

# WaterSolutions

*“To manage and conserve water and other resources for the citizens of Butte County”*

## Vina and Wyandotte Creek Governance

By Paul Gosselin

The establishment of governance structures for the Wyandotte Creek and Vina subbasins are moving ahead. On September 11th, the Board of Supervisors will consider adopting two separate agreements, one for the Vina subbasin and one for the Wyandotte Creek subbasin. The two agreements are similar in that they are Joint Powers Agreements (Agreements) that create a new groundwater sustainability agency (GSA) covering each subbasin, and assuming all of the SGMA authorities. Under the Agreements, the two new GSAs would be responsible for developing, adopting, and implementing the Groundwater Sustainability Plan (GSP) for the subbasin in order to implement the Sustainable Groundwater Management Act (SGMA) requirements and achieve sustainability goals. The Vina and Wyandotte Creek GSAs would also involve the public and subbasin stakeholders through outreach and engagement in developing and implementing their respective GSP. Under the terms of the Agreements, Butte County and the other existing GSAs (the City of Chico, Durham Irrigation District, Rock Creek Reclamation District, the City of Oroville and the Thermalito Water and Sewer District) would rescind their individual

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# SGMA

## Sustainable Groundwater Management Act

### Public Engagement under SGMA

By Paul Gosselin

One of the major underpinnings of the Sustainable Groundwater Management Act (SGMA) is having groundwater management decisions made by local public agencies who agree to be groundwater sustainability agencies (GSAs). Along with this authority, SGMA places additional specific public engagement requirements on GSAs. Public engagement responsibilities under SGMA differ from existing practices of public agencies. Local public agencies are accustomed, by practice and law, to conduct their business in an open and transparent manner. For example, the Brown Act sets standards for public agency governing boards to ensure that their actions are transparent and to provide an opportunity for public participation. Common practices include sending agendas to mailing lists, posting materials on websites and sometimes issuing press releases. Recognizing the importance of engaging their constituents on decisions, local agencies use other approaches to get input from their constituents such as holding special meetings or workshops. As local agencies assume their GSA responsibilities, they are required to go beyond their routine practices in a couple different areas. Most notably, SGMA calls upon GSAs to not only involve their traditional constituents but to specifically engage beneficial users of groundwater. Beneficial users of groundwater include agricultural, domestic, municipal wells operators, public water systems, local land use agencies, environmental users of groundwater, California Native American Tribes, disadvantaged communities and others. Some of the important provisions of SGMA include:

- Developing a list of interested parties along with an explanation of how their interests will be considered (CA Water Code Sec. 10723.8.(a)(4)).
- Establishing and documenting a process to consider the interests of all beneficial uses and users of groundwater (CA Water Code Sec. 10723.2).
- Encouraging the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin (CA Water Code Sec. 10727.80).

With these requirements, local agencies who elect to be a GSA cannot operate “business as usual.” As Butte County and the other GSAs began governance discussions in the Wyandotte Creek and Vina subbasins, we explored new ways to broaden public involvement. We recognized that we needed to do more than rely on our existing mailing lists and traditional media outlets to inform the public, especially those who rely on private wells. An innovative approach was developed to create a direct mailing to the owners of parcels not served by water purveyors. The assumption was that these parcels rely on wells either for domestic and/or agricultural use. The Department and Butte County Geographic Information Systems staff utilized county databases to develop subbasin specific mailing list of owners of parcels with private wells. For meetings in Vina and Wyandotte Creek, postcard mailings went to over 10,000 addresses. The mailings not only informed people of the upcoming meetings, but encouraged them to join the email list. By joining the email list, people can easily stay informed. Like any new system, there were some glitches, but overall the process worked well. We found that over half of the people who showed up at the meetings did so because of the direct mailings. We also found a significant increase in the subscribers to the mailing list with most of the people having domestic wells. The method of direct mailings has proven to be a success. As we move forward on the journey to develop a GSP in the Vina, Wyandotte Creek and Butte subbasins, we expect to continue to use direct mailings and other ways to fully engage the public. If you know of friends or neighbors who would like to keep informed and participate in local water resources decisions, please have them join the email list on our webpage <http://www.buttecounty.net/waterresourceconservation/Home.aspx> or by texting “BCWATER” to 22828.

Want to  
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about Butte  
County’s  
water?

We want to  
make it  
easy...

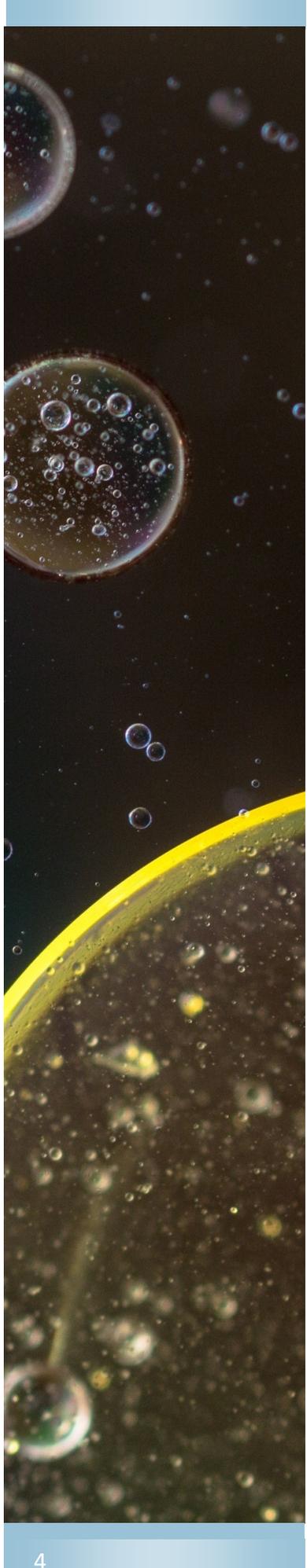
Text

**BCWATER**  
to **22828**

to get  
started.

Message and data  
rates may apply.





# 2018 Water Quality Trend Monitoring Results

By Kelly Peterson

This year marks the 17th year of the Butte County's Groundwater Quality Trend Monitoring Program. Every year our Department collects groundwater from 13 wells located throughout the county to evaluate groundwater conditions for evidence of saline intrusion. Butte County's most westerly boundary is approximately 100 miles east of the Pacific Ocean which may lead some people to wonder why we would be concerned about saline intrusion this far inland. The saline water in our subbasins is not from saltwater intrusion from the current coastline but rather from older sediments in the basin that were deposited in a marine environment as far back as the Late Jurassic period (close to 150 million years ago). These older marine sediments containing saline or brackish water are located within our groundwater subbasins along with younger terrestrial sediments containing freshwater.

Butte County's water quality program is designed to track single monitoring events throughout the county every year during the peak irrigation season each July or August. The data is collected to establish baseline levels across the county in order to detect changes which may require further investigation. The wells being monitored span widely across the County from the north near Chico west towards the Sacramento River, east towards the foothills near Butte College and south towards Gridley (see map).

Monitoring was conducted from July 23, 2018 to July 26, 2018 for 12 of the 13 wells due to irrigation infrastructure repairs at one of the wells, however we expect monitoring to continue at this well next year. Three water quality characteristics; temperature, pH and electrical conductivity (EC) were recorded from water within each of the wells.

Objectives have been set for these three water quality constituents measured each year. If water quality data reach certain stages outside of the established objectives, we refer to them as wells in "Alert Stages". For temperature, an Alert Stage is reached when the measurement is more than five (5) degrees Celsius (°C) outside of the historic range of measurements. For pH, an Alert Stage is reached if the water sampled has a pH below 6.5 or above 8.5. For EC the Alert Stage is reached for drinking water for measurements greater than 900 micro Siemens per centimeter ( $\mu\text{S}/\text{cm}$ ) and for agricultural water the Alert Stage is set for measurements greater than 700  $\mu\text{S}/\text{cm}$ .

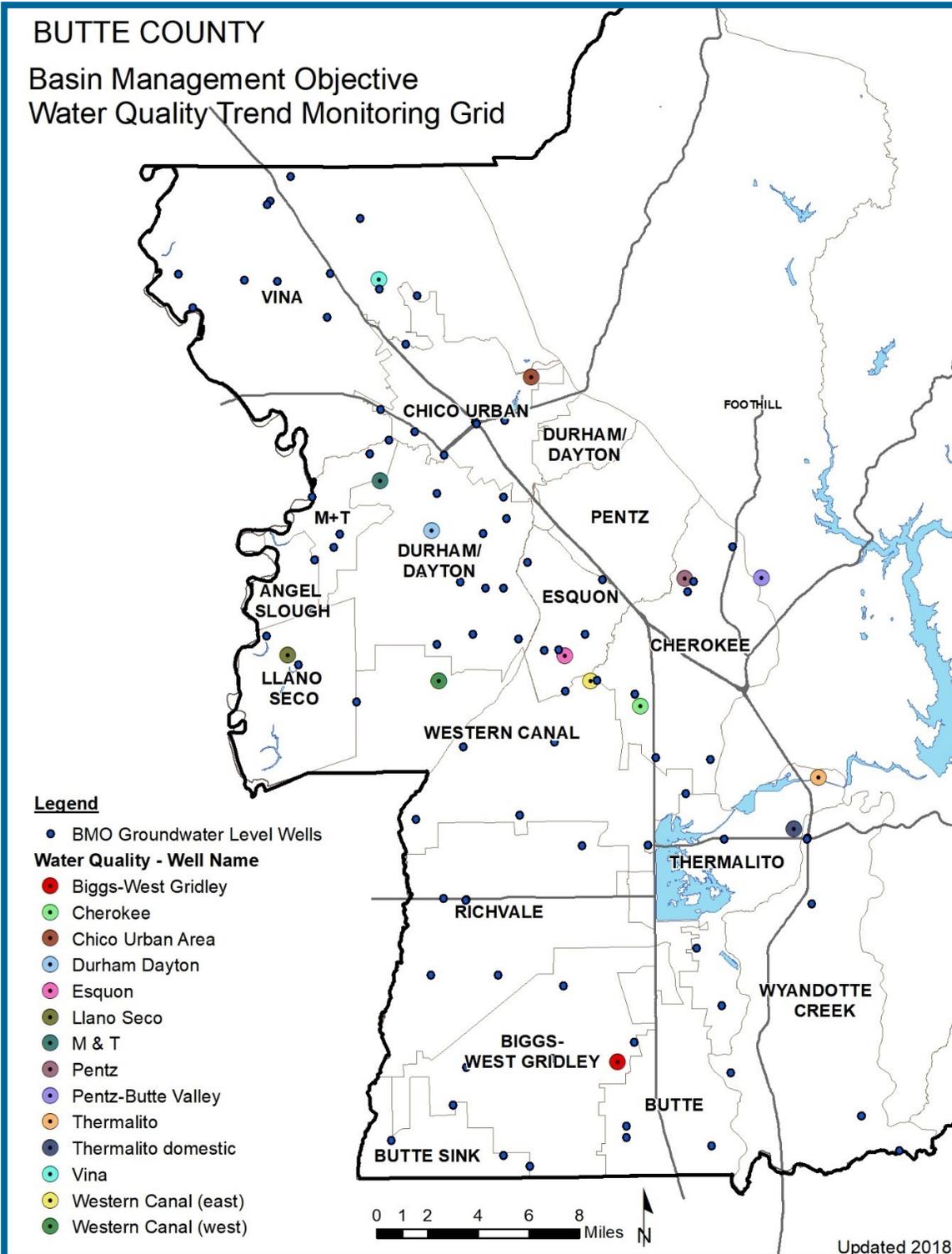
As usual, the 2018 monitoring results indicate no significant changes in groundwater quality with respect to temperature, pH or EC. Of the wells measured, none were in an Alert Stage and all objectives were met. Additionally, all results fell within the acceptable range of water quality values set forth by State and Federal agencies.

This year temperatures ranged from 17.8 °C to 22.6 °C, and the pH of the water sampled in 2018 ranged from 6.7 to 7.8, all within the acceptable range. In general, EC values this year were close to previously observed levels and ranged from 186 to 529  $\mu\text{S}/\text{cm}$ . These values are below the secondary water quality thresholds of 700  $\mu\text{S}/\text{cm}$  established by State and Federal agencies for irrigation water and 900  $\mu\text{S}/\text{cm}$  for drinking water.

Collection of this data continues to help establish baseline conditions for these parameters across the county. If changes occur to water quality conditions in the future, they can be evaluated in relation to this baseline data, investigated further and/or potentially monitored on a more frequent basis.

Detailed tabular and graphical results will be presented in a staff memo to the Technical Advisory Committee in the fall and will be available on our website: <http://www.buttecounty.net/waterresourceconservation/GroundwaterQuality>.

On behalf of our Department, I would like to extend our gratitude to the well owners who have coordinated with us over the years and have allowed access to their wells to make this monitoring possible.



# Basin Boundary Modification Update

By Christina Buck

## Comment Period Open for Wyandotte Creek Basin Boundary Modification

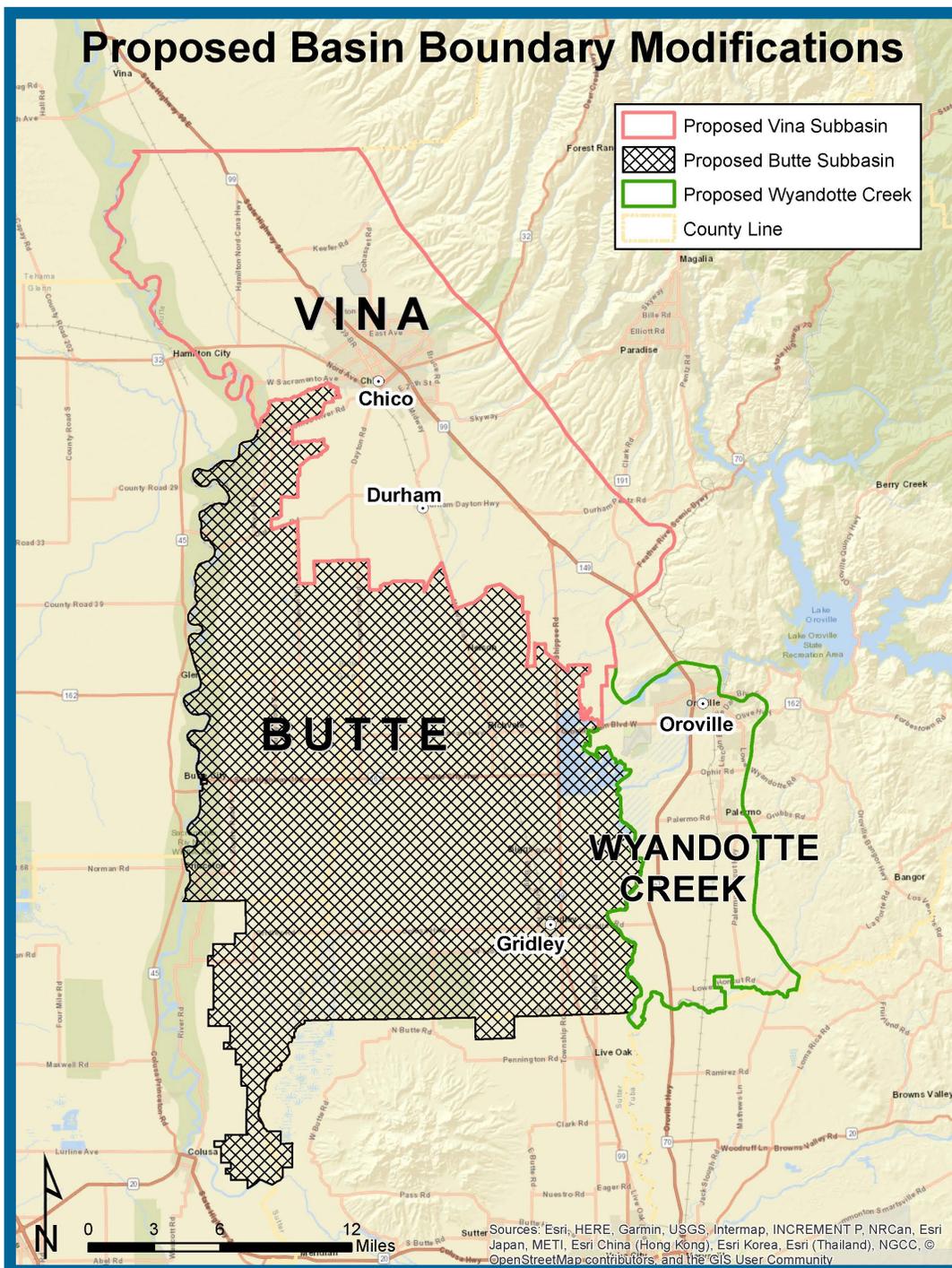
Our Department's request to modify the Wyandotte Creek subbasin was submitted and deemed complete by the Department of Water Resources (DWR). This opens up a 30-day comment period through the DWR SGMA Portal. This basin boundary modification request moves portions of the East Butte subbasin into the Wyandotte Creek subbasin in order for the City of Oroville to be located completely within a single subbasin. As a result, Thermalito Water and Sewer District moves from the East Butte subbasin to the Wyandotte Creek subbasin. To submit a comment, visit the SGMA Portal – Basin Boundary Modification Request System (<https://sgma.water.ca.gov/basinmod/modrequest/comments/184>) before the

September 21, 2018 deadline.

## Update on Butte and Vina Subbasin Modification Request

Our Department, in coordination with other GSAs in the East and West Butte subbasins, is working to submit a request to DWR to consolidate portions of the East and West Butte subbasins and expand the Vina subbasin further to the south to include the Durham area. For more information, visit our Basin Boundary Modification website (<https://tinyurl.com/yatqwqf9>). Once submitted and deemed complete, a 30-day comment period will also open for this proposed modification.

Contact Christina Buck with questions or comments.



DID YOU KNOW?

ONLY **1%** OF THE WATER ON  
EARTH IS USEABLE, **99%** OF  
WHICH IS GROUNDWATER.



Protect your  
**GROUNDWATER DAY**  
September 4, 2018

#PYGWD



## >>> Governance (cont.)

GSA status to form the respective Vina and Wyandotte Creek GSAs. Although the local agencies would rescind their individual GSA status, they would also retain their existing authorities. For example, Butte County would retain its land use, well permitting and police powers. The creation of the GSAs lends consistency in planning and programs. Both JPAs provide for a robust opportunity for non-public agency involvement on the GSA Boards and the advisory committees. At the heart of the Agreements is the focus to maximize local input and decision-making on the development of sustainable management criteria in Management Areas. In the Vina subbasin, there would be three Management Areas, two in the rural areas to the south and north of Chico and one within and adjacent to the City of Chico. In the Wyandotte Creek subbasin, there would be two Management Areas, one within and adjacent to the City of Oroville and the other in the rural area south of Oroville. This process would address the different water demands and sustainability considerations in the urban and rural areas of the subbasins. Establishment of the governance structures is critical to continue the progress to meet the deadline of developing and submitting a GSP for each subbasin by January 30, 2022. For more information on the proposed governance structure for Wyandotte Creek and Vina please visit :

<http://www.buttecounty.net/waterresourceconservation/SustainableGroundwaterManagementAct.aspx>

#PYGWD



Protect your  
**GROUNDWATER DAY**  
September 4, 2018

## DID YOU KNOW?

- 1 Only 1% of the water on earth is useable, 99% of which is groundwater.
- 2 The United States uses 349 billion gallons of freshwater every day.
- 3 Groundwater is 20 to 30 times larger than all U.S. lakes, streams, and rivers combined.
- 4 44% of the U.S. population depends on groundwater for its drinking water supply.
- 5 Groundwater accounts for 33% of all water used by U.S. municipalities.
- 6 More than 13.2 million households have their own well, representing 34 million people.
- 7 53.5 billion gallons of groundwater are used for agricultural irrigation each day. In 1990 that number was 2.2 billion.
- 8 The largest U.S. aquifer is Ogallala, underlying 250,000 square miles stretching from Texas to South Dakota. Scientists estimate it could take 6000 years to naturally refill the aquifer if it were ever fully depleted.
- 9 California pumps 10.7 billion gallons of groundwater each day, a third more than the second-highest state, Texas.
- 10 Groundwater is the world's most extracted raw material with withdrawal rates in the estimated range of 259 trillion gallons per year.

LEARN MORE

[www.wellowner.org/pygwd](http://www.wellowner.org/pygwd)



## Meeting Schedules

### Water Commission

9/5/2018, 1:30 p.m.  
Board of Supervisors Chambers  
25 County Center Drive

### Board of Supervisors

9/11/2018, 9:00 a.m.  
Board of Supervisors Chambers  
25 County Center Drive

9/25/2018, 9:00 a.m.

Board of Supervisors Chambers  
25 County Center Drive

### GPAC Meeting

9/17/2018, 8:30 a.m.  
311 Nicolas C. Shouten Lane  
Chico, Room A009



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## Department of Water & Resource Conservation

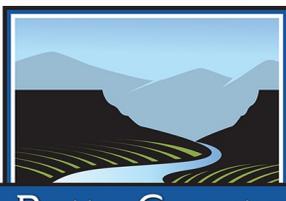
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## Water & Resource Conservation Staff

- Paul Gosselin, Director
- Christina Buck, Assistant Director
- Kelly Peterson, Water Resource Scientist
- Autum Thomas, Administrative Analyst

## Water Commission

- Kathy Chance
- Mark Grover
- DC Jones, Vice-Chair
- Tod Kimmelshue
- Mauny Roethler
- Ryan Schohr
- David Skinner, Chair
- Matthew Tennis
- Ernie Washington

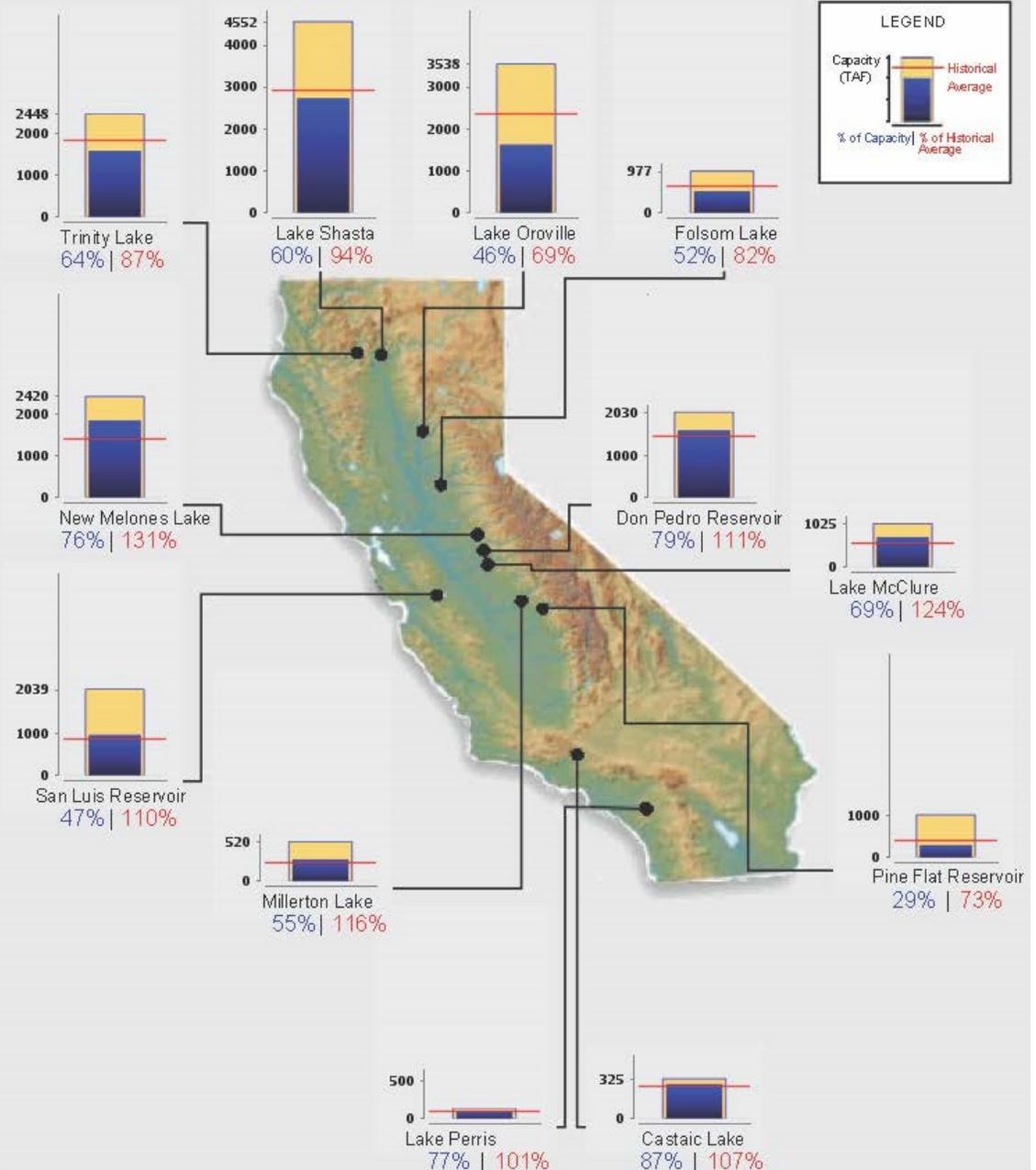


**Butte County**

WATER & RESOURCE CONSERVATION

Ending At Midnight - August 28, 2018

## CURRENT RESERVOIR CONDITIONS



Graph Updated 08/29/2018 04:48 PM