

CITY OF YUBA CITY
STAFF REPORT

Date: August 16, 2016

To: Honorable Mayor & Members of the City Council

From: Public Works Department

Presentation by: Diana Langley, Public Works Director

Summary

Subject: Award of Contract for the Discing and Slip-plowing of the Wastewater Treatment Facility Effluent Discharge Ponds

Recommendation: Authorize the City Manager to execute a Standard Agreement with Mechanical & Irrigation Solutions, Inc. of Yuba City, CA, to:

- A. Disc the Wastewater Treatment Facility's effluent discharge ponds in the amount of \$5,000.00 per 20 acres, including mobilization and demobilization (maximum \$35,000 for disc operation).
- B. Slip plow the Wastewater Treatment Facility's effluent discharge ponds in the amount of \$16,200.00 per 20 acres, for 2 directions, including mobilization and demobilization (maximum \$81,000 for slip plow operation).

Fiscal Impact: \$116,000 – Account Number 8120-63451 (Major Maintenance)

Purpose:

Disc and slip plow the Wastewater Treatment Facility effluent discharge ponds to restore maximum disposal performance for their continued operation.

Background:

The Wastewater Treatment Facility has two options for the discharge of treated water (effluent): (i) discharge to the Feather River through a diffuser pipe or (ii) discharge to the evaporation/percolation ponds located on the east bank of the Feather River channel inside the Feather River Flood Plain. The City's diffuser pipe was no longer submerged under water during low flow conditions starting in 2012 due to changes in the Feather River channel bed. Prior to 2012, the diffuser pipe was submerged under water throughout the year and this submerged diffuser pipe provided the flexibility to discharge either to the ponds or to the river.

The 2013 National Pollution Discharge Elimination System (NPDES) permit, regulating the Wastewater Treatment Facility's effluent discharge, requires the diffuser pipe to be at minimum 0.8 feet (9.6 inches) below water surface before the City can discharge the effluent into the Feather River. Therefore, the City's only remaining option is to discharge the effluent to the disposal ponds. All six ponds were slip plowed in early 2012, anticipating that the City would be discharging to the disposal ponds for an extended period of time. This was vital, as the City was unable to discharge any amount of effluent into the river during the years 2013, 2014, 2015, and early 2016. The effluent

discharge ponds' capacity is limited for percolation and evaporation, and the ponds slowly lose percolation capacity (performance) over time due to soil compaction, amongst other factors. Therefore, it is critical to keep the percolation/evaporation ponds appropriately maintained through discing and slip plowing on a regular basis. Discing minimizes the weed growth and slip plowing significantly enhances the percolation capacity of the ponds. Sutter-Yuba Mosquito Vector Control District requested the City disc the ponds after slip plowing. Discing helps to minimize the large berms and deep crevices/valleys that can harbor mosquitos.

Analysis:

The sufficiently high Feather River water level allowed the City to resume discharging the effluent to the Feather River on July 1, 2016. This has provided the City with an excellent opportunity to dry all the ponds to slip plow and disc. Therefore, it is in the best interest of the City to disc and slip plow the maximum number of ponds during this window of unique opportunity.

Three cost proposals were received by the Staff for the slip-plow operation only:

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| 1. Mechanical & Irrigation Solutions, Inc. | \$48,600.00 for 60 acres |
| 2. Jovan Orchards, Yuba City, CA | \$49,650.00 for 60 acres |
| 3. KZB AG Unlimited, Yuba City, CA | \$52,500.00 for 60 acres |

The cost proposal received from Mechanical & Irrigation Solutions, Inc. of Yuba City, CA was the lowest bidder. Sutter-Yuba Mosquito Vector Control requested the discing of the ponds after the cost proposals had been received, the selected contractor notified, and the Standard Agreement signed by both Mechanical & Irrigation Solutions, Inc. and the City.

Staff is recommending that the City sole source the discing operations to Mechanical & Irrigation Solutions, Inc. for work co-ordination and cost savings by combining the slip-plow and disc operations. Staff will work with the contractor to minimize the mobilization and demobilization costs by making the maximum number of ponds available for slip-plow and disc operation at a given time.

Fiscal Impact:

\$116,000 – Account Number 8120-63451 (Major Maintenance)

Alternatives:

Do not authorize the disc and slip-plow operation. This will risk the City running out of pond capacity due to lack of required maintenance, which would be in non-compliance with discharge permit regulations.

Recommendation:

Authorize the City Manager to execute a Standard Agreement with Mechanical & Irrigation Solutions, Inc. of Yuba City, CA, to:

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Prepared by:

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TH via email