



AGENDA MEMORANDUM

Future Item for the City Council Meeting of May 28, 2013

Action Item for the City Council Meeting of June 11, 2013

DATE: May 14, 2013

TO: Ronald L. Olson, City Manager

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Engineering Design Contract

Oso Water Reclamation Plant

Nutrient Removal and Re-rate to 24 MGD - Phase 2 (Final)

CAPTION:

Motion authorizing the City Manager, or designee, to execute a Contract for Professional Services with LNV, Inc. of Corpus Christi, Texas in the amount of \$9,998,629.00, for the Oso Water Reclamation Plant Nutrient Removal and Re-rate to 24 MGD - Phase 2 (Final) for design, bid, and construction phase services.

PURPOSE:

The purpose of this Agenda Item is to execute the Contract for Professional Services for Oso Water Reclamation Plant Nutrient Removal and Re-rate to 24 MGD - Phase 2 (Final).

BACKGROUND AND FINDINGS:

The Texas Commission on Environmental Quality (TCEQ) has adopted more stringent restrictions on ammonia levels intended to protect grasses in the bay systems. The prior Oso Water Reclamation Plant (WRP) permit did not contain ammonia limit. A renewal of permit issued by TCEQ on April 29, 2011 required the effluent ammonia of the Oso WRP be in compliance with the new regulations on or before October 29, 2013.

To attain compliance within timeframe, the City adopted a strategy of implementing Phase 1 (near-term) and Phase 2 (long-term) improvements at the Oso WRP. Phase 1 allows the City to implement cost effective improvements as a temporary means of meeting the new effluent ammonia requirements in the near-term while planning, designing, and implementing Phase 2 facility improvements. Phase 2 (this design contract) is a permanent long-term solution to meet the cost/benefit requirements and additional anticipated effluent regulations for the operation of the Oso WRP.

Phase 1 improvements, under Construction Contract with CSA Construction of Houston, Texas approved by the City Council on February 26, 2013, are currently under construction and scheduled for completion in September 2013.

The proposed scope of services of Phase 2 improvements has been broken into two sections referred to as Stage I and Stage II. Stage I includes the Phase 2 Oso WRP facility upgrades necessary for the plant to meet additional anticipated regulatory requirements, provide additional treatment capacity to meet projected increased plant flows, to ensure continued plant reliability, and to replace the temporary Phase 1 improvements. Stage II includes Laguna Madre Wastewater Treatment Plant (WWTP) decommissioning and transfer facility infrastructure which will divert Laguna Madre service flows to the re-rated Oso WRP. Closure of Laguna Madre WWTP will reduce future permit compliance and staffing requirements.

ALTERNATIVES:

1. Execute the Contract for Professional Services with LNV, Inc. as proposed.
2. Do not execute the Contract for Professional Services with LNV, Inc. as proposed.

OTHER CONSIDERATIONS:

A cost/benefit analysis for the Oso WRP Nutrient Removal (Ammonia) project was completed by LNV, Inc. in April 2013. The purpose of the analysis was to provide background information on the Phase 2 improvements, summarize its advantages and disadvantages, and show the economic financial impacts of implementing these improvements. The memo developed the life-cycle cost estimates with as much confidence as possible given the state of the conceptual design. Life cycle costs represent the total cost incurred over the life span of a project, including design, construction, and operation and maintenance (O&M) costs. All cost estimates were shown in 2013 dollars and were broken into multiple components such as capital construction, construction contingency, project administration, engineering design, and O&M costs.

It should be noted that due to the additional permitting requirements anticipated in upcoming Texas Pollutant Discharge Elimination System renewals, the growth of the Southside service area, and the age of the Oso WRP, there is not a realistic, viable “do nothing” option. Major facility improvements must be implemented in order to address each of these concerns. As a result, the memo identified the consequences of not moving forward with the Phase 2 improvements and describes the necessary projects that would be necessary in lieu thereof.

The total project costs for Oso WRP Phase 2 Improvements, including decommissioning of the Laguna Madre WWTP, is \$99.5M with an estimated O&M cost over the next 20 years of \$66.5M bringing the Total Lifecycle cost to \$166M. On the other hand, the total project costs associated with not implementing Phase 2 is \$129M with an estimated O&M cost of \$143M which results in a Total Lifecycle cost of \$272M. As a result, if the Phase 2 recommendations are implemented, the estimated savings to the City is \$106 million over the next 20 years. The Life-Cycle costs are summarized in the table below.

ALTERNATIVE	PROJECT COSTS	O&M COSTS (Present Value)	LIFECYCLE COSTS (20 Years)
Phase 2 Improvements	\$99,439,000	\$66,440,000	\$165,879,000
Not Implementing Phase 2 Improvements	\$128,990,000	\$143,160,000	\$272,150,000
PRESENT VALUE SAVINGS	\$29,551,000	\$76,720,000	\$106,271,000

CONFORMITY TO CITY POLICY:

Conforms to statues regarding FY 2012-2013 Wastewater Capital Improvement Planning (CIP) Budget

EMERGENCY / NON-EMERGENCY:

Non-emergency

DEPARTMENTAL CLEARANCES:

Wastewater Department

FINANCIAL IMPACT:

Operating Revenue Capital Not applicable

Fiscal Year: 2012-2013	Project to Date Expenditures (CIP only)	Current Year	Future Years	TOTALS
Line Item Budget		\$540,000.00	\$99,450,000.00	\$99,990,000.00
Encumbered / Expended Amount				\$0.00
This item		\$520,000.00	\$9,478,629.00	\$9,998,629.00
Future Anticipated Expenditures This Project		\$20,000.00	\$89,420,000.00	\$89,440,000.00
BALANCE		\$0.00	\$551,371.00	\$551,371.00

Fund(s): Wastewater CIP #17

Comments: The completion of Stage I requires approximately 2,160 calendar days with anticipated completion April 2019 and Stage II requires approximately 1,490 calendar days and will have a staggered start so anticipated completion is June 2019. During preliminary design of both contracts, the feasibility of a project delivery option for Construction Management at Risk (CMAR) will be considered in terms of schedule and budget efficiency enhancements.

The subject request will result in the expenditure of an amount not to exceed \$9,998,629.00. This amount will be funded over several years, with FY13 funding in the amount of \$520,000.00 and future funding will be required in the amount of \$9,478,629.00 to complete the contract.

RECOMMENDATION:

City Staff recommends the approval of the Contract for Professional Services with LNV, Inc. of Corpus Christi, Texas in the amount of \$9,998,629.00, for the Oso Water Reclamation Plant Nutrient Removal and Re-rate to 24 MGD - Phase 2 (Final) for design, bid and construction phase services.

LIST OF SUPPORTING DOCUMENTS:

- Project Budget
- Location Map
- Contract
- PowerPoint
- Technical Memorandum No. 6
- Technical Memorandum No. 9