



## AGENDA MEMORANDUM

Future Item for the City Council Meeting of September 9, 2014  
Action Item for the City Council Meeting of September 16, 2014

**DATE:** August 15, 2014

**TO:** Ronald L. Olson, City Manager

**THRU:** Gustavo Gonzalez, P.E., Assistant City Manager, Public Works and Utilities  
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### **Engineering Contract**

O.N. Stevens Water Treatment Plant  
Interim Sludge Management Improvements

### **CAPTION:**

Motion authorizing the City Manager or designee to execute the engineering contract with LNV, Inc. of Corpus Christi, Texas in the amount of \$119,600 for the O.N. Stevens Water Treatment Plant Interim Sludge Management Improvements for design, bid, and construction phase services.

### **PURPOSE:**

The purpose of this agenda item is to obtain authority to execute the LNV, Inc. contract for O.N. Stevens Water Treatment Plant Interim Sludge Management Improvements.

### **BACKGROUND AND FINDINGS:**

The O.N. Stevens Water Treatment Plant (ONSWTP) treats an average of 70 MGD (million gallons per day). The Plant removes approximately 24,500 pounds of solids per day from the raw water at this treatment rate. These solids are handled as water treatment sludge with very high water content. Currently, ONSWTP moves all solids, in the form of liquid sludge, from the North and South Lagoons and Sedimentation Basins to the East and West Lagoons (Polywogs) via various interconnecting gravity drain systems. The East and West Lagoons were designed to permanently store solids (sludge) from ONSWTP and extract the water from the sludge by evaporation. Over the years, the East and West Lagoons have filled with solids and are approaching their storage capacity. It is anticipated that the East and West Lagoons will reach capacity within the next four years. When the East and West Lagoons are filled to capacity, the Plant will need a new method to transfer, store and dispose of the solids. Lagoon No. 7 has capacity, is in close proximity, and is accessible for an interim location to receive sludge.

This project will provide professional services for the design of a sludge transfer line to Lagoon No. 7. The sludge line will be added to give Operations a solution for pumping sludge from the North and South Lagoons to Lagoon No. 7 until permanent Solids Handling Facilities are constructed. Other interim improvements to be provided under this contract include; the rehabilitation of the North and South Lagoon access roads, which are heavily deteriorated and must accommodate the equipment needed for handling of the floating dredge equipment; the evaluation of options for transferring sludge to Lagoon No. 7 including the use of any existing lines connected to Lagoon No. 7; the determination of the volume and characteristics of sludge and water in the North and South Lagoons and Lagoon No.7; the review of washwater recycling operational data and; subsequent determination of the volume of additional sludge that can be deposited in Lagoon No. 7 as well as the location and method of deposition appropriate to avoid hindrance of the washwater recycling operation; the determination of an offsite disposal location for any amount of sludge that cannot be deposited in Lagoon No. 7 and the cost of offsite disposal associated with the initial dredging operations; finally, dredge equipment start-up and commissioning support services.

LNV has been working on the City's ONSWTP projects for many years and is very familiar with the sludge disposal at ONSWTP.

**ALTERNATIVES:**

1. Authorize the execution of the engineering contract.
2. Do not authorize the execution of the engineering contract. (Not Recommended)

**OTHER CONSIDERATIONS:**

Interim sludge handling improvements are required until a long term solids handling solution can be accomplished in FY2019 under a separate professional services contract. The engineering design service is approximately 10% of the construction estimate and 7% of the project budget.

**CONFORMITY TO CITY POLICY:**

Conforms to City Fiscal Policy

**EMERGENCY / NON-EMERGENCY:**

Non-Emergency

**DEPARTMENTAL CLEARANCES:**

Utilities Department

**FINANCIAL IMPACT:**

Operating     Revenue     Capital     Not applicable

Fiscal Year 2013-2014	Project to Date Expenditures	Current Year	Future Years	TOTALS
Line Item Budget		\$1,000,000.00		\$1,000,000.00
Encumbered / Expended Amount				
This Item		\$119,600.00		\$119,600.00
Future Anticipated Expenditures This Project		\$877,200.00		\$877,200.00
BALANCE		\$3,200.00		\$3,200.00

Fund(s): Water CIP #29

**Comments:** This project requires approximately 457 calendar days with anticipated completion November 2015. The contract will result in the expenditure of an amount not to exceed \$119,600.

**RECOMMENDATION:**

City Staff recommends approval of the engineering contract with LNV, Inc. in the amount of \$119,600 for the O.N. Steven Water Treatment Plant Interim Sludge Management Improvements for design, bid, and construction phase services.

**LIST OF SUPPORTING DOCUMENTS:**

Project Budget  
Location Map  
Contract  
Presentation