

STAFF REPORT

DATE: October 9, 2007

TO: Water/Sewer Committee

FROM: Lonnie Thibodeaux, Water Utilities Director

SUBJECT: **RECOMMEND APPROVAL OF PLANS AND SPECIFICATIONS FOR THE LA SALINA WASTEWATER TREATMENT PLANT UPGRADES PROJECT AND APPROVAL OF A PROFESSIONAL SERVICES AGREEMENT WITH CAROLLO ENGINEERS, SAN DIEGO, FOR ENGINEERING OFFICE SERVICES DURING CONSTRUCTION**

SYNOPSIS

Staff recommends that the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council approve the plans and specifications for the La Salina Wastewater Treatment Plant Upgrades project, and authorize the City Engineer to call for bids; and approve a professional services agreement in the amount of \$56,191 to Carollo Engineers, of San Diego, for engineering office services during construction, and authorize the City Manager to execute the agreement.

BACKGROUND

The La Salina Wastewater Treatment Plant (La Salina) was originally constructed and placed into operation in 1949 (Exhibit A). There have been periodic expansions to keep up with increasing flows and various on-site rehabilitation projects. Currently the La Salina treatment facility is permitted for 5.5 million gallons a day (MGD) (secondary treatment) and has a Class B sludge disposal license for land application which currently averages 4,000 wet tons a year.

ANALYSIS

The La Salina Wastewater Treatment Plant requires upgrades in several areas to maintain proper operation, to meet regulatory requirements, and to protect the health and safety of the operations staff and the citizens of Oceanside. The areas requiring upgrades include the dissolved air floatation thickener, and the anaerobic digesters.

The capacity of the existing plant is adequate; however, several structural and mechanical issues need to be addressed for the plant. The existing steel dome roofing system for the primary digester has not been replaced and requires immediate replacement. The steel dome cover for the secondary digester was replaced in 1992. In addition a gas diffuser mixing system was installed for the secondary digester but is

not functioning. This project will completely replace the gas mixing system with a mechanical mixing system.

FISCAL IMPACT

In Fiscal Year 2007-2008, Council approved an appropriation of \$2,332,915 for the La Salina Plant Upgrades project (722.865665). The engineer's estimate for the construction of the La Salina Wastewater Treatment Plant Upgrades project is \$2,200,000. Adequate funds are available for the project.

INSURANCE REQUIREMENTS

The City's standard insurance requirements will be met.

COMMISSION OR COMMITTEE REPORT

The Utilities Commission will review during its meeting on October 16, 2007.

CITY ATTORNEY'S ANALYSIS

The referenced documents are being reviewed by the City Attorney.

RECOMMENDATIONS

Staff recommends that the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council approve the plans and specifications for the La Salina Wastewater Treatment Plant Upgrades project, and authorize the City Engineer to call for bids; and approve a professional services agreement in the amount of \$56,191 to Carollo Engineers, of San Diego, for engineering office services during construction, and authorize the City Manager to execute the agreement.

PREPARED BY:

Greg Blakely
Administrative Manager

Exhibit A: Site Map
Exhibit B: Request for Proposal Mailing List

STAFF REPORT

DATE: October 9, 2007

TO: Water/Sewer Committee

FROM: Lonnie Thibodeaux, Water Utilities Director

SUBJECT: **RECOMMEND APPROVAL OF CLOSING CHANGE ORDER 2 AND ACCEPTANCE OF IMPROVEMENTS CONSTRUCTED BY CCL CONTRACTING, INC. OF ESCONDIDO, FOR THE BUENA VISTA FORCE MAIN PHASE 2 PROJECT**

SYNOPSIS

Staff recommends that the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council approve closing Change Order 2 in the amount of \$155,909.28 to the agreement with CCL Contracting Inc. of Escondido, for the Buena Vista Force Main Replacement Phase 2 project, authorize the City Engineer to execute the change order; and accept the improvements constructed by CCL Contracting Inc. and authorize the City Clerk to file a Notice of Completion with the San Diego County Recorder.

BACKGROUND

On April 19, 2006, City Council awarded a construction contract for the Buena Vista Force Main Replacement Phase 2 project to CCL Contracting, Inc. of Escondido, in the amount of \$2,992,196.

In order to convey the ultimate average dry weather flow and reduce the existing total dynamic head required with the current piping configuration, the City of Oceanside Master Plan recommended upsizing the existing 18/14-inch force main and reduce the static head of the system by tunneling portions of the alignment. The existing force main was constructed in 1975 and was approximately 9,800 linear feet of 18-inch and 14-inch ductile iron pipe. Several sections of the force main were repaired in the year 2000 as part of an emergency repair.

Phase 2 consisted of installing 7,726 linear feet of 24-inch force main via the conventional open trench method and installation of 250 linear feet of 24-inch force main inside of a 42-inch steel sleeve that was installed by the bore-and-jack method of construction under a reinforced concrete box storm drain structure and the North County Transit District (NCTD) Escondido Branch railroad tracks.

ANALYSIS

Change Order 1 included additional work requested by the City to relocate a 14-inch sewer force main and to provide plug valves and wax tape. The change order also included additional cost from encountering an unforeseen 18-inch vitrified clay sewer pipe and credit for the installation of two traffic loops. Change Order 1 was in the amount of \$56,409.44 and was approved by City Council on August 15, 2007.

Closing Change Order 2 (Exhibit A) included additional work required due to differing subsurface or latent physical conditions. These conditions included a conflict with an unknown underground portion of a drainage structure; extra pothole work on Kinder-Morgan's fuel line, rehabilitation of the deteriorated connection manhole in the Oceanside Boulevard and El Camino Real intersection. Additional work was also performed as requested by the City for the concrete slurry encasement to protect existing utilities and shallow air and vacuum valve pipe runs, modifications to the air and vacuum valve system cover, and a retaining wall to protect the air and vacuum valve equipment. There are also credits for deleting one project sign, eliminating the construction manager trailer, eliminating multiple hydrostatic test sections, reduction of bid items quantities, and a credit for costs incurred by the City due to a sewer spill caused by the contractor breaking the existing force main. The total for Closing Charge Order 2 is \$155,909.28.

A final inspection has been performed and it was determined that the project was complete per the plans and specifications. To date there have been no claims filed on the project.

FISCAL IMPACT

In Fiscal Year 2005 - 2006, Council approved an appropriation of \$6,110,000 for the construction of the Buena Vista Force Main Replacement projects. Phase 1, constructed by Affholder, Inc, cost was \$2,202,255.16 and was accepted by City Council on September 12, 2007; CCL Contracting, Inc. (Phase 2), bid was \$2,992,196 and Change Order 1 was \$56,409.44; and the Infrastructure Engineering Corporation proposal was \$597,340 for the construction management and inspection services, which bring the combined Buena Vista Force Main Replacement projects Phase 1 and Phase 2 construction costs to \$5,848,200.60. The projected expenditures in Fiscal Year 2006-2007 were \$5,174,674. For Fiscal Year 2007-2008 an estimated \$856,893 in carry forward funds is available in the Sewer Expansion Buena Vista FM account (726.865472). The cost of Change Order 2 is \$155,909.28 therefore adequate funding is available for this item.

COMMISSION OR COMMITTEE REPORT

The Utilities Commission will review staff's recommendations at its regularly scheduled meeting on October 16, 2007.

CITY ATTORNEY'S ANALYSIS

The referenced documents are being reviewed by the City Attorney's office.

RECOMMENDATIONS

Staff recommends that the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council approve closing Change Order 2 in the amount of \$155,909.28 to the agreement with CCL Contracting Inc. of Escondido, for the Buena Vista Force Main Replacement Phase 2 project, authorize the City Engineer to execute the change order; and accept the improvements constructed by CCL Contracting Inc. and authorize the City Clerk to file a Notice of Completion with the San Diego County Recorder.

PREPARED BY:

Greg Blakely
Administration Manager

Exhibit A - Change Order

STAFF REPORT

DATE: October 9, 2007

TO: Water/Sewer Committee

FROM: Lonnie Thibodeaux, Water Utilities Director

SUBJECT: **RECOMMEND AWARD OF A CONTRACT FOR THE CONSTRUCTION
THE SAN LUIS REY WASTEWATER TREATMENT PLANT
COGENERATION FACILITY PROJECT**

SYNOPSIS

Staff recommends that the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council award a contract to California Power Partners, Inc., of San Diego, for construction of the San Luis Rey Wastewater Treatment Plant Cogeneration Facility project, and authorize the City Manager to execute the agreement.

BACKGROUND

The San Luis Rey Wastewater Treatment Plant (SLRWWTP), located at 3950 North River Road (Exhibit A), provides wastewater treatment and disposal for approximately 80 percent of the City.

During the design of the recently completed plant expansion several Design Memorandums were prepared to evaluate cogeneration facilities for the SLRWWTP. Several options were investigated however; the rates for electricity and natural gas made this type of facility cost prohibitive. Now that the costs have drastically changed, a cogeneration facility is more economically feasible.

ANALYSIS

The SLRWWTP currently has five anaerobic digesters each with a diameter of 60 feet. One digester is currently empty. All four digester's boilers are heated with digester gas. This project will consist of financing, construction and operation of a cogeneration facility on site at the SLRWWTP by California Power Partners, Inc. The cogeneration facility will be fueled by digester gas produced by the water reclamation facility for use by the contractor. The cogeneration facility shall include gas treatment, the cogeneration facility, heat recovery, and connections to the digester gas, natural gas, hot water, and electrical systems. Repair and reconstruction of any existing facilities affected by the work including pavement will be made by California Power Partners, Inc. at no cost to the City.

In July 2007, request for proposals were mailed to fifteen companies (Exhibit B) and three proposals were received. The three proposals were evaluated and California Power Partners, Inc. was selected as the best qualified for the project.

FISCAL IMPACT

The construction value of the project is \$1,675,500. The contractor will be funding the construction, maintenance and operation of the cogeneration facility. They will sell electrical power to the SLWRF at a cost lower than the present cost of 12.5 cents per kilowatt, which results in an average savings to the City of approximately \$280,000 per year. The agreement with California Power Partners, Inc. is for 10 years with an additional 10 year option.

| Year | Cost per Kilowatt | Year | Cost per Kilowatt |
|------|-------------------|------|-------------------|
| 2008 | .065 | 2013 | .0830 |
| 2009 | .0683 | 2014 | .0871 |
| 2010 | .0717 | 2015 | .0915 |
| 2011 | .0752 | 2016 | .0960 |
| 2012 | .0830 | 2017 | .1008 |

INSURANCE REQUIREMENTS

The City’s standard insurance requirements will be met.

COMMISSION OR COMMITTEE REPORT

The Utilities Commission will review during its meeting on October 16, 2007.

CITY ATTORNEY’S ANALYSIS

The referenced documents are being reviewed by the City Attorney.

RECOMMENDATIONS

Staff recommends that the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council award a contract to California Power Partners, Inc., of San Diego, for construction of the San Luis Rey Wastewater Treatment Plant Cogeneration Facility project, and authorize the City Manager to execute the agreement.

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Exhibit A: Site Map
Exhibit B: Request for Proposal Mailing List