



REPORT TO COUNCIL

City of Sacramento

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Consent
May 26, 2009

Honorable Mayor and
Members of the City Council

Title: Approve Change Order No. 1: Fairbairn Sludge dewatering

Location/Council District: 7501 College Town Drive/Council District 6

Recommendation: Adopt a **Resolution** approving Change Order No. 1 to Contract No. 2009-0237, with National Plant Services, Inc., in the amount of \$32,263.34.

Contact: Mike Yee, Plant Services Manager (808-5583);
Dan Sherry, Supervising Engineer (808-1419).

Presenters: Not Applicable

Department: Utilities

Division: Plant Services

Organization No: 14001111

Description/Analysis

Issue: The proposed Change Order will compensate the contractor for additional costs incurred because the phase one tonnage exceeded the City's estimate by 116 tons (36 percent). The total contract amount after approval of Change Order No. 1, will be \$270,423.34.

Policy Considerations: This action is in conformance with City Code Chapter 3.60, Article VI which governs change orders. This report's recommendation is consistent with City Strategic Plan goals of achieving sustainability and livability.

Environmental Considerations:

Central Valley Regional Water Quality Control Board (CVRWQCB): The Fairbairn Treatment Plant operates under Waste Discharge Order No. R5-2007-0087. In order to comply, the Department opted to mechanically dewater the sludge to aid drying and facilitate disposal.

California Environmental Quality Act (CEQA): This project involves the continued operation of an existing public utility facility, and thus is categorically exempt from the provisions of CEQA per section 15301(b).

Sustainability Considerations: This project is consistent with the City's

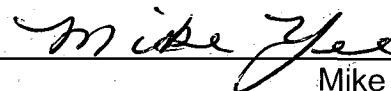
Sustainability Master Plan goals, because dried sludge disposal at a landfill protects the American River, and disposal in a local landfill is more fuel efficient than disposal at facilities further away that can accept wet sludge.

Rationale for Recommendation: The proposed Change Order provides compensation for changes and additional work associated with unforeseen conditions.

Financial Considerations: The Water Production Operations budget (14001111) currently has sufficient Water funds (Fund 6005) for this change order and project completion.

Emerging Small Business Development (ESBD): In accordance with City Ordinance 99-007 and City Council Resolution 99-055, this project included a participation goal of 15% for emerging and small business enterprises (ESBE's). National Plant Services' bid met the ESBE goal, but because of increased quantities and changed operational conditions at Fairbairn, the actual participation level to date is only 13.5 percent.

Respectfully Submitted by:



Mike Yee

Plant Services Manager

Approved by:



Marty Hanneman

ACM/Director of Utilities

Recommendation Approved:



Ray Kerridge
City Manager

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Attachment 1**Background**

Sludge is a residual byproduct of the drinking water purification process. Almost 1,000 tons of dried sludge solids are collected annually, at Fairbairn. When first collected, sludge is like dirty water, containing around 1% solids. As the sludge is collected, it's pumped into onsite lagoons, where solids settle and water decants off the top, increasing the concentration very randomly to between 2 and 5% solids. National Plant Services' contract required all in-place collected sludge to be mechanically concentrated to at least 20% solids.

At Fairbairn, sludge is collected from the initial flocculation/sedimentation process, and again from the final filtration process. Although essentially the same material, Fairbairn has separate onsite lagoons for collecting sludge from these two sources. The separate lagoons are about 500 feet apart, on opposite sides of the water treatment plant. The contract with National Plant Services was expected to leave all but one Fairbairn filter washwater and one flocculation lagoon open for continued spring/summer operations.

Additional sludge aeration drying space was added to Fairbairn as part of the 2002 expansion project, but it was not enough to fully comply with the CVRWQCB Waste Discharge requirements imposed in 2007. As such, the Department must now periodically dewater the solids mechanically in order to comply.

In February of this year, when the City requested dewatering bids, it was anticipated that vendors might use fairly large equipment. Equalization tanks were therefore specified so as not to exceed the permitted discharge of decant water to the sewer. Also, it was planned that all processed sludge would be trucked for temporary storage into one of the filter washwater lagoons. Department staff estimated the sludge bid quantity in dry tons, based on an assumed uniform solids content of 3.5% for all material in the lagoons.

National Plant Services mobilized a relatively small dewatering centrifuge, so City negotiated a credit to omit the equalization tanks. As the Contractor processed the sludge, daily measurements indicated the lagoon material contained more than 3.5% solids (closer to 4.75%). The higher solids content simply meant more tonnage needed to be processed to clean out the lagoons for spring/ summer operations.

As sludge processing operations were underway, Department staff determined that more filter washwater lagoon space was needed at Fairbairn. This determination eliminated trucking processed sludge to the more distant filter washwater lagoon; it simply was moved via conveyor to an adjacent clean sedimentation lagoon. Eliminating trucking, however, reduced the ESBE participation level. Utilizing Davies Trucking, an ESBE firm, was how National Plant Services' bid met the 15% target participation level. As much as practicable, National Plant Services continued to try and meet the minimum level of participation by renting equipment from Davies Trucking, but only 13.5% participation was actually achieved in this phase of the contract.

Project Location Map



Attachment 3

RESOLUTION NO.

Adopted by the Sacramento City Council

APPROVE CHANGE ORDER NO. 1 FOR THE FAIRBAIRN WATER TREATMENT PLANT (WTP) SLUDGE DEWATERING CONTRACT

BACKGROUND

- A. A contract for Fairbairn WTP Sludge Dewatering was awarded on March 3, 2009 to National Plant Services, Inc.
- B. Change Order No. 1 is a balancing change order to reconcile phase one final bid quantities, equipment credits, and to pay for additional work due to unforeseen conditions, which increases the contract amount by \$32,263.34 to a total contract amount of \$270,423.34.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. The City Manager is authorized to sign Change Order No. 1 for the Fairbairn WTP Sludge Dewatering contract, in the amount of \$32,263.34.