

**LODI CITY COUNCIL  
SHIRTSLEEVE SESSION  
CARNEGIE FORUM, 305 WEST PINE STREET  
TUESDAY, APRIL 8, 2014**

A. Roll Call by City Clerk

An Informal Informational Meeting ("Shirtsleeve" Session) of the Lodi City Council was held Tuesday, April 8, 2014, commencing at 7:00 a.m.

Present: Council Member Johnson, Council Member Mounce, Council Member Nakanishi, and Mayor Pro Tempore Hansen

Absent: Mayor Katakian

Also Present: Interim City Manager Schwabauer, Interim City Attorney Magdich, and City Clerk Johl-Olson

B. Topic(s)

B-1 Receive Information Regarding Surface Water Treatment Plant First Year Operation and the Drought Water Supply (PW)

Deputy Public Works Director Larry Parlin provided a PowerPoint presentation regarding the surface water treatment plant operations and water supply during the drought. Specific topics of discussion included plant performance, project budget, major challenges, immediate challenges, current drought conditions, San Joaquin County data regarding water demand, groundwater conditions, Lodi groundwater supply, Mokelumne Watershed, drought impact on Lodi, and electric utility hydro impacts.

In response to Council Member Mounce, Mr. Parlin confirmed that the water information management system has an annual licensing and maintenance fee of approximately \$5,000 and is highly effective.

In response to Mayor Pro Tempore Hansen, Mr. Parlin stated the security system, which was approved as a part of the plant permitting process, is operating and includes video and alarm systems.

In response to Council Member Johnson, Mr. Parlin stated the person on standby resides within 20 minutes of the plant and the plant can be shut down remotely if need be with little impact due to the well back-up.

In response to Mayor Pro Tempore Hansen, Mr. Parlin stated to date there have been no significant security issues and alarm testing is done on a regular basis.

In response to Mayor Pro Tempore Hansen, Mr. Parlin stated the unused underground water supply remains in the ground for future withdrawal as needed.

In response to Council Member Mounce, Mr. Parlin confirmed that groundwater is a regional matter, others outside of the City's jurisdiction can draw from the groundwater supply, during the summer the City may start to see outside jurisdictional withdrawal, and the State is going to start to regulate the groundwater withdrawal going into the future.

In response to Mayor Pro Tempore Hansen, Mr. Parlin stated the new treatment plant in Stockton is also a membrane operating plant and is larger than Lodi's.

In response to Council Member Nakanishi, Interim City Manager Steve Schwabauer stated that had the plant been privatized, the City Council could have required regular reports to the Council as a part of the contract.

In response to Council Member Mounce, Mr. Parlin stated the complaints regarding the water quality have been largely resolved and they were primarily related to chlorination.

In response to Council Member Johnson, Mr. Parlin stated that, with respect to the dam storage issue, he does not see the political philosophy changing in the near future because the interested parties cannot agree on the same set of facts. Mr. Parlin stated the future trend will likely be groundwater banking versus storage alternatives.

In response to Mayor Pro Tempore Hansen, Mr. Parlin stated some cities, like Santa Cruz, may run out of water this summer and will start rationing any day while the forecast for other cities that were reportedly running out of water has improved.

In response to Council Member Hansen, Mr. Parlin stated Southern California stopped increasing water import several years ago and the twin tunnels controversy also has the same challenges regarding interested parties agreeing on the same set of basic facts.

In response to Council Member Mounce, Mr. Parlin confirmed that the Woodbridge Irrigation District (WID) water that is not utilized by the City rolls forward for future years and is not lost based on non-usage.

In response to Council Member Johnson, Mr. Parlin confirmed that WID cut back water to both the City and the farmers and the long-term economic effects of the cutbacks remain unknown.

In response to Mayor Pro Tempore Hansen, Mr. Parlin confirmed that the pre-1914 water rights can be over ridden by the State legislature in emergency conditions. A brief discussion ensued regarding types of water rights, including riparian and prescriptive, and the effects of the same.

Council Member Nakanishi requested information regarding the water rights agreements that the City has with East Bay Municipal Utility District (EBMUD) and WID.

In response to Council Member Hansen, Mr. Parlin stated currently the City uses approximately 15,000 acre feet annually, which is down a couple thousand acre feet from previous years. Mr. Parlin stated the City has a good supply of water for the next 3 to 5 years if not more and conservation efforts may become a mandate statewide in the near future in light of drought conditions.

In response to Council Member Hansen, Mr. Parlin stated that each City department, including parks, will need to ensure that it is making appropriate conservation related changes in light of drought conditions and citizen concerns regarding the City's own efforts to conserve.

A brief discussion ensued amongst Council Member Nakanishi and Council Member Johnson regarding the City's conservation efforts, including metering the parks and the effects of the same.

In response to Council Member Hansen, Electric Utility Director Elizabeth Kirkley stated the City needs revenue to pay for power costs and the Energy Cost Adjustment (ECA) reacts on a monthly basis to ensure there is revenue for purchasing power supply.

In response to Council Member Mounce, Ms. Kirkley confirmed that the electric rates may potentially rise in light of the drought creating deficiencies in the hydro portfolio.

In response to Mayor Pro Tempore Hansen, Ms. Kirkley stated potential rate increases may be mitigated through the Lodi Energy Center, which can be optimized based on its technology to run on gas or power although market conditions remain a variable.

In response to Council Member Johnson, Mr. Schwabauer and Ms. Kirkley confirmed that the City has a strategy to forward purchase power, which is administered through the Risk Oversight Committee, and the City is 70% to 90% bought out in power for the next several years.

In response to Council Member Mounce, Ms. Kirkley stated the \$1.4 million and \$1.7 million figures are based on market conditions at a set time and are subject to variability.

In response to Council Member Hansen, Ms. Kirkley stated staff is completing contract negotiations to meet requirements for AB 32 compliance by the 2020 deadline and she expects that the matter will come before the City Council for consideration in the next month or so.

Council Member Mounce requested information regarding geysers and their affect on the City's portfolio. Council Member Nakanishi requested information regarding the average use of hydro in portfolios of other agencies including PG&E and SMUD.

C. Comments by Public on Non-Agenda Items

None.

D. Adjournment

No action was taken by the City Council. The meeting was adjourned at 7:52 a.m.

ATTEST:

Randi Johl-Olson  
City Clerk



**CITY OF LODI  
COUNCIL COMMUNICATION**

**AGENDA TITLE:** Receive Information Regarding Surface Water Treatment Plant First Year Operation and the Drought Water Supply

**MEETING DATE:** April 8, 2104 (Shirtsleeve Session)

**PREPARED BY:** Public Works Director

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**RECOMMENDED ACTION:** Receive information regarding Surface Water Treatment Plant first year operation and the drought water supply.

**BACKGROUND INFORMATION:** The City of Lodi Surface Water Treatment Plant (SWTP) completed the first full year of operation in 2013. Council will be presented a summary of the first year operation and performance. Additionally, a discussion of the current drought conditions and the expected short-term impacts to the City of Lodi's water supply and the SWTP operation will be discussed.

**FISCAL IMPACT:** Not applicable.

**FUNDING AVAILABLE:** Not applicable.

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F. Wally Sandelin  
Public Works Director

Prepared by Larry Parlin, Deputy Public Works Director – Utilities

FWS/LP/pmf

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APPROVED:

Handwritten signature of Stephen Schwabauer in black ink.  
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Stephen Schwabauer, Interim City Manager



# Surface Water Treatment Plant Operation Review and Water Supply During Drought



**Lodi City Council Shirtsleeve Meeting  
April 8, 2014**



# Plant Performance

- Full 6,000 AF allotment used to produce drinking water in 2013.
- 97 percent recovery of reclaimed treatment process raw water.
- Annual O&M Costs within budget.
- Plant staffing at levels approved by City Council.



# Plant Performance

- Implemented Hach WIMS data management system.
- Plant complied with all CDPH regulations and reporting requirements.
- CDPH approved unmanned operation on February 19, 2014.
- Recent well data shows increase in static groundwater levels after first year of plant operation.



# Plant Performance

- Plant shift operators have all obtained Grade T3 operator certification.
- Chief Plant Operator obtained Grade T4 operator certification.
- Implemented Cartegraph program for asset management of plant equipment.
- Plant recognized with engineering project awards from APWA and ACEC.



# Project Budget

- Original Project Budget \$36.5M
- Approximately \$2.0M Under Budget
- Projected Year 1 O&M Budget \$1.4M
- Year 1 O&M Expenses \$1.35M



# Major Challenges

- Public Acceptance of Surface Water
- Blending Water Supplies
- 24 Hour/day Staffing
- Minimum Membrane Experience
- Initial Batch Operation
- Implementing Unmanned Operation



# Immediate Challenges

- Drought - Short Term Water Availability
- Blending Water Supplies
- Optimizing Unmanned Operation

# Questions?

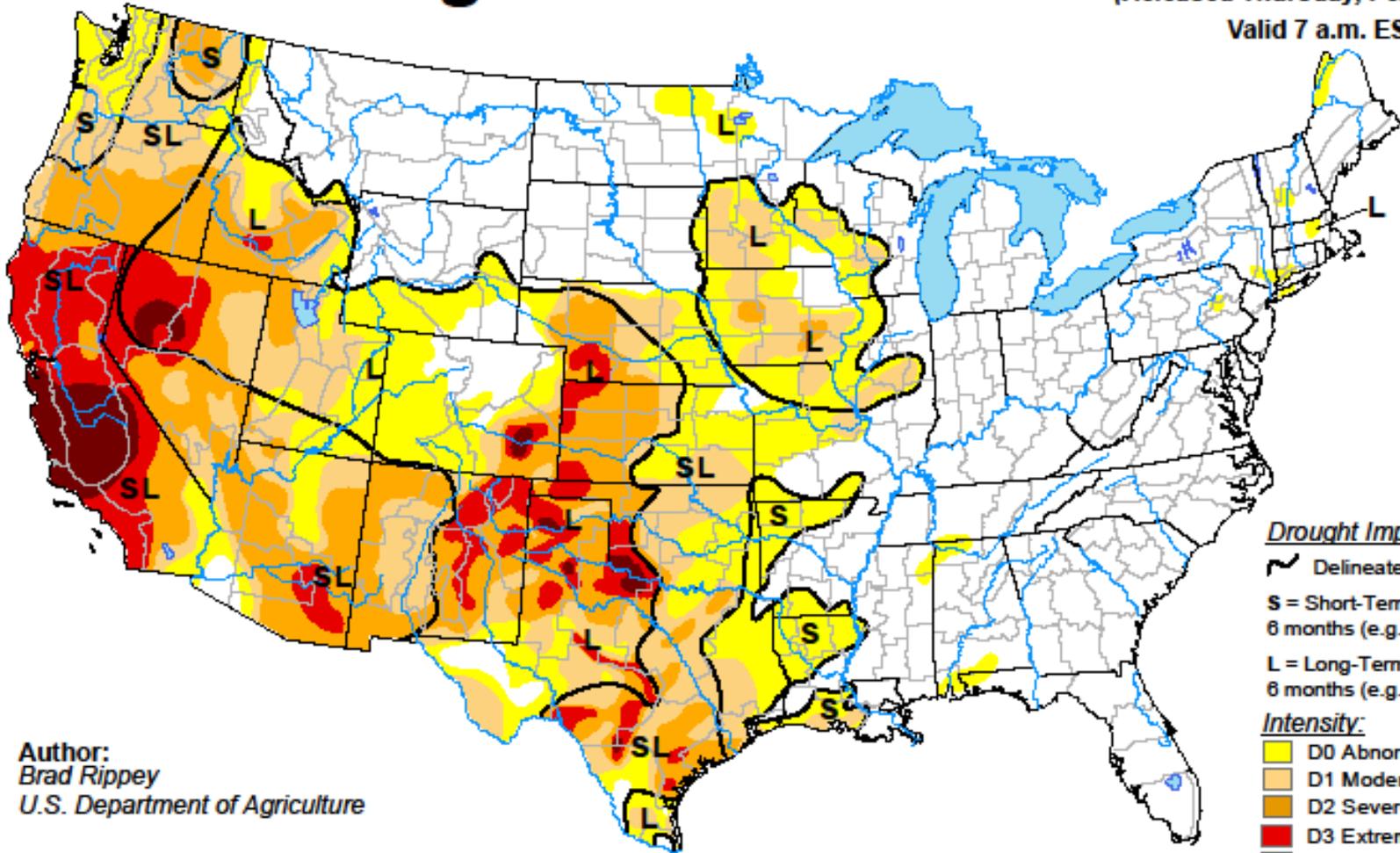




# The Current Drought

## U.S. Drought Monitor

February 25, 2014  
(Released Thursday, Feb. 27, 2014)  
Valid 7 a.m. EST



- Drought Impact Types:**
- ~ Delineates dominant impacts
  - S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
  - L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
- Intensity:**
- D0 Abnormally Dry
  - D1 Moderate Drought
  - D2 Severe Drought
  - D3 Extreme Drought
  - D4 Exceptional Drought

Author:  
Brad Rippey  
U.S. Department of Agriculture

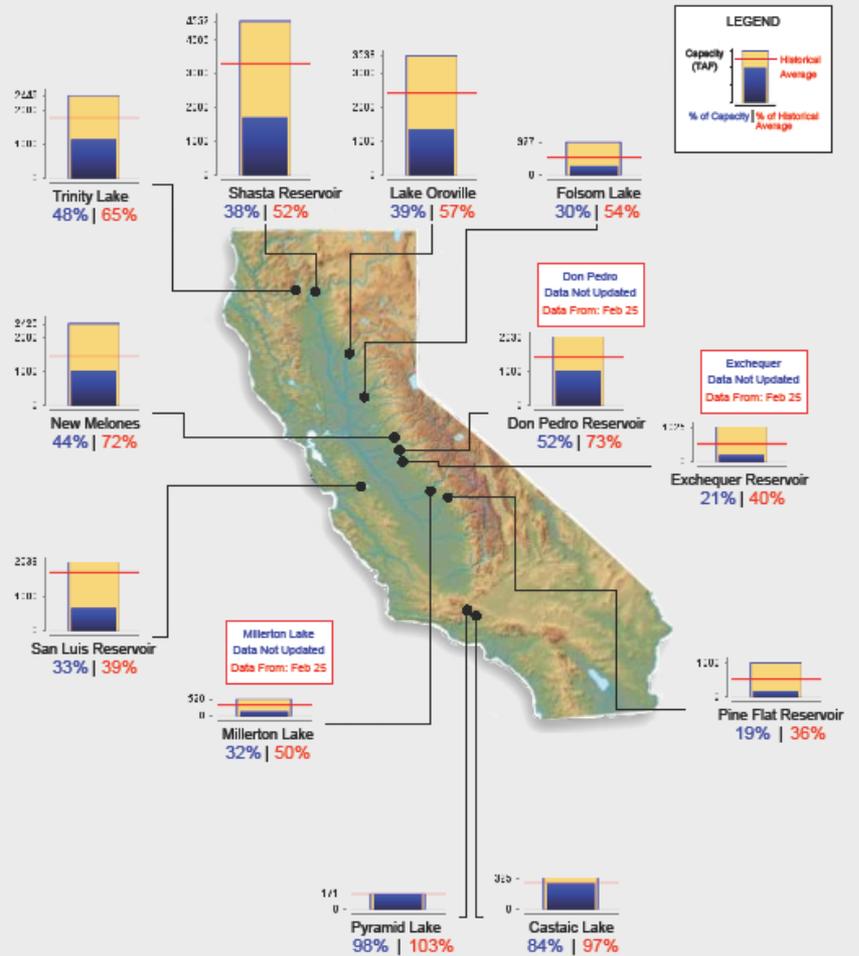


# The Current Drought

## Reservoir Conditions

Ending At Midnight - February 26, 2014

### CURRENT RESERVOIR CONDITIONS





# San Joaquin County Data

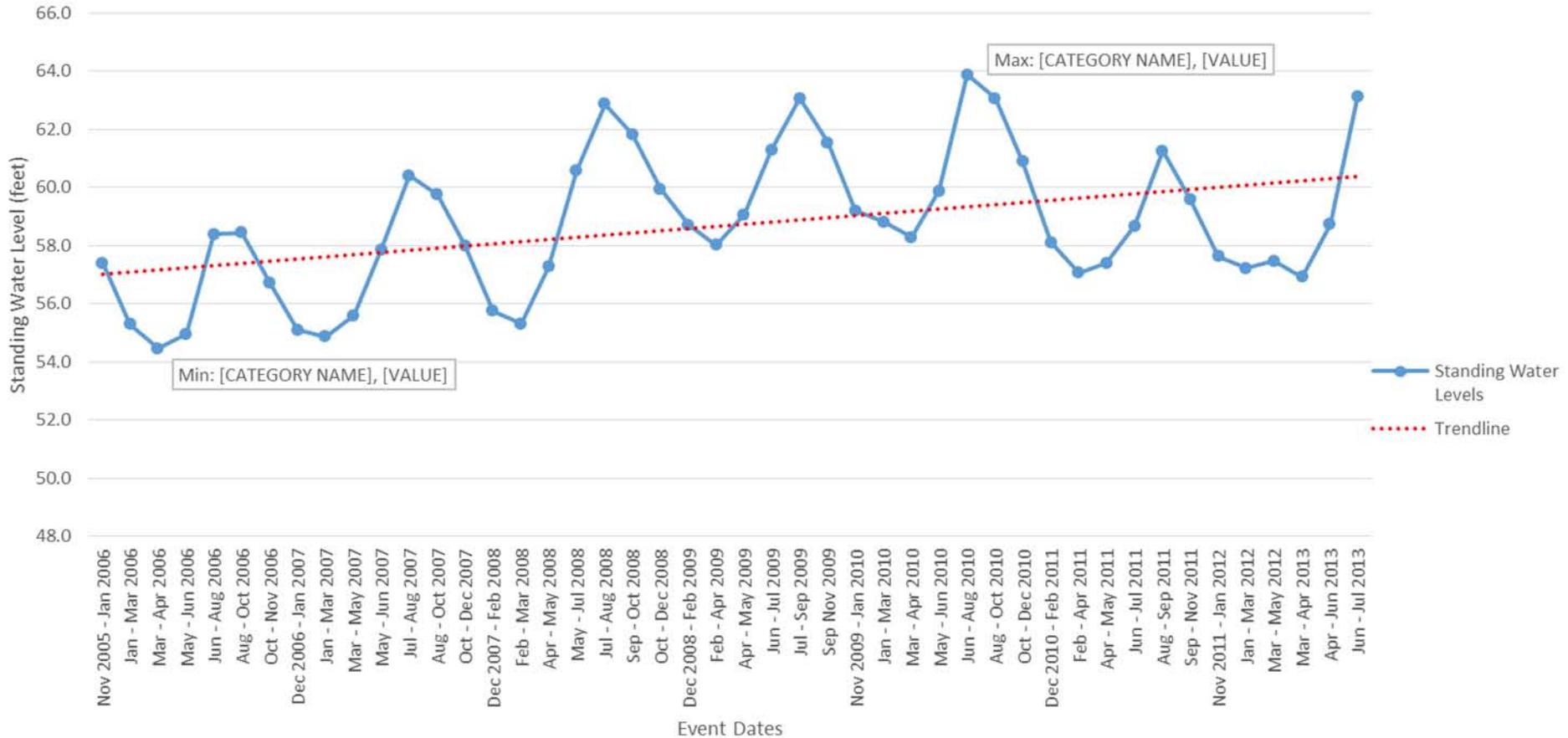
## San Joaquin County Historical and Projected Water Demand

<u>Year</u>	Estimated Demand (af)		Estimated Demand (af)	
	(A)	% of Avg	(B)	% of Avg.
1976	2,544,298			
1982	1,953,869			
1988	3,440,611			
1996	2,345,626			
Avg. 1976-1996	2,571,101		2,571,101	
2005	2,138,438	83%	1,946,853	76%
2010	1,821,179	71%	1,654,105	64%
2035	1,817,669	71%	1,656,830	64%



# Lodi Groundwater Supply

City of Lodi Ground Water Levels





# Mokelumne Watershed

## MOKELUMNE BASIN PRECIPITATION 4-STATION AVERAGE

- Season To-date 19.64 (inches)
- Average To-date 39.45 (inches)
- % of Average 50%

3/24/14



# Drought Impact on Lodi

- WID has pre-1914, senior water rights.
- WID has reduced the surface water allocation for Lodi from 5,000 AF to 3,000 AF for the period March 1 through October 15, 2014.
- Winter water allocation of 1,000 AF will be delivered.



# Drought Impact on Lodi

- Annual Lodi water use is approximately 15,000 AF.
- Existing 28 wells have adequate capacity to satisfy all water demands.
- Lodi is well positioned to survive a prolonged dry period.
- Water conservation should become a way of life for everyone in California.

Questions  
&  
Comments?

