



Colusa County Water Resources Update

Water Resources Division, Colusa County Department of Development Services

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[Website](#)

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WELCOME to the Colusa County Water Resources Winter Newsletter

The new water year that began October 1 got off to a dry start, but the skies opened up in late November, and a wet pattern has continued. Check out recent precipitation and reservoir conditions on **pages 2 and 3**.

The precipitation graph on **page 2** illustrates above average precipitation over the last couple of years and it's interesting to see how the groundwater system has responded after enduring prolonged drought conditions during 2012-2016. Groundwater Level Change Maps from the California Department of Water Resources' Northern Region Office on **pages 4 and 5** show mostly positive results.

Locally, the Colusa Groundwater Authority (CGA) is charged with ensuring groundwater is managed sustainably in accordance with the Sustainable Groundwater Management Act (SGMA). The CGA is currently working with the Glenn Groundwater Authority to develop a Groundwater Sustainability Plan for the Colusa Subbasin. See **pages 7-10** for an update on SGMA.

The Colusa County Groundwater Commission supports the CGA's efforts, and provides a platform for landowner engagement. The Commission restructured their quarterly meetings last year to include a Public Forum in which three to four speakers present information on various water management topics that are relevant to local landowners. All meetings are open to the public. See **page 6** for information about the Groundwater Commission and their 2020 meeting schedule.

Regionally, the six counties of the Northern Sacramento Valley Integrated Regional Water Management Planning group (Butte, Colusa, Glenn, Shasta, Sutter, Tehama) continue to



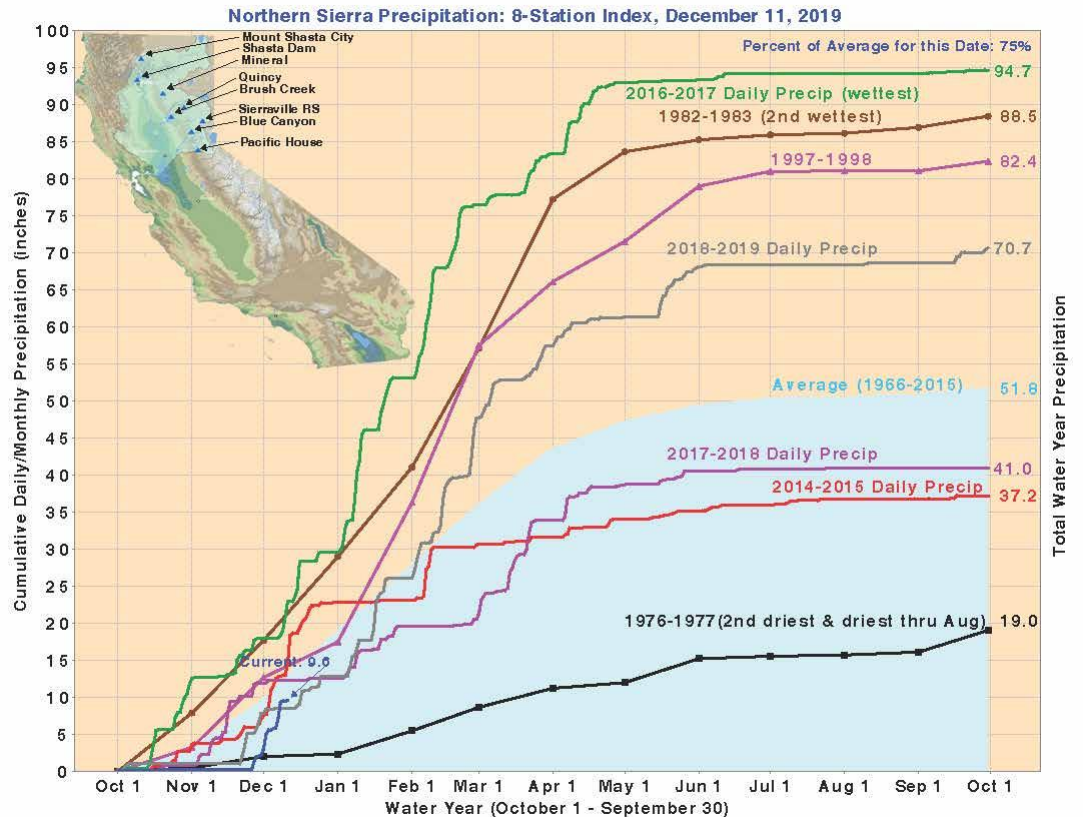
coordinate water management activities and share information. See **pages 10 and 11** to learn about regional projects and the agency's meeting schedule.

And, finally, we are seeing many innovative projects happening around the state to help ensure healthy groundwater and surface water supplies. Check out the Project Spotlight on **pages 11 and 12** for an example of one such project in Colusa County.

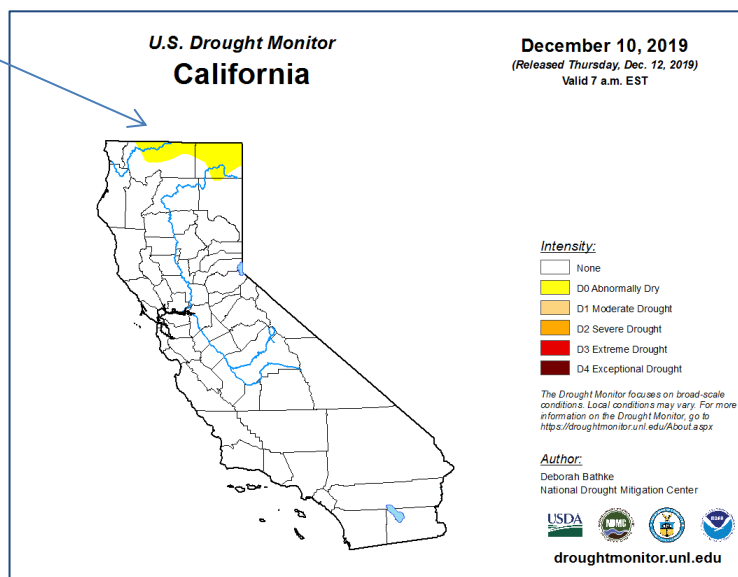
PRECIPITATION AND RESERVOIR CONDITIONS

The new water year got off to a dry start, but precipitation totals are quickly moving towards average for this time of year. The dark blue line on the graph shows current average precipitation totals for the eight station index in Northern California. Statewide, reservoir conditions are looking good as well, as shown on the chart on the next page.

PRECIPITATION:

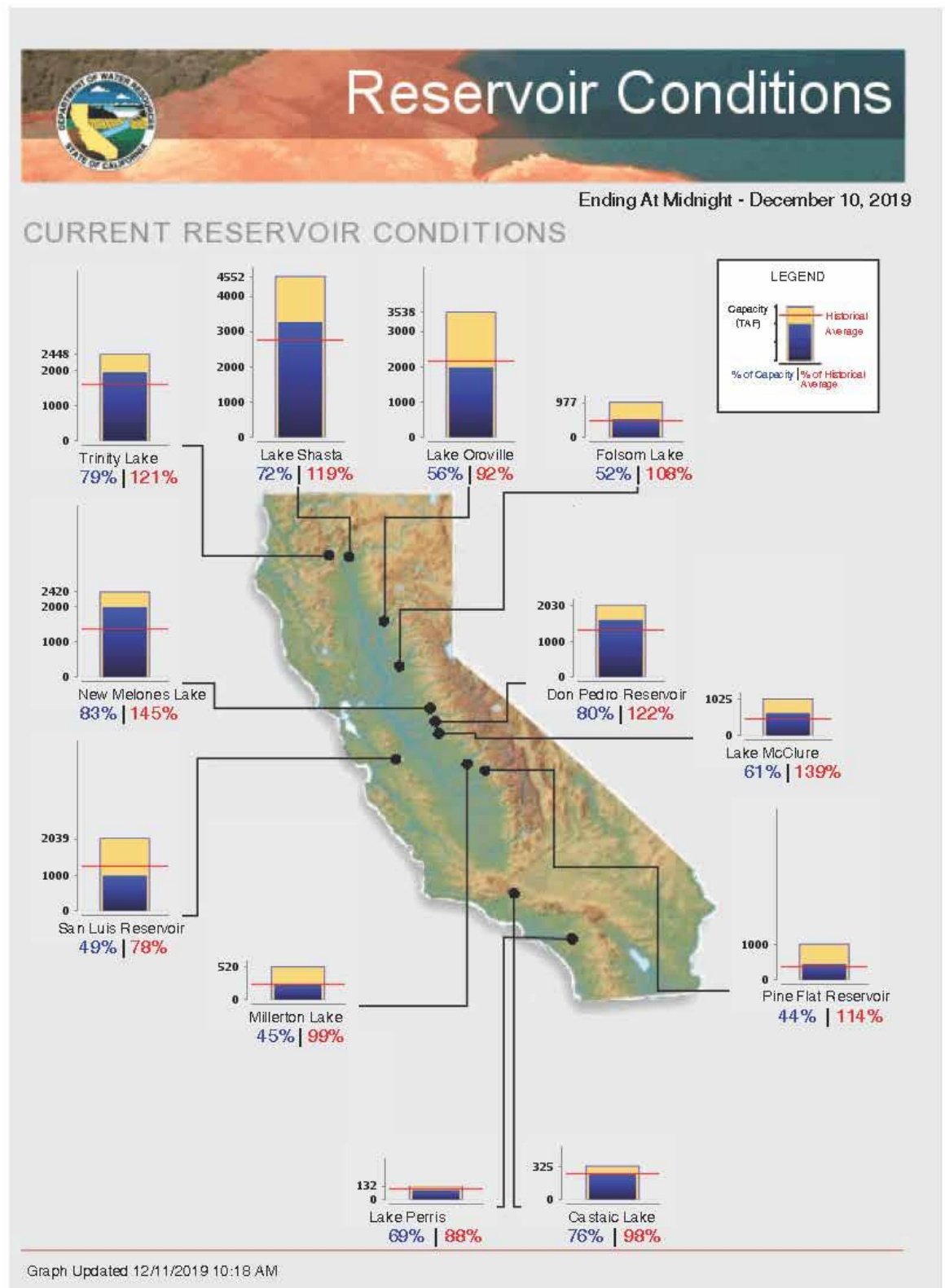


According to [The Federal Drought Monitor Map](#) California is currently experiencing no drought conditions, except for a small portion along the California-Oregon border which is depicted on the Drought Monitor Map as “abnormally dry.”



RESERVOIR CONDITIONS:

"Lake Shasta, the State's largest reservoir, is at 72 percent capacity and 119 percent of average for this time of year. At this point in the season, water managers are releasing water to reduce flooding and meet environmental requirements."
SFGATE, 12/12/19



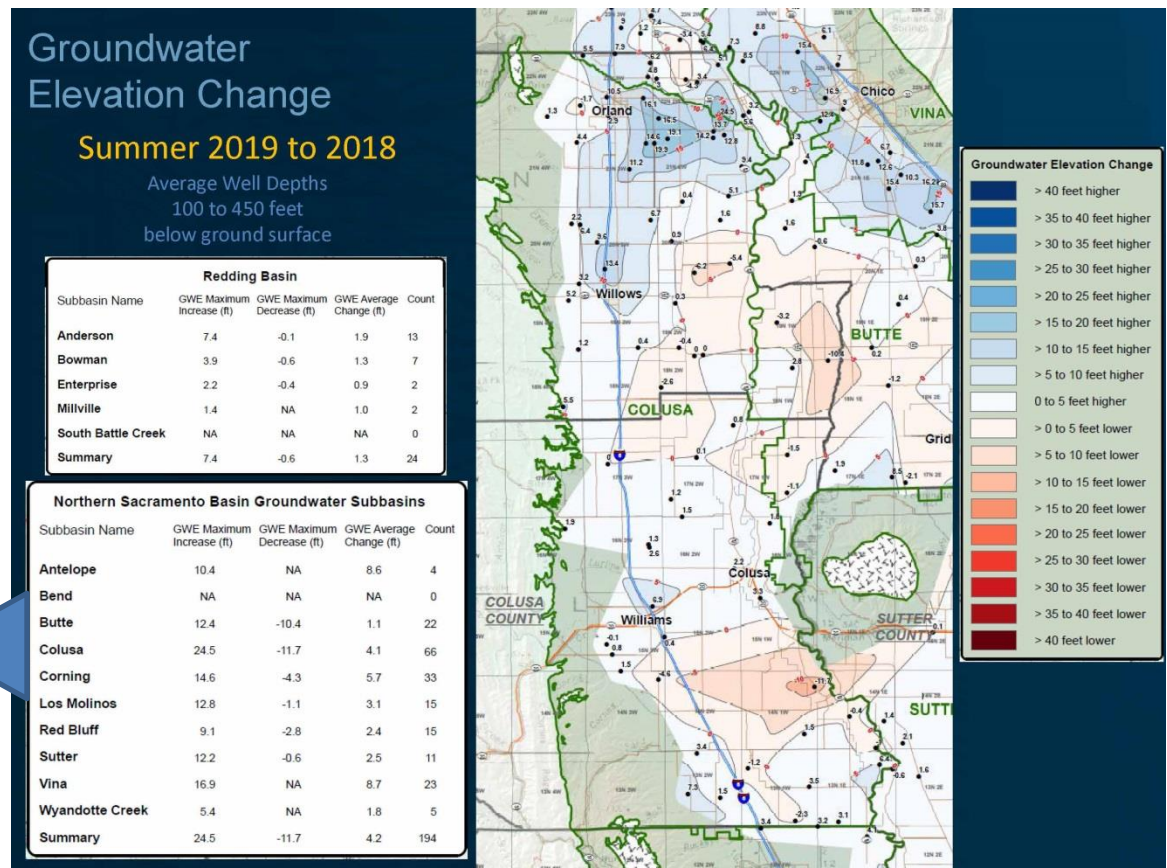
GROUNDWATER LEVELS

The California Department of Water Resources (DWR) monitors hundreds of wells in the Northern Sacramento Valley in spring, summer and fall, including in Colusa County. Staff from DWR's Northern Region Office (NRO) regularly provide groundwater conditions updates at various meetings around the region. Recently, Erin Smith from the NRO gave an update on 2019 summer groundwater levels at the November 6 Colusa County Groundwater Commission meeting. Ms. Smith presented Groundwater Level Change Maps that compared groundwater levels during the following years:

- Groundwater level change from 2018 to 2019
- Groundwater level change from 2015 to 2019
- Groundwater level change from 2004 to 2019

Summer 2015 was at the peak of the drought when groundwater conditions were at their lowest. 2015 is also the threshold that GSAs must consider when developing Groundwater Sustainability Plans. 2004 is considered an "average" water year.

Below are the Groundwater Level Change maps for monitoring wells that are 100-450 feet deep. Red indicates groundwater level declines and blue indicates an increase in groundwater levels. These maps depict trends in groundwater levels over time. Groundwater levels between each monitoring site are interpolated. If you would like larger versions of these maps, please contact Water Resources Staff: mfahey@countyofcolusa.com or visit the [Open Data Portal](#).



Colusa Subbasin
Max Increase: +24.5'
Max Decrease: -11.7
Avg. Change: +4.1
Well Count: 66

Northern Sacramento Valley
Max Increase: +24.5
Max Decrease: -11.7
Avg. Change: +4.2
Well Count: 194

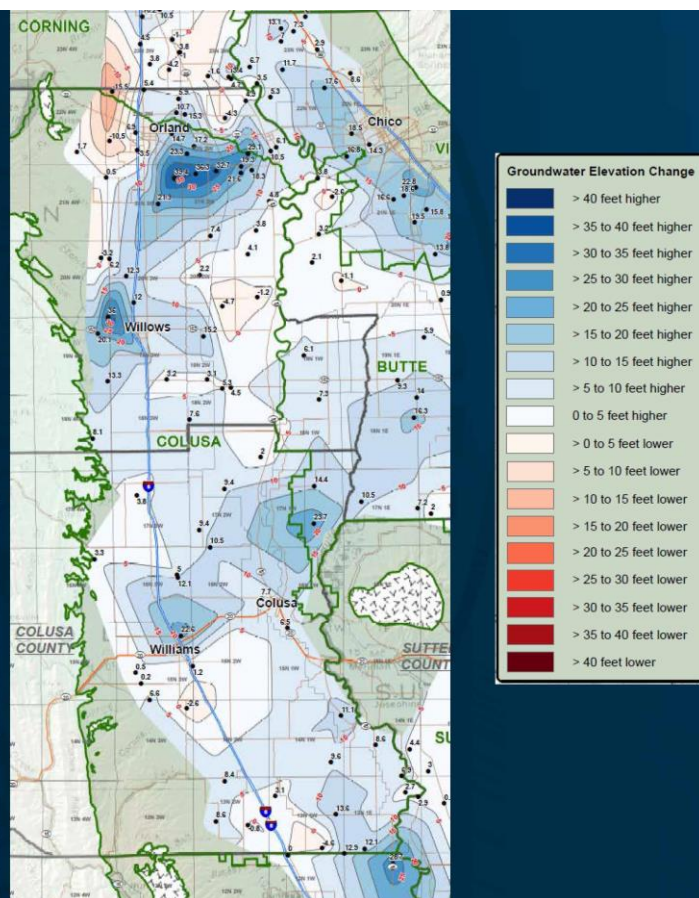
Groundwater Elevation Change

Summer 2019 to 2015

Average Well Depths
100 to 450 feet
below ground surface

Redding Basin				
Subbasin Name	GWE Maximum Increase (ft)	GWE Maximum Decrease (ft)	GWE Average Change (ft)	Count
Anderson	9.2	-0.3	4.7	9
Bowman	10.2	NA	5.4	7
Enterprise	4.6	-7.3	-1.3	2
Millville	2.7	NA	2.1	2
South Battle Creek	NA	NA	NA	0
Summary	10.2	-7.3	2.7	20

Northern Sacramento Basin Groundwater Subbasins				
Subbasin Name	GWE Maximum Increase (ft)	GWE Maximum Decrease (ft)	GWE Average Change (ft)	Count
Antelope	12.2	NA	9.7	5
Bend	NA	NA	NA	0
Butte	23.7	-2.6	7.3	22
Colusa	39.4	-10.5	9.3	65
Corning	17.5	-15.5	6.3	31
Los Molinos	10.6	-7.2	1.9	17
Red Bluff	8.1	-5.8	3.7	8
Sutter	6.9	NA	3.4	11
Vina	23.1	NA	12.5	23
Wyandotte Creek	5.2	NA	2.7	2
Summary	39.4	-15.5	6.3	184



Colusa Subbasin

Max Increase: +39.4
Max Decrease: -10.5
Avg. Change: +9.3
Well Count: 65

Northern Sacramento Valley

Max Increase: +39.4
Max Decrease: -15.5
Avg. Change: +6.3
Well Count: 184

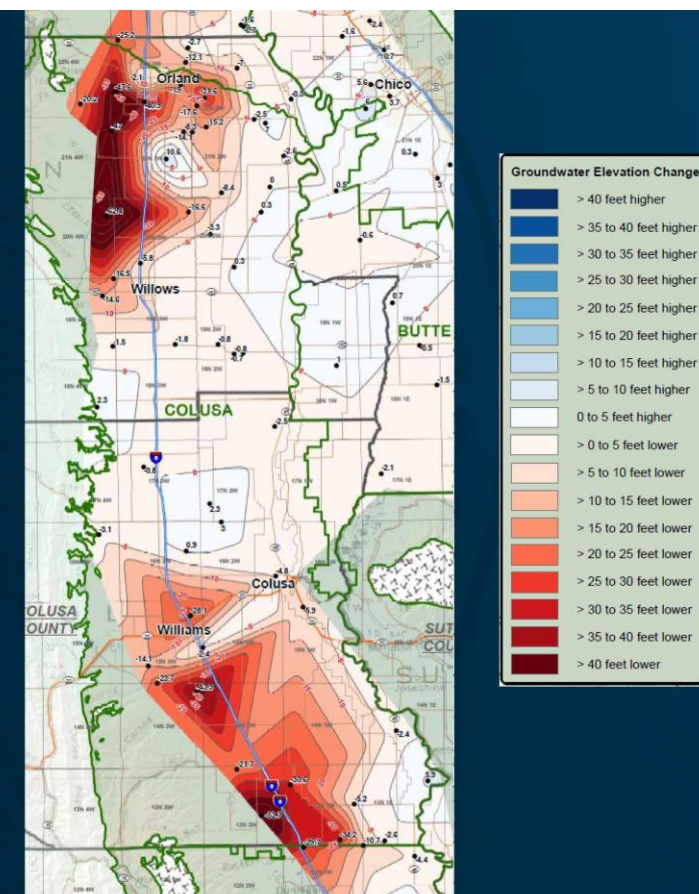
Groundwater Elevation Change

Summer 2019 to 2004

Average Well Depths
100 to 450 feet
below ground surface

Redding Basin				
Subbasin Name	GWE Maximum Increase (ft)	GWE Maximum Decrease (ft)	GWE Average Change (ft)	Count
Anderson	3.3	-9.5	-2.0	9
Bowman	1.4	-1.3	0.0	6
Enterprise	6.4	NA	5.1	2
Millville	NA	NA	NA	0
South Battle Creek	NA	NA	NA	0
Summary	6.4	-9.5	1.0	17

Northern Sacramento Basin Groundwater Subbasins				
Subbasin Name	GWE Maximum Increase (ft)	GWE Maximum Decrease (ft)	GWE Average Change (ft)	Count
Antelope	NA	-0.2	-0.2	1
Bend	NA	NA	NA	0
Butte	6.0	-13.4	-0.7	15
Colusa	10.6	-62.4	-12.5	52
Corning	NA	-25.9	-13.2	21
Los Molinos	1.4	-16.8	-5.2	17
Red Bluff	3.2	-24.3	-8.5	9
Sutter	NA	NA	NA	0
Vina	11.7	-8.9	-0.2	14
Wyandotte Creek	4.2	-10.7	-0.8	5
Summary	11.7	-62.4	-5.2	134



Colusa Subbasin

Max Increase: +10.6
Max Decrease: -62.4
Avg. Change: -12.5
Well Count: 52

Northern Sacramento Valley

Max Increase: +11.7
Max Decrease: -62.4
Avg. Change: +5.2
Well Count: 134

COLUSA COUNTY GROUNDWATER COMMISSION

The Colusa County Groundwater Commission is made up of 5 members appointed by the Board of Supervisors. Each Commissioner represents an individual Supervisorial district, and must be an agricultural groundwater user in that district (they may also utilize surface water).

Prior to the Sustainable Groundwater Management Act (SGMA), the Groundwater Commission was responsible for implementing the County Groundwater Management Plan, among other things. Under SGMA, mandatory Groundwater Sustainability Plans will replace the voluntary Groundwater Management Plans. In 2017, the Commission's objectives changed to better align with SGMA.

Two Commissioners serve on the Board of the Colusa Groundwater Authority (CGA), representing groundwater pumpers. The Colusa Groundwater Authority (CGA) was formed on June 29, 2017 as a Groundwater Sustainability Agency responsible for implementation of SGMA in the groundwater basins in Colusa County. The two Commission members on the CGA Board are recommended by the Commission, and appointed to the CGA Board by the Board of Supervisors.

The Commission meets quarterly and all of their meetings are open to the public. Beginning in February, 2019, Commission meetings began featuring a Public Forum session with three to four speakers presenting information about various water-related topics that are relevant to local landowners. Forum topics have included updates on; Voluntary Agreements, land subsidence surveys, local groundwater recharge projects, groundwater conditions and local SGMA implementation efforts.

For more information on the Colusa County Groundwater Commission, visit [the Water Resources section of the Colusa County website](#).



Colusa County Groundwater Commission 2020 Meeting Schedule:

- February 12
- May 6
- August 5
- November 4

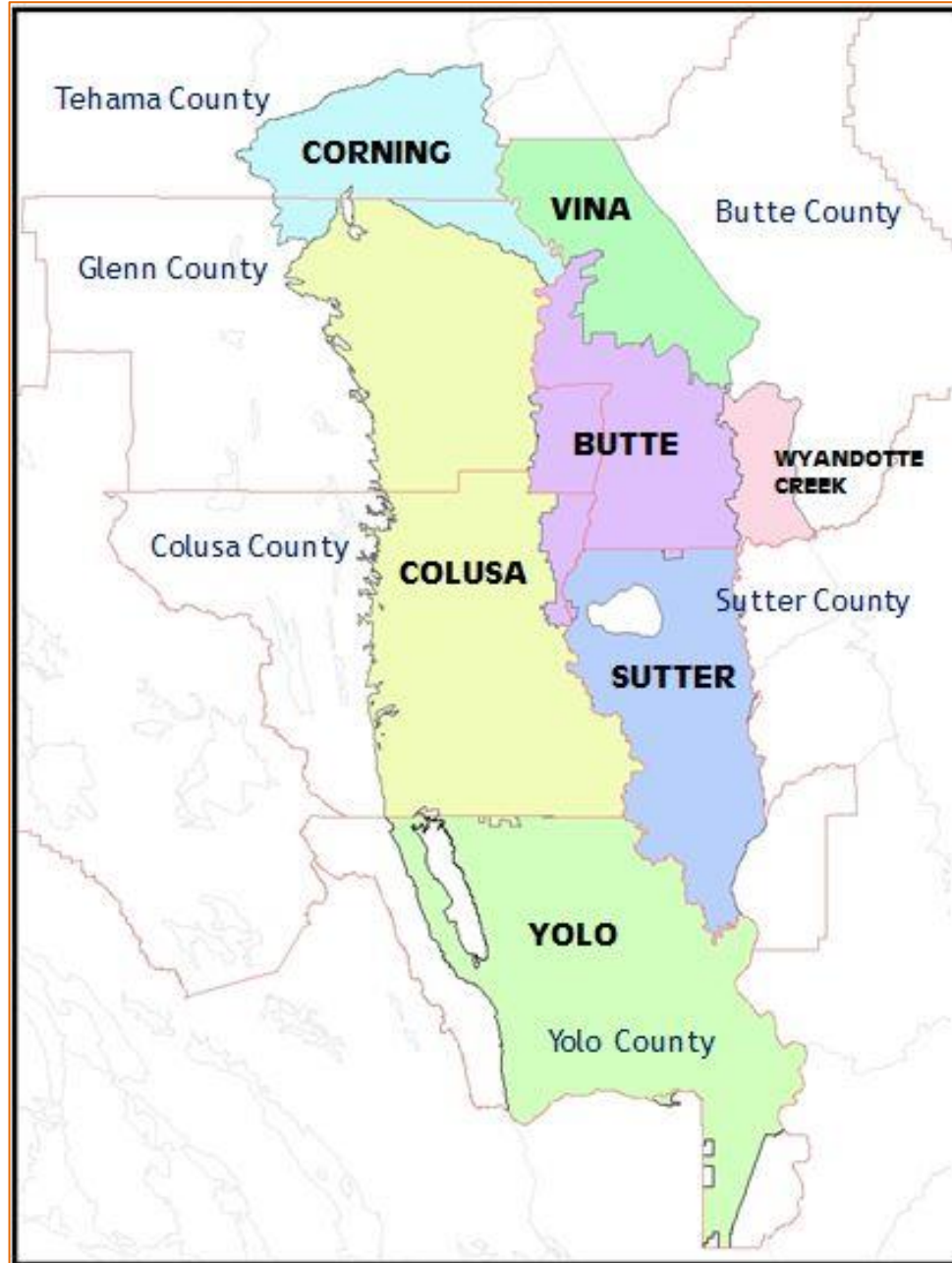
All meetings are held at 10:00 a.m. at the Colusa Industrial Properties conference room.

SUSTAINABLE GROUNDWATER MANAGEMENT ACT UPDATE

GROUNDWATER BASINS

There are two groundwater basins in Colusa County that are subject to SGMA: the Colusa Subbasin and the Butte Subbasin. Each of these basins must be managed by a Groundwater Sustainability Agency (GSA) or a combination of two or more GSAs.

2018 DWR Bulletin 118 Groundwater Basins



You can find a map of statewide groundwater basins by accessing DWR's online Basin Boundary Assessment tool: <https://gis.water.ca.gov/app/bbat/>

Did you Know...

The Colusa Subbasin is one of the largest subbasins in the State.

There are 515 groundwater basins in California.

Groundwater basins are prioritized by DWR as either high, medium, low or very low priority. Only high and medium priority basins are subject to SGMA. A GSA may decide to develop a GSP for low or very low priority basins, but it is not required.

More than 260 GSAs were formed in more than 140 groundwater basins by the June 30, 2017 deadline.

If a groundwater basin that is subject to SGMA is not in compliance, the State Water Resources Control Board is the enforcement agency that will intervene in basin management at a high cost to landowners.

GROUNDWATER SUSTAINABILITY AGENCIES (GSAs)

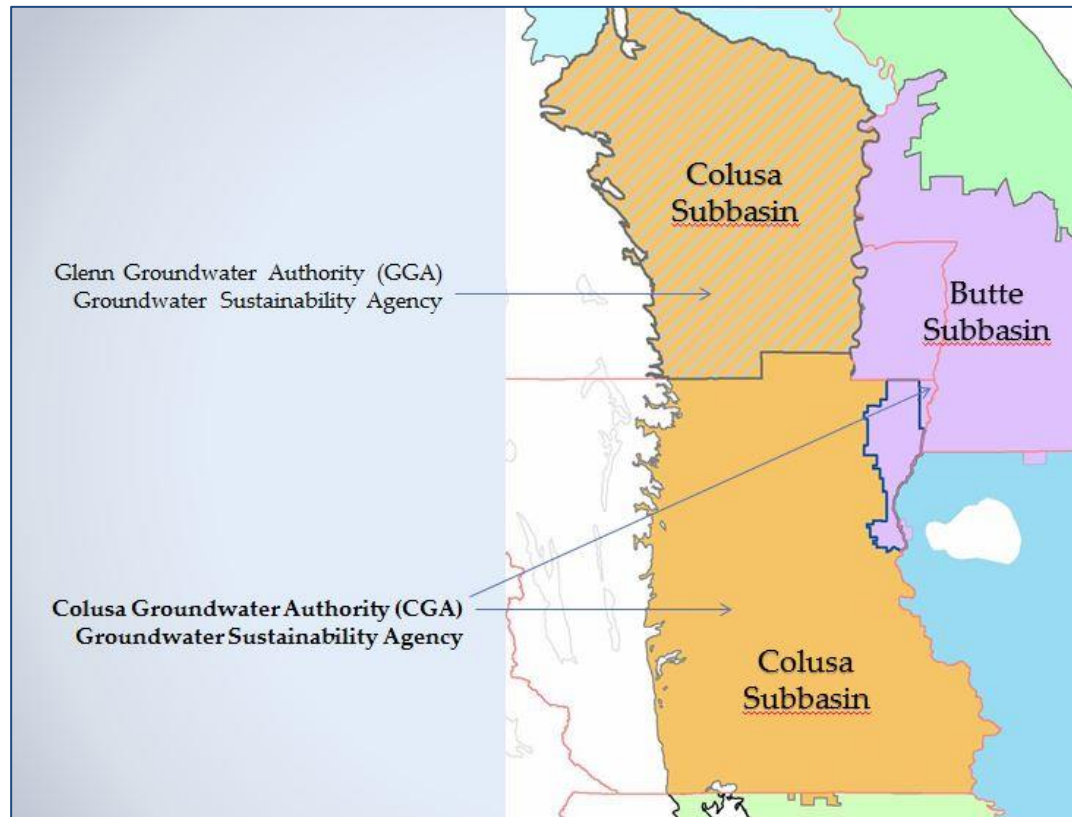
The Colusa Groundwater Authority (CGA) was formed on June 29, 2017 to comply with the Sustainable Groundwater Management Act (SGMA) regulations and ensure that groundwater is managed locally in Colusa County. The CGA is a 12- member Joint Powers Authority and is recognized by DWR as the Groundwater Sustainability Agency (GSA) for the Colusa County portion of the Colusa Subbasin, and a small portion of the Butte Subbasin in Colusa County, east of RD 1004.

GSAs in the Colusa Subbasin:

1. Colusa Groundwater Authority
2. Glenn Groundwater Authority

GSAs in the Butte Subbasin:

1. Biggs West Gridley Water District
2. Butte Water District
3. City of Biggs
4. City of Gridley
5. Colusa Groundwater Authority
6. County of Butte
7. County of Glenn
8. RD 1004
9. RD 2106
10. Richvale Irrigation District
11. Western Canal Water District



Members of the Colusa Groundwater Authority Board:

1. County of Colusa
2. City of Colusa
3. City of Williams
4. Glenn Colusa Irrigation District
5. Maxwell Irrigation District and Westside Water District (1 seat)
6. Princeton-Codora-Glenn Irrigation District and Provident Irrigation District (1 seat)
7. Colusa County Water District
8. Reclamation District 108
9. Reclamation District 479
10. Colusa Drain Mutual Water Company
11. Private Pumper Representative from Colusa County Groundwater Commission
12. Private Pumper Representative from Colusa County Groundwater Commission

A map of statewide GSAs can be found on the [DWR GSA Map Viewer](#).

CRITICALLY OVERDRAFTED BASINS

There are 21 groundwater basins that are considered to be “critically overdrafted” by DWR. Those basins are all south of the Delta. Groundwater Sustainability Plans for the critically overdrafted basins are due by January 31, 2020. All other basins have until January 31, 2022 to submit their Plans.

For a map of the Critically Overdrafted Basins, visit:

<https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118/Critically-Overdrafted-Basins>

SGMA: RECENT ACTIVITIES

Butte Subbasin

Eleven GSAs have formed in the Butte Subbasin. The Colusa Groundwater Authority (CGA) participates in SGMA planning efforts in the basin. Most recently, the eleven GSAs have signed on to a *Cooperation Agreement Among Groundwater Sustainability Agencies in the Butte Subbasin*. Under the Cooperation Agreement, a Butte Subbasin Advisory Committee Board was formed consisting of representatives from each GSA. Advisory Board meetings will be open to the public and we anticipate the first meeting to take place in early 2020. The Basin Setting portion of the Butte Subbasin Groundwater Sustainability Plan is under development. We anticipate preliminary results from that work to be presented publically at a Butte Subbasin Advisory Committee meeting in spring, 2020.

Colusa Subbasin

There are two GSAs in the Colusa Subbasin: the Colusa Groundwater Authority (CGA) and the Glenn Groundwater Authority (GGA). Both GSAs are multi-agency Joint Powers Authorities. The CGA and GGA are working closely together on development of a Groundwater Sustainability Plan for the Colusa Subbasin. Technical work related to the Basin Setting portion of the GSP has been underway since summer, 2018. This work is being completed by a Consultant team led by Davids Engineering, Inc. (Davis, CA).

In September and October, 2019, a series of public workshops and CGA and GGA Board workshops were held. At these workshops, the Consultant team presented information about the technical work that has been completed and informed the Boards and the public about upcoming work and critical decisions associated with GSP development.

In July, 2019, the CGA and GGA released a Request for Proposals for a consultant team to complete the remaining elements of the GSP for the Colusa Subbasin. The GSAs were fortunate to receive some excellent proposals from very well-qualified teams. Ultimately, the GSA Boards chose the Davids Engineering, Inc. team to complete the GSP.

GSPs in the Sacramento Valley are due by January 31, 2022. Stakeholder input is needed during development of these plans and landowners are highly encouraged to attend meetings and workshops and be engaged in Plan development in their basin. GSPs in the Critically Overdrafted groundwater basins in the state are due January 31, 2020 and those plans are beginning to be submitted to DWR.

For information about Groundwater Sustainability Plans, [visit the DWR website](#).

SGMA – STAY INFORMED:

Between now and January 31, 2022, Groundwater Sustainability Plans will be under development for the Colusa and Butte Subbasins. There are many opportunities to be engaged and informed about local groundwater management planning in Colusa County:

- ✓ Get on the CGA email notification list for updates and meeting announcements by signing up on the website: <https://colusagroundwater.org/contact-us/> or contact Staff (see contact info below)
- ✓ Visit the CGA Website regularly: <http://colusagroundwater.org>
- ✓ Attend Colusa Groundwater Authority Board meetings
- ✓ Visit DWR's Groundwater Information Center website: <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>
- ✓ Visit the DWR SGMA Portal: <https://sgma.water.ca.gov/portal/#intro>

All CGA Board meetings are open to the public. The Board meeting schedule can be found on the CGA website: <https://colusagroundwater.org/meetings/>

NORTHERN SACRAMENTO VALLEY INTEGRATED REGIONAL WATER MANAGEMENT PLAN (NSV IRWMP)

Proposition 1 Funding

The California Department of Water Resources (DWR) has made available approximately \$29.3 million in grant funding for the six IRWMs in the Sacramento River Funding area for the Round 1, Proposition 1 IRWM Implementation Grant Program. A grant application has been submitted by Butte County Staff on behalf of the NSV IRWM region. Six projects from the IRWM Plan met the criteria to be included in the application. These projects are:

1. Canal Pre-screen Project by Orland-Artois Water District in Glenn County
2. Rock and Sand Creek Flood Mitigation by Rock Creek Reclamation District in Butte County
3. Primary Influent Pump Station by Sewage Commission Oroville Region in Butte County
4. Two trash capture projects by Yuba City in Sutter County
5. Waste Water Treatment Plant Improvement by Richardson Springs Community Services District in Butte County
6. Water System Improvement by Youth with a Mission in Butte County

Total funding request for these projects is approximately \$5.9 million. Final grant awards are anticipated to be announced in mid-2020.

The six counties that make up the Board of the Northern Sacramento Valley Integrated Regional Water Management Planning group are listed below.

NSV IRWM Counties:

- Butte
- Colusa
- Glenn
- Shasta
- Sutter
- Tehama

Other current activities of the NSV IRWM group include, updating the Plan to meet new DWR Proposition 1 Plan Standards and updating the NSV Bylaws.

At the December 9, 2019 NSV IRWM Board meeting, the Board set the 2020 meeting schedule, as indicated below. All meetings are held at 9:00 a.m. at Willows City Hall.

- January 15, 2020 – NSV TAC Meeting
- February 19, 2020 – NSV TAC Meeting
- March 2, 2020 – NSV Board Meeting
- June 17, 2020 – NSV TAC Meeting
- July 15, 2020 – NSV TAC Meeting
- August 3, 2020 – NSV Board Meeting

For more information, visit the NSV IRWM website at: www.nsvwaterplan.org

PROJECT SPOTLIGHT: MULTI-BENEFIT SHOREBIRD HABITAT AND GROUNDWATER RECHARGE PROJECTS ON AGRICULTURAL LANDS IN DISADVANTAGED COMMUNITIES IN COLUSA COUNTY



The Colusa Groundwater Authority is supporting and working with The Nature Conservancy (TNC) on a Proposition 1 grant-funded project that is designed to provide bird habitat while also enhancing groundwater recharge. The goal of the project is to develop a model multi-benefit replenishment project that can be adopted by a GSA or water district.

Through this project, TNC is working with farmers in the disadvantaged communities in Colusa County to replenish groundwater on annual cropland where soil conditions exist that are favorable to recharge.

TNC will be monitoring bird populations on the project sites. They are also working with several partners, including:

- Willing landowners to implement projects,
- Hydrology professors at UC Davis to evaluate crop types and water quality issues, and to help provide an understanding of where exactly the infiltrated water is going,
- Davids Engineering, Inc. to quantify groundwater recharge

TNC anticipates that over the next 2 years, they will work with approximately 10 landowners to implement dynamic replenishment across approximately 1,000 acres. When the project is completed, the methodology for implementing these types of projects can be a tool that a GSA can utilize to work towards sustainability.

TNC will be hosting a landowner workshop in early 2020 to describe the project and solicit landowner participation. If you are interested in learning more about this project or you would like to attend the upcoming workshop, please contact Water Resources Staff – mfahey@countyofcolusa.com

UPCOMING MEETINGS OF NOTE

- January 15, 2020: [Northern Sacramento Valley IRWMP TAC Meeting](#)
 - January 22, 2020: [Sites Project Authority Board Meeting](#)
 - January 29, 2020: [Colusa Groundwater Authority Board Meeting](#)
 - March 6, 2020: [NCWA Annual Meeting](#)
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Colusa County Community Development Department

WATER RESOURCES DIVISION

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