

TEHAMA COUNTY GROUNDWATER SUSTAINABILITY AGENCY & CURRENT GROUNDWATER CONDITIONS



Shasta Tehama Watershed Education Coalition Meeting May 8, 2019



- **Brief Review of the Sustainable Groundwater Management Act (SGMA)**
- **Tehama County Groundwater Sustainability Agency (GSA)**
- **Update on Groundwater Levels**



Sustainable Groundwater Management Act (SGMA)

- On September 16, 2014, Governor Brown signed SB1168, AB1739, and SB1319 into law, enacting SGMA
- SGMA became effective on January 1, 2015



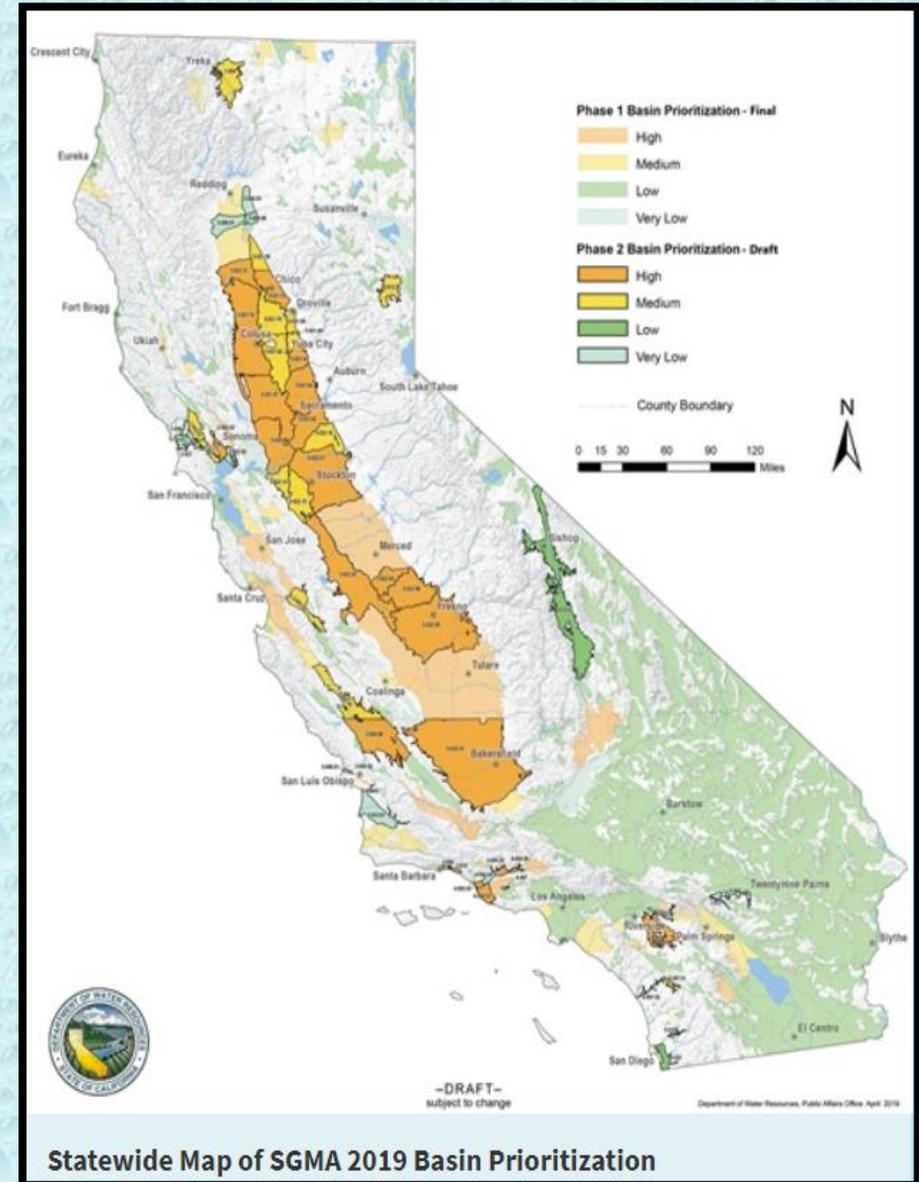
What is SGMAs purpose?

- Promote sustainable management of groundwater basins
- Enhance local management of groundwater, state to step in if necessary
- Improve data collection and understanding of groundwater resources and management
- Avoid or minimize impacts for land subsidence

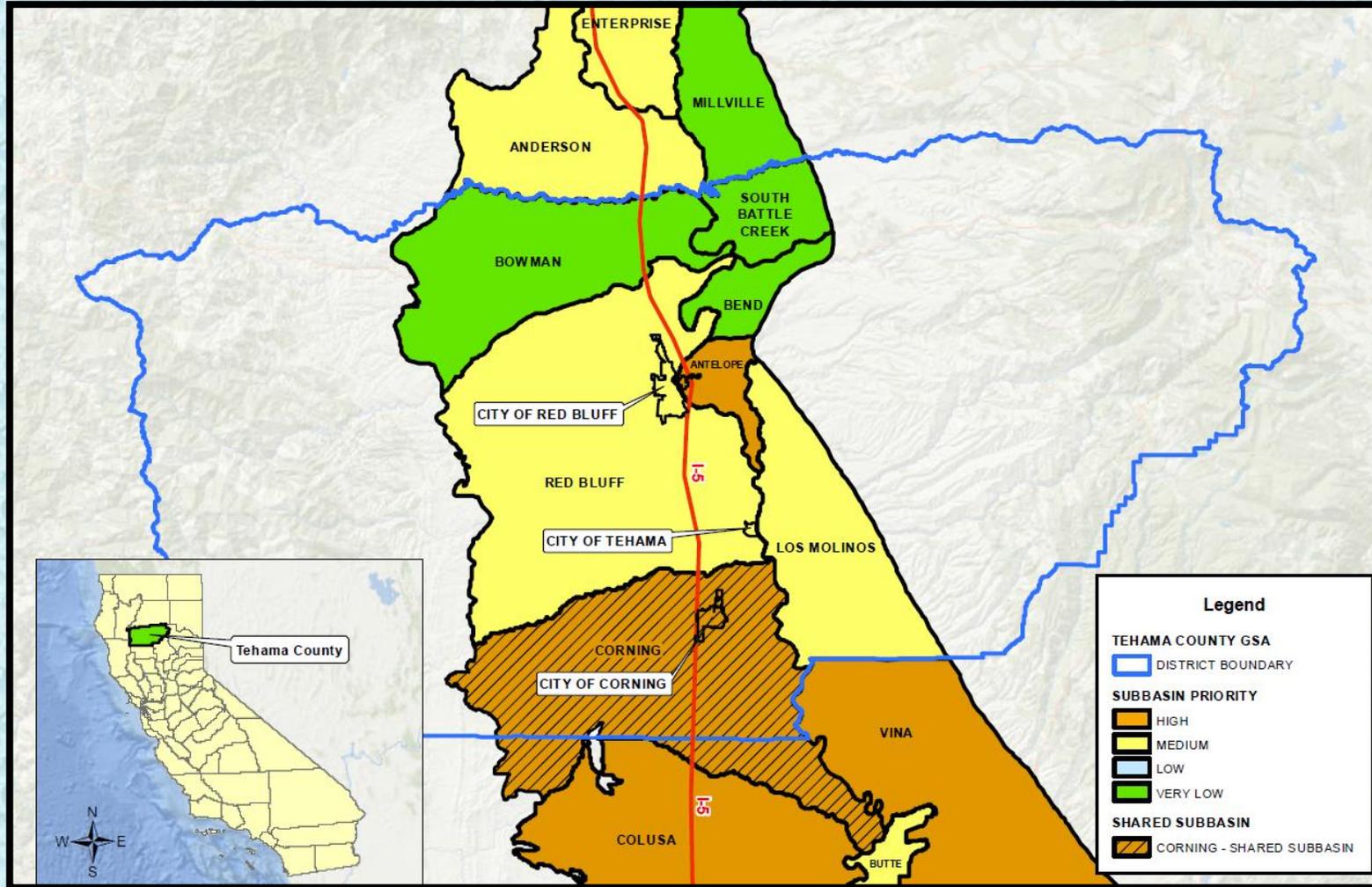


Sustainable Groundwater Management Act Timeline

- **January 31, 2022:** Groundwater Sustainability Plans required for all high and medium priority groundwater basins
- **January 31, 2042:** Basins must achieve sustainability



Tehama County Groundwater Sustainability Agency



➤ District Recognized as Exclusive GSA in February 2016

➤ District Awarded 1.5 Million Dollars for Groundwater Sustainability Plan Development in 2018 for the:

- Bowman Subbasin
- Red Bluff Subbasin
- Antelope Subbasin
- Los Molinos Subbasin

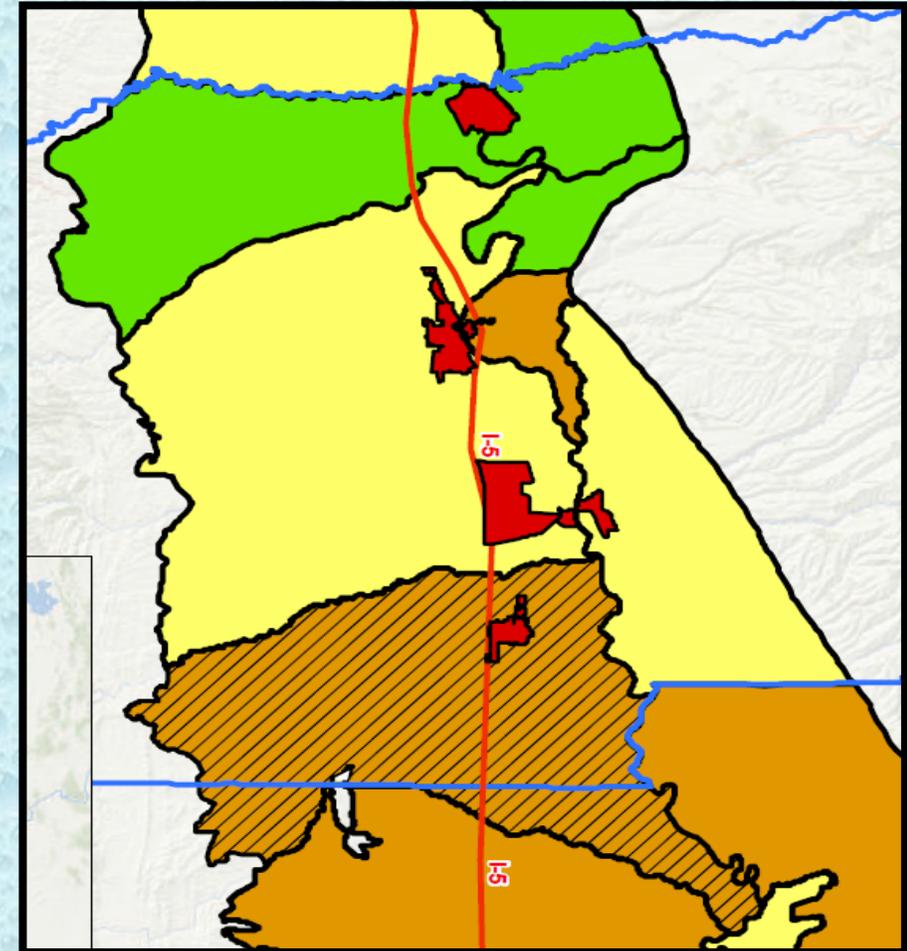
Tehama County GSA Governance Structure

- Governing Board – Tehama County Flood Control & Water Conservation District Board of Directors (County Board of Supervisors)
- Groundwater Commission (similar to Planning Commission)
- Technical Advisory Committee



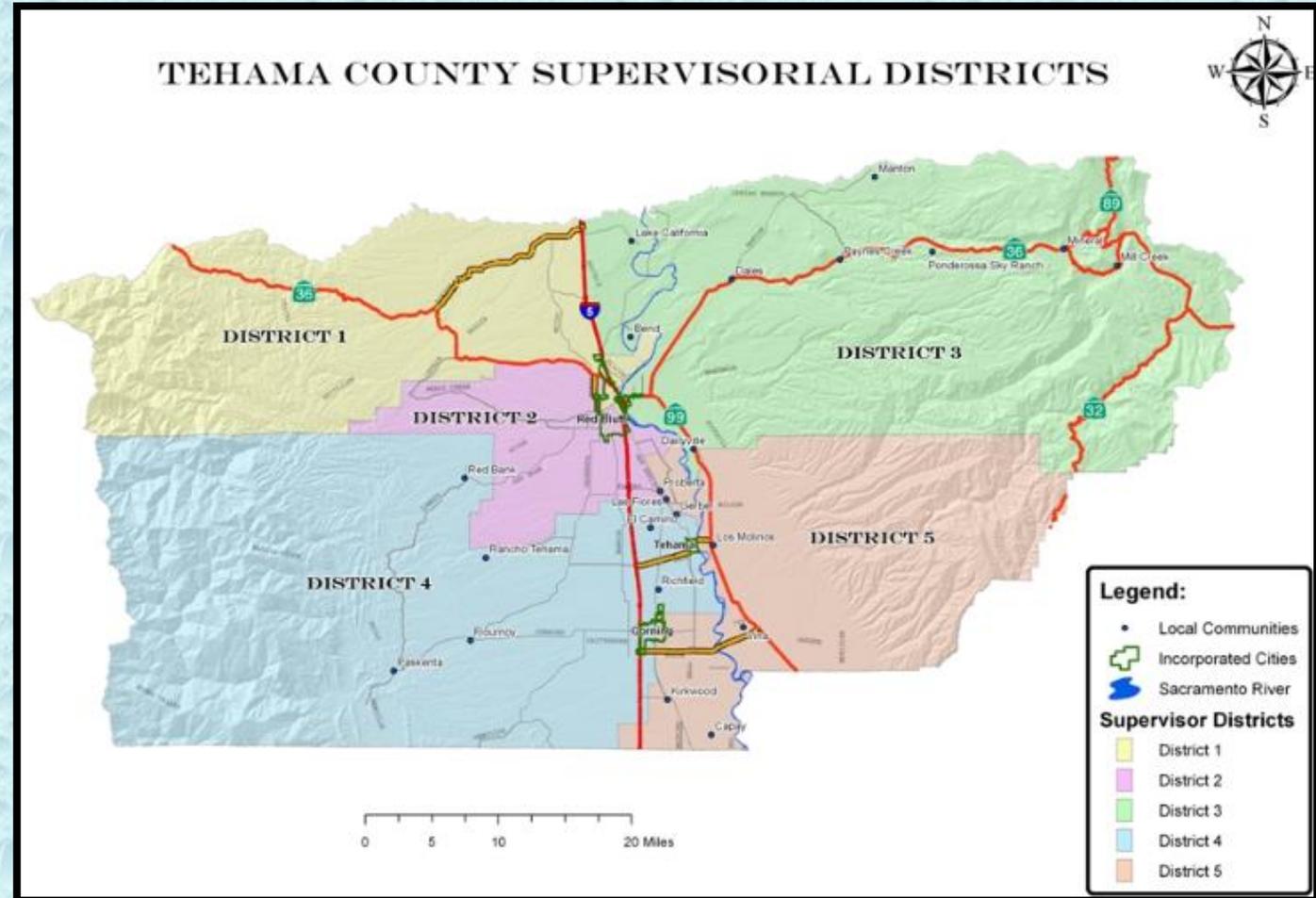
Groundwater Commission

- **The Commission is made up of 11 members**
- **6 agencies will have designated seats on the Commission and appoint their own members.**
 - 1 – City of Corning – 773 million gallons per year (GPY)
 - 1 – City of Red Bluff – 1.18 billion GPY
 - 1 – City of Tehama – 35 million GPY
 - 1 – El Camino Irrigation District – 2.28 billion GPY
 - 1 – Los Molinos Community Services District – 70 million GPY
 - 1 – Rio Alto Water District – 241 million GPY



Additional Members will Include 1 Representative from each County Supervisorial District

- Members should be a resident, property owner, or groundwater user within Tehama County;
- 2 members should represent surface water agencies/districts;
- 2 members should represent private pumpers;
- 1 member should represent the general public.



Groundwater Commission Members

- City of Corning – Dave Demo
- City of Red Bluff – Clay Parker
- City of Tehama – Bill Borrer
- El Camino Irrigation District – Kris Lamkin
- Los Molinos Community Services District – Todd Hamer
- Rio Alto Water District – Martha Slack
- District 1 – Harley North, private pumper
- District 2 – Sam Mudd, general public
- District 3 – Bart Fleharty, surface water agency/district
- District 4 – Hal Crain, surface water agency/district
- District 5 – David Lester, private pumper



Groundwater Commission Duties

- Develop GSP and all GSA ordinances, rules, and regulations, making final recommendations to the Board of Directors.
- Conduct investigations to determine the need for groundwater management, monitor compliance and enforcement, and propose fee increases.
- Review all proposed grant applications
- Decision-making authority for permits or similar entitlements
- Make quasi-judicial decisions in GSA enforcement matters



2017 SGMA Risk Assessment



➤ Categorically eliminate from consideration:

- Seawater Intrusion

➤ Address but unlikely to pose operational constraints; focus on monitoring:

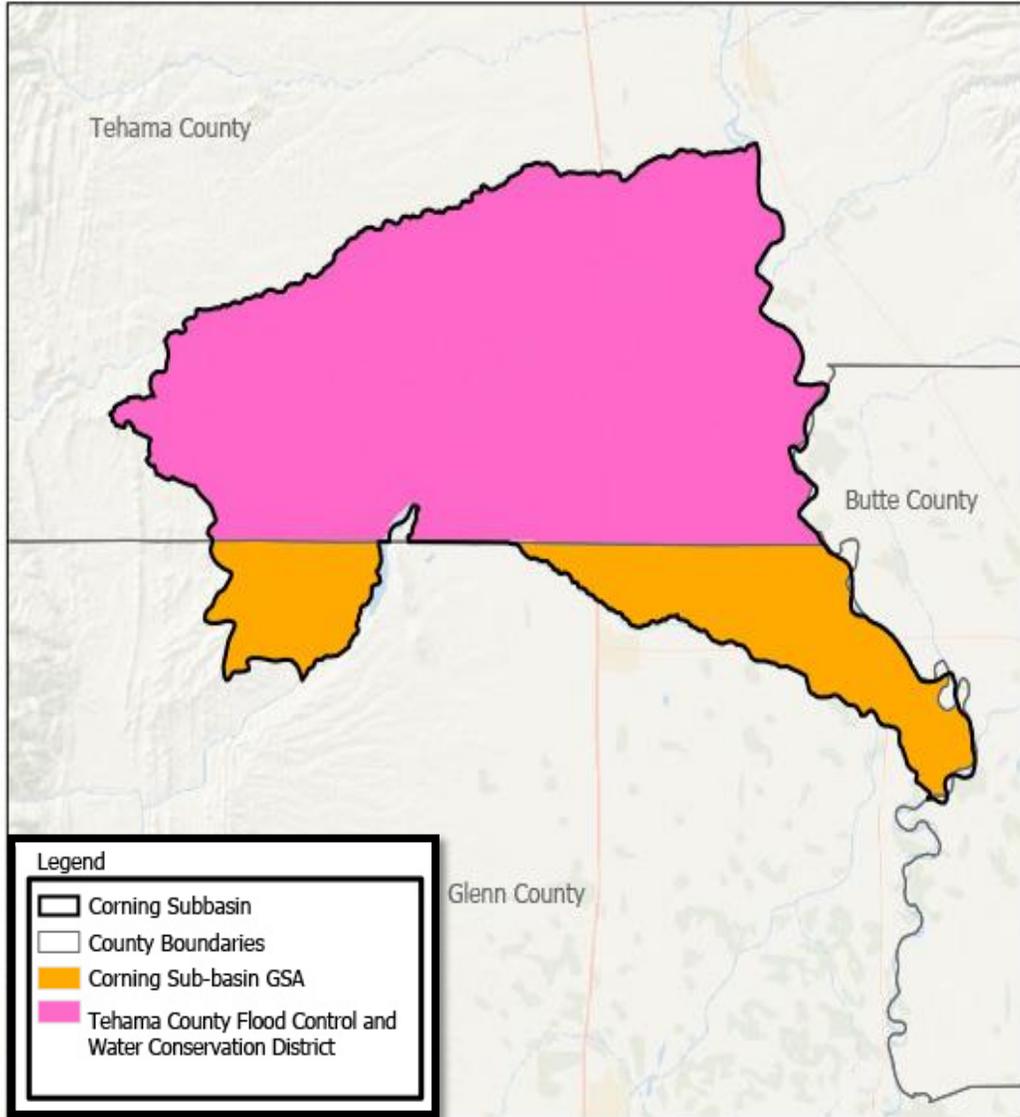
- Reduction of Groundwater Storage
- Degraded Water Quality
- Land Subsidence

➤ Potential to pose operational constraints and require Projects and/or Management Actions:

- Chronic Lowering of Groundwater Levels
- Depletions of Interconnected Surface Water

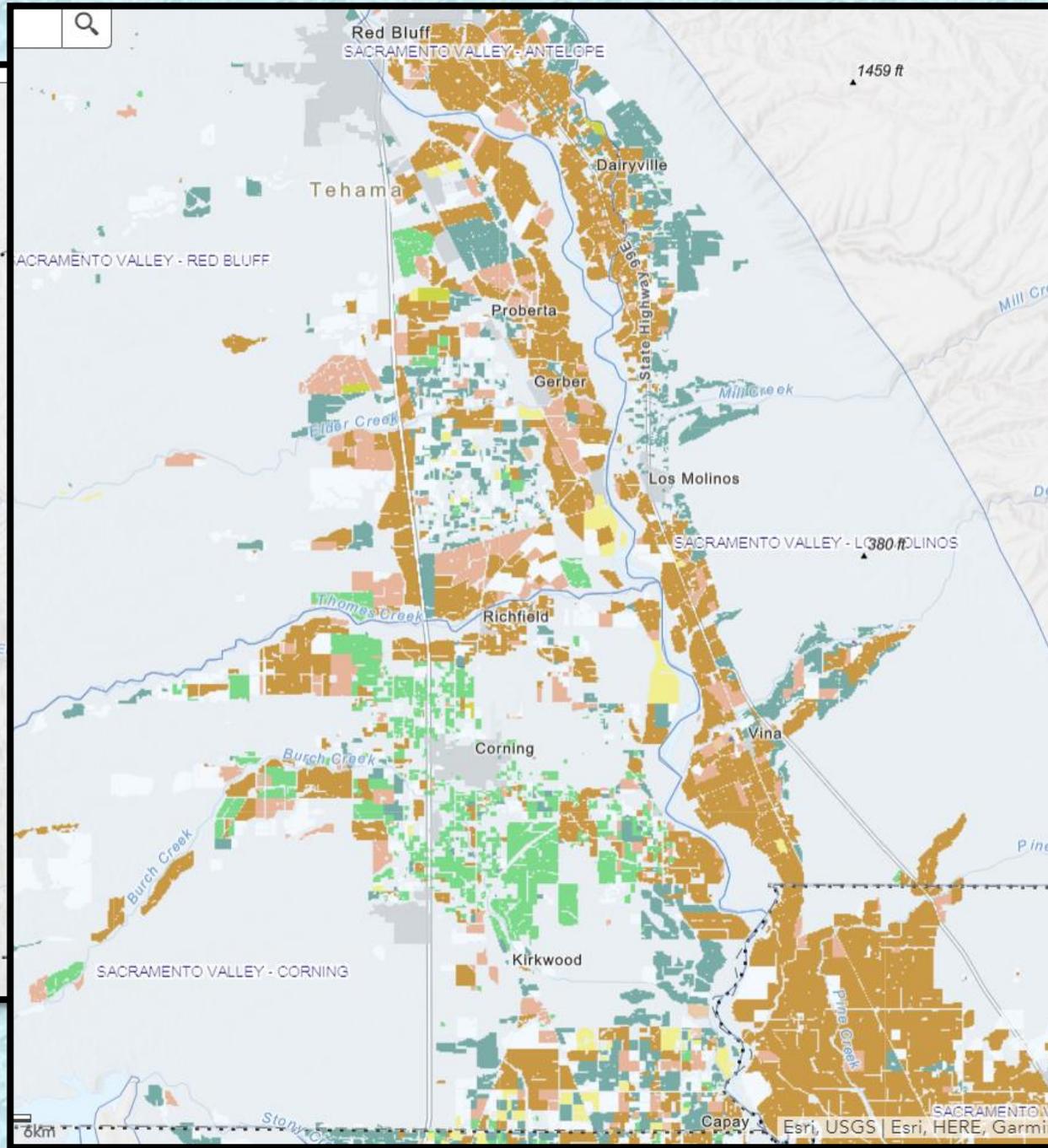


Corning Subbasin Groundwater Sustainability Agencies



Corning Subbasin

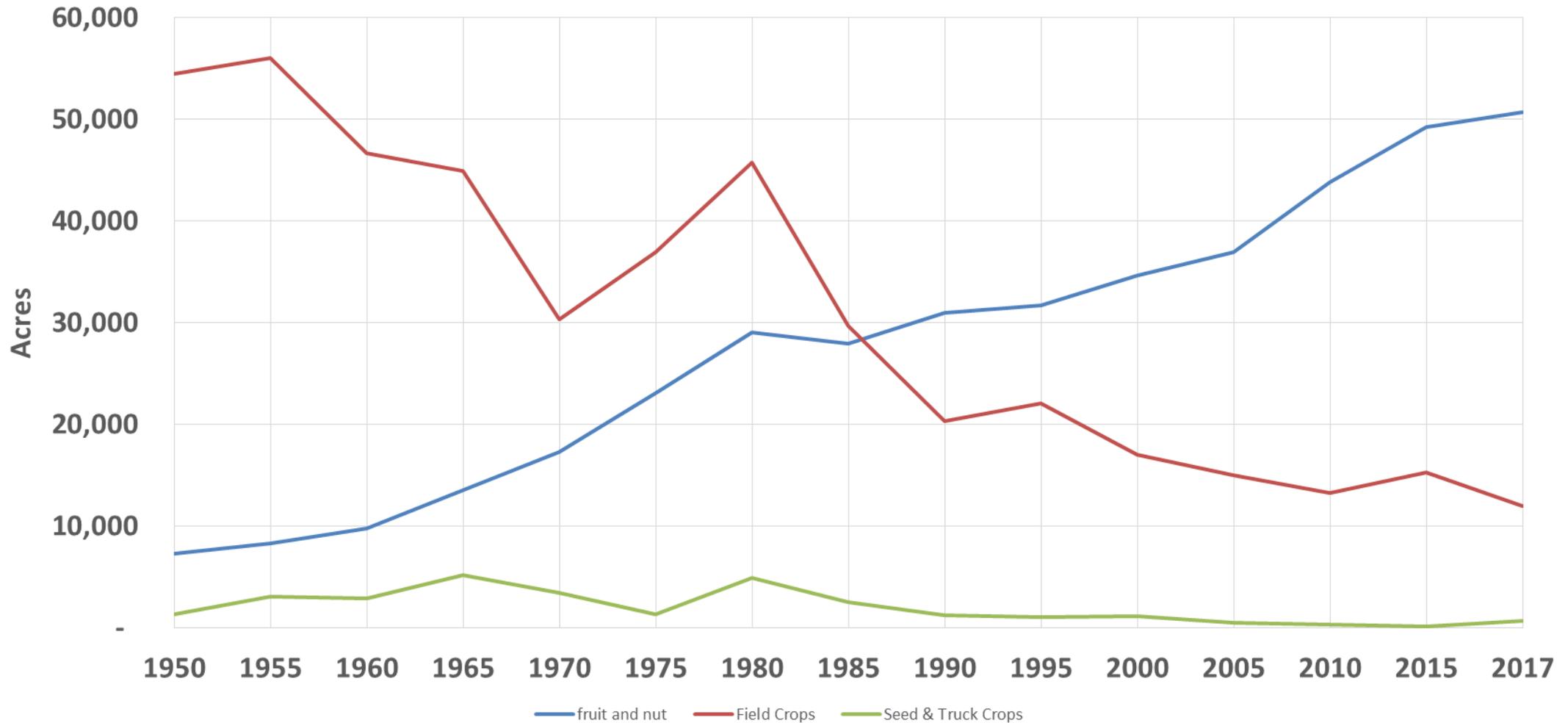
- **2 GSA Agencies**
- **GSP Grant – 1 million**
- **Co-Management of the Subbasin**
- **Develop GSP**



- R | RICE
- P | PASTURE
- G | GRAIN AND HAY CROPS
- T | TRUCK NURSERY AND BERRY CROPS
- F | FIELD CROPS
- C | CITRUS AND SUBTROPICAL
- D | DECIDUOUS FRUITS AND NUTS
- V | VINEYARD
- Y | YOUNG PERENNIAL
- I | IDLE
- NR | RIPARIAN VEGETATION
- U | URBAN



Crop Type History



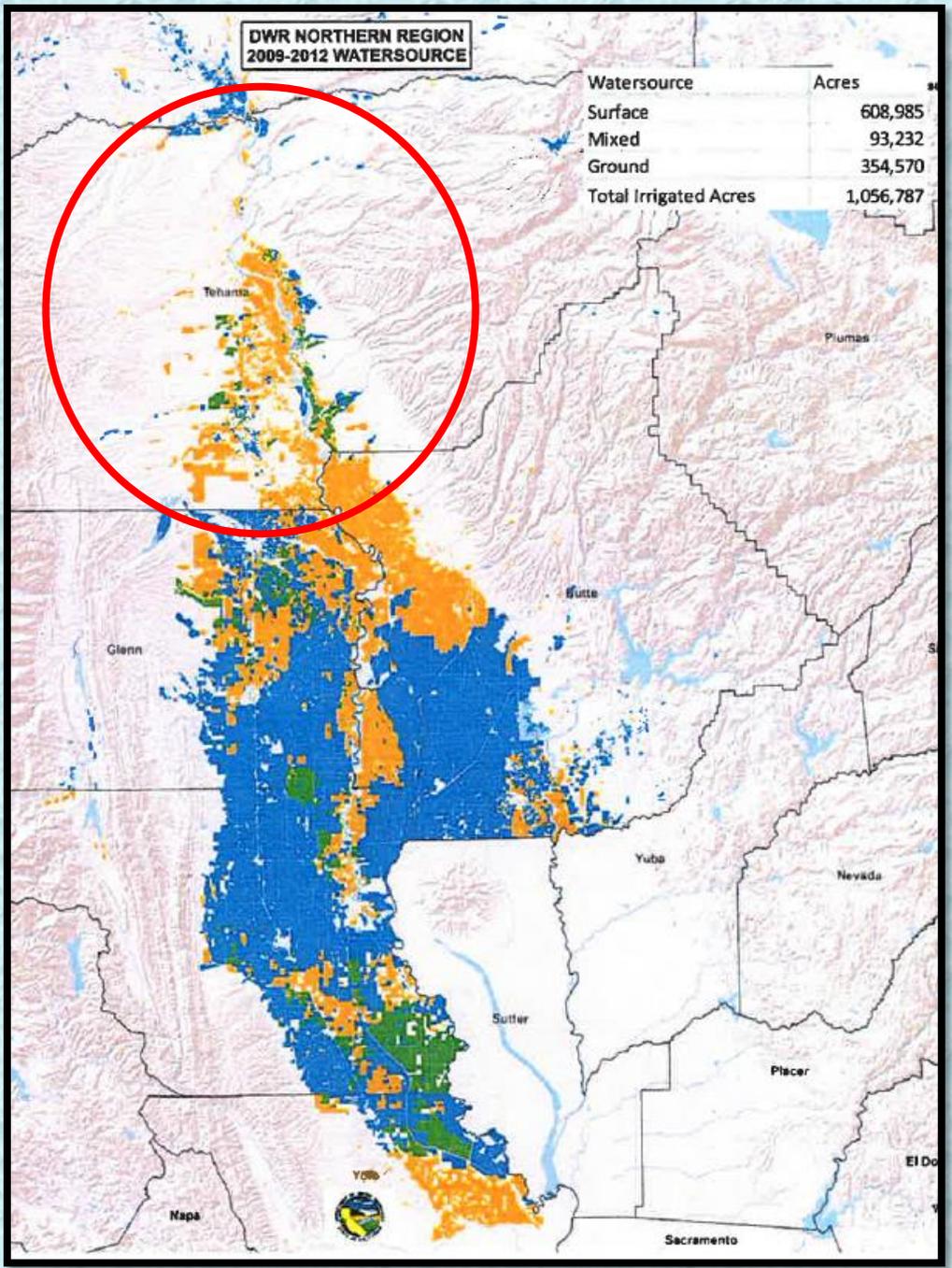
Fruit and Nut Crops - Almonds, Olives, English Walnuts, Prunes, (miscellaneous crops not included due to inconsistency in records).

Field Crops - Wheat, Corn, Alfalfa, Oats, Hay, Barley, Beans, Rice, Rye Grass, Safflower, Sudangrass, Sugar Beets, Sorghum grain, other.

Seed & Truck Crops - Watermelon, Landio Clover, Cantaloupe, berries, bean seed, Sudan, Sunflowers, pumpkins, onions, cucumbers, other.

**DWR NORTHERN REGION
2009-2012 WATERSOURCE**

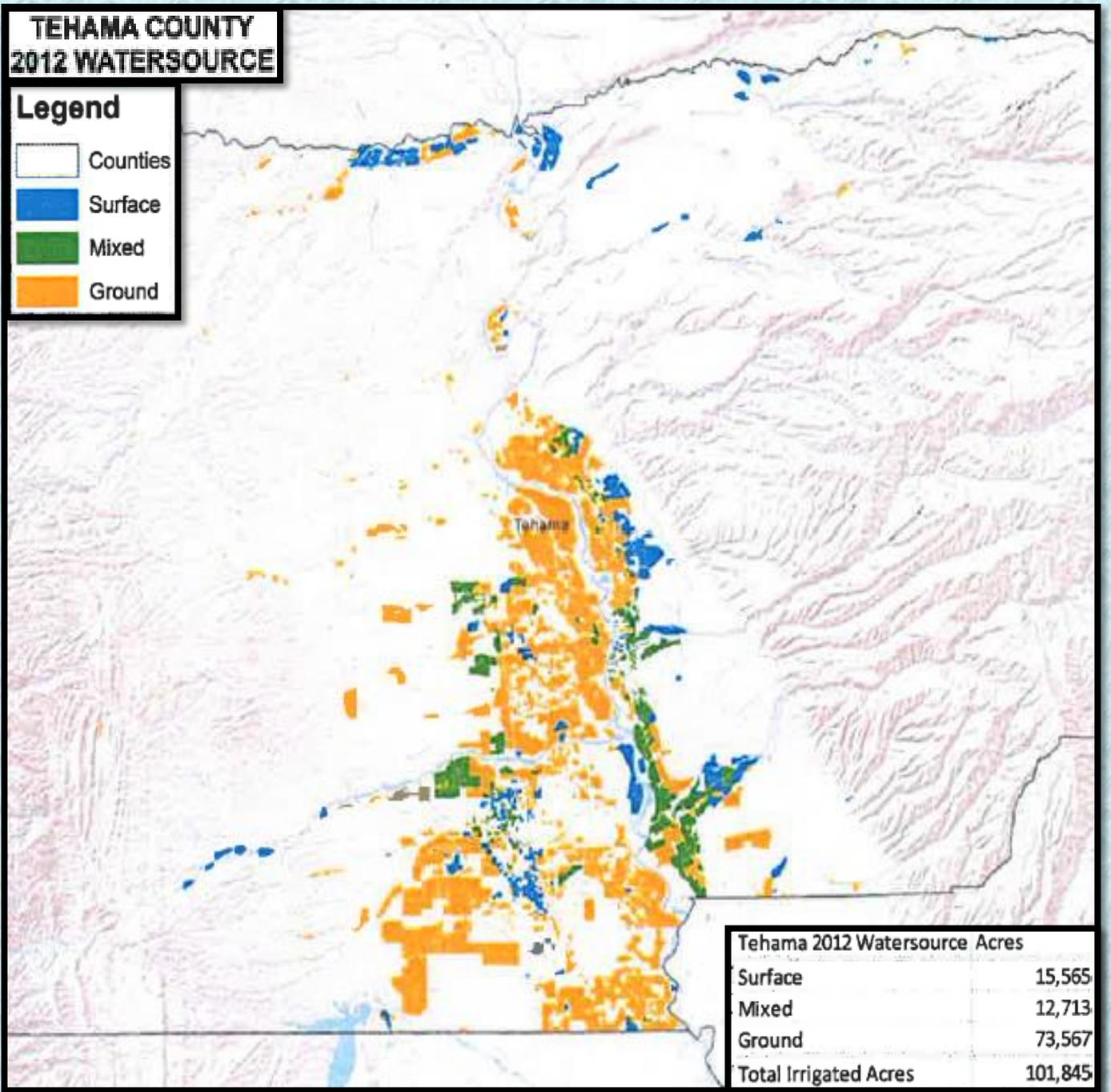
Watersource	Acres
Surface	608,985
Mixed	93,232
Ground	354,570
Total Irrigated Acres	1,056,787



**TEHAMA COUNTY
2012 WATERSOURCE**

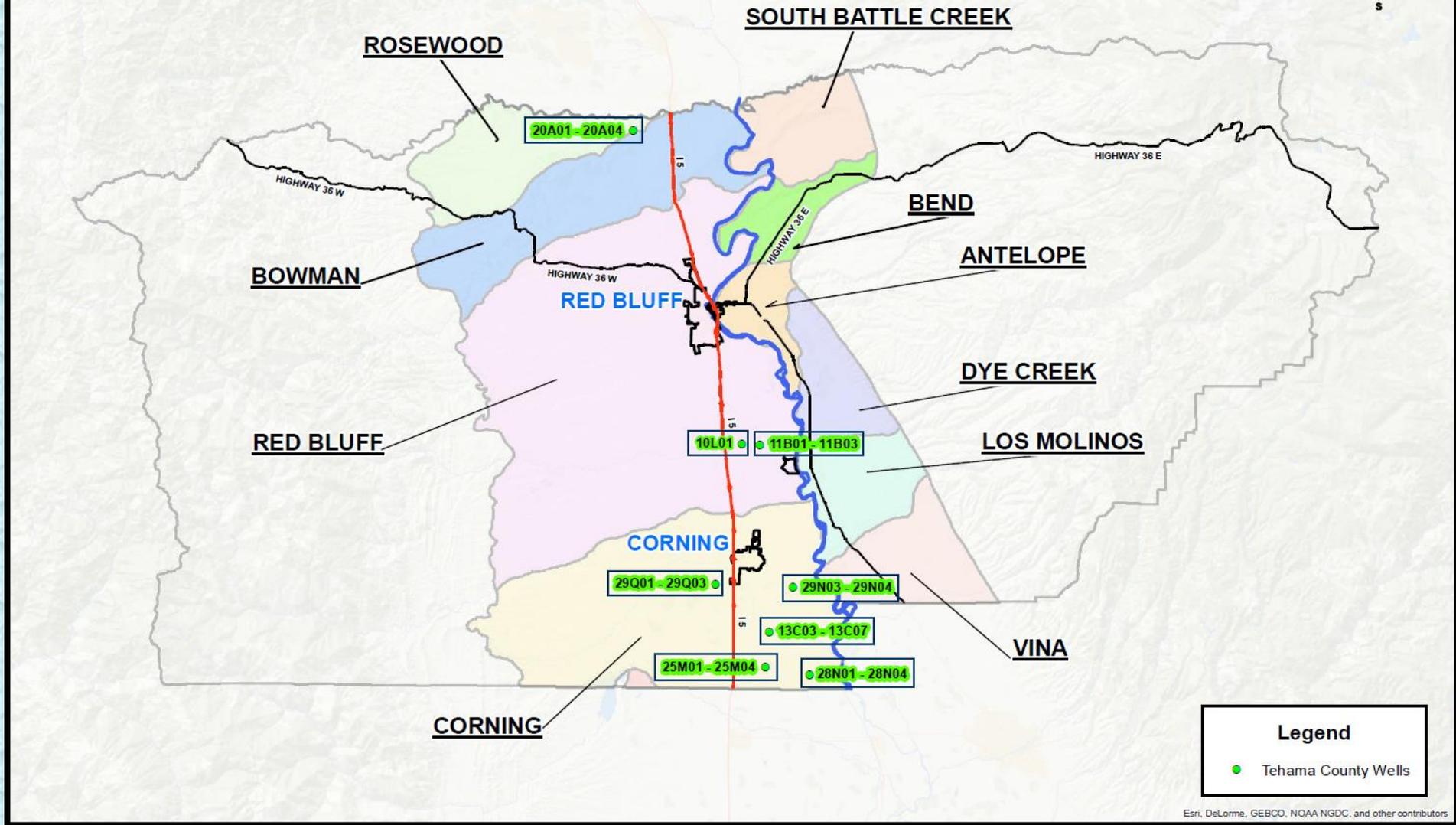
Legend

- Counties
- Surface
- Mixed
- Ground



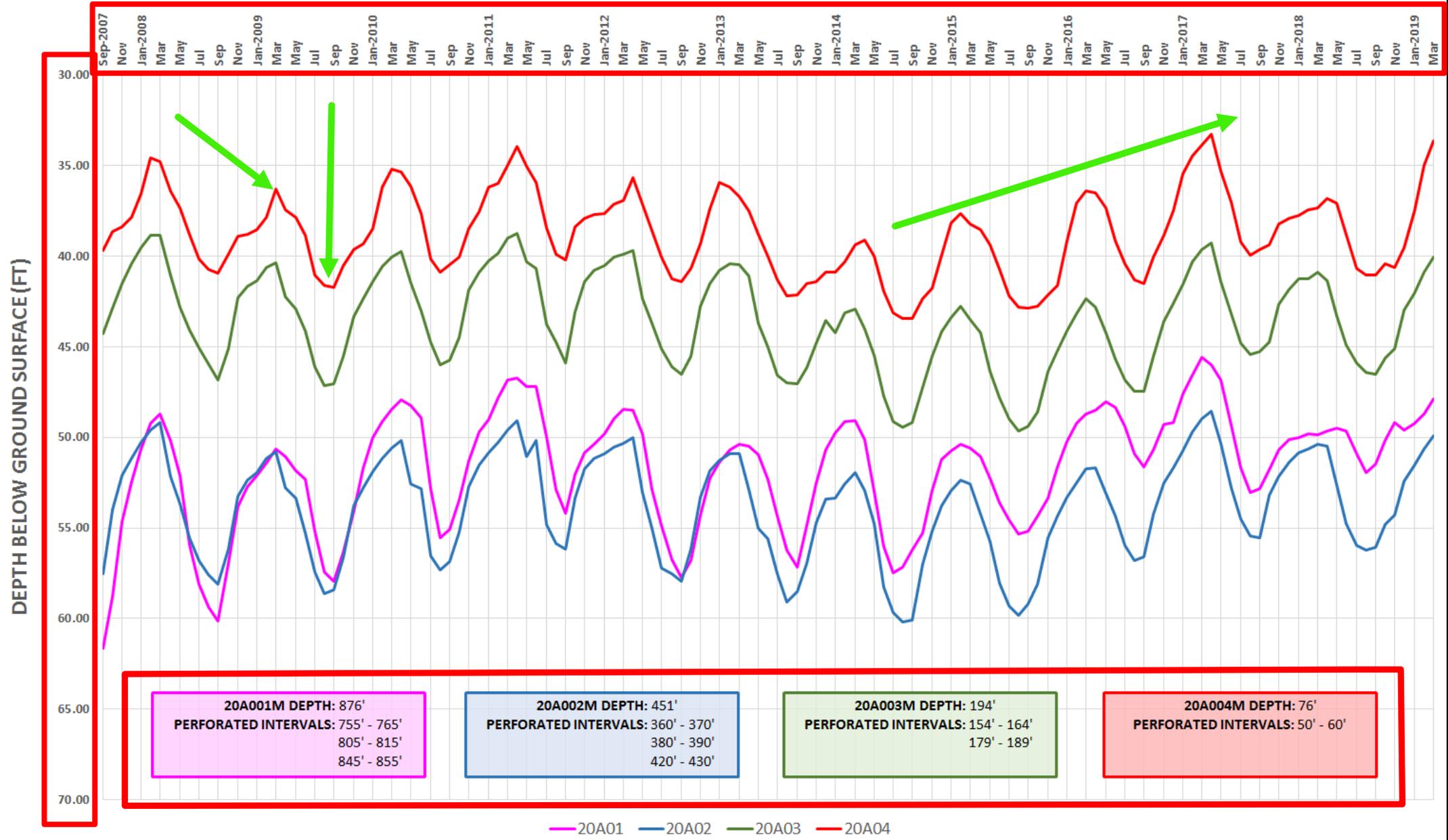
Tehama 2012 Watersource Acres	
Surface	15,565
Mixed	12,713
Ground	73,567
Total Irrigated Acres	101,845

TEHAMA COUNTY GROUNDWATER MONITORING WELLS

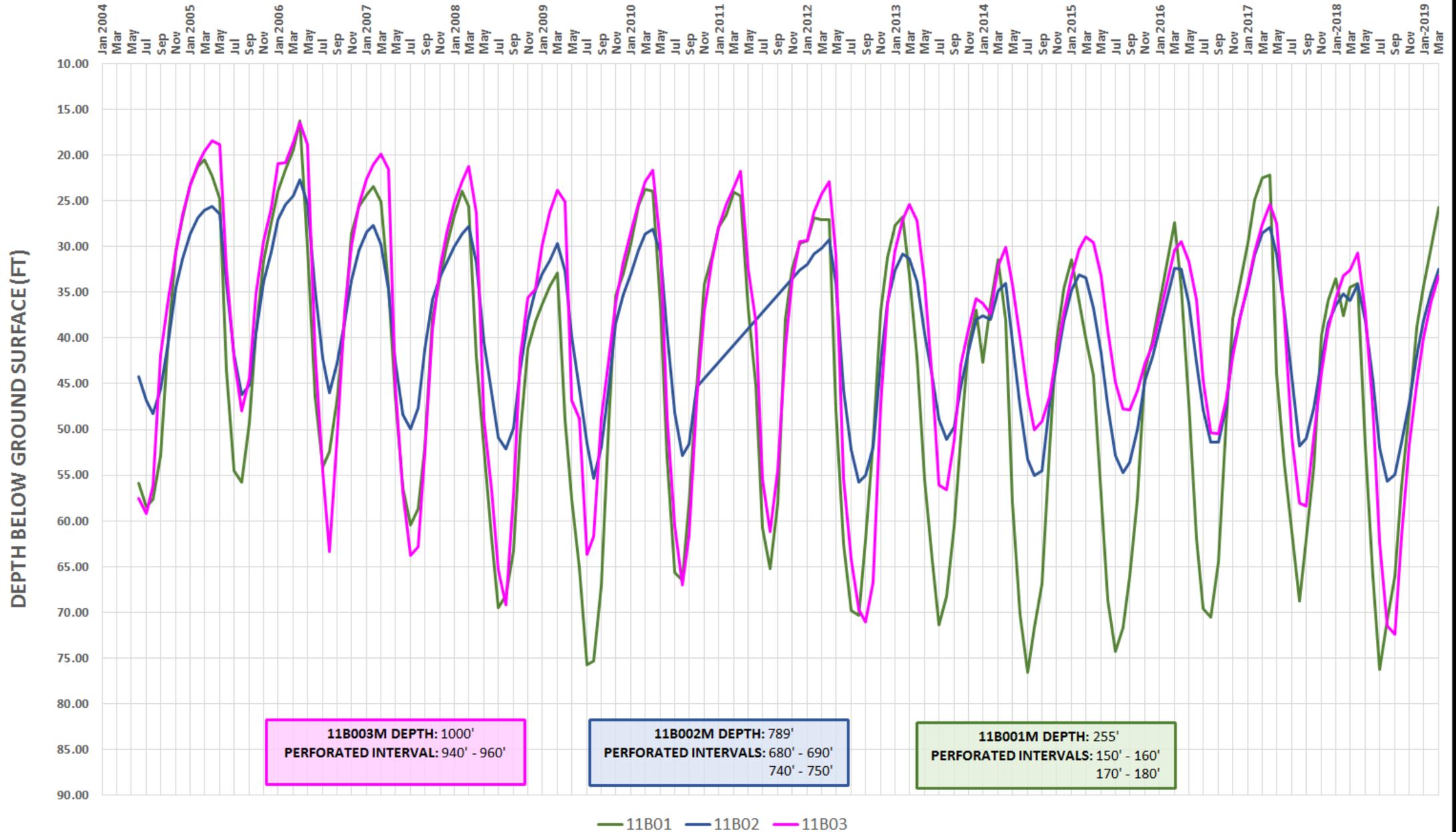


<http://www.tehamacountypublicworks.ca.gov/flood/wells.html>

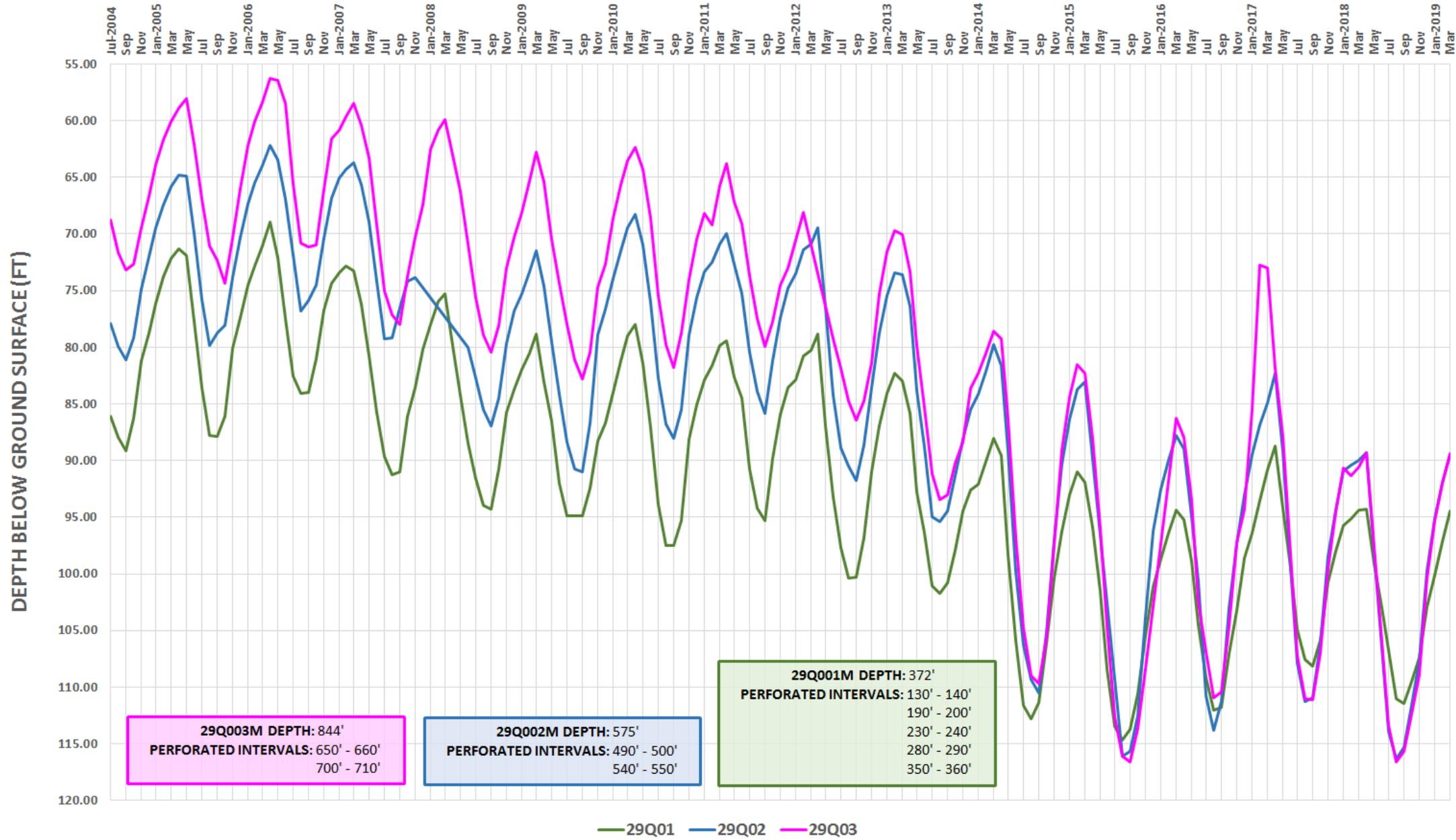
BOWMAN ROAD @ EVERGREEN SCHOOL



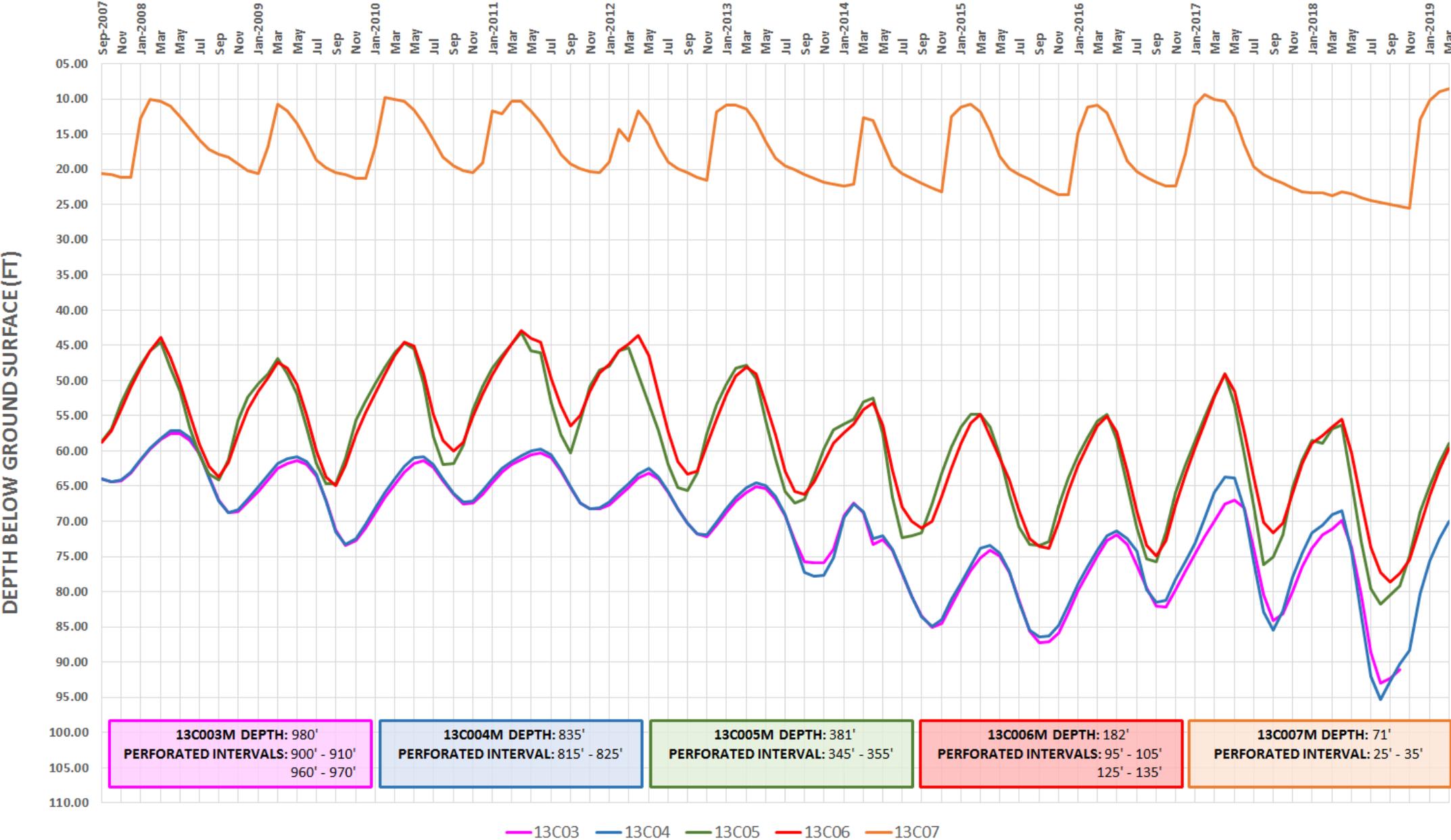
GERBER ROAD - EAST OF HIGHWAY 99W



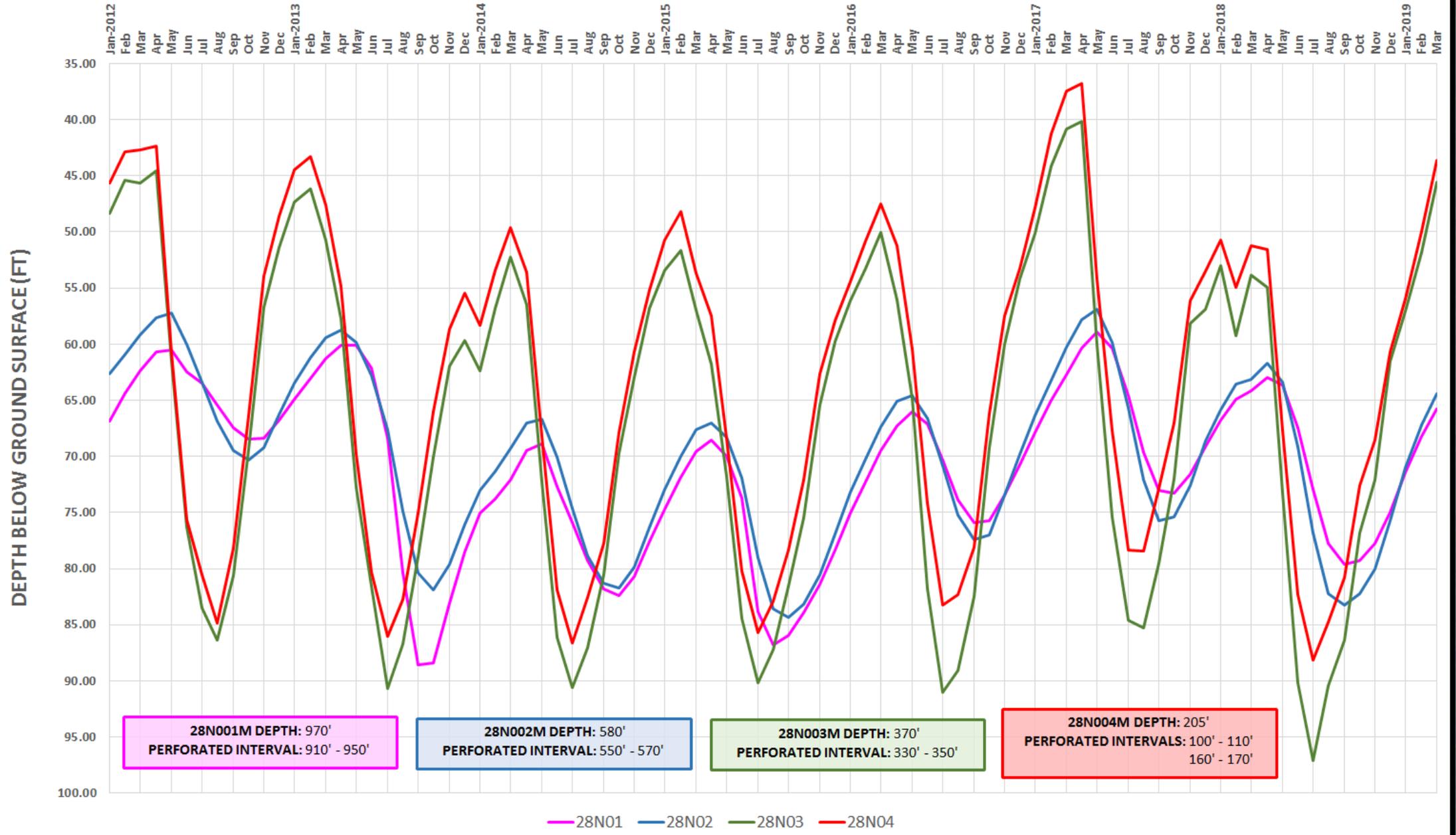
MT. SHASTA AVE - SOUTH OF CHITTENDEN AVE

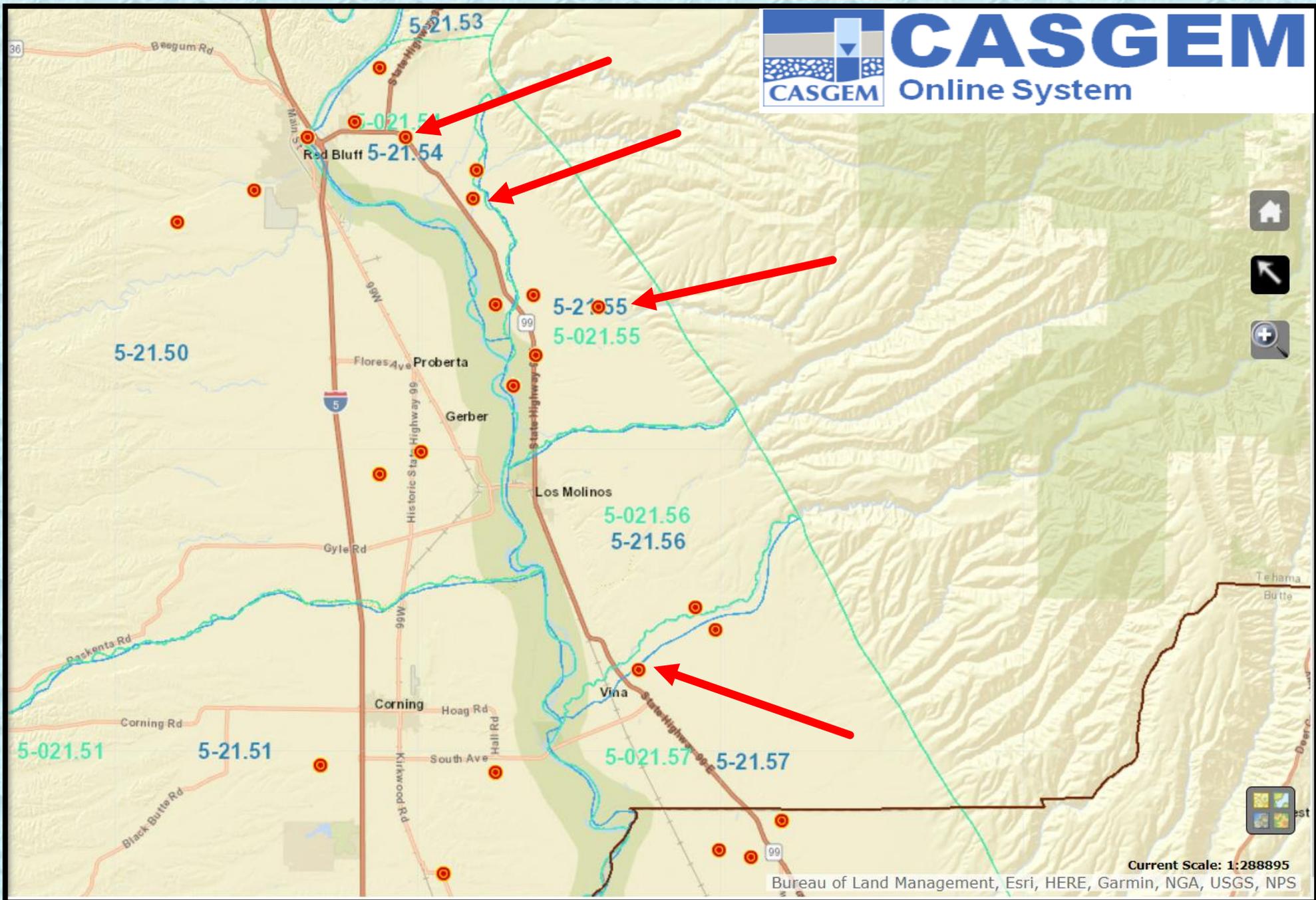


CAPAY ROAD @ HALL ROAD

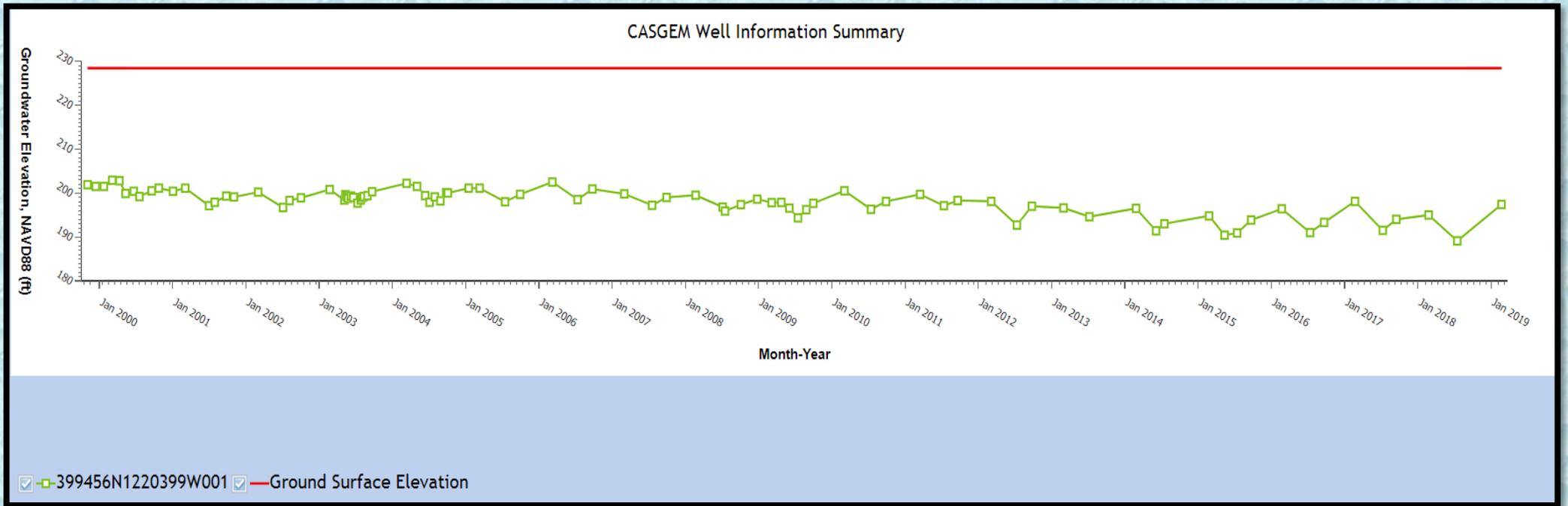


MOLLER AVENUE @ 5TH AVENUE

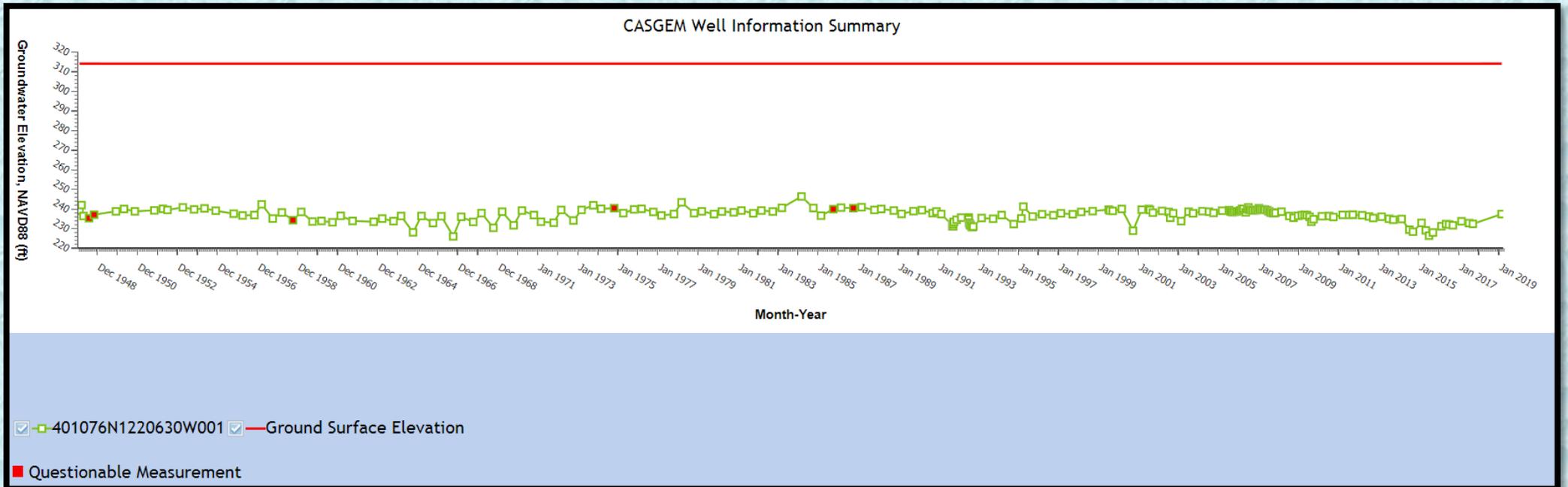




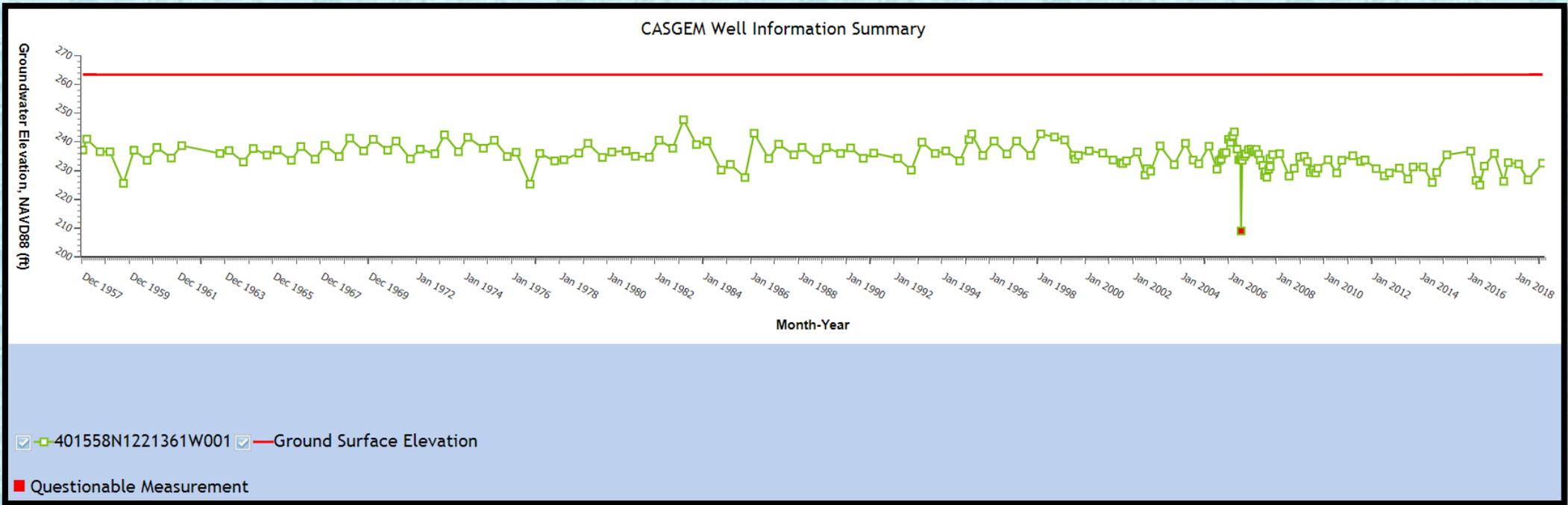
Vina Subbasin



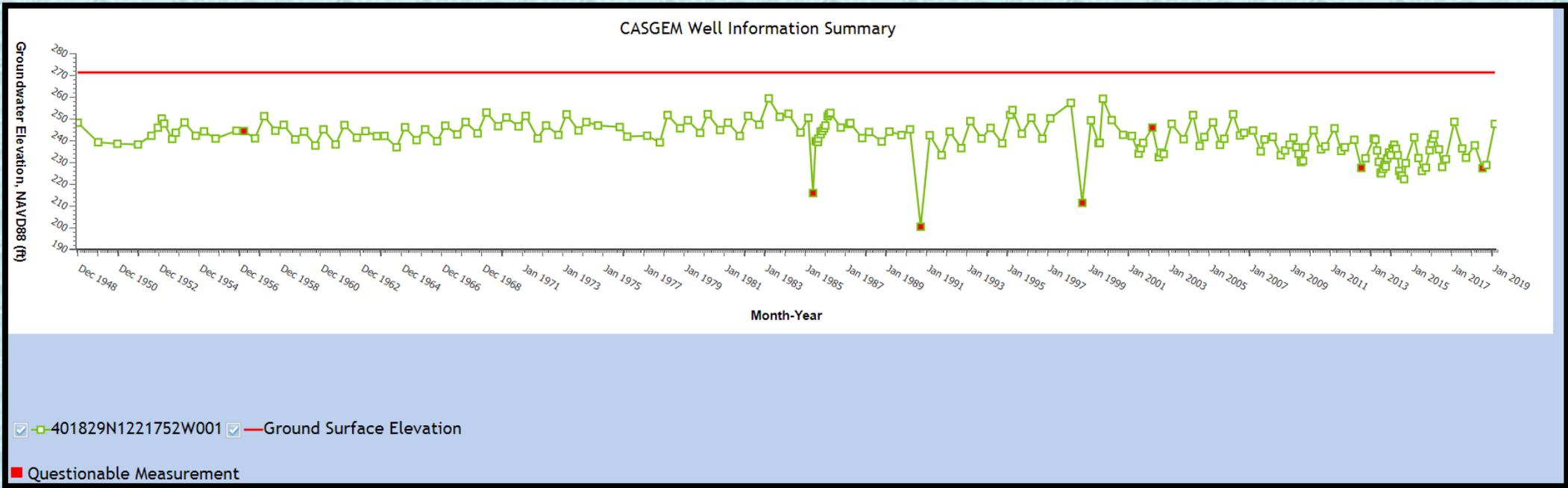
Dye Creek Subbasin



Antelope Subbasin



Antelope Subbasin



Groundwater Change Maps

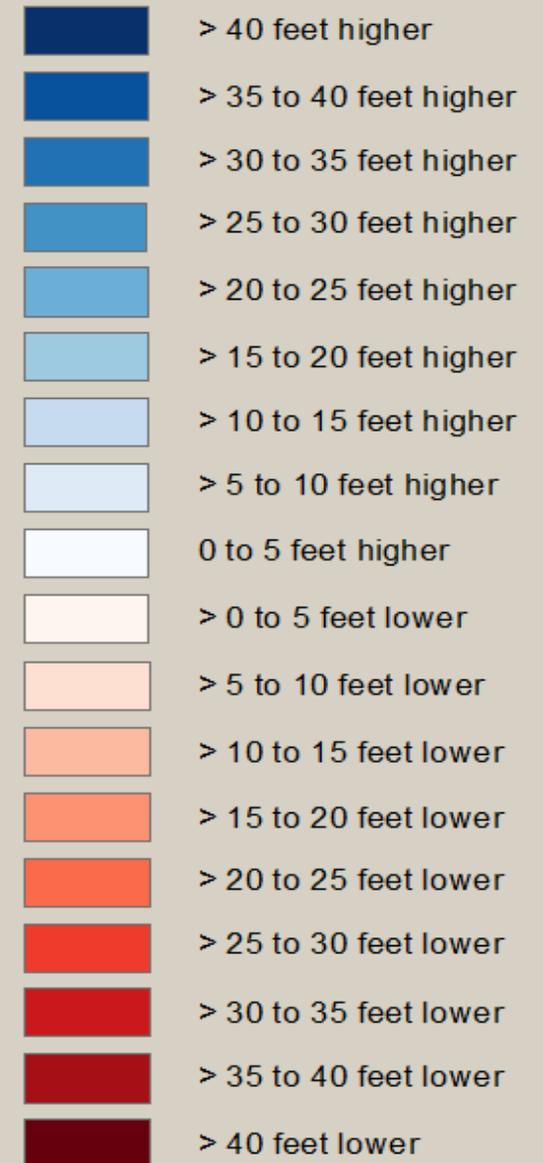
100 - 450 ft Deep Wells
(~70% of all wells)

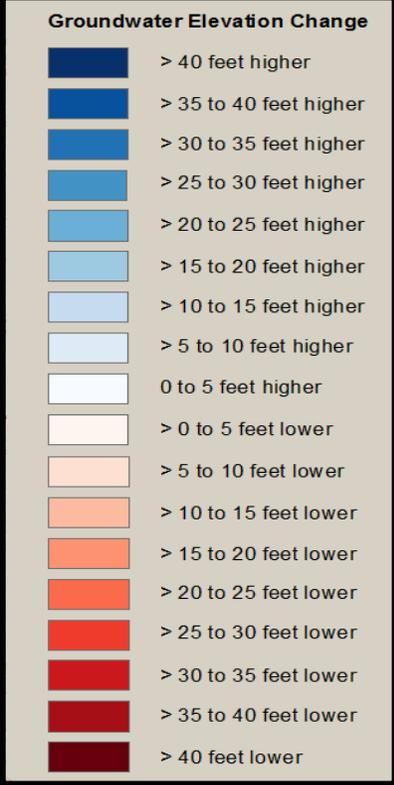
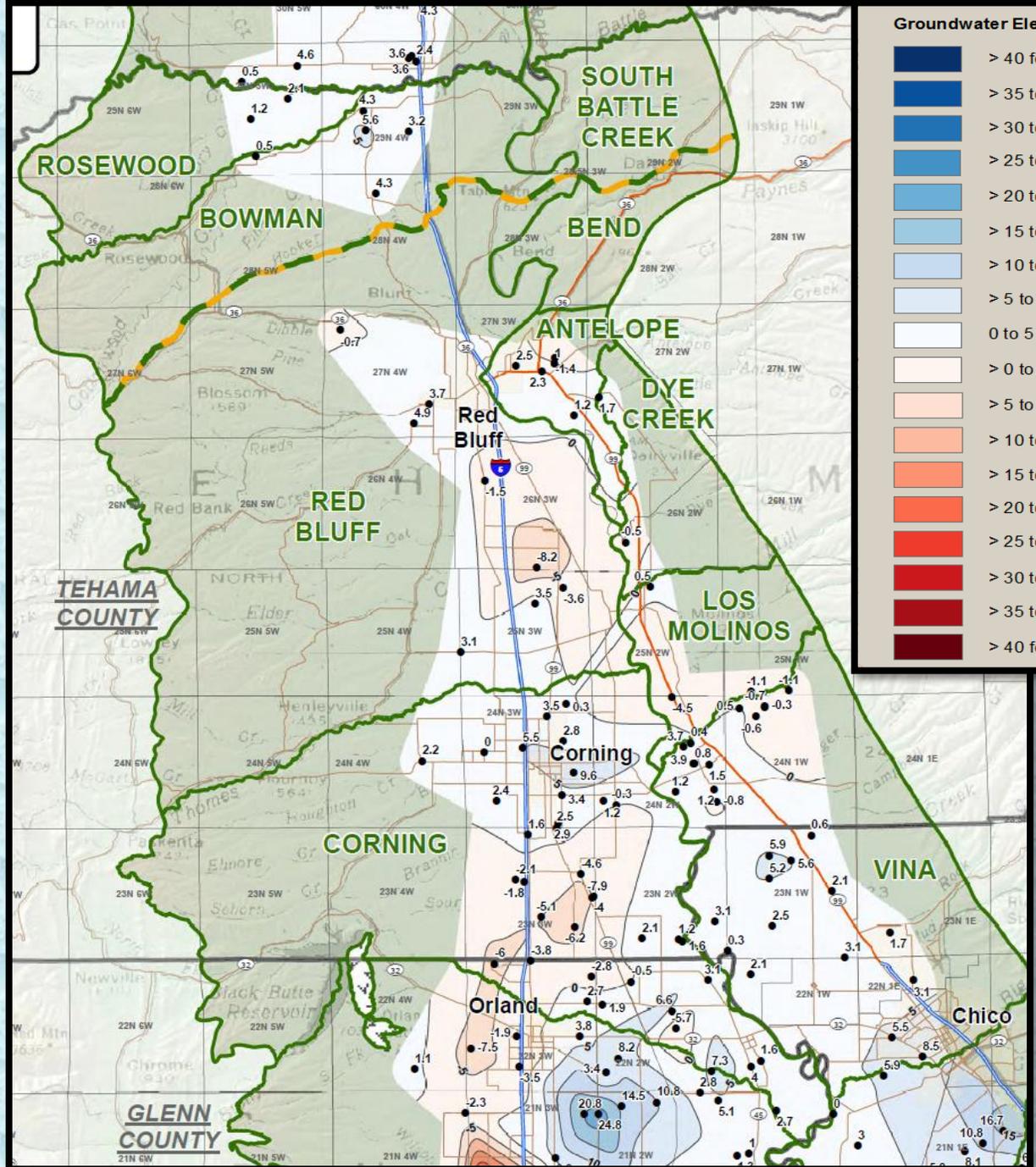
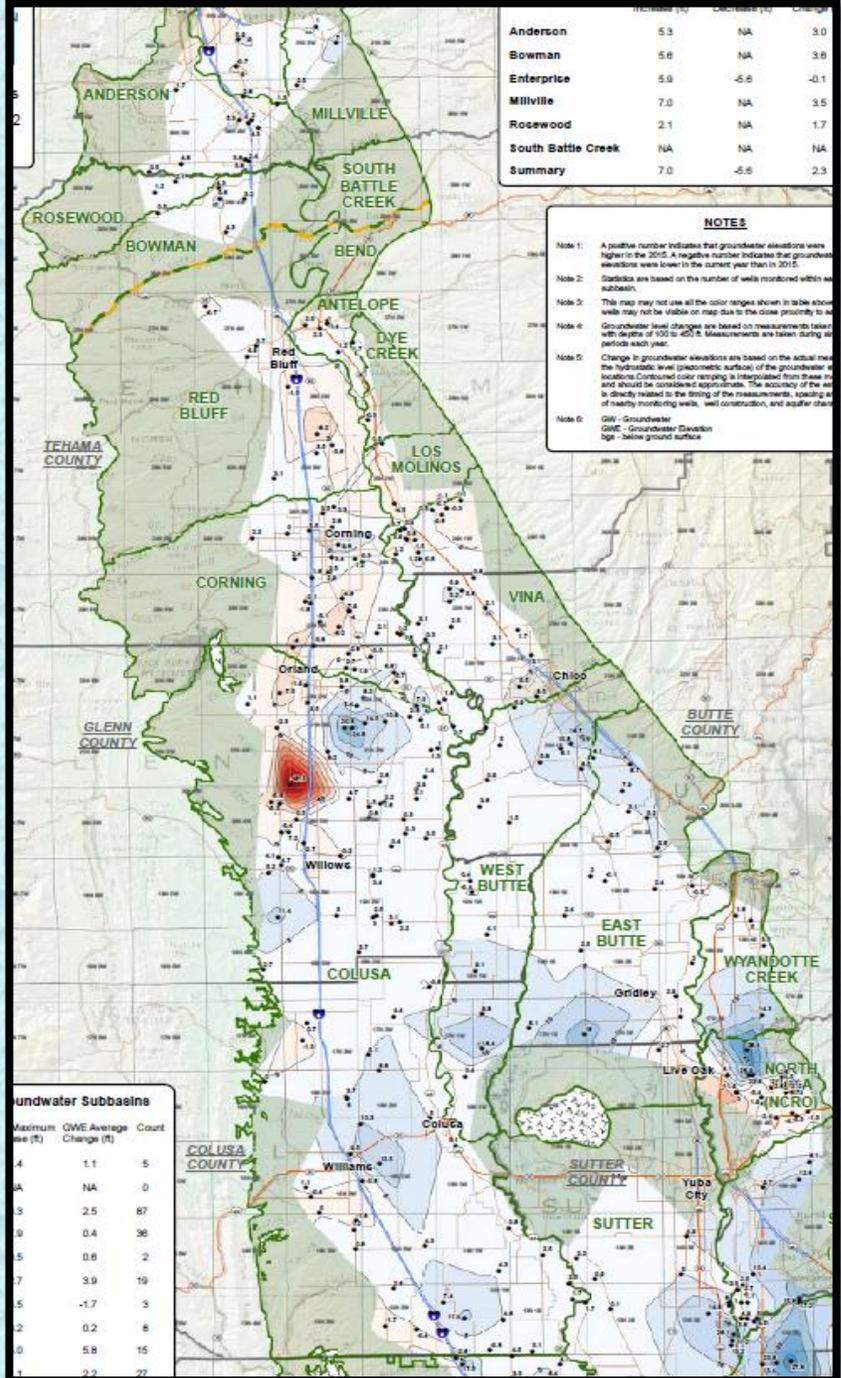
Comparison Between Fall:

- 2018-2015
- 2018-2004



Groundwater Elevation Change





Groundwater Change Map

100-450 ft deep wells

Fall 2018-2015

Anderson	2.8	-2.2	-3.1	5
Bowman	0.6	-3.4	-1.2	5
Enterprise	17.4	-5.5	7.4	4
Millville	0.4	-2.1	-0.8	2
Rosewood	NA	-4.0	-2.5	2
South Battle Creek	NA	NA	NA	0
Summary	17.4	-5.5	0.0	18

NOTES

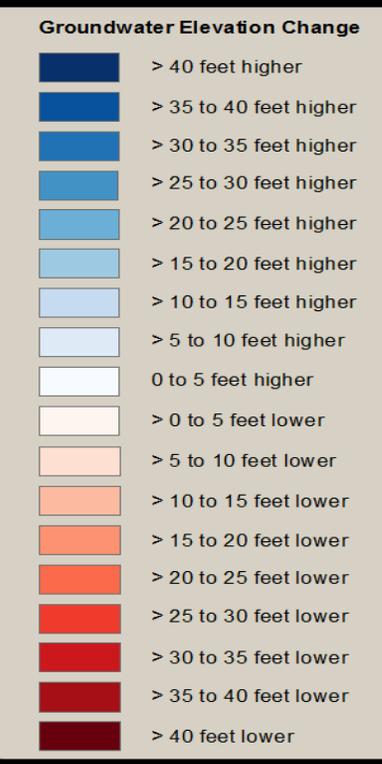
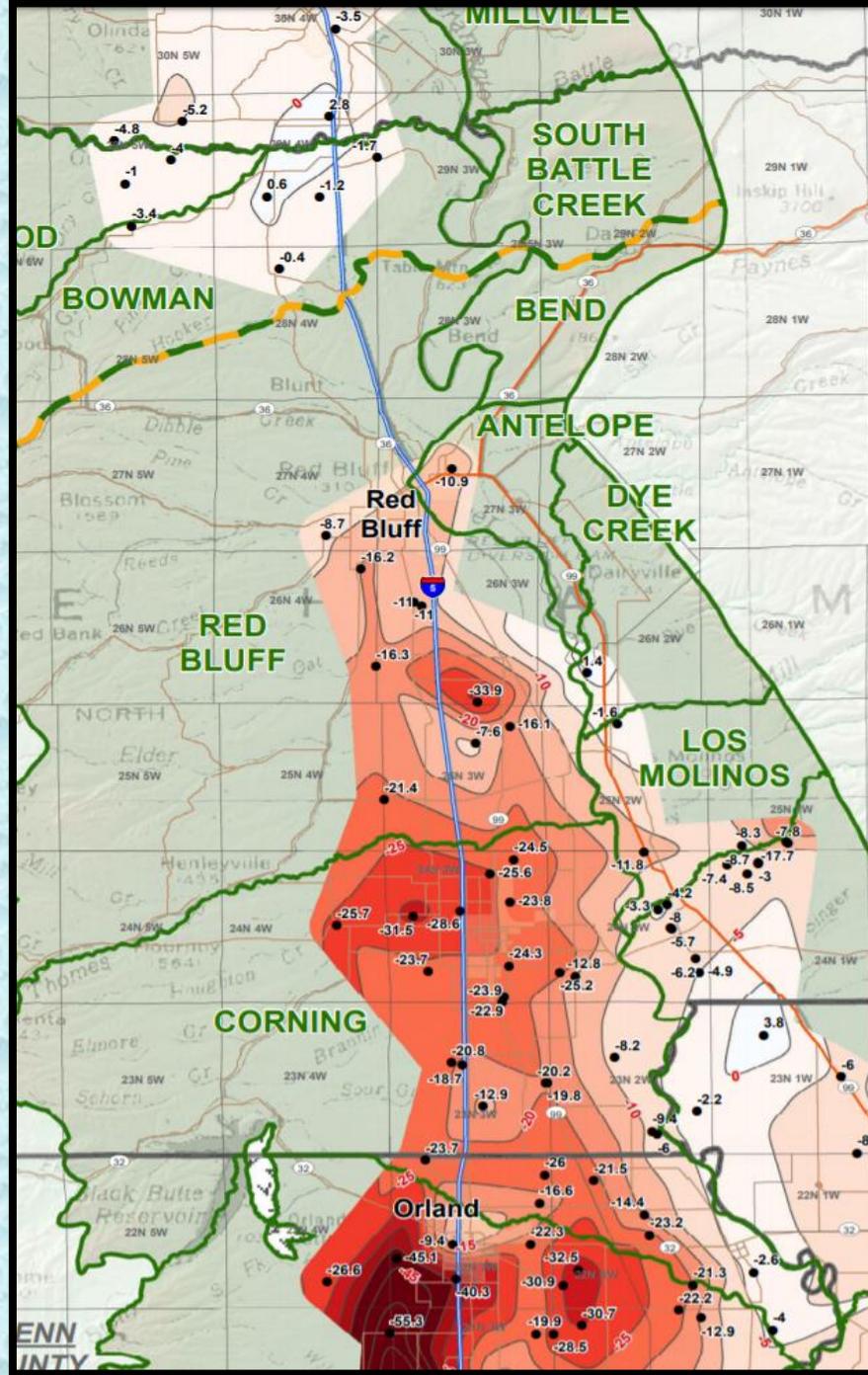
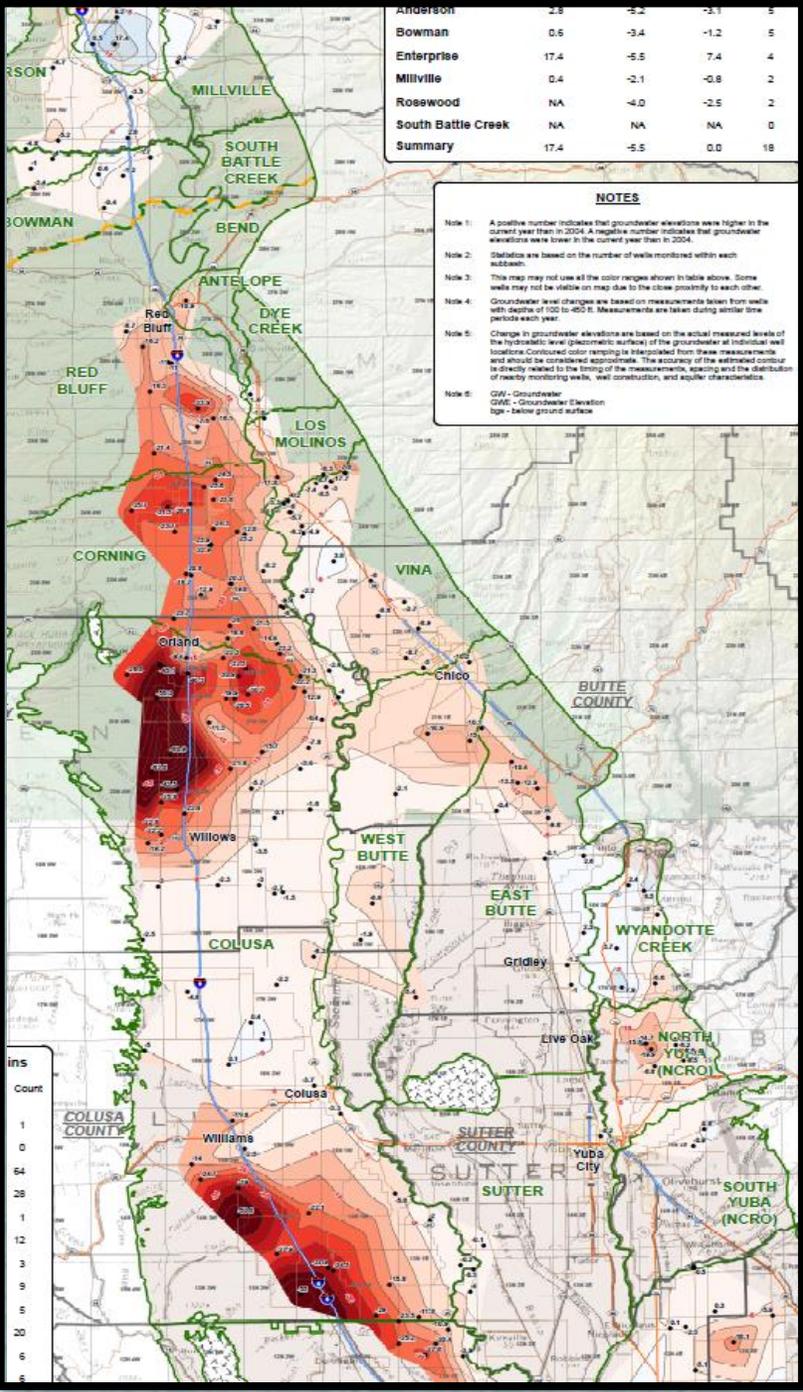
Note 1: A positive number indicates that groundwater elevations were higher in the current year than in 2004. A negative number indicates that groundwater elevations were lower in the current year than in 2004.

Note 2: Statistics are based on the number of wells monitored within each subbasin.

Note 3: This map may not use all the color ranges shown in table above. Some wells may not be visible on map due to the close proximity to each other. Groundwater level changes are based on measurements taken from wells with depths of 100 to 450 ft. Measurements are taken during similar time periods each year.

Note 4: Change in groundwater elevations are based on the actual measured levels of the hydrostatic level (geometric surface) of the groundwater at individual well locations. Contoured color ramping is interpolated from these measurements and should be considered approximate. The accuracy of the attributed contour is directly related to the timing of the measurements, spacing and the distribution of nearby monitoring wells, well construction, and aquifer characteristics.

Note 5: GW - Groundwater
GWE - Groundwater Elevation
hgt - below ground surface



Groundwater Change Map

100-450 ft deep wells

Fall 2018-2004

Groundwater Change Maps

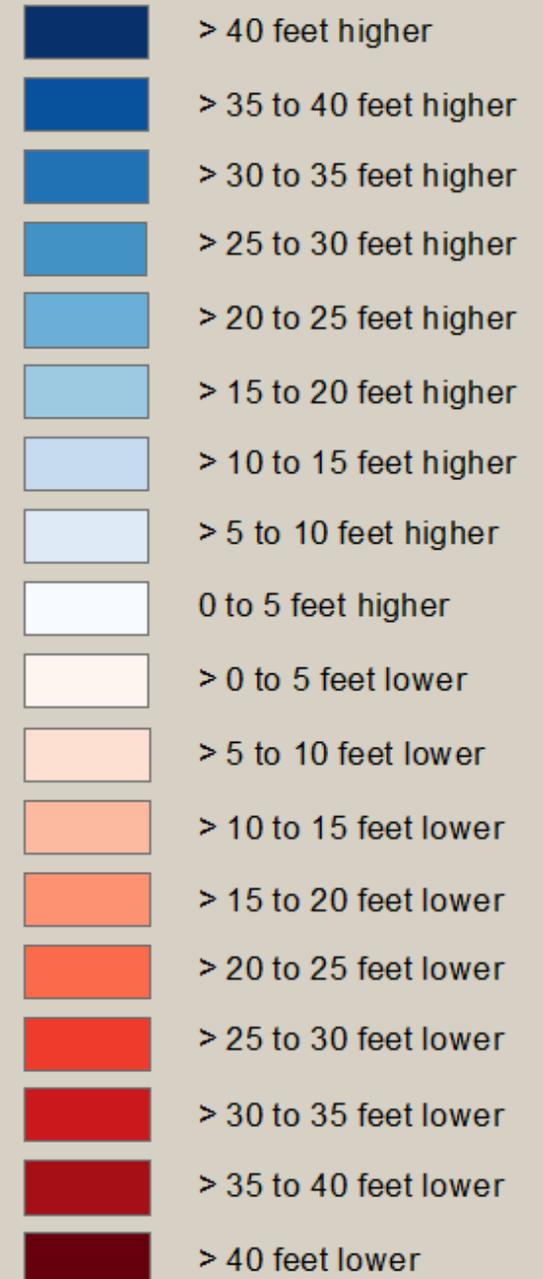
>600 ft Deep Wells

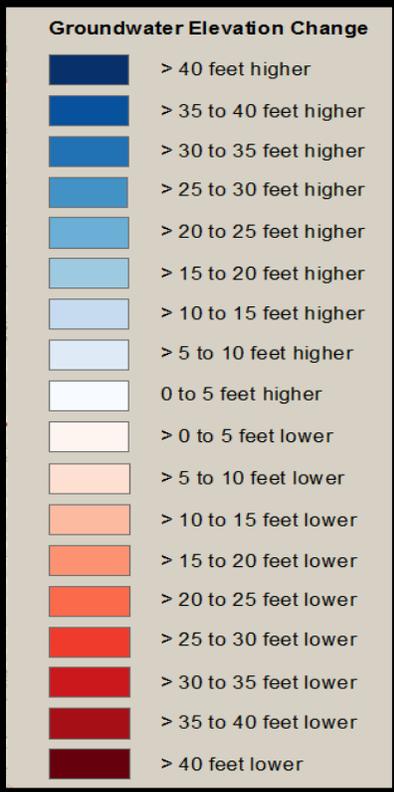
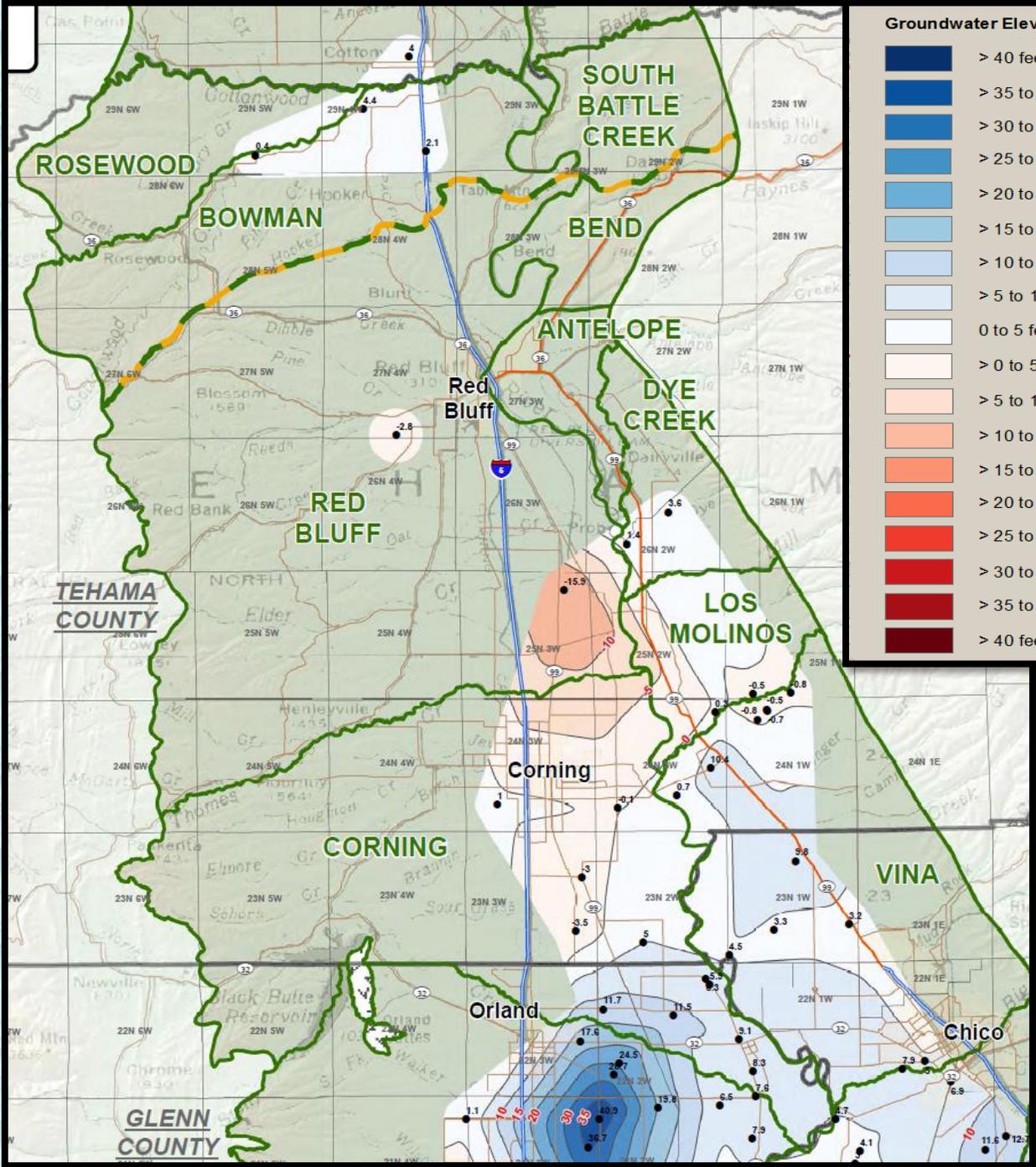
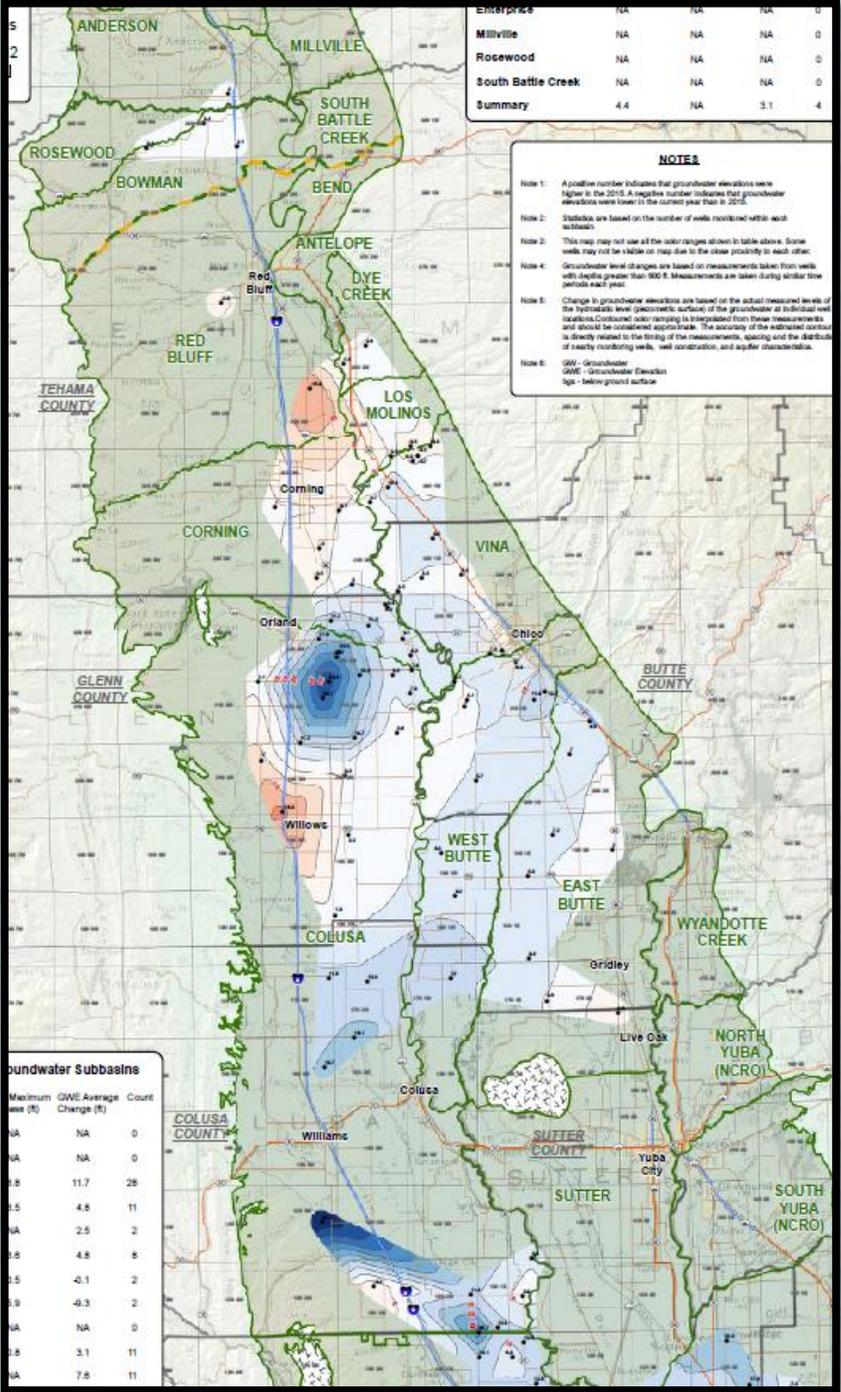
Comparison Between Fall:

- 2018-2015
- 2018-2004



Groundwater Elevation Change

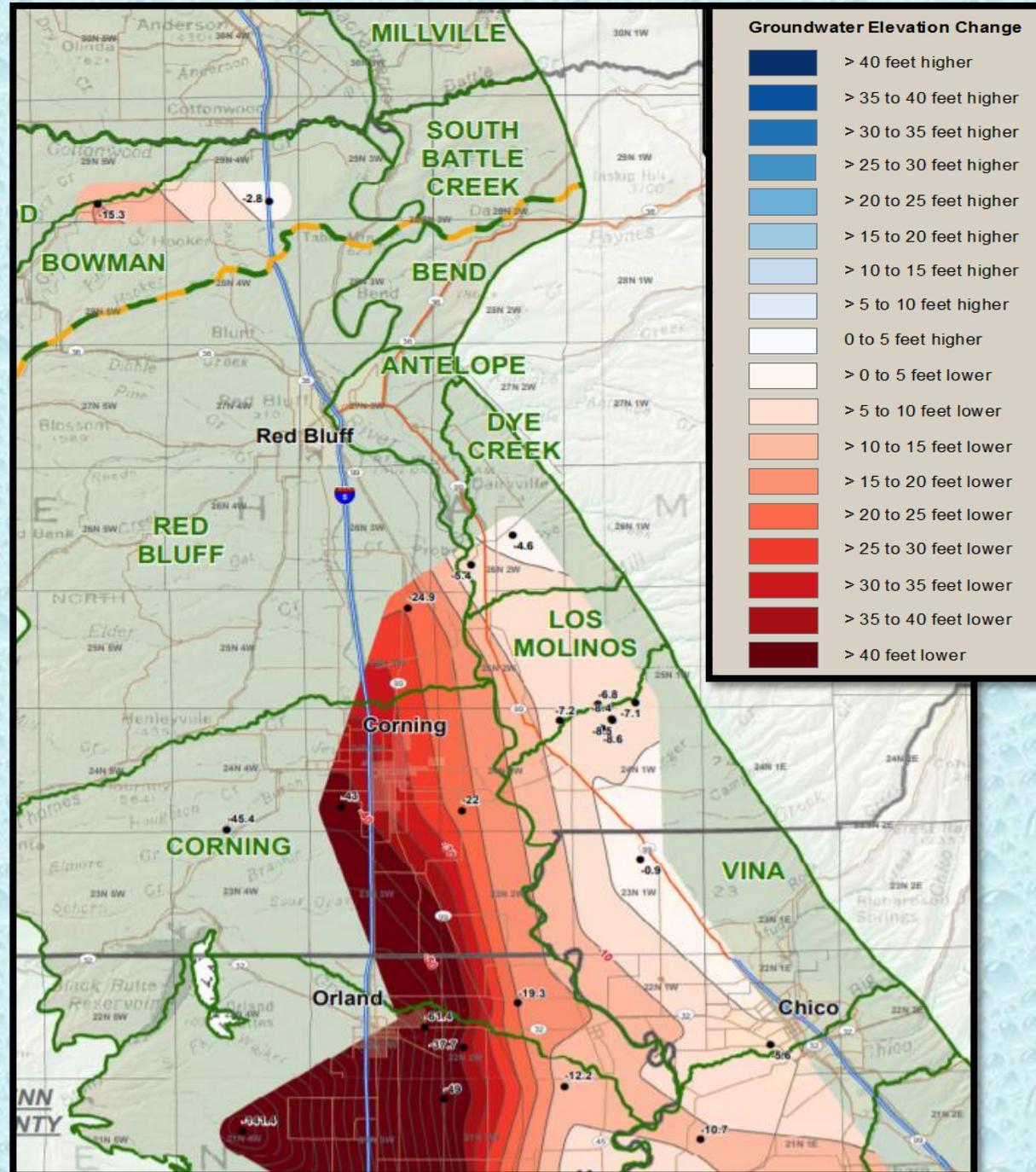
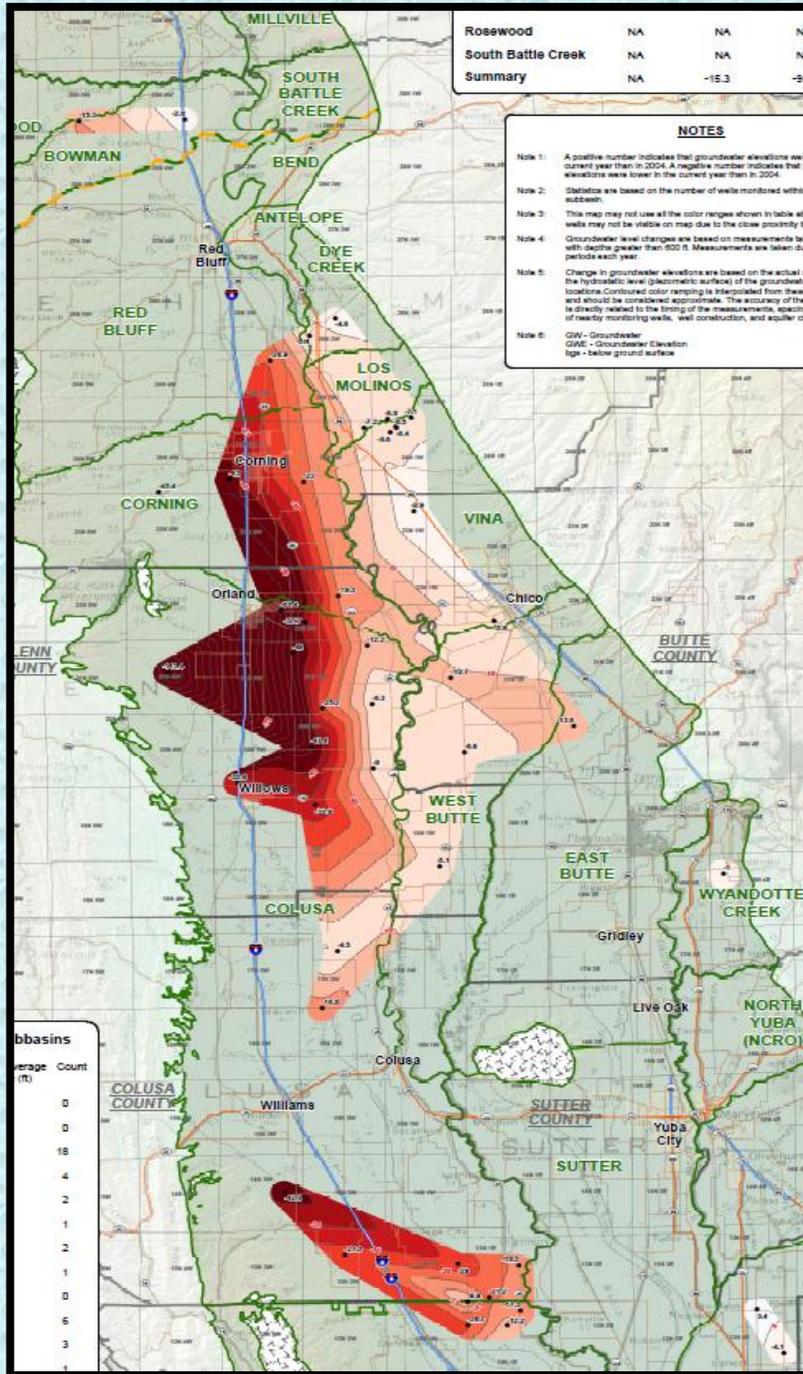




**Groundwater
Change Map**

**> 600 ft deep
wells**

**Fall 2018-
2015**

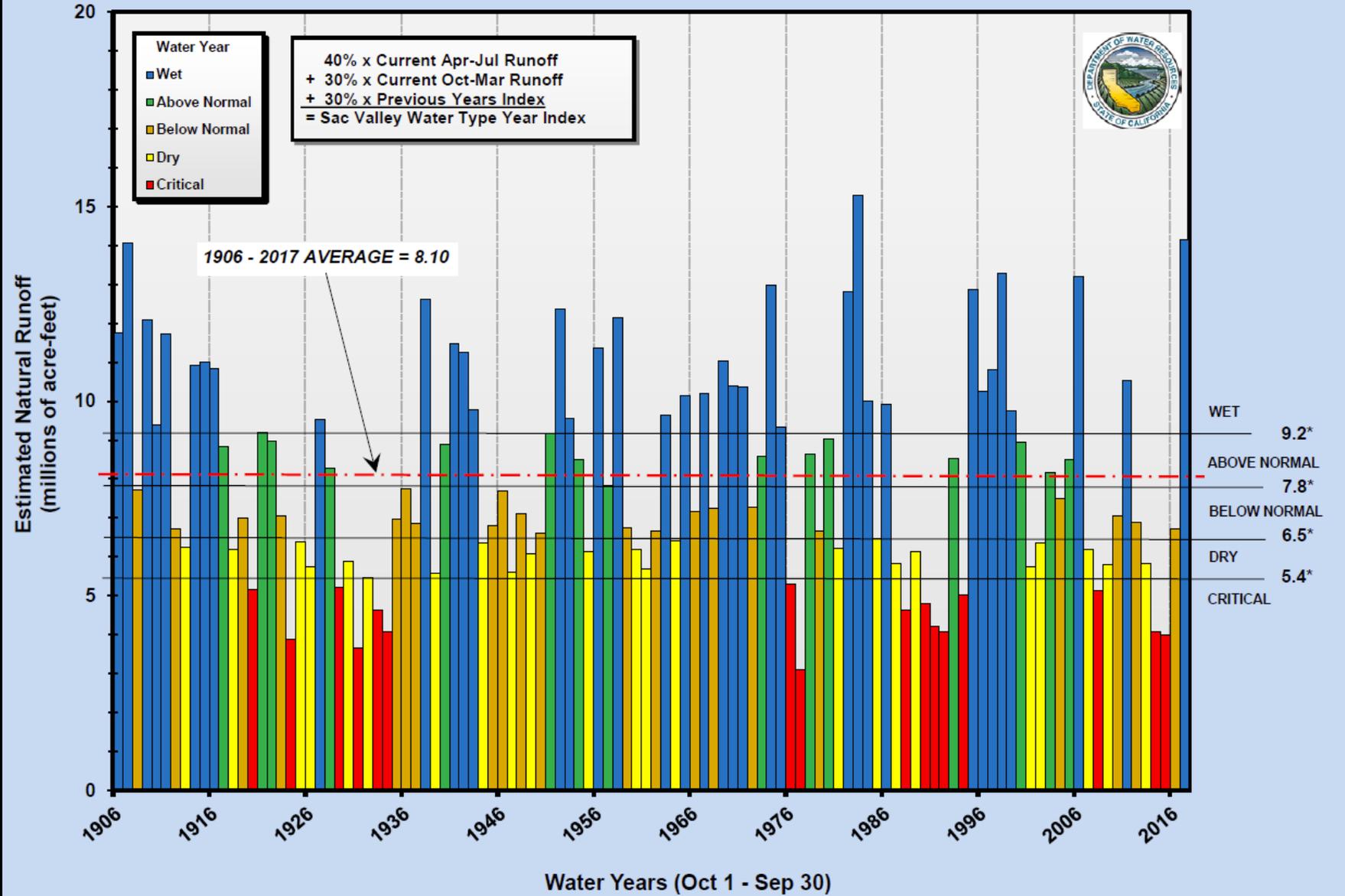


Groundwater Change Map

> 600 ft deep wells

Fall 2018-2004

SACRAMENTO VALLEY WATER YEAR TYPE INDEX 1906 - 2017



Source: California Department of Water Resources

* Index based on flow in the million acre-feet



Tehama County Public Works



9380 San Benito Avenue, Gerber, CA 96035-9701 Phone: (530) 385-1462

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- ± Water & Environmental Agencies

Tehama County Flood Control & Water Conservation District

Ryan Teubert
 Flood Control & Water Resources Manager
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 rteubert@tcpw.ca.gov

The Tehama County Flood Control & Water Conservation District was originally established in 1957 by the Tehama County Flood Control and Water Conservation District Act. This Act defined the boundary and territory of the District as follows: "all that territory of the County of Tehama lying within the exterior boundaries thereof."

Sustainable Groundwater Management Act

On September 16, 2014, Governor Brown signed into law a package of bills (SB1168, AB1739 and SB1319) collectively called the Sustainable Groundwater Management Act. The Tehama County Flood Control and Water Conservation District was recognized by DWR as the Exclusive Groundwater Sustainability Agency on February 11, 2016, for the 11 groundwater subbasins or the portions of those subbasins located within Tehama County. The District also submitted a Basin Boundary Adjustment in March 2016 to incorporate the small portion of the Colusa Subbasin located within Tehama County into the Corning Subbasin. The District is currently in the process of forming a Groundwater Commission, that once formed, will start the process of developing a Groundwater Sustainability Plan as required by the legislation before the January 31, 2022 deadline.

If you are interested in receiving information and notices concerning the Sustainable Groundwater Management Act and the Tehama County Groundwater Sustainability Agency please send an email to rteubert@tcpw.ca.gov

AB3030 Groundwater Management Plan

For the purposes of carrying out the goals and objectives established within the AB3030 Groundwater Management Plan, the boundaries of the plan area will include the County of Tehama and the Western Tehama Highlands Area, Eastern Tehama Highlands Area, and the Redding Groundwater Basin and Sacramento Valley Groundwater Basin to the extent that they lie within the jurisdiction of the District, but do not include any land outside Tehama County.

Statewide Emergency Water Conservation Regulations - Adopted May 18, 2016

The State Water Resources Control Board (Water Board) shall, as soon as practicable, adjust emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions across the state. To prepare for the possibility of another dry winter, the Water Board shall also develop, by January 2017, a proposal to achieve a mandatory reduction in potable urban water usage that builds off of the mandatory 25% reduction called for in Executive Order B-29-15 and lessons learned through 2016. Click to continue reading...

Integrated Regional Water Management Plan (IRWMP)

The purpose of this Integrated Regional Water Management Plan (IRWMP) is to document the regional

Questions

Ryan Teubert

Tehama County Flood Control and
Water Conservation District

530-385-1462

rteubert@tcpw.ca.gov

Tehama County FCWCD:

<http://www.tehamacountywater.ca.gov>

DWR:

<https://water.ca.gov/Programs/Groundwater-Management>