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## Staff Report

ITEM 4-3

**To:** Lemoore City Council  
**From:** David Wlaschin, Director of Public Works/Planning  
**Date:** March 27, 2014  
**Subject:** Water Conservation Measures

### Discussion:

The City Council has requested recommendations for a tiered response to both encourage and ensure water conservation in the future. Although California has faced drought conditions before, the record low rainfall in 2013-2014 coupled with the alarmingly low Sierra snowpack levels necessitates measures beyond those taken in the past.

During the City Council meeting, the City Council was informed by the Public Works Director that the City adopted a Municipal Code which sets several measures to minimize excessive water usage. The following proposed response plan assumes these measures to be the baseline of residential and commercial water usage.

### VOLUNTARY COMPLIANCE

In order to engage both residential and commercial customers in the conservation of water, the first step in the City's conservation plan is to inform the public of the pressing need to conserve water. This can be done through information and education measures, which can directly affect water-use habits of the City's customer base. While education alone may not produce sustained water savings like other measures, it can enhance the effectiveness of other measures. Generally, when utility customers are informed and involved, they are more likely to support a utility's conservation planning goals. Water bill inserts, pamphlets upon request, partnering with local schools to encourage water conservation practices, creating workshops for local plumbers, plumbing fixture suppliers, and builders or landscape and irrigation service providers are all examples of education and information measures the City can implement. The goal of this measure is to have residents and businesses voluntarily comply with best practice water conservation measures, with the goal of reducing average water consumption by 20%. Water tanks and wells will be monitored by the Water Department.

Additionally, landscape watering for municipal parks will be reduced from six to four days or less per week.

### LEVEL I

When pumping water levels drop 20% from the April 15 levels, the City Council may adopt stronger measures to facilitate water conservation in the community. Water conservation measures within Level I would restrict:

- The number of days for landscape watering to two days per week, depending upon the type of irrigation and the address. Even numbered addresses would be allowed to water on Tuesday and Saturday while odd numbered addresses would water on Wednesday and Sunday. No watering would be allowed on Monday, Thursday or Friday. Additionally, landscape watering would only be authorized before 10:00 a.m. and after 7:00 p.m. on designated days.
  - Water customers that utilize drip irrigations are exempt from watering day restrictions.
- Water customers are required to repair all detectable leaks within 72 hours of discovery.
- Hotels, restaurants, and bars encouraged to only provide potable water to customers upon request
- Landscape watering for municipal parks to three days or less per week.

It is recommended that City Council adopt Water Waste Fees for households and businesses that violate the watering restrictions.

### LEVEL II

When well water levels drop 50% below the April 15 levels, the City Council may adopt Level II drought response measures, which would maintain Level I restrictions, and further restrict the following activities:

- The number of days for landscape watering to one day per week, depending upon the type of irrigation and the address. The City would be divided into three sections: one section would be all of the area on the east side of Lemoore Avenue, another section would be the area north of Cinnamon Drive from 19 ½ Avenue to Lemoore Avenue and the third section would be the area south of Cinnamon Drive from 19 ½ Avenue to Lemoore Avenue. Watering between the hours of 10:00 a.m. and 7:00 p.m. is still prohibited.
- The washing of personal vehicles to once per week, only on permitted watering days, and only with the use of the required quick-acting positive shut off nozzle.
- Hotels are encouraged to implement laundry conservation measures by encouraging patrons to reuse linens and towels.
- Landscape watering for municipal parks to two days or less per week.
- Implement restrictions on Golf Course watering.

It is recommended that the Water Waste Fees for violations be doubled under Level II conditions.

### LEVEL III

If the standing water levels fall to 70%, the next level of drought response would require City Council to adopt Level III drought response measures, which would maintain Level II restrictions and further restrict the following activities:

- The hours of authorized watering of landscapes. Residents and businesses may irrigate their landscapes before 8:00 a.m. and after 8:00 p.m.
- Landscape watering for municipal parks to one day per week.
- The filling of swimming pools is not authorized.
- The City shall discontinue washing city vehicles or equipment except for health, safety or critical maintenance reasons.
- Increase restrictions on Golf Course watering.

It is recommended that Water Waste Fees for violations be tripled under Level III conditions.

In addition to these drought response measures, the City can take additional steps to reduce water demand; however, as most of these activities require City funds, it is also recommended

that Council determine the amount of money they are willing to allocate for water conservation efforts. These activities include:

1. Installing water meters at all City Parks and the Golf Course. Currently, the majority of unmetered water in the City is utilized for landscaping of the City Parks and the Lemoore Municipal Golf Course. In order to accurately account for all water used, it is recommended that meters be installed on any and all public-use facilities that are currently unmetered. These meters will help provide a proper baseline of current use, and can notify Water or Parks personnel when there are leaks in the system.
2. Establish a meter testing program as meters can be damaged and deteriorate with age, thereby providing inaccurate readings which give misleading information making leak detection difficult and possibly resulting in lost revenue. All meters, especially older meters, should be tested for accuracy on a regular basis.
3. Evaluating water rates and adjusting if necessary. Costing and Pricing are conservation strategies because they determine the true value of water and convey information about that value, through prices, to water customers. The City should consider whether their current rate structures promote water usage over conservation, or vice versa. The pricing strategy must be consistent with the City of Lemoore's goals.
4. Water-Use Audits can provide information about how water is used and how usage might be reduced through specific conservation strategies. A water audit should identify areas in which overall water use efficiency can be improved through alternative technologies or practices, and focus on the largest volume users. Additionally, audits of older homes can be beneficial in terms of identifying and fixing plumbing leaks.
5. Implement a retrofit program, primarily targeting plumbing fixtures, which can include low-flow faucet aerators, low-flow showerheads, leak detection tablets, and replacement flapper valves for toilets. These are often less costly than replacement of existing equipment, and can be provided free or at cost to residents and businesses. As both industrial and commercial customers have existing fixtures, both can benefit from these types of programs as well.
6. Rebate program to promote water efficient landscaping. Programs can provide an incentive to residents who replace sprinkler systems with drip irrigation, or provide incentives to water customers that replace a minimum area of grass with xeriscaping, which reduces or eliminates the need for supplemental water for irrigation by installation drought-tolerant plants, cacti, and/or decorative rocks.
7. Replace grass and high water-use portions of parkways, medians, and/or park space with xeriscaping or artificial turf and capping the associated irrigating systems.

**Budget Impact:**

None at this time.

**Recommendation:**

That City Council, by motion, direct the City Manager to draft an Ordinance related to Drought Response Measures. Additionally, Council should discuss whether they are partial to allocating funds towards the additional steps mentioned above.