Meeting Date: 03/25/08

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

Prepared By: Mark Norris Agenda Item No. I-9

Reviewed By: City Manager City Attorney Finance Public Works

DATE: March 17, 2008

TO: City Council

FROM: Mark Norris, Assistant Public Works Director
Public Works Department, Utilities Services Branch

SUBJECT: **Ultraviolet/Advanced Oxidation System for the Advanced Water Purification Facility Project Phase 1, at Perkins Road north of Magellan Way**

RECOMMENDATION

That City Council approve and authorize the Mayor to execute an agreement with Trojan Technologies for an Ultraviolet/Advanced Oxidation (UV/AOX) System (Agreement No. A-7016).

DISCUSSION

The AWPF Phase 1 Project, is a critical component of the City-approved Groundwater Recovery Enhancement and Treatment (GREAT) Program, a holistic water resources project, which will increase the City's water supply, improve water supply reliability, increase water-use efficiency, maintain water quality, reduce dependence on imported water, and help local groundwater aquifers recover from chronic over pumping and seawater intrusion. The AWPF Phase I Project will treat secondary-treated effluent that is now being discharged to the Pacific Ocean to produce up to 6.25 million gallons per day of highly purified recycled water. The AWPF will utilize an advanced oxidation treatment system to produce recycled water product that meets the stringent state requirements for groundwater injection and irrigation of edible crops. The City is designing the AWPF to be expandable to ultimately produce up to 25 million gallons per day of recycled water.

The recycled water produced by the AWPF 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.

Due to the importance of the AWPF's treatment equipment, the City is requiring that the selected microfiltration/ultrafiltration (MF/UF) and reverse osmosis (RO) equipment manufacturers conduct proof pilot testing of their equipment on secondary-treated effluent from the City's Wastewater Treatment Plant, in order to verify that the equipment can produce recycled water meeting the state's strict quality standards. The AWPF Project design team will utilize equipment specifications and dimensions from the selected vendors, as well as information from the proof pilot tests of the MF/UF and RO equipment, to complete the AWPF Project final design documents.

Trojan Technologies was the only company that responded to the City's request for proposal, and is the only company that provides a UV/AOX System that meets the proscribed water quality requirements. Trojan Technologies will also provide the proof pilot testing at no cost and thus the department recommends that the City award them the contract for proof pilot testing. Trojan Technologies will provide the City with the required results in order for any contract to proceed.

FINANCIAL IMPACT

The total cost for this contract is in an amount of $2,570,435, but performance and payment will only occur if the test phase yields the desired result. There will be no cost for the UV/AOX Pilot Test.

MSN:AE:js

Attachment #1 – Agreement No. A-7016

Note: Agreement No. A-7016, has been provided to the City Council. Copies are available for review at the Circulation Desk in the Library after 6:00 p.m. on the Thursday prior to the Council meeting and at the City Clerk's Office after 8:00 a.m. on Monday.