. Consultant shall assist the City in discussions with the Contractor to resolve claims and disputes in these letters and notices.

## **Task 2.8 Resident Engineer**

- **Field Office.** Consultant shall provide a resident engineer on-site for purposes of providing coordination with the design team, to support the City, and to observe the work of the Contractor. The Resident Engineer shall conduct on-site observations of the Contractor's work for the purposes of determining if the work generally conforms to the contract for construction and that the integrity of the design concept as reflected in the contract for construction has been implemented and preserved by the Contractor. The Resident Engineer role is planned to be part-time. The Resident Engineer shall be approved by the City.
- **Deficient and Non-conforming Work.** Should the Consultant discover or believe that any work by the Contractor is not in accordance with the contract for construction, or is otherwise defective, or not conforming to requirements of the contract or applicable rules and regulations, the Consultant shall bring this to the attention of the Contractor and the City. The Consultant shall thereupon monitor the Contractor's corrective actions and shall advise the City as to the acceptability of the corrective actions.

- **Consultant Design Team Visits.** The Consultant shall coordinate visits to the site by the consultant design team members to review progress and quality of the work. The visits shall observe the general quality of the work at the time of the visit and review any specific items of work that are brought to the attention of the design team members by the Resident Engineer, the Contractor or the City.
- **Factory and Off-Site Tests and Inspections.** The Consultant shall review results of off-site tests of materials as specified in the contract for construction.
- **Substantial and Final Completion.** The Consultant shall assist the City with facility observations at substantial and final completion, in accordance with the contract for construction. The Consultant shall prepare up to two (2) separate punch lists of items requiring completion or correction. The Consultant shall make recommendations to the City regarding acceptance of the work based upon the results of the final inspection.
- **Specialty Inspections.** The Consultant shall provide specialty on-site inspections for work such as electrical, mechanical equipment placement, structures, architectural, heating, ventilating, and air conditioning (HVAC), Instrumentation and Control (I&C), site civil and other inspections as may be requested by the City. The City will provide day-to-day construction management and inspection services. Additional on-site inspection services, as requested by the City, will be performed as Supplemental Services, entitling the Consultant to additional compensation.
- **Mechanical Equipment Factory/Performance Testing.** The Consultant shall witness the factory testing of major mechanical equipment. For purposes of estimating cost, it is assumed that this will include two visits of three days duration each to a manufacturing facility for two members of the Consultant's team. Additional factory tests, as requested by the City, will be performed as Supplemental Services, entitling the Consultant to additional compensation.
- **Meetings and Logs.** The Consultant shall prepare agenda and meeting summary for weekly progress and coordination meetings. The Consultant shall prepare change order, RFI, issue, and claim logs with support of City staff. The Consultant shall update logs prior to weekly progress meeting.
- **Monthly Construction Schedule Update.** The Consultant shall provide monthly construction schedule updates submitted by the Contractor. The Consultant shall attend monthly schedule update meeting with the Contractor.
- **Inspection for Substantial Completion.** The Consultant shall conduct, in the company of the City and Contractor, an inspection for the purposes of determining Substantial Completion of the Project in accordance with the Contract Documents. The Consultant shall prepare a list of items to be completed or corrected, and will assist the City in the preparation of a punch list.

## **Task 2.9 Construction Phase Commissioning Services**

Commissioning of constructed facilities is a requirement of LEED certification and is a process intended to provide the City with a greater degree of assurance that building systems will function in compliance with criteria set forth in the Contract Documents and will satisfy the City's operational needs. This is achieved by preparing a commissioning plan, witnessing functional testing during construction and witnessing performance testing during acceptance and warranty periods.

The scope of work for construction phase commissioning services includes the following:

### **Construction Phase**

- Update Commissioning Plan to reflect requirements of the specific equipment to be installed
- Conduct preliminary building mechanical control systems submittal meetings
- Update and distribute Construction Checklists for commissioning
- Update Performance Test Procedures for and review performance test procedures written by suppliers for the building systems
- Perform field observation relative to commissioning building mechanical systems

### **Acceptance Phase**

- Witness and document Performance Testing for building mechanical and lighting systems
- Witness other functional tests executed and documented by others for building mechanical systems
- Complete a summary Commissioning Report

The following components of the HVAC systems will be included in the facility commissioning:

- Air Handling Units
- Air handling unit variable speed drives
- Makeup air units
- Unit heaters
- Exhaust fans
- Testing, Adjusting and Balancing work
- Building automation system (controlled devices, control loops and system integration)

The following electrical systems will be included in commissioning services:

- Scheduled lighting controls
- Dimming controls
- Occupancy sensors

Commissioning will be done for the following plumbing systems:

- Domestic water heaters
- Domestic hot water pumps and temperature control

## **Task 2.10 Construction Phase LEED Certification Services**

The Consultant shall provide construction phase services for achieving certification of the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) rating system.

The scope of work for LEED documentation, coordination, and submission includes the following:

- Meet with contractor to establish proper protocol for documentation.
- Review technical submittals for LEED compliance.
- Assemble LEED credit templates and supporting documentation for construction related or deferred design credits.
- Submit templates and documentation to USGBC.
- Address USGBC questions and provide additional documentation or clarifications as required to obtain certification. This may include one or more credit interpretation requests (CIR).
- The cost of certification and other associated fees are the responsibility of the city.

Although the project is designed for a LEED Gold rating, the final rating level is dependant on the incorporation of the necessary prerequisites and targeted credits during construction and final acceptance by the USGBC.

### **Assumptions – Construction Phase**

The following assumptions were used when determining the compensation to the Consultant.

1. In some instances the City may mean the City's Construction Manager.
2. The City will provide overall on-site construction management and inspection services. The Consultant shall provide assistance by providing resident engineering on-site for the duration of construction. The resident engineer task is based on providing a part-time onsite resident engineer. The Contractor will provide office space and furniture for the resident engineer. The Consultant shall provide a computer for the resident engineer. The Contractor will pay monthly utility and telephone charges for the Consultant's on-site office.
3. The project will be constructed under one general contract for construction. The supplier of City-furnished electrical equipment will have certain contract obligations under a separate procurement contract to assist in the installation, testing, and startup of that major electrical equipment. The City will make this information available to the general construction contractor.
4. The project security system software, component supply, component and wiring installation and termination, and startup and testing, and security system O&M manual will be by the project Security System Supplier. The Security System Supplier shall coordinate schedule for delivery, installation and testing and startup with the Contractor.
5. The Consultant shall attend pre-construction meeting with the City, Contractor, and other interested parties in the City's office or at the project site.
6. Weekly construction progress meetings will be attended at the project site. The Consultant's Resident Engineer will attend each meeting. Others may attend as appropriate.
7. Pre-purchased equipment contracts will be assigned to the construction contractor.
8. The City will establish the document management system for managing, tracking and storing all relevant documents between the Contractor, Consultant and the City. The Consultant shall provide document management support to the City using the same

software used by the City. The City will provide the Consultant with access rights to the document management records for this project. It is understood that the software the City will use is "Expedition".

9. The City will provide site coordination including planning of the Pre-Construction Conference, partnering sessions, project site meetings, issuance of field instructions, and mobilizing the site team.
10. The Consultant shall provide project controls support to the City including receipt, review and updating of construction schedules, and the evaluation of the effects of delays and changes on project completion schedule and costs.
11. The City will provide and pay for the Special Inspections described on structural drawings 01-G-19, -20, -21, -22, -23, and -24 in accordance with the International Building Code.

### **TASK 3 – POST-CONSTRUCTION PHASE SERVICES (\$417,101.00)**

#### **Task 3.1 Operations Manual**

The Consultant shall develop an operations manual for the Advanced Water Purification Facility Project describing the operation of the Project facilities and systems. This manual will explain the various primary modes of operation that may be used, including both normal operation and initial emergency operation procedures.

The manual will also explain the purpose and basic concept of the various processes that are incorporated into the overall plant. Where appropriate, reference will be made to the manufacturer's detailed O&M submittals. It will include instructions for process operations and test or laboratory procedures that may be required to monitor the performance of the facilities. The manual will be suitable for use as an operational tool and to facilitate operator training. The control system operational descriptions will be written by Prousys.

The operation and maintenance manual will be developed in books and an electronic, editable format that is developed using a database system. The manual is a computerized information management system that will include general operation and maintenance information for the AWPF facilities, including text and graphics to illustrate the unit processes. Manufacturer's electronic O&M information and training videos provided as submittals by the Contractor will also be linked with the operation and maintenance manual.

The operation and maintenance manual will use an Internet Browser as the primary interface to the electronic O&M information. Internet tools will allow users to find information from any PC on the plant Local Area Network (LAN), including O&M Manual text and graphics, video training clips, and manufacturer's O&M information.

*The operation and maintenance manual work consists of the following tasks:*

- Workshop to discuss manual format and content
- Text development or text collection/modification/translation
- CAD Drawing Development/modification and/or translation - one overall drawing per unit process is included in the scope of work
- Screen graphics development – a single overall graphic and menuing system will be used for manual navigation.

- Acquiring and modifying digital photos and/or digital video
- Navigational system construction
- City reviews/fixup for both text and graphical elements
- Computerization
- System QA/QC
- Documentation
- Installation/Training/Configuration/Support

### **Task 3.2 Operations and Maintenance Training**

The Consultant shall provide supplemental instruction to the City's staff in the operation, maintenance and testing of the equipment provided under this Project. This instruction shall cover both the basic operational concept and actual operation of the systems and components under both normal and abnormal operations that are likely to occur. The instruction will also include training of the staff for equipment maintenance. The Contractor and the City will be responsible for coordinating the services of qualified representatives from equipment manufacturers.

### **Task 3.3 Start-Up Support**

The Consultant shall furnish assistance to the City in plant startup and initial plant operation to the extent to be mutually agreed upon by both parties. This assistance includes:

- Preparing a Plan of Operation to identify specific actions and related completion dates for startup and operation of the new facilities.
- Assisting during the initial startup of the facilities by assisting the operating personnel assigned by the City.

Actual startup of the plant control system will be done by the City's Control System Integrator Prousys and the Contractor.

### **Task 3.4 As-Built Drawings**

The Consultant shall revise the original design drawings to reflect available record information provided by the Contractor and equipment suppliers. Ten (10) reproducible 11 x 17 sets of drawings and AutoCAD 2008 electronic files will be submitted to the City.

### **Task 3.5 Warranty Period Services**

The Consultant shall provide the following warranty performance review services during the one-year warranty period to assist the City in coordinating corrections of deficient equipment or construction:

- Participate in an end-of-warranty period inspection one month prior to completion of the warranty period and provide a letter identifying any deficiencies found and recommended actions.
- Make periodic visits to the site during the warranty period to monitor contract deficiencies in workmanship, materials or equipment and prepare correspondence informing the City and Contractor of such deficiencies.

- Provide periodic onsite observation during correction of the deficiencies.
- Assist in providing response of correction or deficiencies.

### **Assumptions - Post-Construction Phase**

The following assumptions were used when determining the compensation to the Consultant.

1. The Consultant shall develop an Operations and Maintenance (O&M) Manual addressing the new facilities and systems. The O&M Manual will be provided in hard copy and as a searchable Adobe Acrobat portable document format (.pdf) electronic file on CD-ROM. A PDF copy of the O&M Manual will be submitted for City review with four hard copies of the final version.
2. The Consultant shall provide five days of classroom and five days of field training to the plant staff.
3. The Consultant shall prepare record drawings based on mark-ups from the Contractor. Record drawings will be delivered to the City as PDF files, and as AutoCAD 2008 electronic drawing files.
4. The Consultant shall conduct one warranty inspection lasting five days including travel time within one year of facility startup. The Consultant shall prepare a report summarizing the findings.
5. The Consultant shall conduct one facility performance review/inspection lasting 3 days including travel time within one year of facility startup. The Consultant shall prepare a report summarizing the findings.

# CITY OF OXNARD

## REQUEST FOR SPECIAL BUDGET APPROPRIATION

To the City Manager:

September 16, 2008

Request is hereby made for an appropriation of total . . . . . \$ 0

Reason for appropriation:                      Transfer funds from Blending Station Improvements and Blending Station # 3 Desalter Projects to the Great - AWPf Project for First Amendment with CH2M Hill contract.

<u>FUND</u>	<u>DESCRIPTION/ACCOUNT</u>	<u>AMOUNT</u>
Water (601)	<b>Blending Station Improvements</b>	
	601-6539- (066001)	
	821-8605 - Improve Not Bldg - Major Repair	(2,000,000)
	<b>Blending Station #3 Desalter</b>	
	601-6554- (066011)	
	821-8604 - Improve Not Bldg - New	(2,000,000)
	<b>Great - AWPf Project</b>	
	601-6553- (066010)	
	821-8604 - Improve Not Bldg - New	<u>4,000,000</u>
	<b>Net Estimated Change to Water Fund Balance</b>	<u>-0-</u>

  
\_\_\_\_\_  
Manager

REQUIRES CITY COUNCIL APPROVAL

CHIEF FINANCIAL OFFICER

  
\_\_\_\_\_

Disposition	Approved _____
Transfer by Journal Voucher _____	Rejected _____
	_____ City Manager