



CITY OF LODI
COUNCIL COMMUNICATION

AGENDA TITLE: Adopt Resolution Authorizing City Manager to Execute Task Order No. 34 with West Yost Associates, of Walnut Creek (\$58,700)
MEETING DATE: August 7, 2013
PREPARED BY: Public Works Director

RECOMMENDED ACTION: Adopt resolution authorizing City Manager to execute Task Order No. 34 with West Yost Associates, of Walnut Creek, in the amount of \$58,700.

BACKGROUND INFORMATION: The City's White Slough Water Pollution Control Facility (WSWPCF) typically discharges treated effluent to Dredger Cut during the months of October to April each year. During the remainder of the year, the treated effluent is utilized within the City's land application area for irrigation of fodder crops. To maximize the use of treated effluent for irrigation, a study is needed to evaluate the current water use and water balance of flows at the WSWPCF. Upon request by staff, West Yost Associates (WYA) furnished the City with a proposal to provide engineering services to complete a Land Application Area Expansion study at the WSWPCF. This study will evaluate potential alternatives for expanding the land application area to maximize the use of treated effluent for irrigation at the WSWPCF.

The Task Order No. 34 scope of services, as detailed in the attached exhibit, includes the following categories of work:

- Evaluate Effluent Flows
- Conceptualize Alternatives
- Develop Preliminary Facilities Layout and Sizing
- Evaluate Onsite Land Application Area Expansion
- Estimate Cost of Proposed Alternatives
- Prepare Technical Memorandum
- Provide Project Management

Staff recommends City Council authorize the City Manager to execute Task Order 34 with WYA in the amount of \$58,700.

FISCAL IMPACT: There is no expected fiscal impact on the City for this study.

FUNDING AVAILABLE: Wastewater Operating Fund (170403)

Jordan Ayers

Jordan Ayers
Deputy City Manager/Internal Services Director

F. Wally Sandelin

F. Wally Sandelin
Public Works Director

Prepared by Kathryn E. Garcia, Compliance Engineer
Attachment
FWS/KMG/pmf

APPROVED: *Konradt Bartlam*

Konradt Bartlam, City Manager



June 21, 2013

Mr. Larry Parlin
Deputy Public Works Director - Utilities
City of Lodi
1331 South Ham Lane
Lodi CA 95242

SUBJECT: Proposal to Provide Engineering Services—Land Application Area
Expansion Study

Dear Larry:

West Yost Associates (West Yost) appreciates the opportunity to present to you this letter proposal for engineering services related to the City of Lodi (Lodi) Water Pollution Control Facility (WPCF) Land Application Area Expansion Study. The purpose of this study is to evaluate potential alternatives for expanding the land application area to maximize the use of treated effluent for irrigation. The potential alternatives that will be evaluated under this study were developed based on discussions with the City, and are as follows:

- Expansion of the treated water storage volume so that the storage “balances” with the City-owned areas that are currently irrigated with treated wastewater. The goal of this alternative would be to meet the existing irrigation demands without supplemental water supplies during most years.
- Expansion of the treated water storage volume so that the storage “balances” with the all of the existing City-owned irrigated properties (including the 90-acre area currently irrigated with well water). The goal of this alternative would be to maximize the use to treated effluent for irrigation on the existing City-owned land.
- Expansion of the treated water storage volume *and* City-owned irrigated properties so that use of available treated effluent for irrigation is maximized at the 6.0 mgd average dry weather flow condition.
- Expansion of the treated water storage volume *and* City-owned irrigated properties so that use of available treated effluent for irrigation is maximized at the 7.0 mgd average dry weather flow condition.
- Expansion of the treated water storage volume *and* City-owned irrigated properties so that use of available treated effluent is for irrigation is maximized at the 8.5 mgd average dry weather flow condition.

SCOPE OF SERVICES

Task 1. Evaluate Effluent Flows

West Yost will develop an estimate of the monthly effluent flow factors for the WPCF based on the following information:

- Recent influent and effluent flow data
- Anticipated water demands from NCPA power generation facilities
- Historic demands from the San Joaquin County Mosquito and Vector Control District

These monthly flow factors would be applied to an influent flow condition to predict effluent flows. This information will be used to support the water balance modeling effort described in Task 2.

Task 2. Conceptualize Alternatives

West Yost will further define each of the alternatives presented above. This work will include the development of conceptual water balances to identify the required irrigation and storage areas.

The results of the efforts completed under Tasks 1 and 2 will be presented to the City for comment and feedback prior to initiating the tasks described below.

Deliverables: Hard copies of the Water Balance models for each alternative will be provided at a project meeting.

Task 3. Preliminary Facilities Layout and Sizing

Based on the work developed under Task 2, West Yost will develop preliminary layout and sizing for the irrigation areas needed under each alternative. West Yost will develop conceptual mapping of each of the alternatives, showing the potential irrigation expansion areas adjacent to the WPCF properties (based on proximity to existing facilities and existing parcel designations), and a preliminary irrigation water transmission alignment. These preliminary layouts will serve as the basis for the cost estimates provided under Task 5.

Task 4. Onsite Land Application Area Expansion

The City's existing land application area includes 90 acres that are currently irrigated with well water. West Yost will identify the specific facilities needed to expand the existing treated effluent irrigation system to cover this area. Work will include:

- Review existing irrigation pump station condition and capacity, and evaluate existing irrigation system hydraulics to verify the feasibility of supplying the site from the existing pumping facilities.
- Determine pump station improvements needed to supply the expansion site if the existing pumping facilities are not adequate.
- Evaluate option of constructing a booster pumping station near the expansion site.

- Prepare figures and preliminary cost estimates for both approaches.
- Meet with the City to review the findings and select a preferred approach.

Task 5. Estimated Costs for Proposed Alternatives

West Yost will develop a planning level cost analysis for each alternative. These estimates will include the cost estimate described in Task 4 for expanding the existing land application area.

Task 6. Technical Memorandum

The information developed under Tasks 1 through 5 will be presented in a Technical Memorandum (TM). Upon review by staff, West Yost will participate in a meeting with City staff to review the findings. A final TM will be prepared incorporating City comments.

Deliverables: Draft and Final Land Application Area Expansion Study TM. Draft TM will be distributed in PDF format for City review. Up to four (4) bound copies of the Final TM will be distributed to the City.

Task 7. Project Management

West Yost will provide management and coordination activities related to this study. Work performed will be summarized on monthly invoices, and all work will be reviewed by principal West Yost personnel.

PROJECT BUDGET

The total fee for the scope of work described above is estimated to be \$58,700. A breakdown of the estimate is shown in the table below. West Yost will perform the work on a time and materials basis at standard company charge rates, and will not exceed the estimated cost without written authorization. If additional budget is required to complete work identified herein, we will notify the City before exceeding the authorized budget amount.

Land Application Area Expansion Study Estimated Fee		
Task	Description	Estimated Fee, dollars
1	Evaluate Effluent Flows	3,100
2	Conceptualize Alternatives (Includes 1 meeting)	6,300
3	Preliminary Facilities Layout and Sizing	8,500
4	Onsite Land Application Area Expansion (Includes 1 site visit and 1 meeting)	15,100
5	Estimated Cost of Proposed Alternatives	8,100
6	Technical Memorandum (Includes 1 meeting)	15,200
7	Project Management	2,400
Total Estimated Fee		\$58,700

Mr. Larry Parlin
June 21, 2013
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SCHEDULE

Work will begin upon notice to proceed from the City, and it is anticipated that the first project meeting to discuss the results of Tasks 1 and 2 will occur within four (4) weeks of notice to proceed. A second project meeting to discuss the results of Task 3 will occur within six (6) weeks of notice to proceed. Finally, West Yost will provide a Draft TM within six (6) weeks of City's approval of the conceptual alternatives and selection of a preferred approach for irrigation facility expansion into the 90-acre City-owned area. Comments on the Draft TM will be provided in a meeting that will be scheduled two (2) weeks after the City receives the Draft TM. A Final TM will be provided to the City within two (2) weeks of receiving City comments.

West Yost appreciates the opportunity to provide these services to the City. Please contact me if you have any questions or need additional information.

Sincerely,

WEST YOST ASSOCIATES



Kathryn E. Gies
Principal Engineer
R.C.E. #65022

cc: Kathryn Garcia, City of Lodi

RESOLUTION NO. 2013-142

A RESOLUTION OF THE LODI CITY COUNCIL
AUTHORIZING THE CITY MANAGER TO EXECUTE TASK
ORDER NO. 34 TO MASTER PROFESSIONAL SERVICES
AGREEMENT WITH WEST YOST ASSOCIATES

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WHEREAS, the City's White Slough Water Pollution Control Facility (WSWPCF) typically discharges treated effluent to Dredger Cut during the months of October to April each year. During the remainder of the year, the treated effluent is utilized within the City's land application area for irrigation of fodder crops; and

WHEREAS, to maximize the use of treated effluent for irrigation, a study is needed to evaluate the current use and water balance of flows at the WSWPCF; and

WHEREAS, staff recommends West Yost Associates provide engineering services to complete a Land Application Area Expansion study at the WSWPCF. This study will evaluate potential alternatives for expanding the land application area to maximize the use of treated effluent for irrigation at the WSWPCF.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to execute Task Order No. 34 to the Master Professional Services Agreement with West Yost Associates, of Walnut Creek, California, in the amount of \$58,700, to provide engineering services to complete a Land Application Area Expansion study at the White Slough Water Pollution Control Facility.

Dated: August 7, 2013

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I hereby certify that Resolution No. 2013-142 was passed and adopted by the City Council of the City of Lodi in a regular meeting held August 7, 2013, by the following vote:

- AYES: COUNCIL MEMBERS – Hansen, Johnson, Katzakian, Mounce, and Mayor Nakanishi
- NOES: COUNCIL MEMBERS – None
- ABSENT: COUNCIL MEMBERS – None
- ABSTAIN: COUNCIL MEMBERS – None



RANDI JOHL-OLSON
City Clerk