



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: February 25, 2014

TO: Mayor and Councilmembers

FROM: Water Resources Division, Public Works Department

SUBJECT: Approval of Purchase Orders For Primary Coagulant Chemicals For The William B. Cater Water Treatment Plant

RECOMMENDATION: That Council:

Find it in the City's best interest to waive the formal bidding process, as authorized by Municipal Code Section 4.52.070(L), and authorize the City General Services Manager to:

- A. Issue a Purchase Order to California Aluminum Chemicals in an amount not to exceed \$18,500 for the purchase of approximately 47,000 pounds of CalChem CC 2110 coagulant chemical for a full-scale plant water treatment trial; and
- B. Issue a Purchase Order to California Aluminum Chemicals and issue a Purchase Order to Summit Research Labs for a total combined amount of not to exceed \$450,000 for the purchase of coagulant chemicals on an as-needed basis, with the option to renew both Purchase Orders for an additional four years, subject to Council's adoption of the budget.

DISCUSSION:

The William B. Cater Water Treatment Plant (Cater) provides regional water treatment to the communities of Santa Barbara, Summerland, Montecito, and Carpinteria. A major part of the water treatment process involves removing suspended particles that can harbor bacteria. The addition of a coagulant chemical makes the suspended particles adhere to each other. As the particles become larger and heavier, they settle and are readily removed during the treatment process.

The process for selecting a coagulant chemical for use at a water treatment plant is quite rigorous and is primarily performance based. The chemical is first evaluated on a small "bench-scale" test for its ability to remove Total Organic Carbon (TOC) and lower turbidity levels in the water. The bench-scale test essentially simulates the treatment process on a very small level using jar testing. The constituents of the coagulant chemical are also considered because they will ultimately become byproducts in the treatment solids that will eventually be hauled to an appropriate disposal site.

Once a chemical successfully performs at the bench-scale test, it is tested in a full-scale plant trial, whereby the chemical is run through the plant for approximately a month. During this trial, staff will evaluate the required chemical feed rate necessary to adequately remove TOC and lower turbidity levels, as well as any deleterious impacts the chemical might have on the plant's filters or other processes.

Recent bench testing showed that California Aluminum Chemicals' (CalChem) CC 2110 more effectively removes the Total Organic Carbon and lowers turbidity levels compared to equivalent doses of the Sumaclear 830B from Summit Research Labs, which is currently being used at Cater. Staff recommends issuing a Purchase Order to CalChem in an amount not to exceed \$18,500 for the purchase of approximately 47,000 pounds of CalChem CC 2110 coagulant chemical for a full-scale plant trial.

Cater has an annual budget of \$450,000 for coagulant chemicals. Upon the successful results from the CalChem plant trial, staff recommends authorizing purchase orders with both CalChem and Summit Research Labs for a total allocated amount of \$450,000. The purchase of coagulant chemicals would be on an as-needed basis, with the option to renew both purchase orders for an additional four years, subject to adoption of the budget. Due to the performance-based testing requirement for chemicals used at Cater, staff recommends that Council find it is in the City's best interest to waive the formal bidding process, as authorized by Municipal Code Section 4.52.070(L).

Coagulant chemicals are critical to the water treatment process. Having two suppliers would offer a level of redundancy and protection if there was an issue with either supplier. Purchase of chemicals from either vendor would be performance based, depending on CalChem's performance during the full-scale plant trial, changing water chemistry of Cater's raw water source, suppliers' ability to deliver, and chemical costs based on necessary feed rates, plus fixed charges.

BUDGET/FINANCIAL INFORMATION:

Coagulant chemical costs are estimated to be \$450,000 for Fiscal Years 2014 and 2015. There are sufficient appropriated funds in the Water Fund to cover these costs.

PREPARED BY: Catherine Taylor, P.E., Water System Manager/CT/ng

SUBMITTED BY: Rebecca Bjork, Acting Public Works Director

APPROVED BY: City Administrator's Office