

The City of Ceres Water System

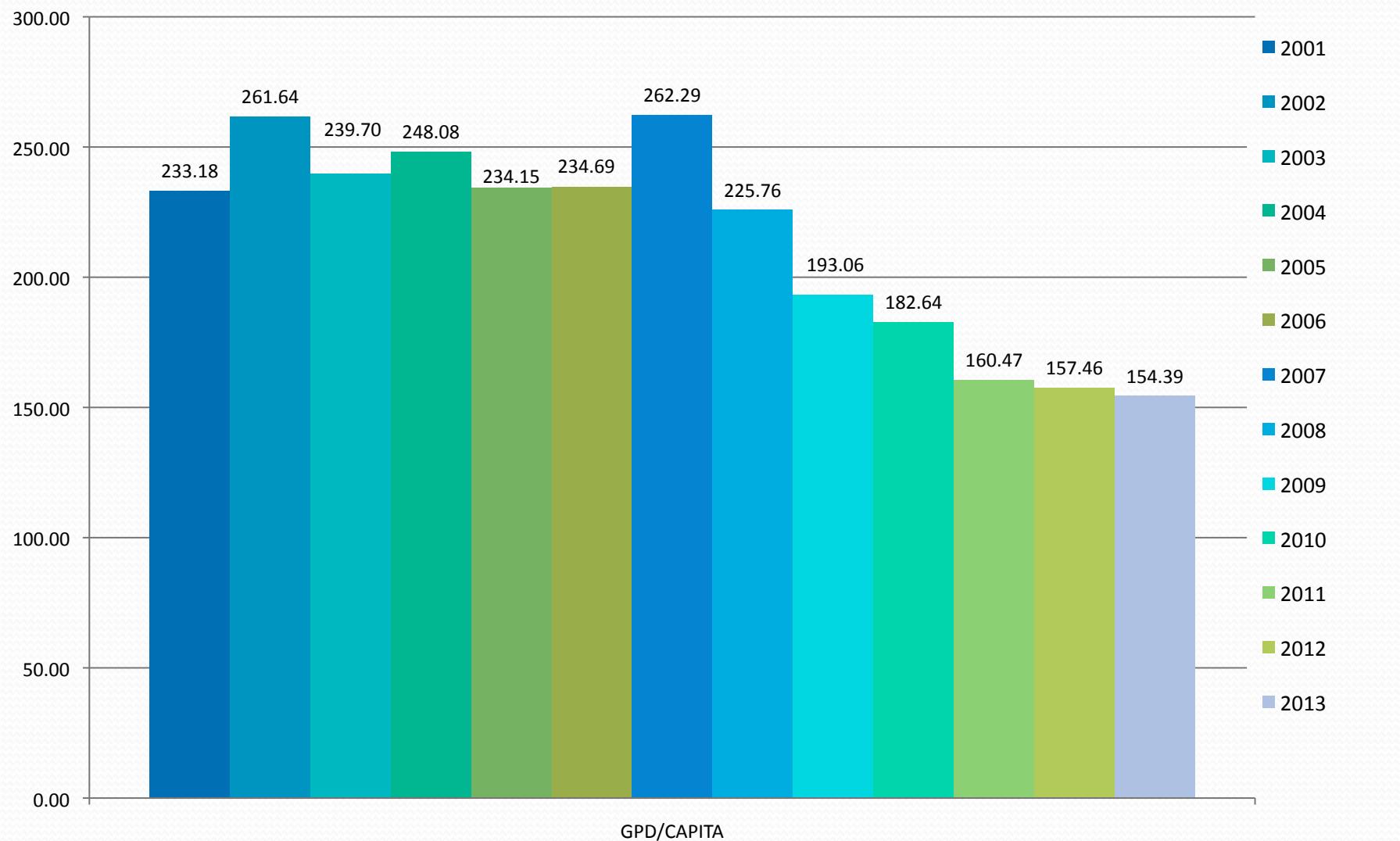


Study session on where we are
and where we are going.

Background

- The City currently services approximately 45,000 customers; with an additional 1,200 residents receiving service by the City of Modesto in the northwestern portion of the City.
- The City of Ceres relies on groundwater as the sole source of their public water supply to meet demand.
- There is no current State legal authority over groundwater pumping levels only water quality issues. As water supply decreases, this may change in the future.

Annual Water System Statistics GPD/Capita 2001 - 2013



Water Conservation efforts

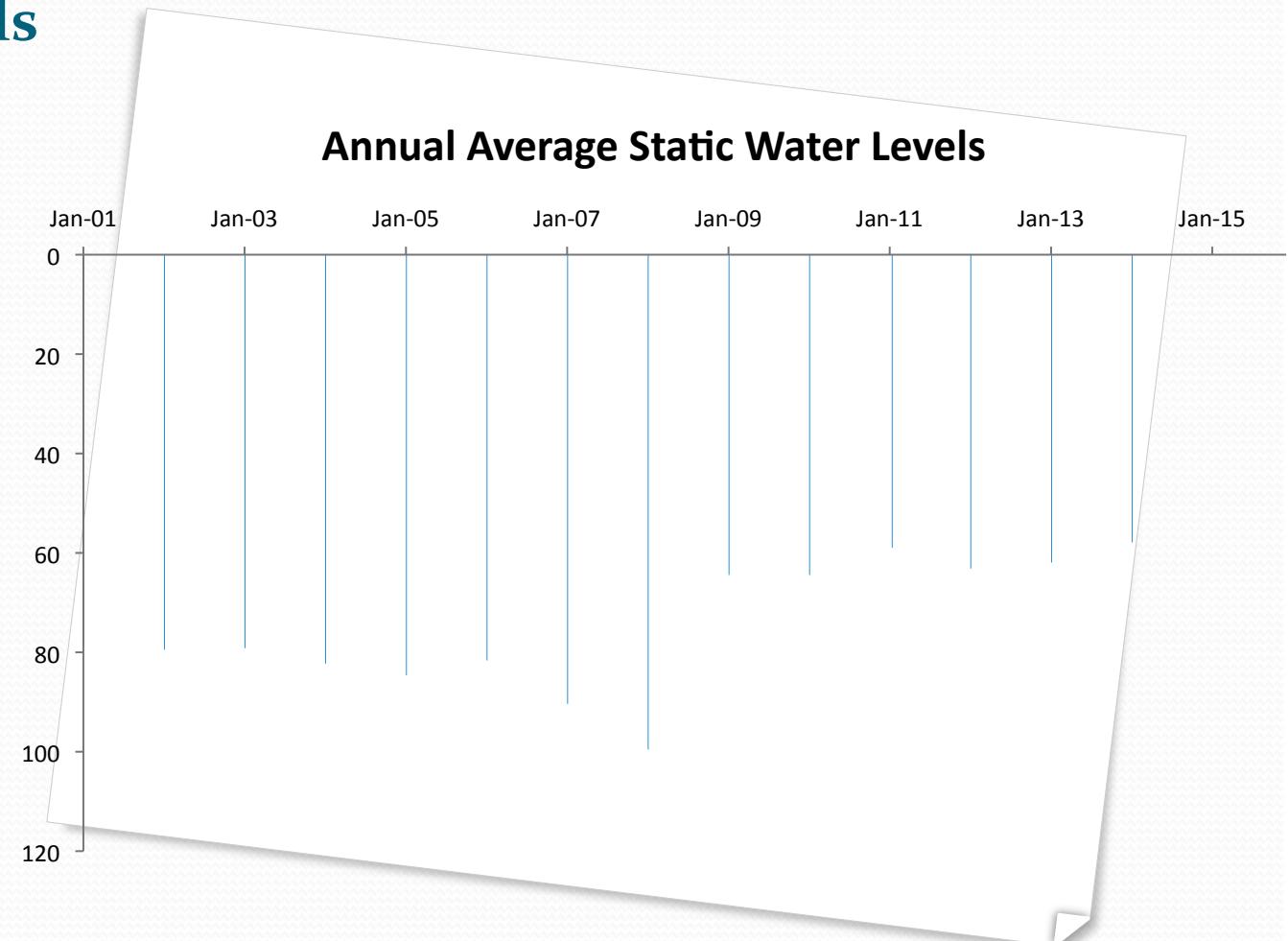
- The City has taken extensive measures to focus on water conservation through modern technology, incentives and education in the form of outreach.
- In 2011 the City created a free website for its residents titled the City of Ceres Water Meter Portal which enables it's customer to view and monitor their own water usage.
- The City has increased its efforts to promote the current rebate program through outreach activities which has aided the City in a 10% increase in rebate applications.
- The City currently has two customer service technicians that monitor and educate residents on the City's watering schedule and restrictions.

Static Water Levels in Ceres Wells

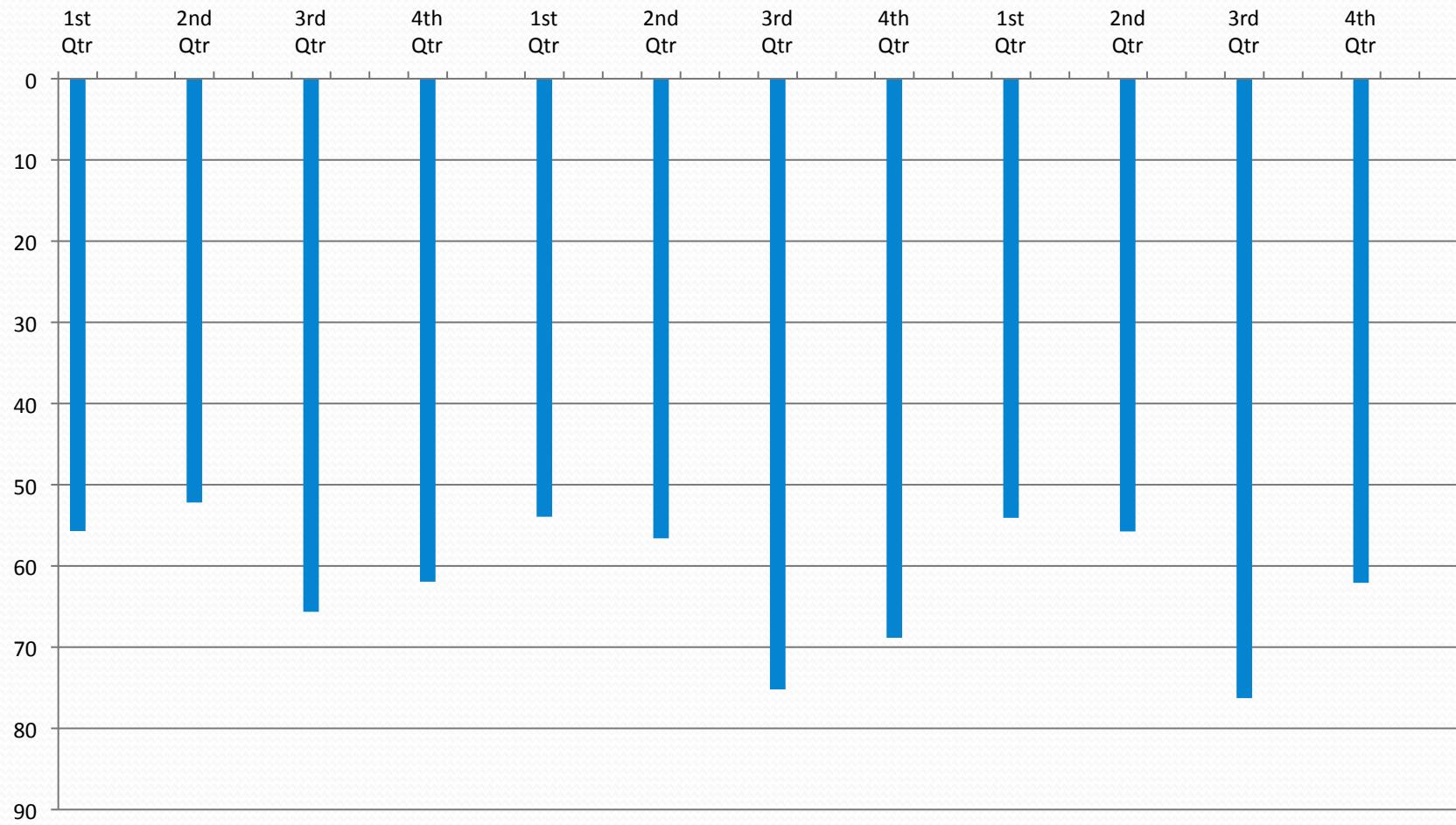
- The amount of groundwater in storage in each basin is dependent on the precipitation, recharge and the total extraction of water from all the wells within the system.

- The City currently measures the static water levels quarterly from the wells located within the water system; to assess if the current groundwater levels are increasing, stable or declining.

- The water levels to be stable at this time



Quarterly Average Static Water Levels during 2011-2013



Regional Water Planning & Issues

- The City of Ceres and surrounding cities have filed a Integrated Regional Water Management Plan (IRWMP) with the State Department of Water Resources.
- One of the purposes of this action is to coordinate water projects and request for grants. To date the City has not been successful in receiving any grants.
- In 2013 a Water Advisory Committee in Stanislaus County was formed in response to the drought conditions. The intention of the committee is too create policy to ensure a reliable and sustainable groundwater supply for present and future demands.

State Drought Relationship

- Current drought conditions have adverse affects on available water supply.
- The Central Valley is faced with an increase in water demands due to a growth in population and economic development at a time when the stresses on the available water supplies are increasing.
- The changes in water quality standards are resulting in less water and or more expensive measures needed to assure a safe and reliable drinking water supply to meet acceptable water pressures.
- During a calendar year on average the state of California relies on groundwater for 30% of its supply during regular years and in some urban locations will double to 60% during drought years to meet their demand.



Assembly Bill 1420 & 20x2020 Water Conservation Plan

- In the 2010 the City council adopted the Urban Water Management Plan which was written in compliance with the AB 1420 along with the goal of monitoring and reducing per capital usage.
- There are 14 baseline conservation measures in AB 1420. The City currently is meeting 10 of these measures with the remaining four in development stages.
- The peak water usage for Ceres residents was in 2007 with 10.6 MG on an average day. In 2013 the water usage had been reduced to 7.0 MG on an average day.

Water Shortage Emergency Planning

- The City's entire potable water supply is delivered through a system of 14 groundwater wells. In addition, the City has two reservoirs with holding capacities of 1.5 and 2.3 million gallons respectively that operate daily to meet demands.
- In compliance with the California Department of Public Health we are asking the council to adopt a drought preparedness plan that implements stages for water rationing. Our current conditions are shown in stage 1. There are a total of 3 stages as shown below:

Stage 1, Current Conditions

All residents can water 3 days per week, based on odd and even addresses, from 7pm to 12 Midnight, and from 12 Midnight to 12 Noon. No outdoor water on Mondays by anybody. Use of a hose outside with a shutoff nozzle is permitted

Stage 2

Outdoor watering limited to 2 days per week, Tuesday / Saturday for even addresses, and Wednesday / Sunday for odd addresses. No outdoor watering with the use of a hose or shutoff nozzle

Stage 3

No outdoor watering at any time

Risks & Concerns

- To combat water quality concerns the City performs weekly, monthly, quarterly and annual water quality testing on the wells located within the water system to ensure they stay below the Maximum Contaminant Level (MCL) per containment.
- Two wells have wellhead treatment; one for uranium and one for arsenic and manganese.
- Current water allotments being reduced in surrounding areas will impact the groundwater levels within the City system. It is very difficult to determine has significant the impacts will be.
- The reduced water level may require equipment installation to pull water from deeper depths. Pulling water from different strata's will increase risks of Arsenic, Nitrate and Uranium.

System Improvements

- The City has invested over \$5 million dollars over the past three years in water infrastructure.
- Two new wells have come online at Smyrna Park.
- Currently working to locate & drill two test wells for drinking water.
- Well 32 had its chemical treatment facility upgraded to address Arsenic and Manganese concerns.



Closing Statements

