

# Agenda Report

**TO:** CITY COUNCIL December 10, 2001

**FROM:** CITY MANAGER

**SUBJECT:** AWARD OF A PURCHASE ORDER CONTRACT TO CALSENSE IN THE AMOUNT OF \$150,000 FOR THE PURCHASE AND IMPLEMENTATION OF A CENTRAL IRRIGATION SYSTEM.

## RECOMMENDATION

It is recommended that the City Council;

- 1) Authorize the issuance of a purchase order contract to CALSENSE in the amount of \$150,000 for the purchase of a central irrigation control system. The proposed purchase is exempt from competitive bidding, pursuant to City Charter section 1002 (C) contracts for labor, material, supplies or services available from only one vendor.
- 2) It is further recommended that the City Council grant this contract a partial exemption (vendor outreach only) from the Affirmative Action in Contracting Ordinance pursuant to P.M.C. 4.09.060(C), contracts for which the City's best interests are served.

## BACKGROUND

"City Wide - Central Irrigation" is a project in the adopted FY 2002 – 2006 Capital Improvement Program (CIP) budget. The project provides for the installation of a central irrigation control and monitoring of irrigation and water usage in City parks. The total budget for this project is \$285,000. A total of \$200,000 was appropriated to the project in FY 2002 to include all city parks. City fire stations and libraries will be added later.

This purchase order is for the purchase and installation of park controllers, security cabinets, and the initial program software, and radio hardware necessary to operate a central control system.

**System Description and Uses:**

The City of Pasadena has utilized CALSENSE controllers in the city's parks for approximately 10 years. The existing irrigation system, has approximately 50 CALSENSE controllers in the parks and median strips. A central control system will centralize these systems by adding a main computer to operate the central control system. CALSENSE is the manufacturer of the software and equipment that is compatible with the existing equipment already installed throughout the city. While other systems are available, use of those systems would require a change out of existing equipment at a significant cost.

The centralized system will identify mainline breaks in the irrigation system, and or excessive numbers of broken heads. The field controller notifies the central computer of the overflow and the main computer can shut down that portion of the system automatically. Each day an employee will check the central computer for "overflow alerts" and can schedule his/her daily work based on alerts. This process greatly reduces water waste and helps to expedite repairs.

The CALSENSE software system uses environmental data to determine how much water the soil and the plant need for the next day and applies only that amount. Through the use of a rain gauge, the system will also monitor the amount of rain and reduce the amount of irrigation accordingly. Both of these processes reduce water usage by an estimated 30%.

In the event of a power outage, the system will use its own 12-month history and apply the same amount of water that was required on that day one-year prior. Of course this can only take place once power is restored. This is done to save water and to keep the plants healthy until someone responds to the alert. This data is sent to the central computer nightly.

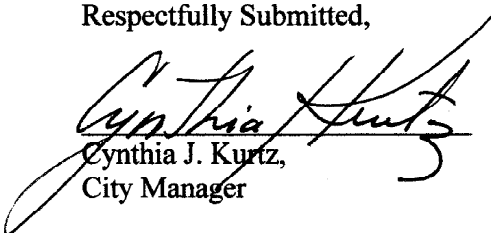
Having a system that can be controlled with a central computer will allow maintenance staff to make watering adjustments throughout the city without leaving the yards. Workers will be notified daily of overflow problems and can even make "global" commands to shut all controllers off for a set period of time if necessary. This is especially helpful in saving water during short rainstorms. Currently Parks' staff has to drive to each controller to shut them off and then return to turn them back on. During periods of short rainfall, crews currently do not drive to each site to perform this task because of the time required. A central control system will eliminate the need to drive to each site and provide a system that allows us to take full advantage of the rain.

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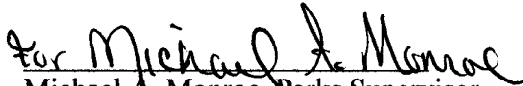
**FISCAL IMPACT**

Sufficient funding is available in the adopted FY 2002 CIP, budget account 78595.

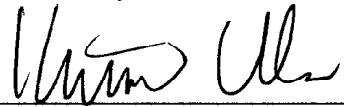
Respectfully Submitted,

  
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