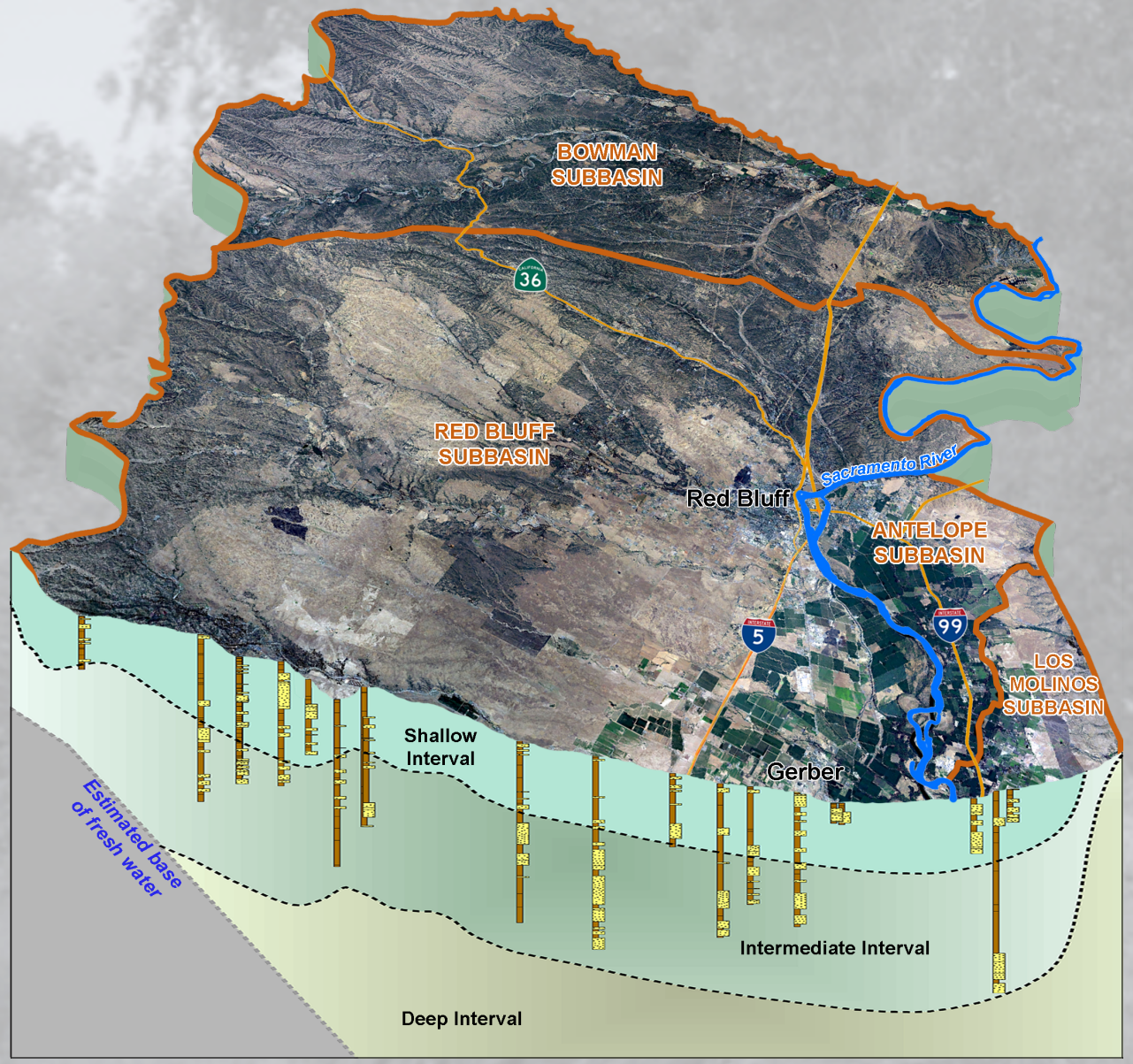
TEHAMA COUNTY
Flood Control and Water Conservation District

# Public Webinar

# Progress Update On Development of the GSP for the Los Molinos Subbasin

August 25, 2021



# Welcome!

**The meeting will begin shortly.**

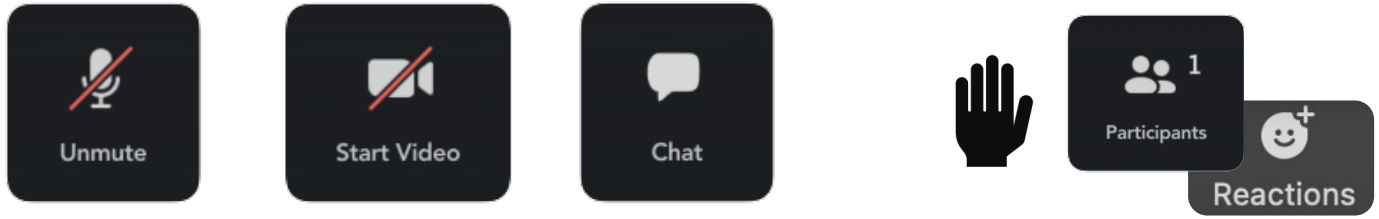
Technical Difficulties?

- Use the Zoom Chat,
- or email Stephanie Horii SHorii@cbi.org,
- or text: 408.768.9394

## Instructions for Getting Started:

- ❑ **Use only one audio source** – either computer or phone.
- ❑ **Wear headsets / earbuds** to cut down on ambient noise.
- ❑ **Please MUTE yourself** at all times, except when speaking.
- ❑ **Orient yourself** to Zoom meeting controls:

**Unmute/Mute** | **Start Video** | **Zoom Chat** | **Raise Hand (via Participants or Reactions)**




## How you can participate today:

- **Verbal:** Get into the queue w/ Raise Hand function
- **Written:** Submit questions in Chat Box

COMMON TERMS

**SGMA *("Sigma")*:** Sustainable Groundwater Management Act • **GSA:** Groundwater Sustainability Agency • **GSP:** Groundwater Sustainability Plan

# Zoom Orientation



## Introduction to Zoom Webinar Interface and Today's Meeting Process

Stephanie Horii, Consensus Building Institute (CBI)

# Meet the Project Team

## Hosts/Co-Hosts: – Project Team

- **Convener: Tehama County GSA**
  - Nichole Bethurem
- **Technical Consultant:** Luhdorff & Scalmanini, Consulting Engineers (LSCE)
  - Eddy Teasdale
- **Facilitation/Tech Support:** Consensus Building Institute (CBI)
  - Stephanie Horii

CBI

*Note: The meeting will be recorded and posted to the website: TehamaCountyWater.org*

# Verbal Questions

## Raise Hand

If participating through Zoom:

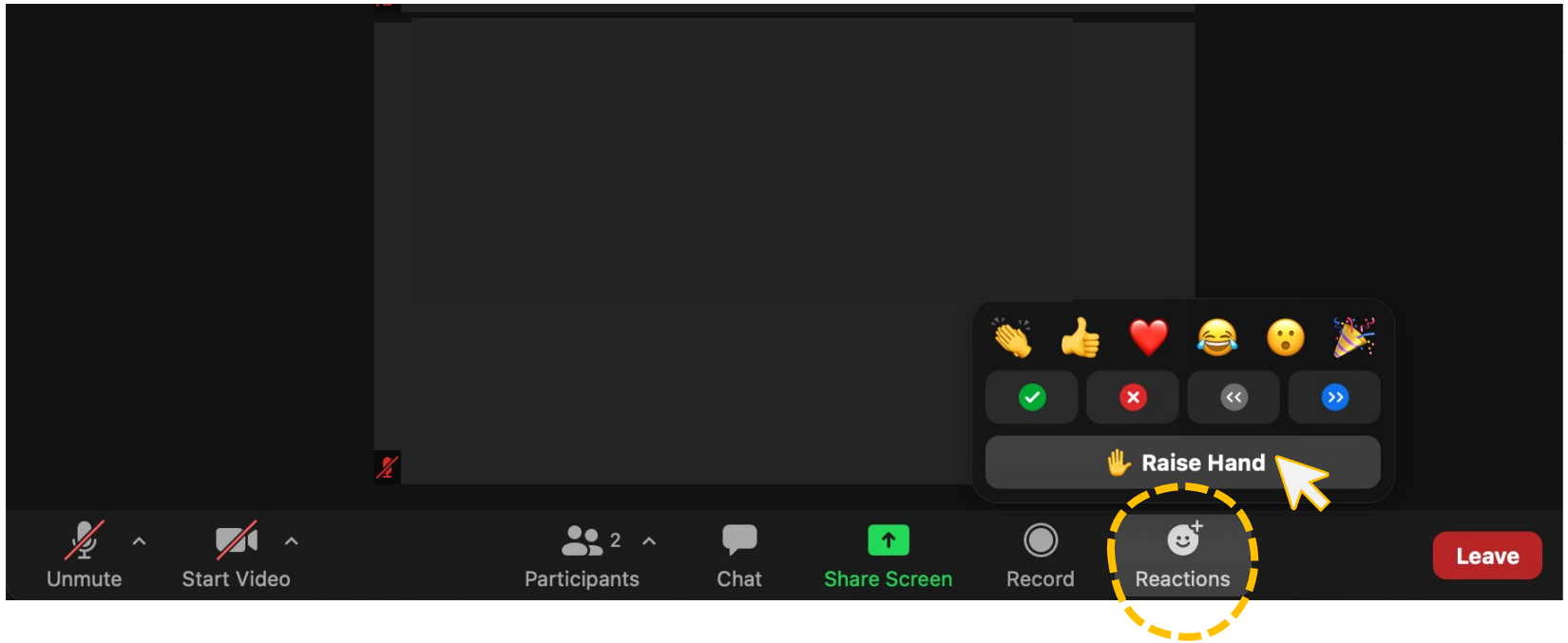
**"Raise Hand"** to speak

If dialing in by phone only:

Press *9 to "Raise Hand"

We will let you know when it is your turn to speak and can unmute yourself

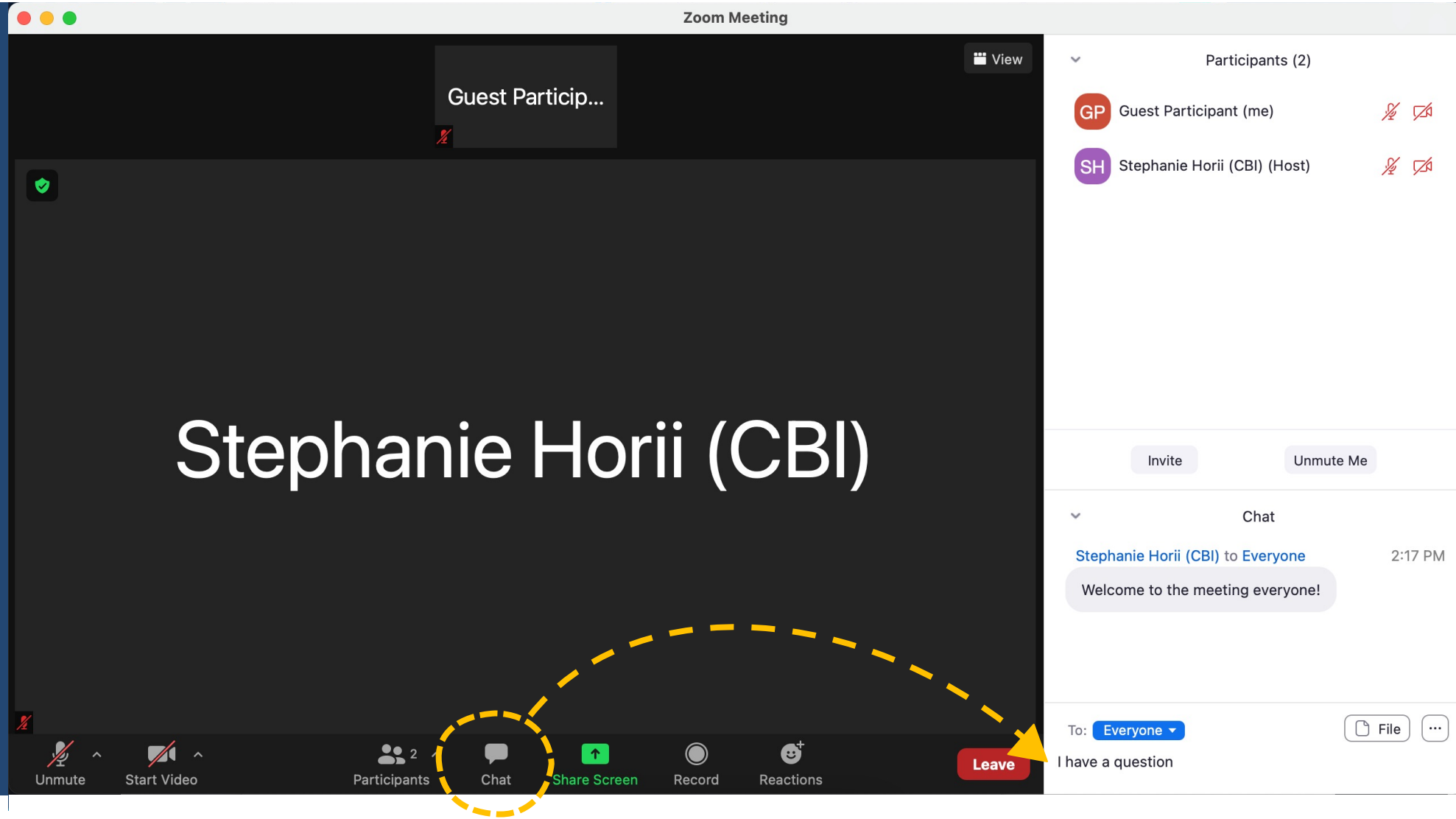
*(Phone-Only Folks – Press *6 to unmute/mute)*




*(older versions of Zoom may require using the Participants button to find the Raise Hand icon)*

# Written Questions

Zoom Chat




Calling in by phone only? email SHorii@cbi.org or text: 408.768.9394

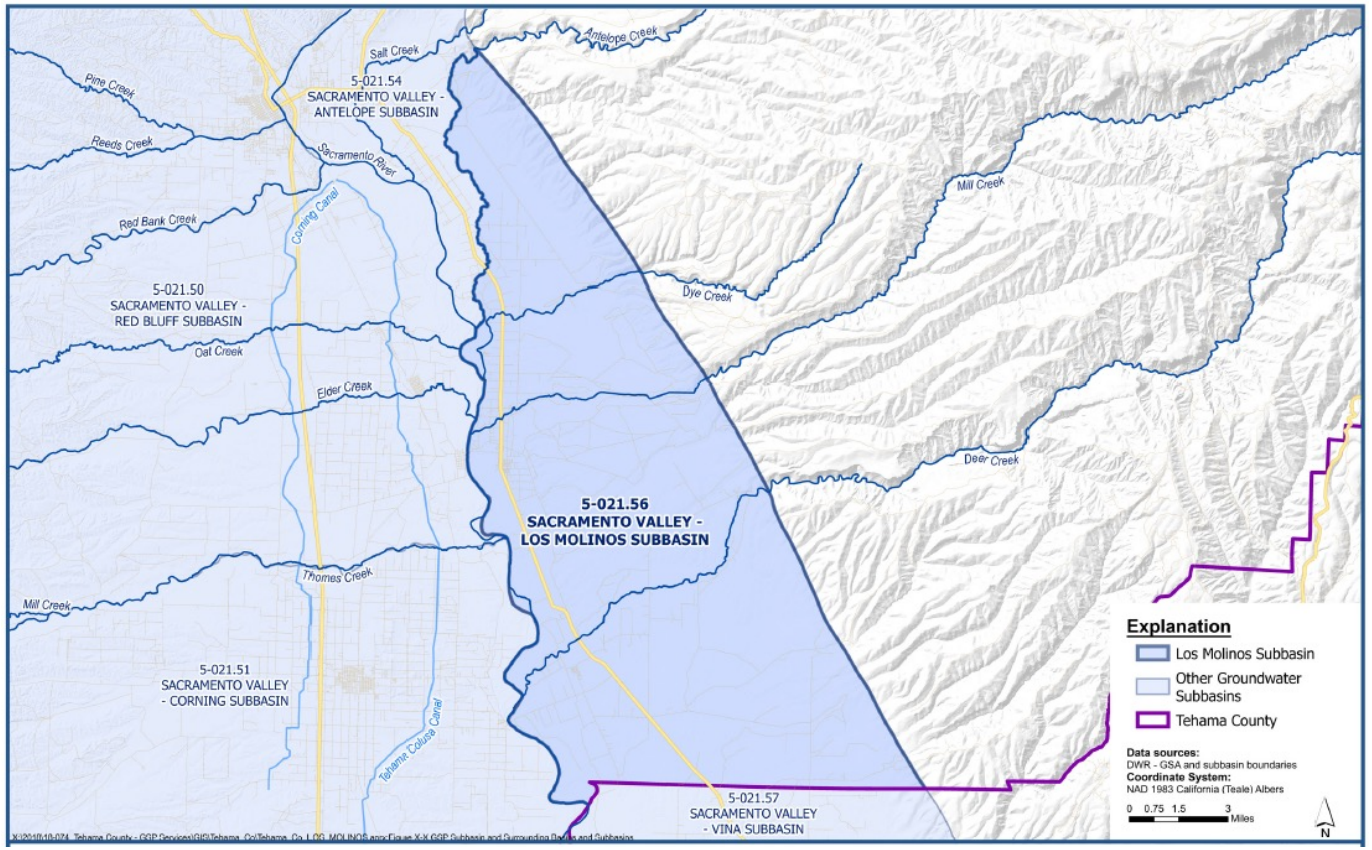
# Participating in the Workshop

- “Raise Hand” for Verbal Questions
- Zoom ”Chat” to submit written Questions
- “Start Video” for more interactive experience
- Please keep yourself on MUTE at all times
- Focus on Topic
- Honor Time
- Tech-Adaptive Mind Set

# Presentation Outline

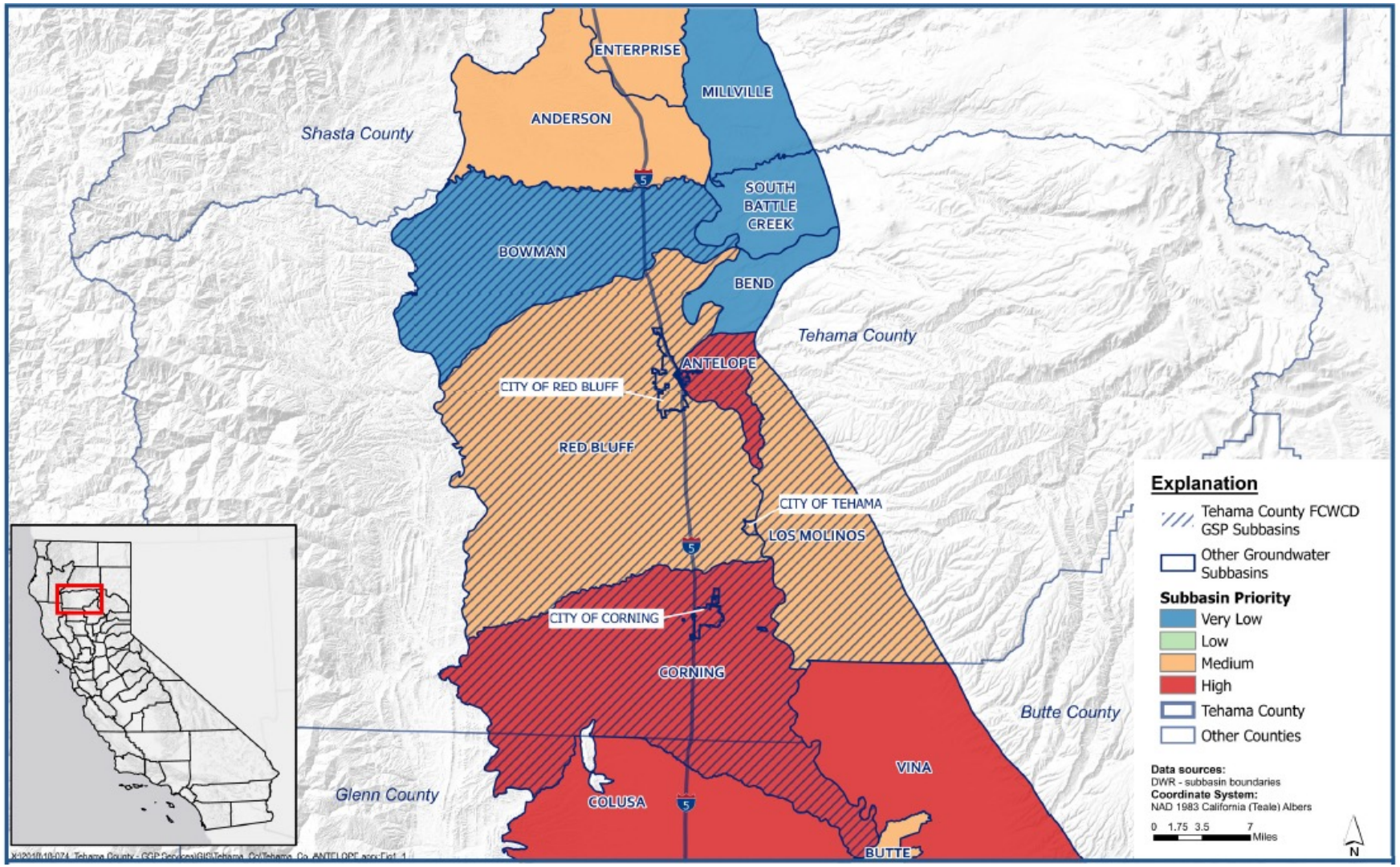
TEHAMA COUNTY
Flood Control and Water Conservation District

- Progress on GSP Chapters
- Water Budgets
- Sustainable Management Criteria (SMC)
- Projects and Management Actions (PMA)
- GSP Implementation Costs
- GSP Schedule and Implementation



# Los Molinos Subbasin

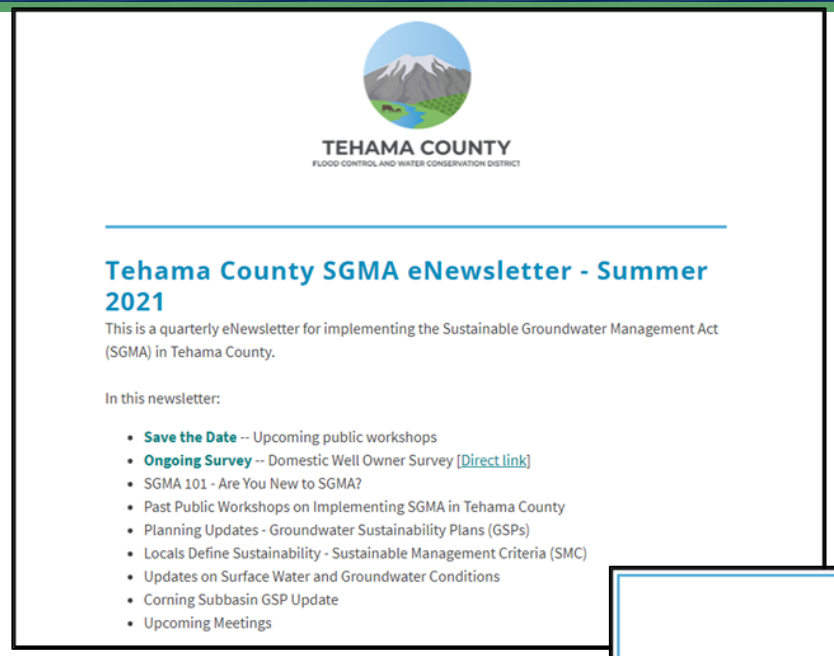
TEHAMA COUNTY
Flood Control and Water Conservation District



# Stakeholder Coordination General Update

TEHAMA COUNTY
Flood Control and Water Conservation District

- October and December 2020
- December 2020 Newsletter
- July 2021 eNewsletter
  - GSP Updates
  - Groundwater/Surface Water Conditions
  - Groundwater Modeling
- Outreach Meetings
  - August 17-25
  - Topics Covered
    - Basin Settings
    - Water Budgets
    - SMC Introduction
    - Modeling
    - Project & Management Actions



TEHAMA COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

**Tehama County SGMA eNewsletter - Summer 2021**

This is a quarterly eNewsletter for implementing the Sustainable Groundwater Management Act (SGMA) in Tehama County.

In this newsletter:

- **Save the Date** -- Upcoming public workshops
- **Ongoing Survey** -- Domestic Well Owner Survey [Direct link]
- SGMA 101 - Are You New to SGMA?
- Past Public Workshops on Implementing SGMA in Tehama County
- Planning Updates - Groundwater Sustainability Plans (GSPs)
- Locals Define Sustainability - Sustainable Management Criteria (SMC)
- Updates on Surface Water and Groundwater Conditions
- Corning Subbasin GSP Update
- Upcoming Meetings



**Save the Date | Online Public Meetings**

August 17, 19, 23, and 25

The next round of public workshops will occur in August, each starting at 6:00pm. There will be four online, interactive webinars, each one focused on a specific subbasin (see schedule below)

**Topics will focus on:**
- Sustainable Management Criteria (SMCs)
- Proposed Projects and Management Actions (PMAs)
- Public review schedule for Draft GSPs

**How do I attend the online public meeting(s)?**
Follow the link(s) below to register for the subbasin-specific meetings:

- August 17 - Bowman Subbasin - https://bit.ly/SGMA-Aug17-Bowman
- August 19 - Red Bluff Subbasin - https://bit.ly/SGMA-Aug19-RedBluff
- August 23 - Antelope Subbasin - https://bit.ly/SGMA-Aug23-Antelope
- August 25 - Los Molinos Subbasin - https://bit.ly/SGMA-Aug25-LosMolinos

*Note: when you register, you will receive a confirmation email that will include instructions on how to join the webinar, including dial-in-by-phone information.*
*Webinars will be recorded and posted to the District's website for future viewing.*

Visit the website to learn more: TehamaCountyWater.org

# Tehama County Subbasins Groundwater Sustainability Plans

TEHAMA COUNTY
Flood Control and Water Conservation District

## Describe the Basin Conditions
**Plan Area, Subbasin Setting & Water Supplies**

**What water sources are used in the basin and what are the basin conditions related to those uses?**

## Define Basin Sustainability
**Sustainable Management Criteria & Monitoring**

**What is sustainable groundwater management?**

## Develop Projects/Management Actions & Implementation Plans

**How can we ensure groundwater sustainability?**

## Develop & Adopt GSPs
**Submit GSP to DWR: January 31, 2022**

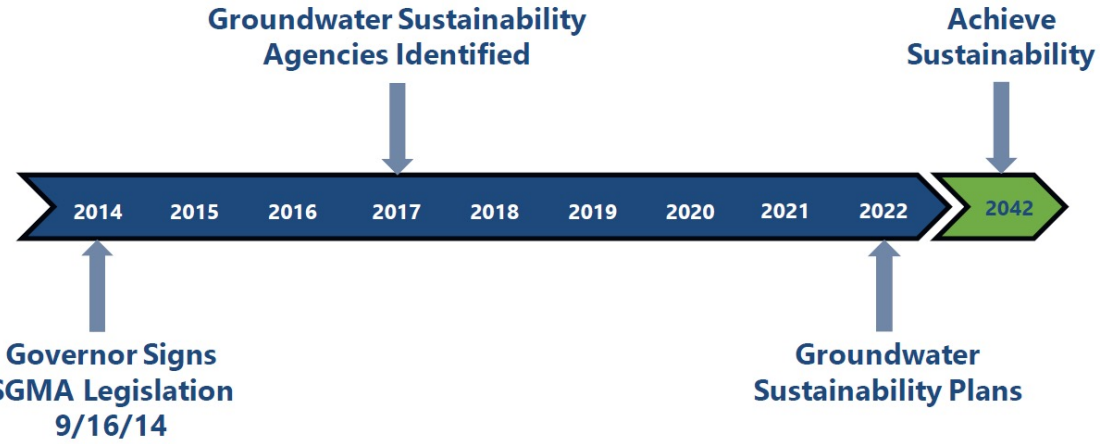
**Will this plan meet our sustainability goals?**

# GSP Chapter Development

TEHAMA COUNTY
Flood Control and Water Conservation District

- Chapter 1 – Introduction (Complete)
- Chapter 2 – (Complete)
  - Chapter 2A – Plan Area
  - Chapter 2B – Basin Setting
  - Chapter 2C – Current & Historical Groundwater Conditions (in progress)
- Chapter 3 – SMCs (Complete)
- Chapter 4 – Projects and Management Actions (In Progress)
- Chapter 5 – GSP Implementation (In Progress)

## TIMELINE FOR SUSTAINABLE MANAGEMENT

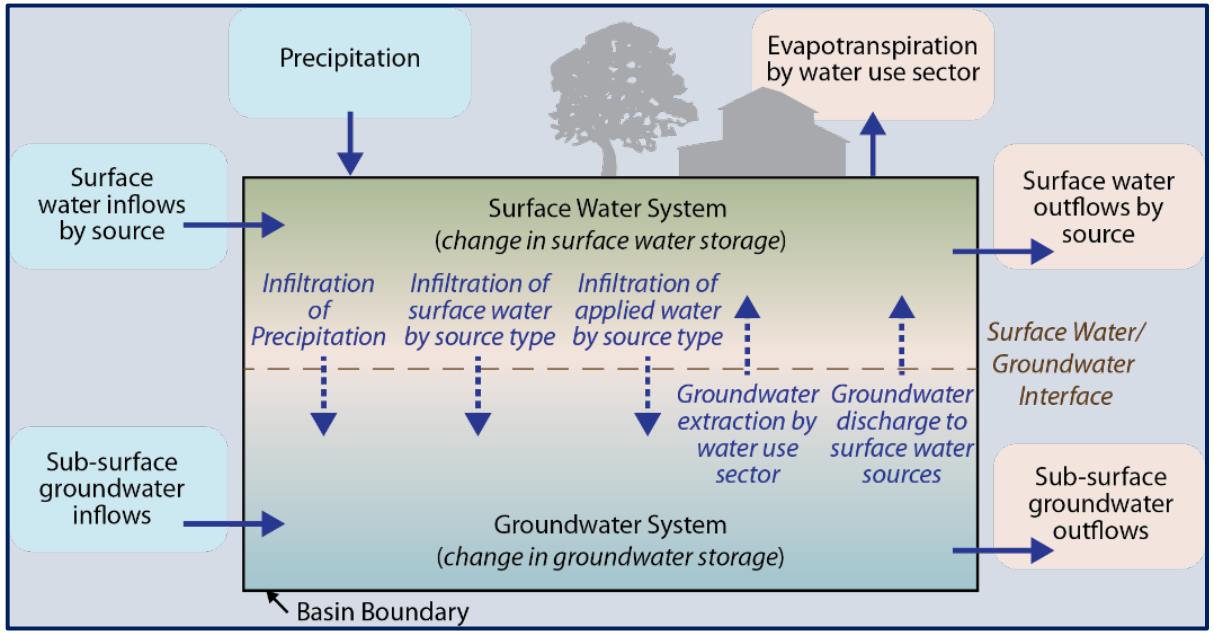


# GSP Chapter 2C Water Budget

TEHAMA COUNTY
Flood Control and Water Conservation District

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Water Budget Accounting Structure (Source: DWR, 2016a)

# GSP Chapter 2C Water Budget

TEHAMA COUNTY
Flood Control and Water Conservation District

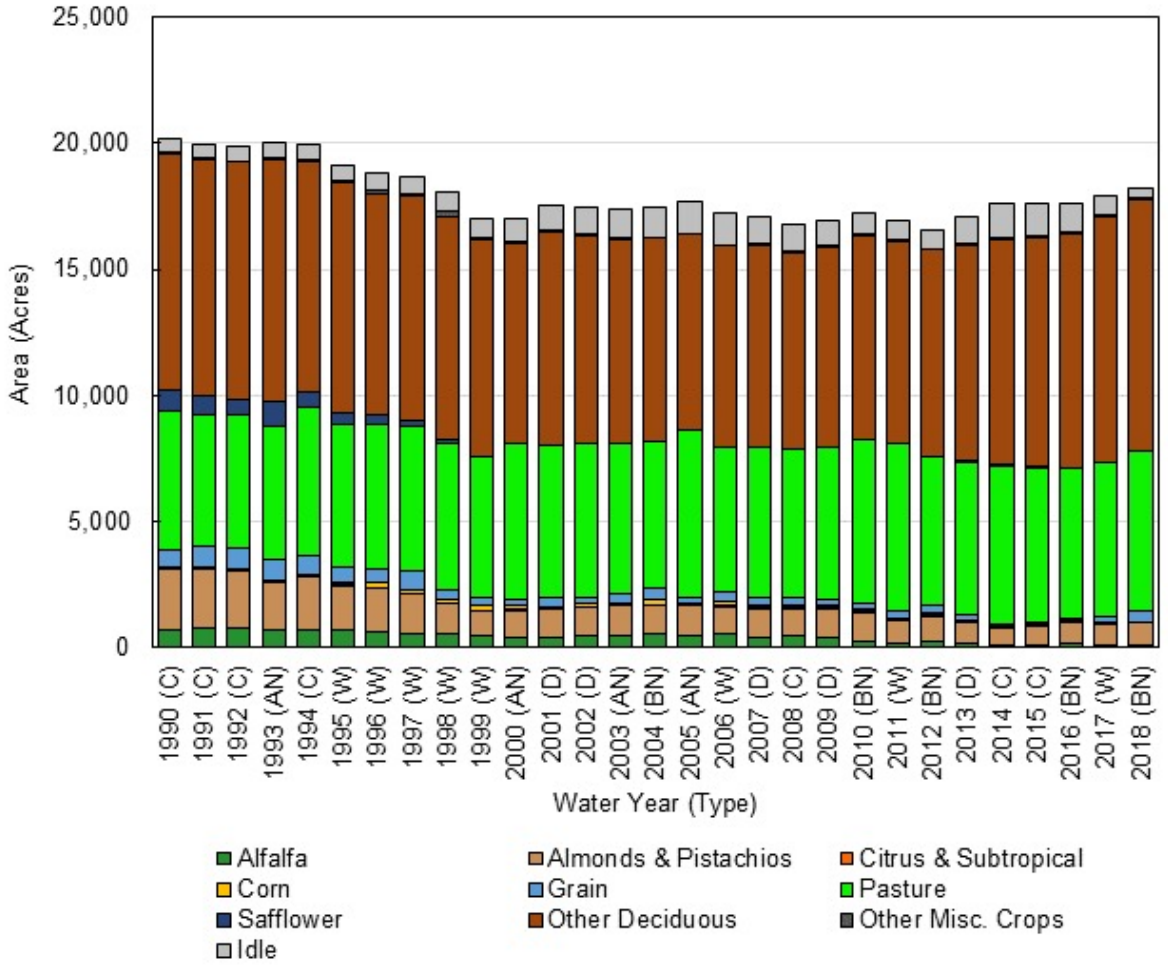



**Figure 2-56. Los Molinos Subbasin Agricultural Land Use Areas**

# GSP Chapter 2C Water Budget

TEHAMA COUNTY
Flood Control and Water Conservation District

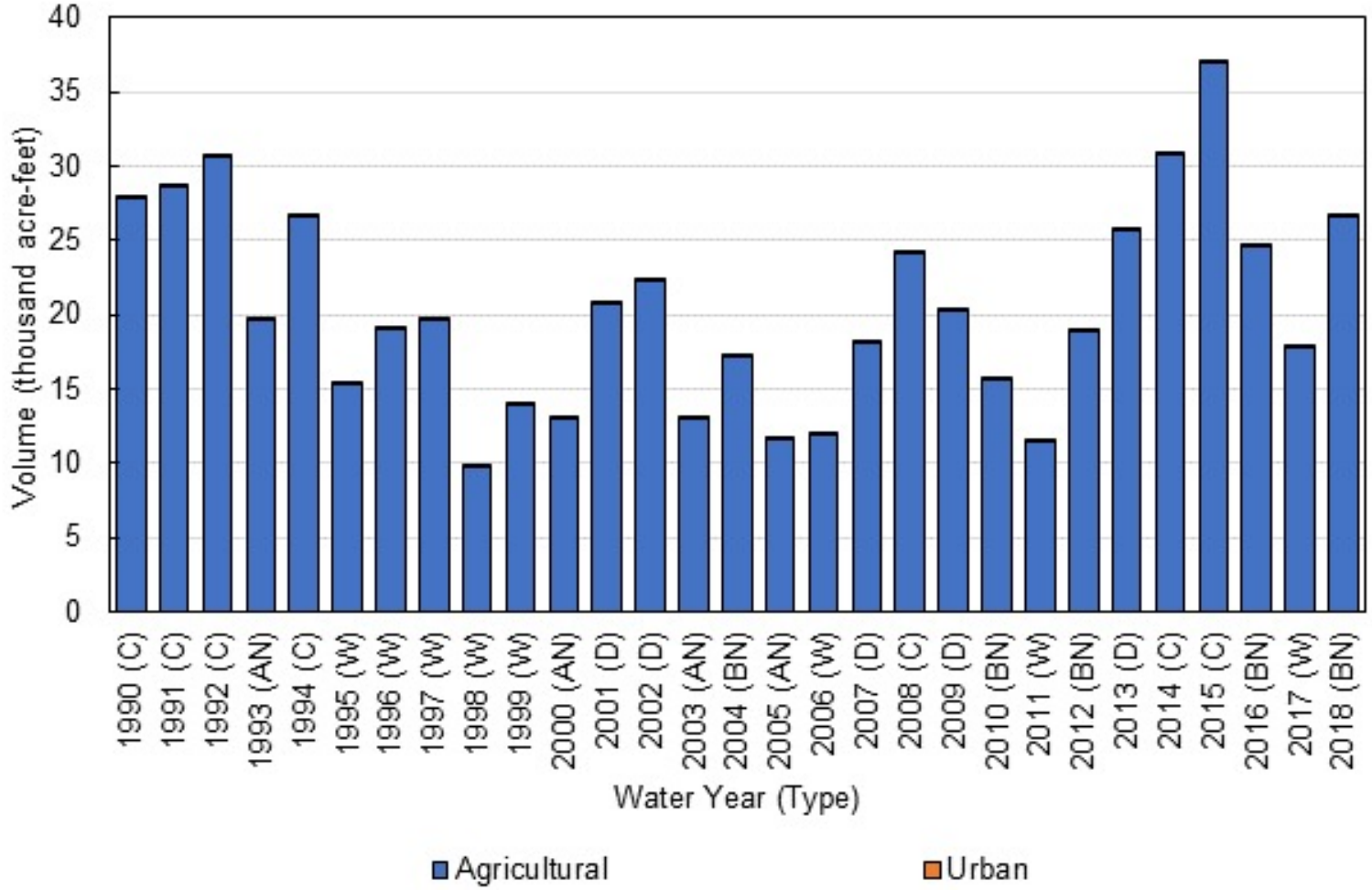



**Figure 2-59. Los Molinos Subbasin Groundwater Pumping, by Water Use Sector**

# GSP Chapter 2C Water Budget

TEHAMA COUNTY
Flood Control and Water Conservation District

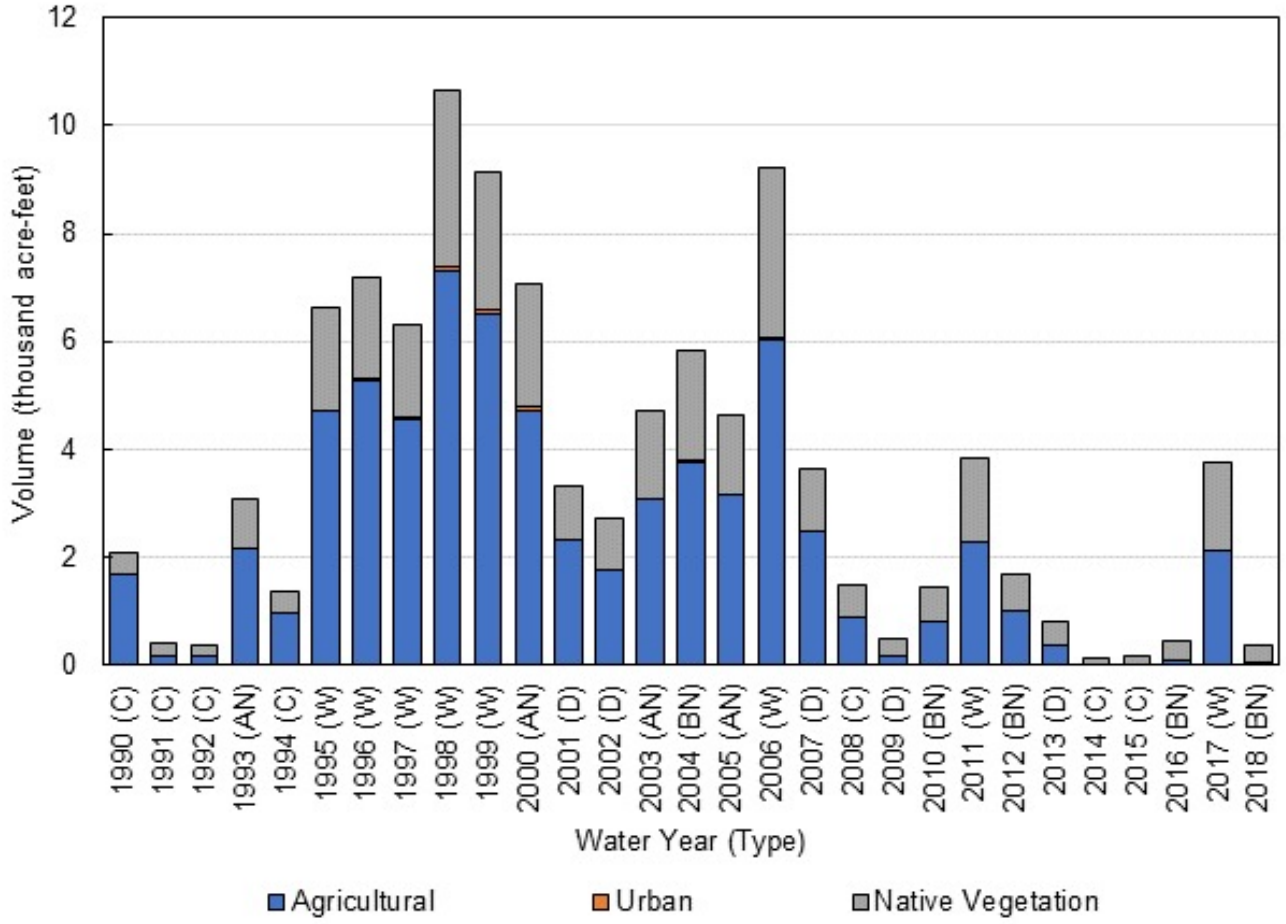



**Figure 2-60. Los Molinos Subbasin Groundwater Uptake, by Water Use Sector**

# GSP Chapter 2C Water Budget

TEHAMA COUNTY
Flood Control and Water Conservation District

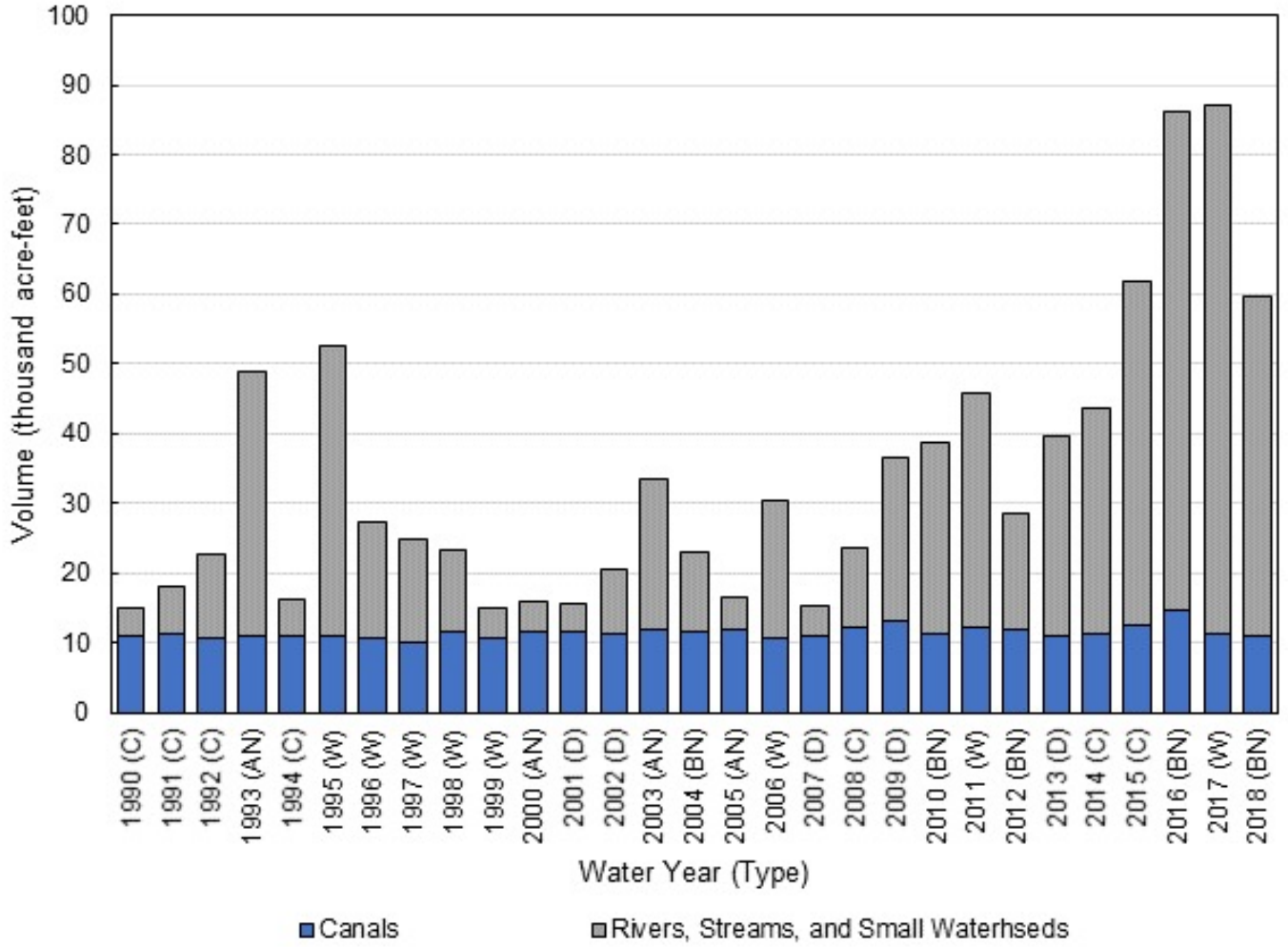



**Figure 2-70. Los Molinos Subbasin Infiltration of Surface Water, by Water Use Sector**

# GSP Chapter 2C Water Budget

TEHAMA COUNTY
Flood Control and Water Conservation District

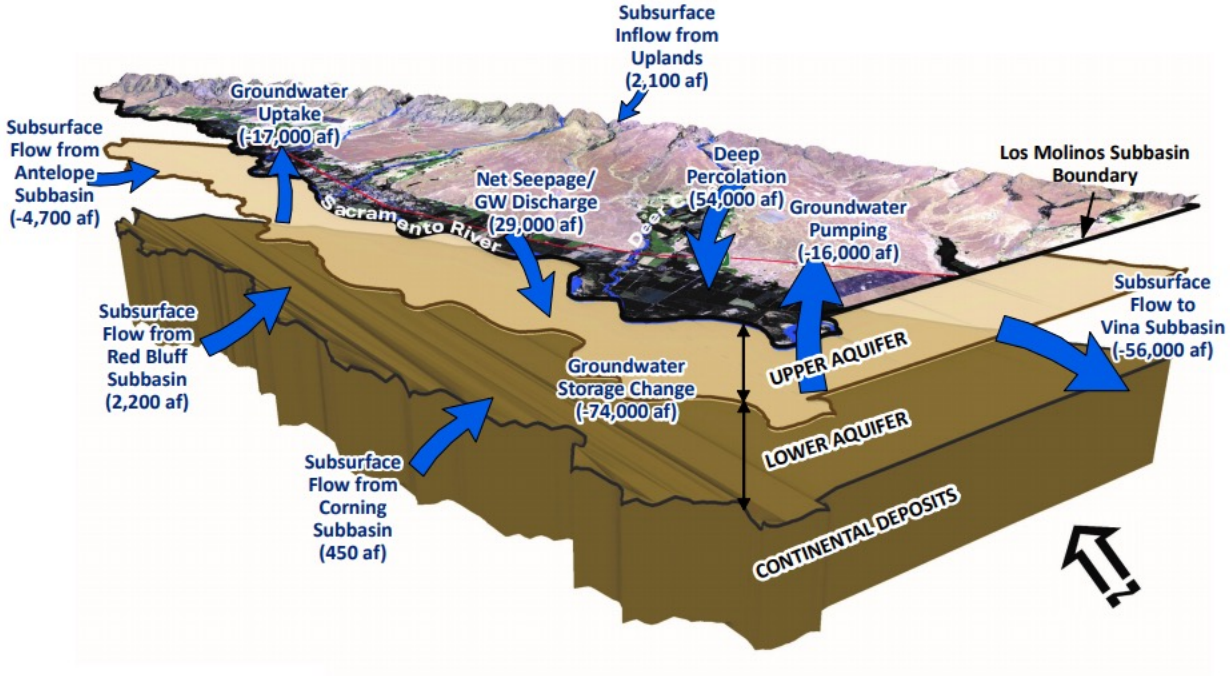



**Figure 2-83. Diagram of the Los Molinos Subbasin Historical Average Annual Water Budget (1990-2018)**

**Table 2-38. Comparison of Recent GWS Water Budget Periods (acre-feet, rounded)**

| GWS Water Budget Component | Recent Water Budget Periods | | | | |
|---|---|---|---|---|---|
| | Recent 10 Years (2009-2018) | Recent 5 Years (2014-2018) | Recent 3 Years (2016-2018) | Recent 1 Year 2018 | Recent 1 Year 2019 |
| Total Net Seepage | 39,000 | 46,000 | 64,000 | 37,000 | 70,000 |
| Deep Percolation | 45,000 | 43,000 | 51,000 | 30,000 | 73,000 |
| Total Net Subsurface Flows | -63,000 | -66,000 | -71,000 | -78,000 | -77,000 |
| Groundwater Extraction (Pumping) | -20,000 | -25,000 | -21,000 | -24,000 | -16,000 |
| Groundwater Extraction (Root Uptake) | -10,000 | -6,200 | -6,800 | -7,800 | -9,300 |
| ***Annual Groundwater Storage Change[1]*** | ***-5,300*** | ***-4,700*** | ***19,000*** | ***-38,000*** | ***47,000*** |

[1] Annual storage change volumes rounded to 100 af.
Note: positive values indicate inflows/increasing storage, negative values indicate outflows/decreasing storage.

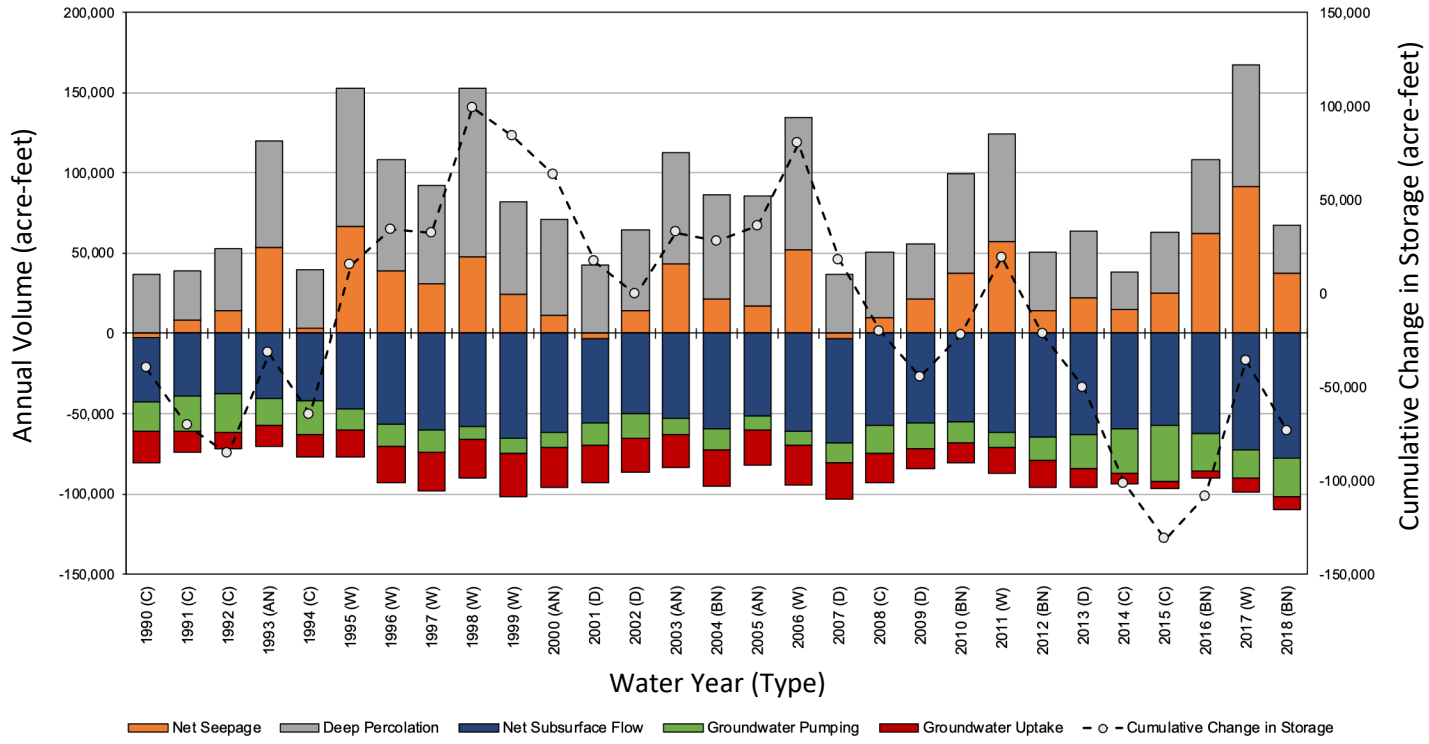
# GSP Chapter 2C Water Budget (Historical)

TEHAMA COUNTY
Flood Control and Water Conservation District

**Los Molinos Subbasin Historical Water Budget Summary (acre-feet, rounded)**

| Water Year (Type) | | Net Seepage | Deep Percolation | Net Subsurface Flows | Ground-water Pumping | Ground-water Uptake | Annual Groundwater Storage Change | Cumulative Groundwater Storage Change |
|---|---|---|---|---|---|---|---|---|
| 1990 (C) | | -2,300 | 37,000 | -40,000 | -19,000 | -20,000 | -40,000 | -40,000 |
| 1991 (C) | | 8,600 | 31,000 | -39,000 | -22,000 | -13,000 | -31,000 | -71,000 |
| 1992 (C) | | 15,000 | 39,000 | -38,000 | -24,000 | -10,000 | -15,000 | -86,000 |
| 1993 (AN) | | 54,000 | 66,000 | -41,000 | -16,000 | -13,000 | 54,000 | -32,000 |
| 1994 (C) | | 3,000 | 37,000 | -42,000 | -21,000 | -14,000 | -33,000 | -65,000 |
| 1995 (W) | | 67,000 | 86,000 | -47,000 | -13,000 | -17,000 | 80,000 | 15,000 |
| 1996 (W) | | 39,000 | 69,000 | -56,000 | -14,000 | -23,000 | 19,000 | 34,000 |
| 1997 (W) | | 31,000 | 61,000 | -60,000 | -14,000 | -24,000 | -2,000 | 32,000 |
| 1998 (W) | | 48,000 | 110,000 | -58,000 | -8,000 | -24,000 | 67,000 | 99,000 |
| 1999 (W) | | 24,000 | 58,000 | -65,000 | -9,400 | -27,000 | -15,000 | 84,000 |
| 2000 (AN) | | 11,000 | 59,000 | -62,000 | -9,100 | -25,000 | -21,000 | 63,000 |
| 2001 (D) | | -3,300 | 42,000 | -53,000 | -14,000 | -23,000 | -46,000 | 17,000 |
| 2002 (D) | | 14,000 | 51,000 | -50,000 | -16,000 | -21,000 | -17,000 | -530 |
| 2003 (AN) | | 43,000 | 69,000 | -53,000 | -9,900 | -21,000 | 33,000 | 32,000 |
| 2004 (BN) | | 21,000 | 65,000 | -59,000 | -13,000 | -23,000 | -4,700 | 28,000 |
| 2005 (AN) | | 17,000 | 68,000 | -52,000 | -8,600 | -21,000 | 8,100 | 36,000 |
| 2006 (W) | | 52,000 | 83,000 | -61,000 | -9,000 | -25,000 | 44,000 | 80,000 |
| 2007 (D) | | -3,000 | 37,000 | -65,000 | -13,000 | -23,000 | -62,000 | 18,000 |
| 2008 (C) | | 9,800 | 41,000 | -57,000 | -17,000 | -18,000 | -38,000 | -20,000 |
| 2009 (D) | | 22,000 | 34,000 | -55,000 | -16,000 | -13,000 | -24,000 | -45,000 |
| 2010 (BN) | | 38,000 | 62,000 | -55,000 | -13,000 | -13,000 | 22,000 | -22,000 |
| 2011 (W) | | 58,000 | 67,000 | -61,000 | -9,500 | -17,000 | 41,000 | 19,000 |
| 2012 (BN) | | 14,000 | 36,000 | -64,000 | -15,000 | -17,000 | -41,000 | -22,000 |
| 2013 (D) | | 23,000 | 41,000 | -63,000 | -21,000 | -12,000 | -28,000 | -50,000 |
| 2014 (C) | | 15,000 | 23,000 | -60,000 | -28,000 | -6,400 | -51,000 | -100,000 |
| 2015 (C) | | 25,000 | 37,000 | -57,000 | -35,000 | -4,200 | -30,000 | -130,000 |
| 2016 (BN) | | 62,000 | 46,000 | -63,000 | -23,000 | -4,100 | 23,000 | -110,000 |
| 2017 (W) | | 92,000 | 76,000 | -73,000 | -17,000 | -8,700 | 73,000 | -36,000 |
| 2018 (BN) | | 37,000 | 30,000 | -78,000 | -24,000 | -7,800 | -38,000 | -74,000 |
| 2019 (W) | | 70,000 | 73,000 | -75,000 | -16,000 | -9,300 | 47,000 | -27,000 |
| Average (1990-2018) | | 29,000 | 54,000 | -56,000 | -16,000 | -17,000 | -2,500 | |
| 1990-2018 | W | 51,000 | 76,000 | -60,000 | -12,000 | -21,000 | 38,000 | |
| | AN | 38,000 | 68,000 | -48,000 | -12,000 | -18,000 | 32,000 | |
| | BN | 39,000 | 47,000 | -64,000 | -18,000 | -11,000 | -2,600 | |
| | D | 10,000 | 41,000 | -57,000 | -16,000 | -18,000 | -36,000 | |
| | C | 11,000 | 35,000 | -48,000 | -24,000 | -12,000 | -34,000 | |

Note: positive values indicate inflows/increasing storage, negative values indicate outflows/decreasing storage.



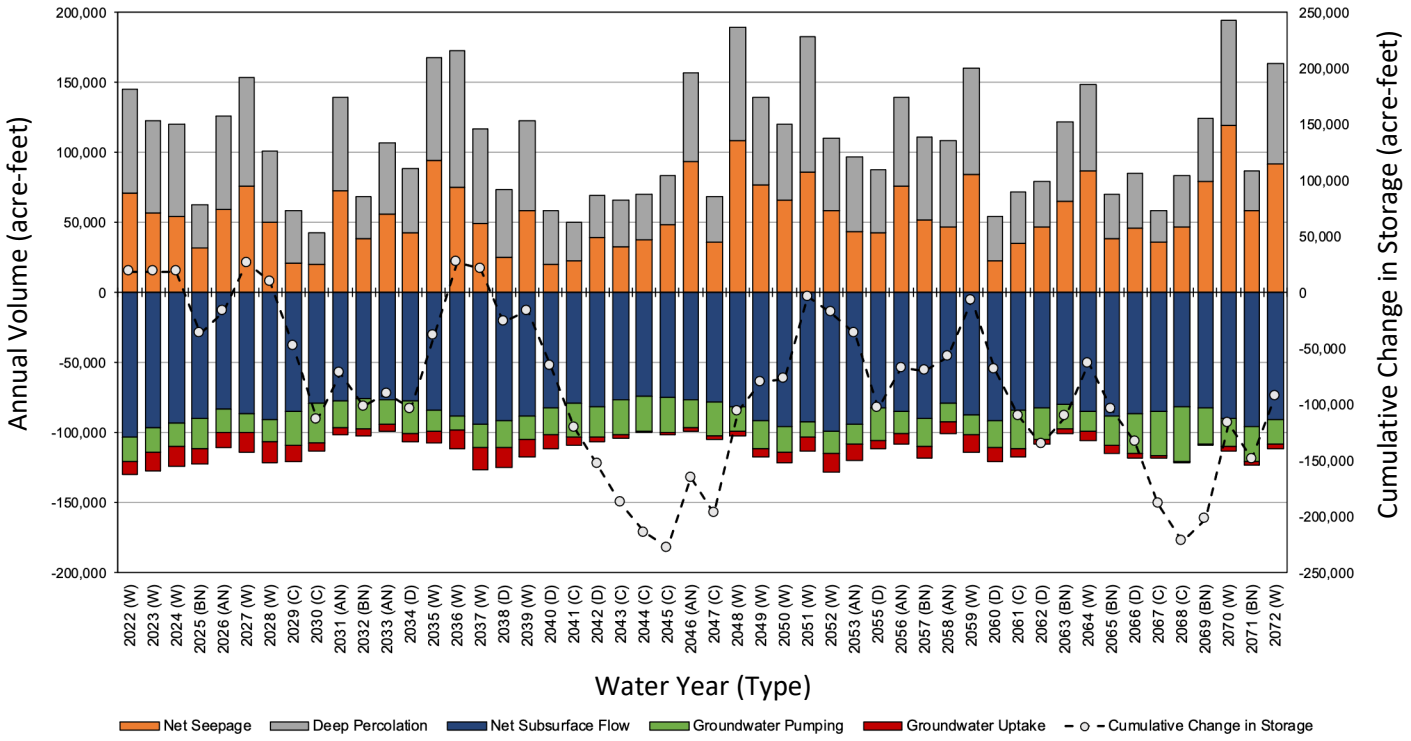

Los Molinos Subbasin Historical Water Budget Summary

# Water Budget (Projected with Current Land Use)

TEHAMA COUNTY
Flood Control and Water Conservation District

Los Molinos Subbasin Projected Water Budget Summary with Current Land Use (acre-feet, rounded)

| WY (Type) | Net Seepage | Deep Percolation | Net Subsurface Flows | Groundwater Pumping | Groundwater Uptake | Annual Groundwater Storage Change | Cumulative Groundwater Storage Change |
|---|---|---|---|---|---|---|---|
| 2020 (D) | 15,600 | 32,600 | -134,200 | -18,900 | -12,200 | -113,000 | 0 |
| 2021 (C) | 12,100 | 24,300 | -123,200 | -28,100 | -9,000 | -120,000 | 0 |
| 2022 (W) | 70,800 | 74,000 | -103,300 | -17,200 | -9,500 | 18,900 | 18,900 |
| 2023 (W) | 56,800 | 65,900 | -96,300 | -17,900 | -12,900 | -300 | 18,600 |
| 2024 (W) | 53,900 | 66,100 | -92,800 | -17,200 | -14,000 | 200 | 18,800 |
| 2025 (BN) | 31,800 | 31,000 | -90,000 | -21,700 | -10,800 | -55,400 | -36,600 |
| 2026 (AN) | 59,500 | 66,600 | -83,200 | -16,600 | -10,600 | 19,900 | -16,800 |
| 2027 (W) | 76,000 | 77,300 | -86,700 | -13,600 | -14,200 | 43,100 | 26,300 |
| 2028 (W) | 50,300 | 50,300 | -91,000 | -15,600 | -14,800 | -16,500 | 9,800 |
| 2029 (C) | 21,300 | 37,500 | -84,900 | -24,000 | -11,400 | -57,500 | -47,700 |
| 2030 (C) | 20,300 | 22,500 | -78,700 | -28,800 | -5,200 | -65,900 | -113,600 |
| 2031 (AN) | 72,500 | 66,500 | -77,000 | -19,500 | -5,300 | 41,500 | -72,100 |
| 2032 (BN) | 38,800 | 30,000 | -76,000 | -21,200 | -5,300 | -29,700 | -101,800 |
| 2033 (AN) | 55,700 | 51,000 | -76,400 | -17,400 | -5,100 | 11,900 | -89,900 |
| 2034 (D) | 42,700 | 45,900 | -77,500 | -23,300 | -5,700 | -13,700 | -103,700 |
| 2035 (W) | 93,900 | 73,800 | -83,800 | -15,200 | -8,100 | 64,900 | -38,800 |
| 2036 (W) | 75,100 | 97,600 | -88,000 | -10,500 | -12,700 | 65,700 | 26,900 |
| 2037 (W) | 49,000 | 67,600 | -93,900 | -16,700 | -15,900 | -5,900 | 21,000 |
| 2038 (D) | 25,200 | 48,400 | -91,100 | -19,700 | -13,900 | -46,900 | -25,900 |
| 2039 (W) | 58,700 | 64,100 | -87,900 | -17,300 | -12,400 | 9,400 | -16,500 |
| 2040 (D) | 20,400 | 37,900 | -82,500 | -19,400 | -10,100 | -49,400 | -65,800 |
| 2041 (C) | 22,200 | 28,200 | -79,000 | -24,200 | -5,700 | -54,400 | -120,300 |
| 2042 (D) | 39,400 | 29,700 | -81,200 | -21,800 | -3,200 | -32,900 | -153,200 |
| 2043 (C) | 32,500 | 33,300 | -76,500 | -25,300 | -2,300 | -34,300 | -187,500 |
| 2044 (C) | 37,700 | 32,200 | -73,900 | -24,900 | -1,400 | -26,300 | -213,800 |
| 2045 (C) | 48,100 | 35,500 | -75,000 | -25,200 | -1,000 | -13,600 | -227,400 |
| 2046 (AN) | 93,500 | 63,500 | -76,700 | -19,900 | -1,900 | 62,500 | -165,000 |
| 2047 (C) | 35,900 | 32,800 | -78,000 | -24,700 | -2,100 | -31,900 | -196,900 |
| 2048 (W) | 108,200 | 81,200 | -81,800 | -17,500 | -3,200 | 90,900 | -105,900 |
| 2049 (W) | 76,800 | 62,700 | -91,200 | -20,200 | -6,000 | 26,200 | -79,700 |
| 2050 (W) | 66,100 | 54,100 | -95,900 | -18,500 | -7,600 | 2,600 | -77,100 |
| 2051 (W) | 85,700 | 97,100 | -92,100 | -10,900 | -10,500 | 73,500 | -3,600 |
| 2052 (W) | 58,400 | 51,600 | -98,800 | -16,000 | -13,300 | -13,900 | -17,500 |
| 2053 (AN) | 43,200 | 53,500 | -94,100 | -14,400 | -11,500 | -19,100 | -36,600 |
| 2054 (D) | 24,800 | 38,000 | -84,700 | -20,100 | -8,600 | -46,500 | -83,100 |
| 2055 (D) | 42,500 | 45,200 | -82,500 | -23,000 | -6,200 | -19,800 | -102,900 |
| 2056 (AN) | 76,200 | 63,100 | -84,900 | -16,100 | -6,800 | 35,800 | -67,200 |
| 2057 (BN) | 51,500 | 59,700 | -90,000 | -19,300 | -8,600 | -2,700 | -69,800 |
| 2058 (AN) | 47,000 | 61,700 | -79,300 | -12,600 | -8,600 | 12,300 | -57,500 |
| 2059 (W) | 84,300 | 76,100 | -87,400 | -14,200 | -12,400 | 50,600 | -6,900 |
| 2060 (D) | 22,300 | 32,000 | -91,700 | -18,700 | -9,900 | -62,000 | -68,800 |
| 2061 (C) | 34,800 | 37,000 | -84,200 | -27,100 | -5,800 | -41,300 | -110,200 |
| 2062 (D) | 46,700 | 32,200 | -82,100 | -22,700 | -3,600 | -25,300 | -135,500 |
| 2063 (BN) | 64,800 | 57,300 | -79,900 | -17,300 | -3,800 | 25,300 | -110,200 |
| 2064 (W) | 87,000 | 61,200 | -84,900 | -14,300 | -6,100 | 47,000 | -63,300 |
| 2065 (BN) | 38,500 | 31,500 | -88,100 | -20,900 | -6,100 | -41,000 | -104,200 |
| 2066 (D) | 46,100 | 38,800 | -86,300 | -28,300 | -3,800 | -29,300 | -133,500 |
| 2067 (C) | 35,900 | 22,900 | -85,000 | -31,100 | -1,800 | -55,100 | -188,600 |
| 2068 (C) | 47,100 | 36,700 | -81,500 | -38,900 | -900 | -33,400 | -222,000 |
| 2069 (BN) | 79,500 | 44,900 | -82,100 | -25,800 | -900 | 19,800 | -202,200 |
| 2070 (W) | 119,600 | 74,400 | -89,500 | -20,500 | -2,700 | 85,400 | -116,800 |
| 2071 (BN) | 58,700 | 28,200 | -95,200 | -25,000 | -2,500 | -31,600 | -148,500 |
| 2072 (W) | 92,100 | 71,200 | -90,200 | -18,000 | -3,500 | 55,600 | -92,900 |
| Average (2022-2072) | 55,300 | 51,800 | -85,600 | -20,200 | -7,300 | -1,800 | -83,500 |



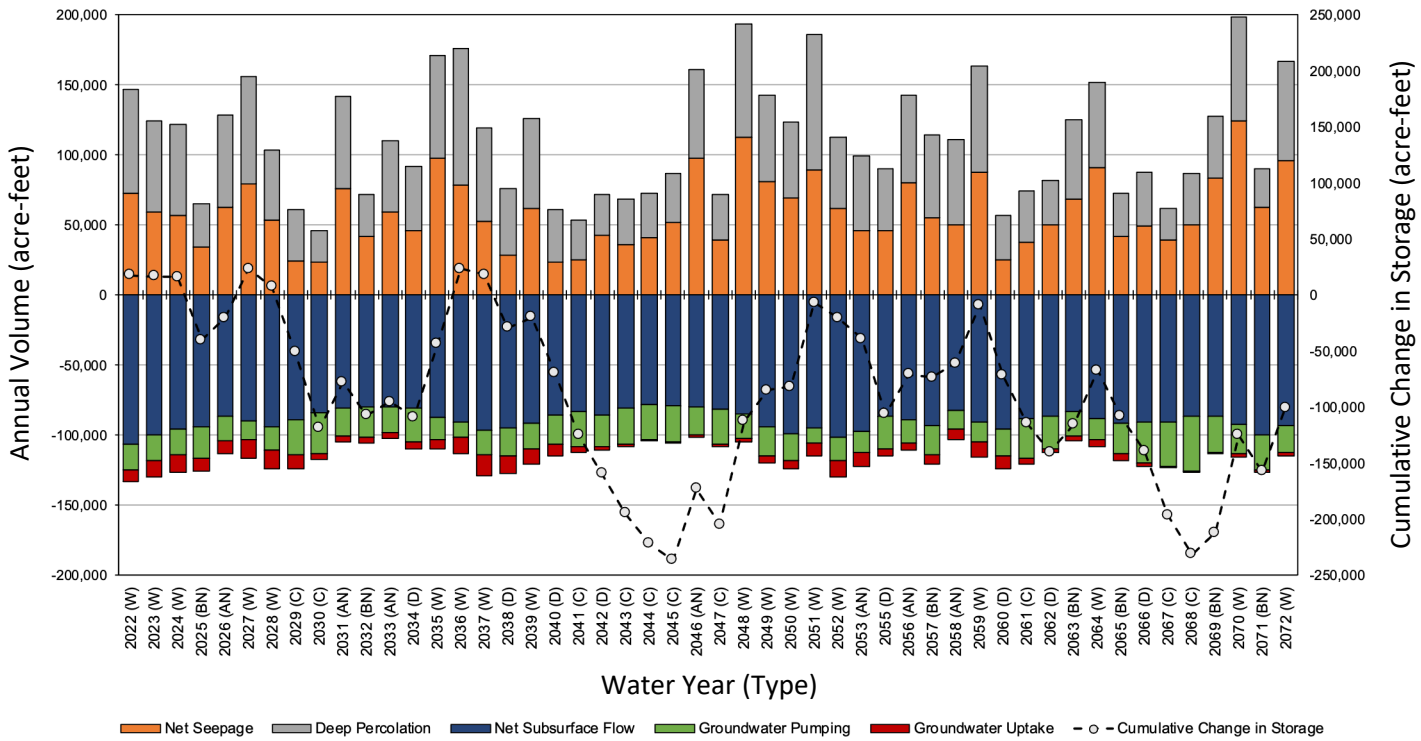

Los Molinos Subbasin Projected Water Budget Summary with Current Land Use

# Water Budget (Projected with Future Land Use)

TEHAMA COUNTY
Flood Control and Water Conservation District

Los Molinos Subbasin Projected Water Budget Summary with Future Land Use (acre-feet, rounded)

| WY (Type) | Net Seepage | Deep Percolation | Net Subsurface Flows | Groundwater Pumping | Groundwater Uptake | Annual Groundwater Storage Change | Cumulative Groundwater Storage Change |
|---|---|---|---|---|---|---|---|
| 2020 (D) | 16,100 | 32,600 | -136,700 | -19,200 | -11,900 | -115,100 | 0 |
| 2021 (C) | 13,400 | 24,300 | -127,500 | -28,500 | -8,400 | -122,600 | 0 |
| 2022 (W) | 72,900 | 73,600 | -106,800 | -17,900 | -8,300 | 17,600 | 17,600 |
| 2023 (W) | 59,100 | 65,300 | -99,600 | -18,500 | -11,700 | -1,100 | 16,500 |
| 2024 (W) | 56,600 | 65,600 | -95,900 | -17,800 | -12,800 | -200 | 16,300 |
| 2025 (BN) | 34,400 | 30,800 | -93,800 | -22,500 | -9,500 | -56,500 | -40,200 |
| 2026 (AN) | 62,400 | 66,200 | -86,700 | -17,500 | -8,900 | 19,900 | -20,400 |
| 2027 (W) | 79,300 | 76,500 | -89,400 | -14,000 | -12,900 | 43,600 | 23,200 |
| 2028 (W) | 53,300 | 50,200 | -94,200 | -16,100 | -13,700 | -16,200 | 7,000 |
| 2029 (C) | 24,100 | 37,200 | -88,800 | -25,000 | -10,000 | -58,300 | -51,300 |
| 2030 (C) | 23,300 | 22,400 | -83,800 | -29,400 | -4,100 | -67,700 | -119,000 |
| 2031 (AN) | 76,100 | 66,000 | -80,500 | -20,100 | -4,100 | 41,500 | -77,500 |
| 2032 (BN) | 42,100 | 29,700 | -79,800 | -21,700 | -4,200 | -29,700 | -107,200 |
| 2033 (AN) | 59,100 | 50,500 | -79,800 | -18,000 | -4,000 | 11,900 | -95,300 |
| 2034 (D) | 46,000 | 45,600 | -80,900 | -24,100 | -4,400 | -13,800 | -109,100 |
| 2035 (W) | 97,700 | 73,200 | -87,000 | -16,300 | -6,500 | 65,300 | -43,700 |
| 2036 (W) | 78,800 | 96,800 | -90,300 | -10,800 | -11,700 | 67,100 | 23,400 |
| 2037 (W) | 52,400 | 66,800 | -96,600 | -17,100 | -14,800 | -5,200 | 18,200 |
| 2038 (D) | 28,200 | 48,000 | -94,700 | -20,400 | -12,500 | -47,200 | -29,000 |
| 2039 (W) | 62,100 | 63,600 | -91,500 | -18,200 | -10,700 | 9,300 | -19,700 |
| 2040 (D) | 23,500 | 37,400 | -85,900 | -20,300 | -8,600 | -49,900 | -69,600 |
| 2041 (C) | 25,400 | 27,900 | -83,400 | -24,800 | -4,400 | -55,300 | -125,000 |
| 2042 (D) | 42,700 | 29,500 | -86,000 | -22,100 | -2,400 | -34,400 | -159,300 |
| 2043 (C) | 35,700 | 33,100 | -80,900 | -25,500 | -1,600 | -35,300 | -194,600 |
| 2044 (C) | 41,000 | 32,000 | -78,200 | -25,100 | -900 | -27,300 | -221,900 |
| 2045 (C) | 51,400 | 35,400 | -79,200 | -25,300 | -700 | -14,400 | -236,300 |
| 2046 (AN) | 97,400 | 63,200 | -79,700 | -20,200 | -1,300 | 63,400 | -172,900 |
| 2047 (C) | 39,200 | 32,500 | -81,400 | -25,000 | -1,400 | -31,900 | -204,800 |
| 2048 (W) | 112,400 | 80,800 | -84,500 | -17,900 | -2,500 | 92,400 | -112,400 |
| 2049 (W) | 80,600 | 62,200 | -94,000 | -20,900 | -4,600 | 27,300 | -85,100 |
| 2050 (W) | 69,700 | 53,500 | -98,900 | -19,400 | -6,000 | 3,100 | -81,900 |
| 2051 (W) | 89,600 | 96,200 | -94,500 | -11,300 | -9,200 | 74,900 | -7,000 |
| 2052 (W) | 61,700 | 50,900 | -101,400 | -16,700 | -11,900 | -13,100 | -20,100 |
| 2053 (AN) | 46,300 | 52,800 | -97,200 | -15,100 | -10,000 | -19,100 | -39,200 |
| 2054 (D) | 27,800 | 37,500 | -88,200 | -20,900 | -7,200 | -46,800 | -86,000 |
| 2055 (D) | 45,600 | 44,800 | -86,200 | -23,900 | -4,900 | -20,500 | -106,500 |
| 2056 (AN) | 79,700 | 62,600 | -88,500 | -16,900 | -5,300 | 35,700 | -70,800 |
| 2057 (BN) | 54,700 | 59,200 | -93,600 | -20,300 | -7,000 | -2,700 | -73,400 |
| 2058 (AN) | 50,200 | 61,100 | -82,200 | -13,700 | -6,900 | 12,600 | -60,800 |
| 2059 (W) | 87,800 | 75,600 | -90,400 | -14,600 | -10,900 | 51,800 | -9,100 |
| 2060 (D) | 25,200 | 31,500 | -95,500 | -19,700 | -8,500 | -62,700 | -71,800 |
| 2061 (C) | 38,000 | 36,700 | -88,500 | -27,900 | -4,500 | -42,200 | -113,900 |
| 2062 (D) | 50,000 | 31,900 | -86,700 | -23,000 | -2,800 | -26,400 | -140,400 |
| 2063 (BN) | 68,400 | 56,900 | -83,400 | -17,700 | -3,000 | 25,400 | -115,000 |
| 2064 (W) | 90,700 | 60,700 | -88,000 | -15,100 | -4,800 | 47,800 | -67,200 |
| 2065 (BN) | 41,700 | 31,200 | -91,900 | -21,500 | -4,800 | -41,100 | -108,300 |
| 2066 (D) | 49,300 | 38,600 | -91,000 | -28,700 | -3,000 | -30,500 | -138,900 |
| 2067 (C) | 39,000 | 22,700 | -90,600 | -31,300 | -1,200 | -57,400 | -196,300 |
| 2068 (C) | 50,200 | 36,600 | -86,500 | -39,000 | -600 | -35,200 | -231,400 |
| 2069 (BN) | 83,300 | 44,700 | -86,000 | -25,900 | -600 | 19,600 | -211,900 |
| 2070 (W) | 124,000 | 74,100 | -92,500 | -20,800 | -2,000 | 86,800 | -125,000 |
| 2071 (BN) | 62,300 | 27,900 | -99,500 | -25,300 | -1,700 | -32,200 | -157,200 |
| 2072 (W) | 96,300 | 70,800 | -93,500 | -18,500 | -2,600 | 56,600 | -100,600 |
| Average (2022-2072) | 58,600 | 51,400 | -89,200 | -20,800 | -6,100 | -2,000 | -88,300 |



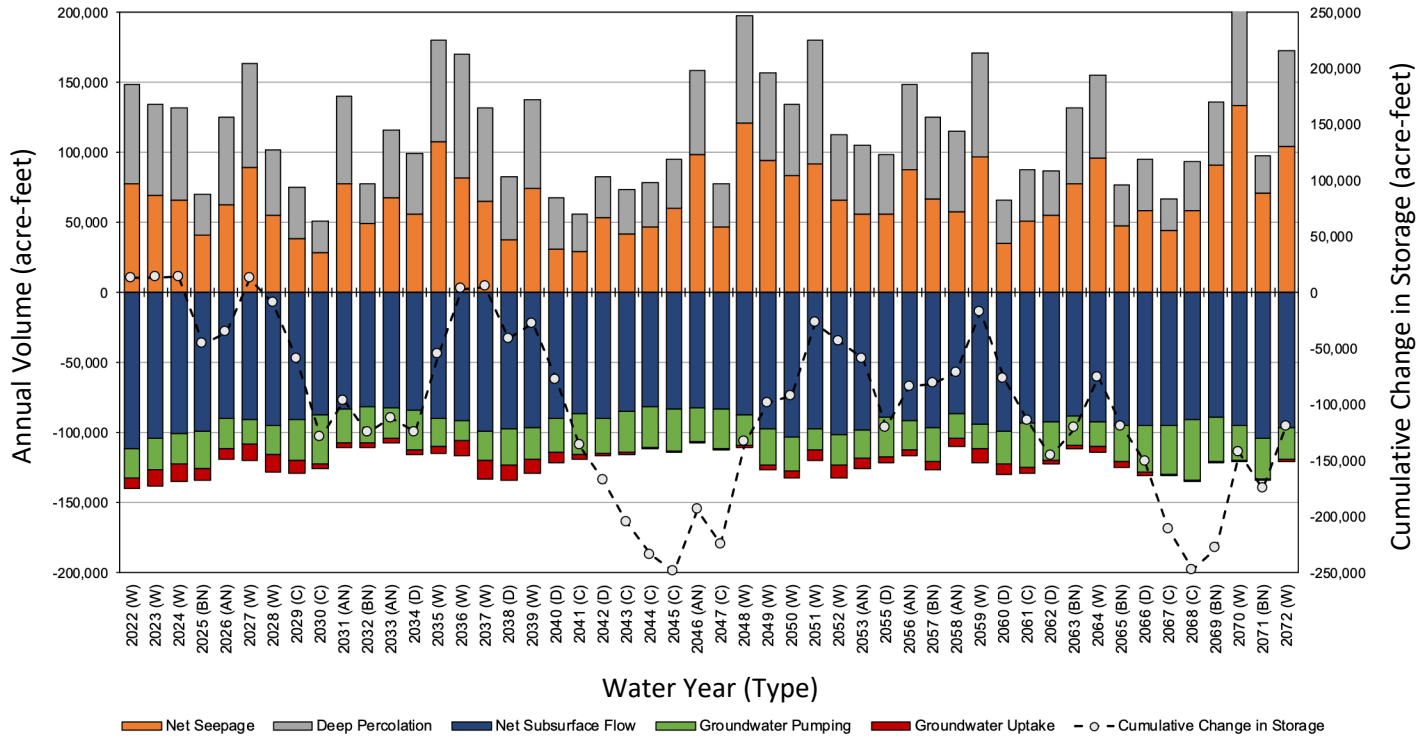

Los Molinos Subbasin Projected Water Budget Summary with Current Land Use

# Water Budget (Projected with Climate Change)

TEHAMA COUNTY
Flood Control and Water Conservation District

Los Molinos Subbasin Projected Water Budget Summary with Climate Change (acre-feet, rounded)

| WY (Type) | Net Seepage | Deep Percolation | Net Subsurface Flows | Groundwater Pumping | Groundwater Uptake | Annual Groundwater Storage Change | Cumulative Groundwater Storage Change |
|---|---|---|---|---|---|---|---|
| 2020 (D) | 22,400 | 33,100 | -139,000 | -21,400 | -12,300 | -113,100 | 0 |
| 2021 (C) | 16,000 | 23,700 | -131,500 | -32,400 | -8,400 | -128,500 | 0 |
| 2022 (W) | 77,800 | 70,600 | -111,200 | -20,900 | -7,500 | 12,900 | 12,900 |
| 2023 (W) | 69,100 | 65,100 | -104,300 | -22,400 | -11,100 | 600 | 13,400 |
| 2024 (W) | 66,100 | 65,400 | -100,700 | -21,600 | -12,500 | 800 | 14,200 |
| 2025 (BN) | 41,300 | 28,600 | -99,000 | -26,600 | -8,800 | -60,300 | -46,100 |
| 2026 (AN) | 62,800 | 62,300 | -89,400 | -21,900 | -7,400 | 10,400 | -35,700 |
| 2027 (W) | 89,000 | 74,500 | -90,900 | -17,000 | -11,500 | 48,200 | 12,600 |
| 2028 (W) | 55,500 | 45,900 | -95,200 | -20,500 | -12,200 | -22,200 | -9,600 |
| 2029 (C) | 38,200 | 37,200 | -90,800 | -29,400 | -8,600 | -49,300 | -58,900 |
| 2030 (C) | 28,700 | 22,300 | -87,700 | -34,400 | -3,400 | -70,300 | -129,200 |
| 2031 (AN) | 77,300 | 62,300 | -83,500 | -24,200 | -3,200 | 33,000 | -96,200 |
| 2032 (BN) | 49,700 | 28,000 | -81,500 | -26,100 | -3,100 | -28,900 | -125,100 |
| 2033 (AN) | 67,600 | 48,300 | -82,400 | -21,600 | -3,000 | 13,000 | -112,100 |
| 2034 (D) | 55,800 | 43,200 | -83,700 | -28,300 | -3,400 | -12,200 | -124,300 |
| 2035 (W) | 107,700 | 72,000 | -90,000 | -19,800 | -5,100 | 69,100 | -55,200 |
| 2036 (W) | 81,400 | 89,100 | -91,700 | -14,000 | -10,600 | 58,500 | 3,300 |
| 2037 (W) | 65,300 | 66,100 | -98,800 | -21,100 | -13,700 | 2,000 | 5,300 |
| 2038 (D) | 37,700 | 45,300 | -97,600 | -25,100 | -10,800 | -46,400 | -41,100 |
| 2039 (W) | 74,200 | 63,700 | -96,300 | -23,000 | -9,300 | 13,500 | -27,600 |
| 2040 (D) | 30,900 | 36,700 | -89,600 | -24,700 | -7,400 | -50,000 | -77,600 |
| 2041 (C) | 29,300 | 26,700 | -86,800 | -28,700 | -3,500 | -58,900 | -136,500 |
| 2042 (D) | 53,300 | 28,900 | -89,800 | -25,200 | -1,800 | -30,500 | -167,000 |
| 2043 (C) | 41,600 | 31,800 | -84,800 | -29,300 | -1,200 | -37,900 | -204,900 |
| 2044 (C) | 47,100 | 31,200 | -81,900 | -28,900 | -700 | -29,200 | -234,000 |
| 2045 (C) | 60,200 | 34,600 | -83,300 | -29,900 | -500 | -15,000 | -249,000 |
| 2046 (AN) | 98,400 | 60,200 | -82,700 | -24,100 | -800 | 55,200 | -193,800 |
| 2047 (C) | 46,600 | 31,400 | -83,400 | -28,300 | -800 | -30,300 | -224,200 |
| 2048 (W) | 121,100 | 76,400 | -87,100 | -21,800 | -1,700 | 91,000 | -133,100 |
| 2049 (W) | 94,000 | 62,700 | -97,200 | -25,600 | -3,600 | 34,500 | -98,600 |
| 2050 (W) | 83,100 | 51,400 | -103,400 | -24,300 | -4,800 | 6,400 | -92,200 |
| 2051 (W) | 92,100 | 88,300 | -97,200 | -15,000 | -7,400 | 64,900 | -27,300 |
| 2052 (W) | 66,100 | 46,200 | -101,300 | -21,800 | -9,200 | -16,100 | -43,400 |
| 2053 (AN) | 56,000 | 49,400 | -98,400 | -19,900 | -7,100 | -15,700 | -59,100 |
| 2054 (D) | 37,300 | 36,300 | -90,000 | -25,600 | -5,100 | -42,900 | -102,000 |
| 2055 (D) | 55,700 | 42,800 | -89,000 | -28,300 | -3,700 | -18,600 | -120,600 |
| 2056 (AN) | 87,900 | 60,500 | -91,600 | -20,300 | -4,100 | 36,500 | -84,100 |
| 2057 (BN) | 66,600 | 58,800 | -96,700 | -24,300 | -5,700 | 2,900 | -81,200 |
| 2058 (AN) | 57,600 | 57,700 | -86,400 | -17,200 | -5,800 | 10,000 | -71,200 |
| 2059 (W) | 96,800 | 74,100 | -93,800 | -17,700 | -9,500 | 54,000 | -17,200 |
| 2060 (D) | 35,200 | 30,600 | -98,900 | -23,000 | -7,400 | -59,400 | -76,600 |
| 2061 (C) | 51,000 | 36,600 | -93,400 | -31,800 | -4,100 | -37,500 | -114,100 |
| 2062 (D) | 55,300 | 31,000 | -92,400 | -27,200 | -2,500 | -31,700 | -145,800 |
| 2063 (BN) | 77,400 | 54,300 | -88,300 | -20,200 | -2,500 | 24,700 | -121,000 |
| 2064 (W) | 96,000 | 59,400 | -92,700 | -17,400 | -4,100 | 45,500 | -75,600 |
| 2065 (BN) | 47,300 | 29,500 | -95,200 | -25,800 | -4,000 | -43,900 | -119,500 |
| 2066 (D) | 58,300 | 36,600 | -94,500 | -33,400 | -2,400 | -31,300 | -150,800 |
| 2067 (C) | 44,700 | 22,200 | -94,400 | -35,700 | -800 | -59,900 | -210,700 |
| 2068 (C) | 58,100 | 35,200 | -90,300 | -43,600 | -400 | -36,800 | -247,400 |
| 2069 (BN) | 91,300 | 44,600 | -89,100 | -31,100 | -400 | 19,400 | -228,000 |
| 2070 (W) | 133,800 | 68,300 | -95,100 | -24,400 | -1,400 | 85,400 | -142,700 |
| 2071 (BN) | 71,200 | 26,400 | -103,600 | -29,300 | -1,100 | -32,200 | -174,900 |
| 2072 (W) | 104,500 | 67,900 | -96,400 | -22,300 | -1,900 | 55,900 | -119,000 |
| Average (2022-2072) | 66,500 | 49,400 | -92,400 | -24,800 | -5,100 | -2,300 | -100,800 |




Los Molinos Subbasin Projected Water Budget Summary with Current Land Use

# Proposed SMC Development Process

TEHAMA COUNTY
Flood Control and Water Conservation District

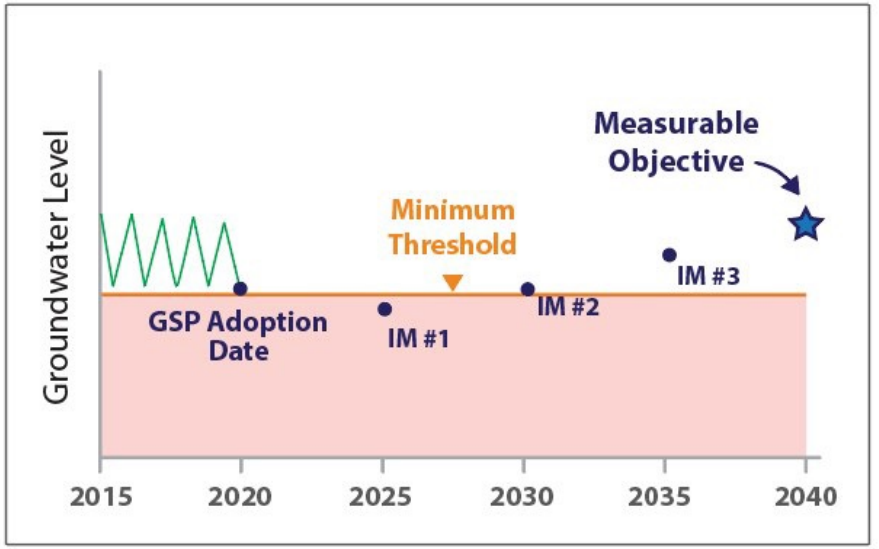
The charge under SGMA is to build a “thermometer” for each of the six groundwater sustainability indicators

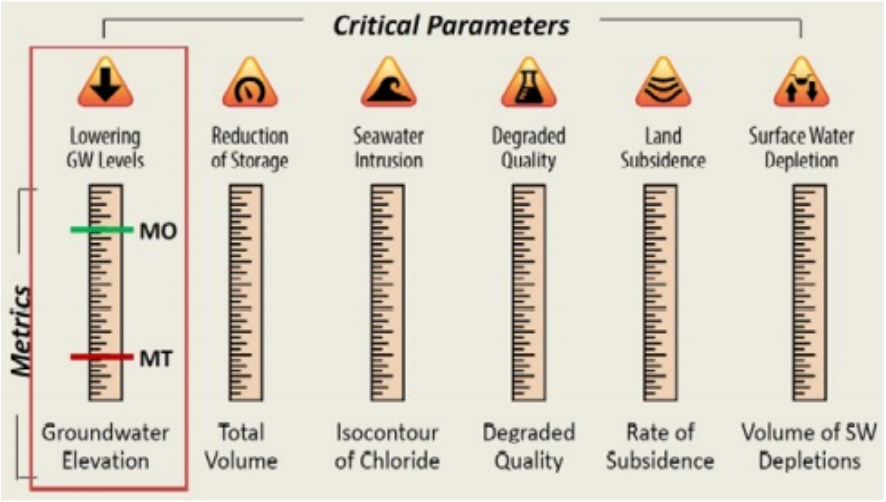
1. Define what is healthy/sustainable
2. Define what is unhealthy/unsustainable
3. Determine what to do when not healthy or close to not healthy

# GSP Chapter 3 Sustainable Management Criteria

TEHAMA COUNTY
Flood Control and Water Conservation District

1. Sustainable Management Goal
2. Measurable Objectives
3. Minimum Thresholds
4. Undesirable Results
5. Monitoring Network



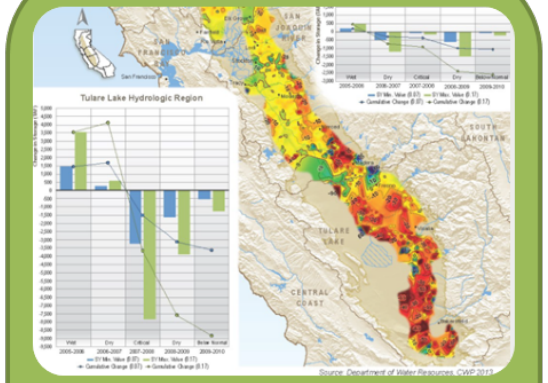



# Sustainability Indicator Examples

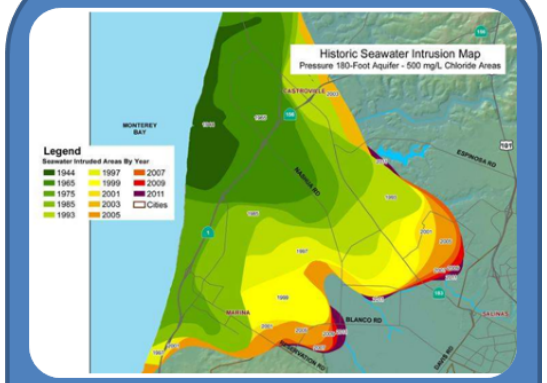




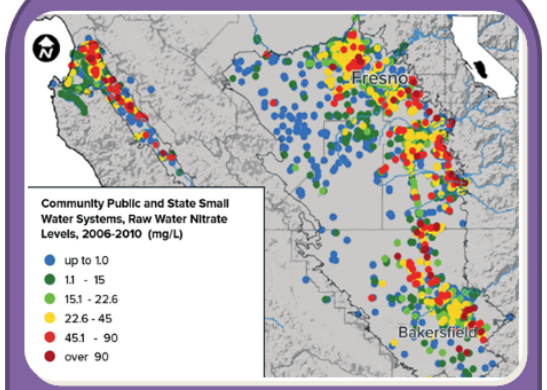
Lowering of GW Levels




Reduction of GW Storage




Seawater Intrusion




Degraded Water Quality



Land Subsidence



Depletion of Inter-connected Streams

Source: DWR

# Sustainable Management Criteria (SMC)

TEHAMA COUNTY
Flood Control and Water Conservation District

*Locally Agreed Upon (Qualitative)*

**Undesirable Conditions**

**Sustainable Management Criteria**

**Measurable Objectives**

**Minimum Thresholds**

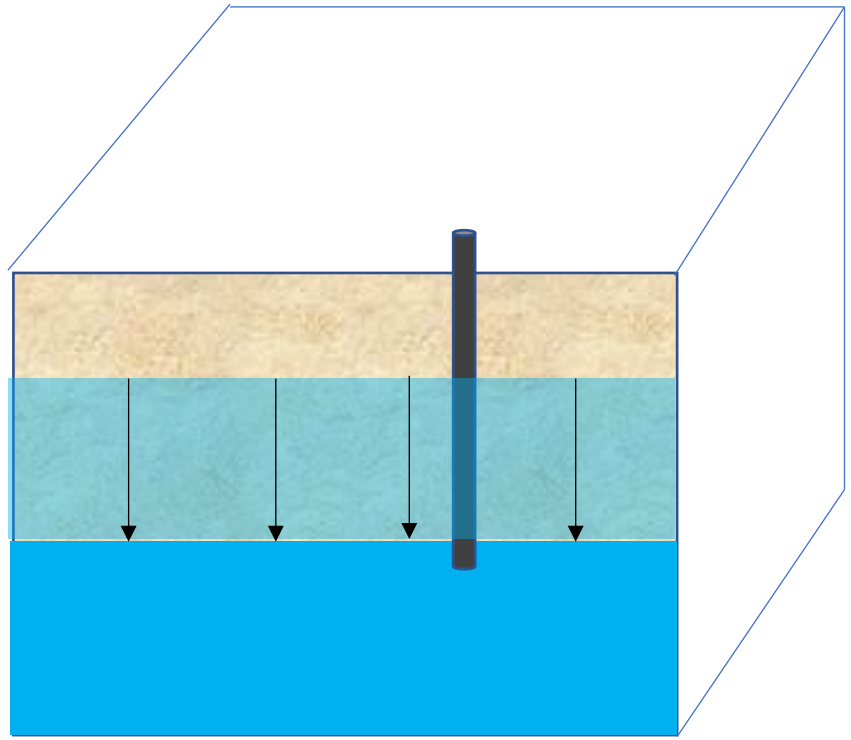
**Interim Milestones**

**Undesirable Result – Combination of MT Exceedances**

*Locally Agreed Upon (Quantitative)*

# Chronic Lowering of Groundwater Levels

TEHAMA COUNTY
Flood Control and Water Conservation District



- Continued lowering of groundwater levels can lead to undesirable results for all beneficial users

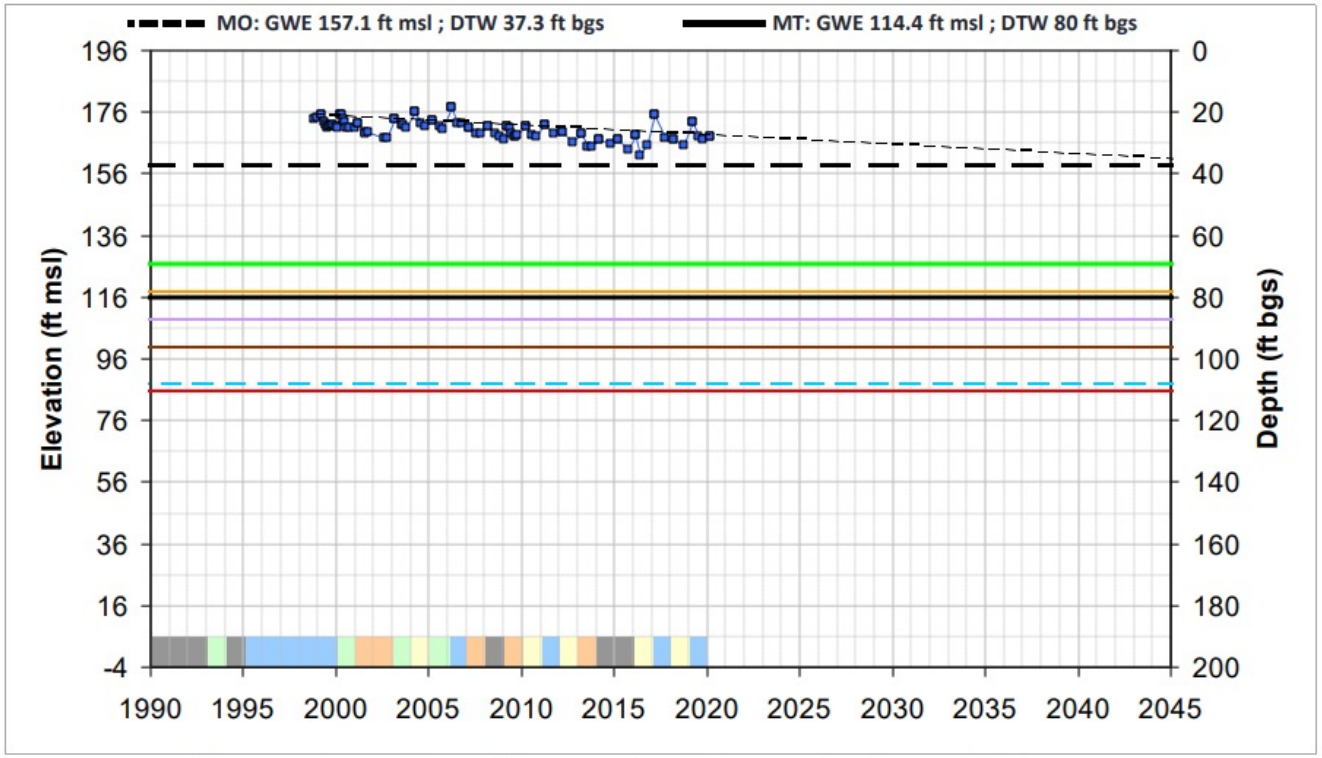
- Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and recharge are managed as necessary to ensure that reductions during a period of drought are offset by increases during other periods

# Chronic Lowering of Groundwater Levels

TEHAMA COUNTY
Flood Control and Water Conservation District

**LM-5 SWN: 24N02W25G001M (in Los Molinos Subbasin)** **Well Depth (ft): 256; Screens (ft bgs): 108 - 256**

**MO method: SP 2042 DTW + 5 ft** **Aquifer: Upper; Well Type: Irrigation**




Upper Aquifer grid: G-7; Analysis based on domestic wells constructed since 1980

| Number of wells in Upper Aq. Grid | | | | Number of wells shallower than: | | | | |
|---|---|---|---|---|---|---|---|---|
| All Wells | Up Aq. | Low Aq. | Composite/ Aq. Unknown | 10th pct | 20th pct | 30th pct | 40th pct | 50th pct |
| 63 | 62 | 0 | 1 | 8 | 14 | 19 | 26 | 32 |

# Chronic Lowering of Groundwater Levels

TEHAMA COUNTY
Flood Control and Water Conservation District

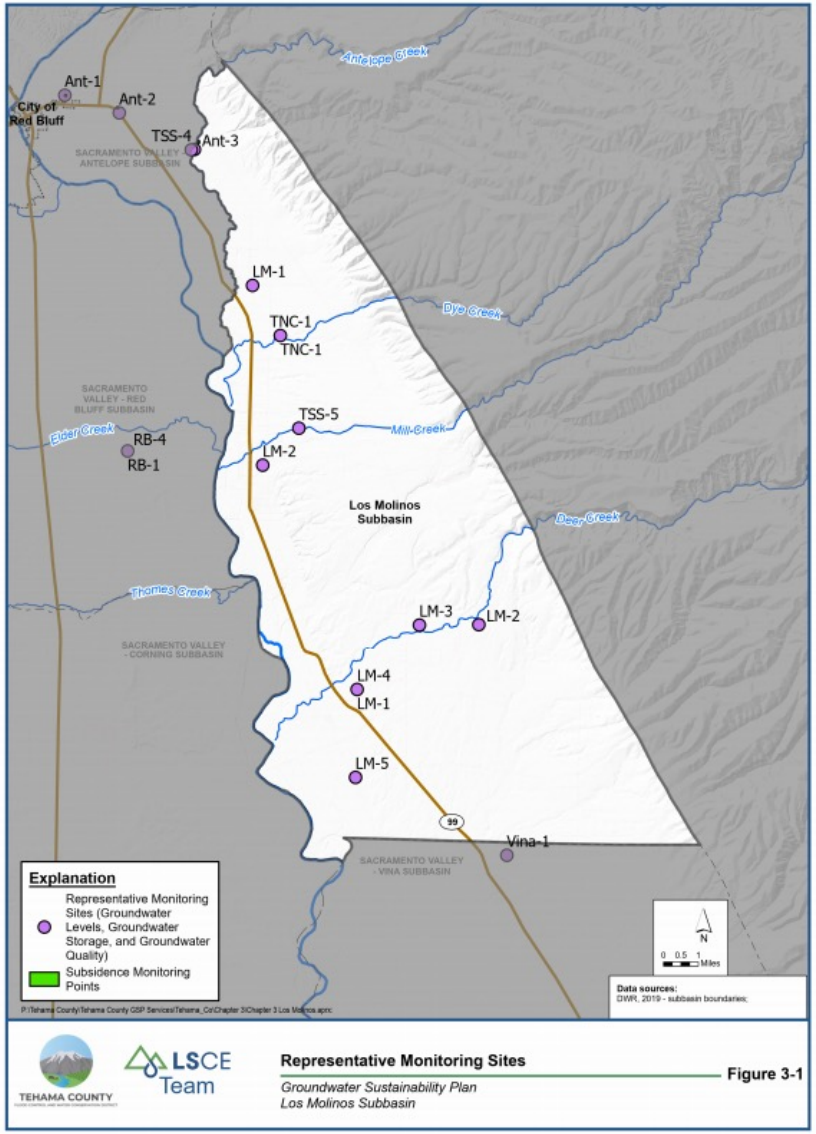
| Sustainability Indicator | Minimum Threshold | Measurable Objective | Undesirable Result |
|---|---|---|---|
| Chronic Lowering of Groundwater Elevations | **Upper Aquifer:** Spring groundwater elevation where less than 10 - 20% (on average) of domestic wells could potentially be impacted. **Lower Aquifer:** Spring groundwater elevation plus 20 to 120 feet | **Upper & Lower Aquifer:** Spring 2015 groundwater elevation minus 5 feet (for wells with increasing or no groundwater trends) or projected Spring 2042 groundwater elevation minus 5 feet for wells with declining groundwater elevations | 25% of groundwater elevations measured at same RMS wells exceed the associated MT for 2 consecutive measurements. *If the water year is dry or critically dry, then levels below the MT are not undesirable if groundwater management allows for recovery in average or wetter years* |

Table 3-7. Minimum Thresholds and Interim Milestones for the Chronic Lowering of Water Elevations – Upper Aquifer

| Well Name | SWN | Interim Milestone 5 Years (ft NAVD88) | Interim Milestone 10 Years (ft NAVD88) | Interim Milestone 15 Years (ft NAVD88) | Measurable Objective (ft NAVD88) | Minimum Threshold (ft NAVD88) |
|---|---|---|---|---|---|---|
| LM-1 | 26N02W16C001M | 217.9325 | 218.255 | 218.5775 | 218.9 | 172.4 |
| LM-2 | 25N02W09G001M | 220.575 | 220.35 | 220.125 | 219.9 | 174.4 |
| LM-3 | 25N01W32P001M | 216.6075 | 213.005 | 209.4025 | 205.8 | 163.4 |
| LM-4 | 24N02W12P001M | 191.1075 | 188.305 | 185.5025 | 182.7 | 118.4 |
| LM-5 | 24N02W25G001M | 164.0825 | 161.755 | 159.4275 | 157.1 | 114.4 |
| TNC-1 | 26N02W02E00006M | TBD | TBD | TBD | TBD | TBD |
| TSS-5 | TBD | TBD | TBD | TBD | TBD | TBD |

Table 3-8. Minimum Threshold and Interim Milestones for the Chronic Lowering of Water Elevations - Lower Aquifer

| Well Name | SWN | Interim Milestone 5 Years (ft NAVD88) | Interim Milestone 10 Years (ft NAVD88) | Interim Milestone 15 Years (ft NAVD88) | Measurable Objective (ft NAVD88) | Minimum Threshold (ft NAVD88) |
|---|---|---|---|---|---|---|
| LM-1 (lower) | 24N02W12P002M | 190.9375 | 188.325 | 185.7125 | 183.1 | 68.4 |
| LM-2 (lower) | 25N01W34N003M | 207.9475 | 204.065 | 200.1825 | 196.3 | 96.4 |
| TNC-1 | 26N02W02E00006M | TBD | TBD | TBD | TBD | TBD |
| TSS-5 | TBD | TBD | TBD | TBD | TBD | TBD |

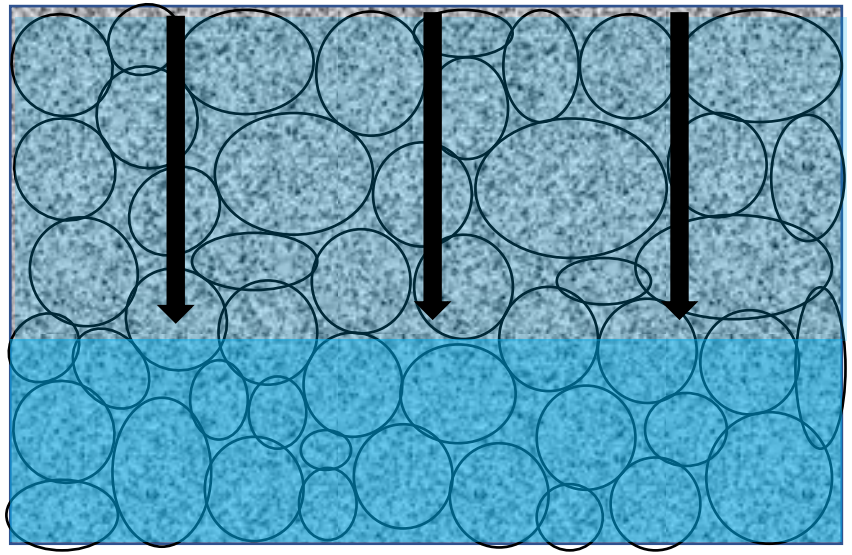


# Reduction of Groundwater Storage

TEHAMA COUNTY
Flood Control and Water Conservation District

- Decline in groundwater storage would result in a decreased availability of groundwater for agriculture, municipal, industrial and domestic uses.

- Projects and/or Management actions would be required to mitigate these reductions in storage.



# Reduction of Groundwater Storage

TEHAMA COUNTY
Flood Control and Water Conservation District

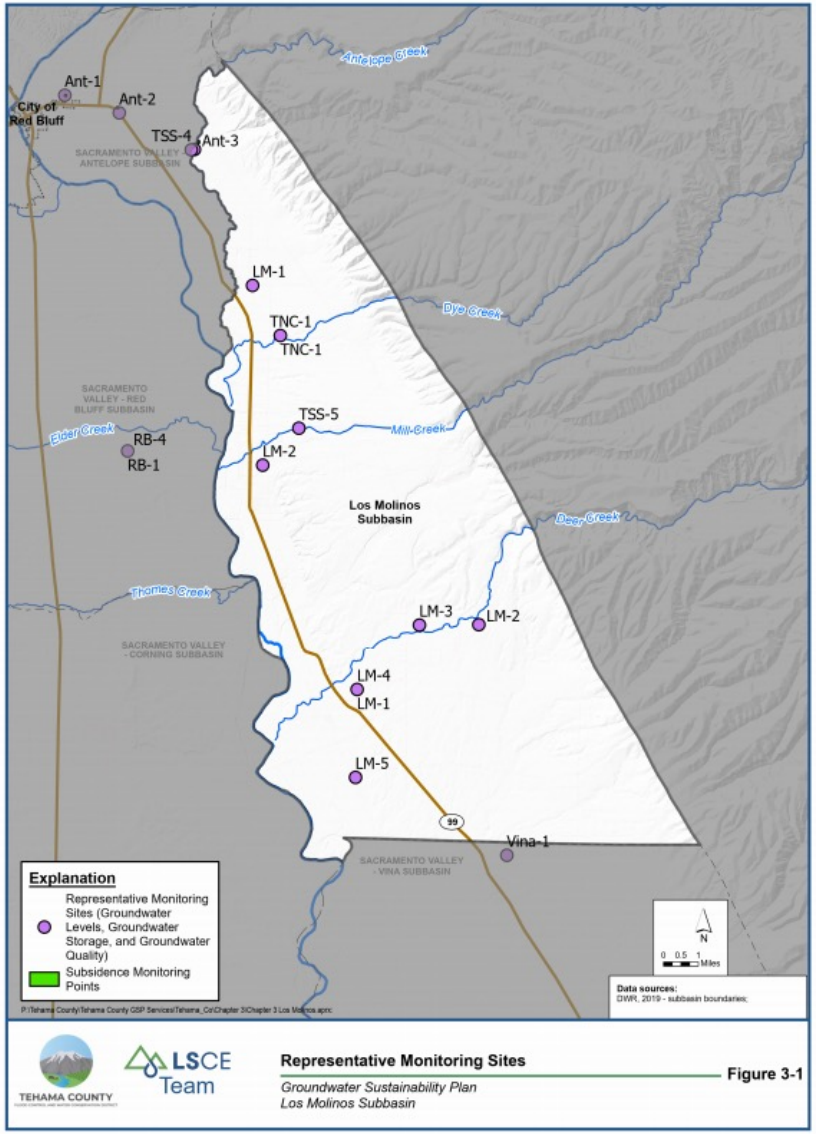
| Sustainability Indicator | Minimum Threshold | Measurable Objective | Undesirable Result |
|---|---|---|---|
| Reduction of Groundwater Storage | Upper & Lower Aquifer: Amount of groundwater in storage when groundwater elevations are at their MT | Upper & Lower Aquifer: Amount of groundwater storage when groundwater elevations are at their measurable objective | Same as chronic lowering of groundwater levels |

Table 3-7. Minimum Thresholds and Interim Milestones for the Chronic Lowering of Water Elevations – Upper Aquifer

| Well Name | SWN | Interim Milestone 5 Years (ft NAVD88) | Interim Milestone 10 Years (ft NAVD88) | Interim Milestone 15 Years (ft NAVD88) | Measurable Objective (ft NAVD88) | Minimum Threshold (ft NAVD88) |
|---|---|---|---|---|---|---|
| LM-1 | 26N02W16C001M | 217.9325 | 218.255 | 218.5775 | 218.9 | 172.4 |
| LM-2 | 25N02W09G001M | 220.575 | 220.35 | 220.125 | 219.9 | 174.4 |
| LM-3 | 25N01W32P001M | 216.6075 | 213.005 | 209.4025 | 205.8 | 163.4 |
| LM-4 | 24N02W12P001M | 191.1075 | 188.305 | 185.5025 | 182.7 | 118.4 |
| LM-5 | 24N02W25G001M | 164.0825 | 161.755 | 159.4275 | 157.1 | 114.4 |
| TNC-1 | 26N02W02E00006M | TBD | TBD | TBD | TBD | TBD |
| TSS-5 | TBD | TBD | TBD | TBD | TBD | TBD |

Table 3-8. Minimum Threshold and Interim Milestones for the Chronic Lowering of Water Elevations - Lower Aquifer

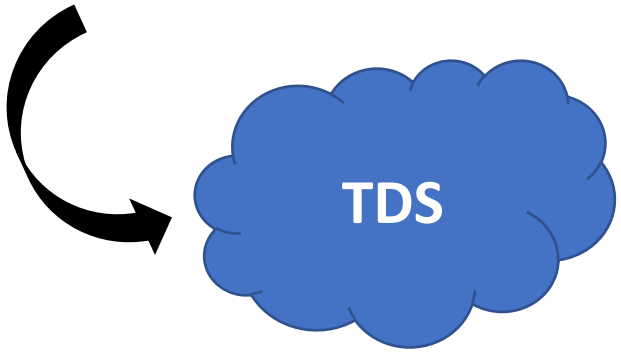
| Well Name | SWN | Interim Milestone 5 Years (ft NAVD88) | Interim Milestone 10 Years (ft NAVD88) | Interim Milestone 15 Years (ft NAVD88) | Measurable Objective (ft NAVD88) | Minimum Threshold (ft NAVD88) |
|---|---|---|---|---|---|---|
| LM-1 (lower) | 24N02W12P002M | 190.9375 | 188.325 | 185.7125 | 183.1 | 68.4 |
| LM-2 (lower) | 25N01W34N003M | 207.9475 | 204.065 | 200.1825 | 196.3 | 96.4 |
| TNC-1 | 26N02W02E00006M | TBD | TBD | TBD | TBD | TBD |
| TSS-5 | TBD | TBD | TBD | TBD | TBD | TBD |



# Degradation of Water Quality







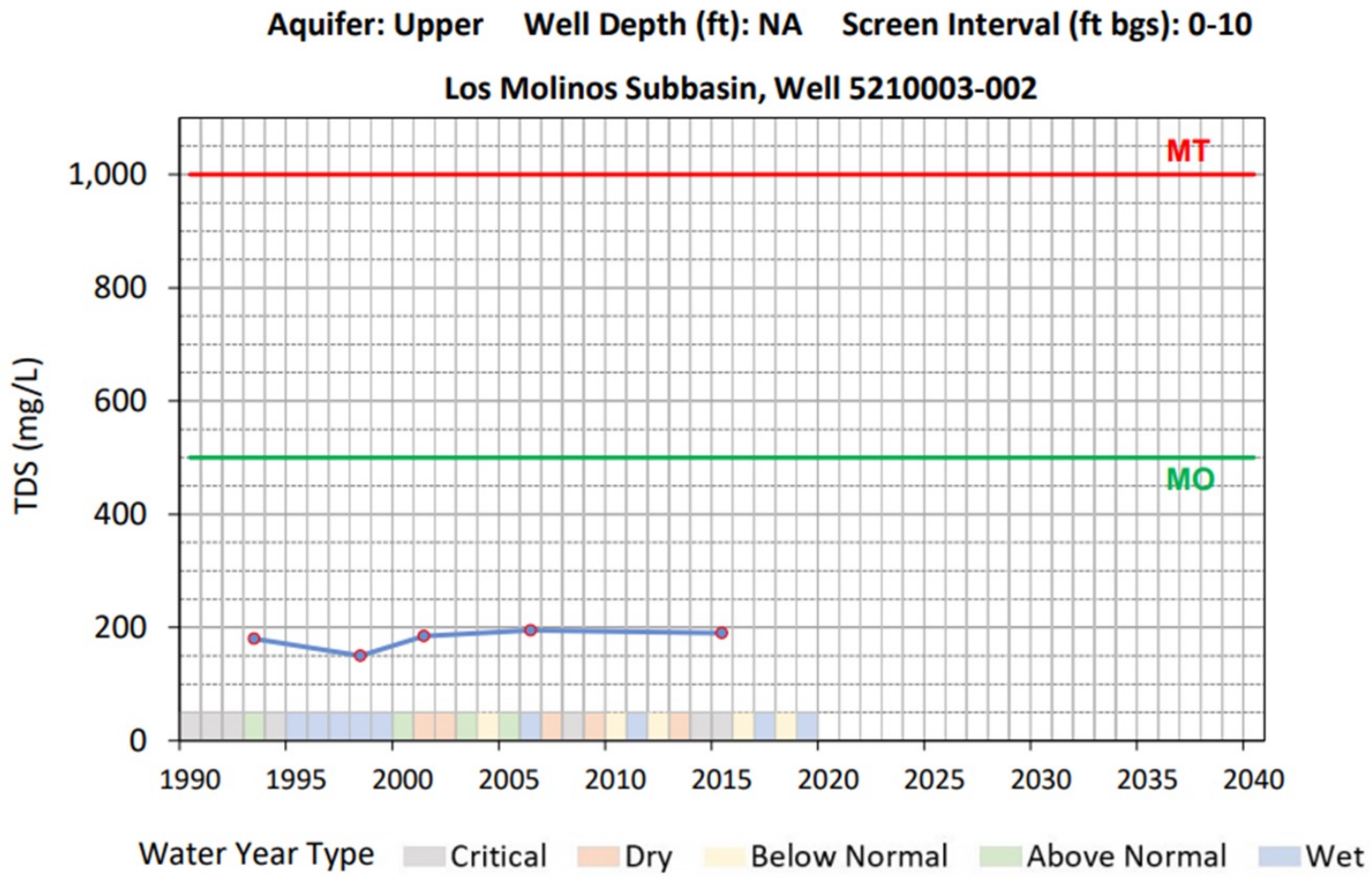

- Degradation of water quality is considered significant and undesirable if the magnitude of degradation renders groundwater in pre-existing wells unusable without management actions

- Within these four subbasins, TDS will be used as indicators for water quality degradation

*Total Dissolved Solids (TDS)*

# Degradation of Water Quality

TEHAMA COUNTY
Flood Control and Water Conservation District



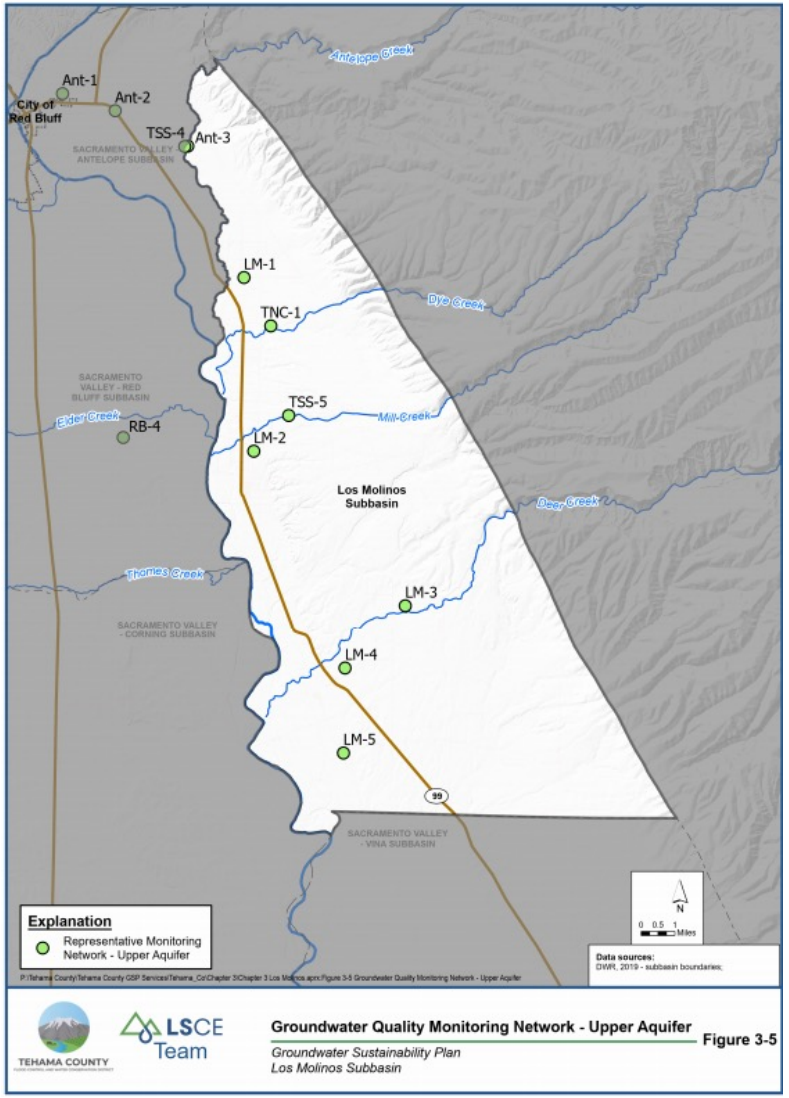
# Degradation of Water Quality



| Sustainability Indicator | Minimum Threshold | Measurable Objective | Undesirable Result |
|---|---|---|---|
| Degraded Water Quality | Upper & Lower Aquifer: TDS concentration of 750 mg/L at all RMS wells | Upper & Lower Aquifer: California lower limit secondary MCL concentration for TDS of 500 mg/L measured at RMS wells | At least 25% of RMS exceed the MT for water quality for 2 consecutive years at each well where it can be established that GSP implementation is the cause of the exceedance |

**Table 3-10. Minimum Thresholds, Measurable Objectives, and Interim Milestones for Groundwater Quality**

| Well Name | Interim Milestone 5 Years (TDS mg/L) | Interim Milestone 10 Years (TDS mg/L) | Interim Milestone 15 Years (TDS mg/L) | Measurable Objective (TDS mg/L) | Minimum Threshold (TDS mg/L) |
|---|---|---|---|---|---|
| LM-1 | TBD | TBD | TBD | 500 | 750 |
| LM-2 | TBD | TBD | TBD | 500 | 750 |
| LM-3 | TBD | TBD | TBD | 500 | 750 |
| LM-4 | TBD | TBD | TBD | 500 | 750 |
| LM-5 | TBD | TBD | TBD | 500 | 750 |
| TNC-1 | TBD | TBD | TBD | 500 | 750 |
| TSS-5 | TBD | TBD | TBD | 500 | 750 |

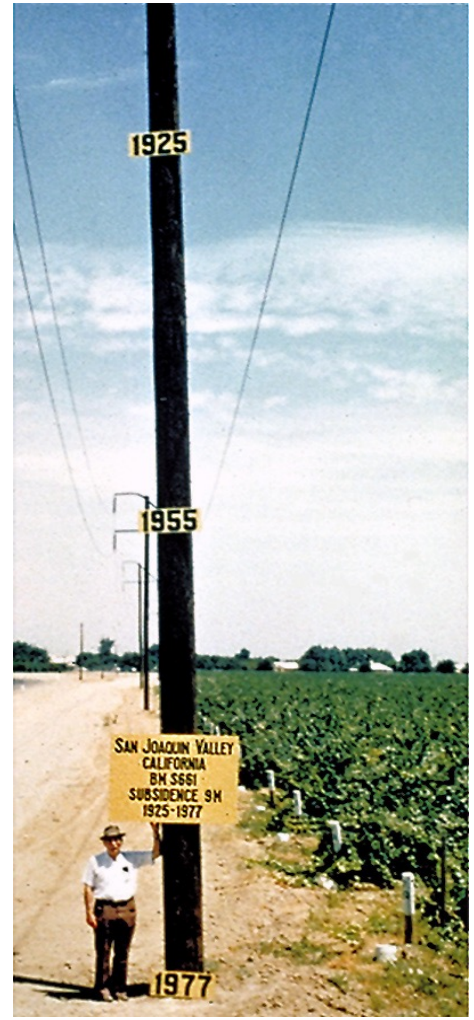


# Land Subsidence

TEHAMA COUNTY
Flood Control and Water Conservation District

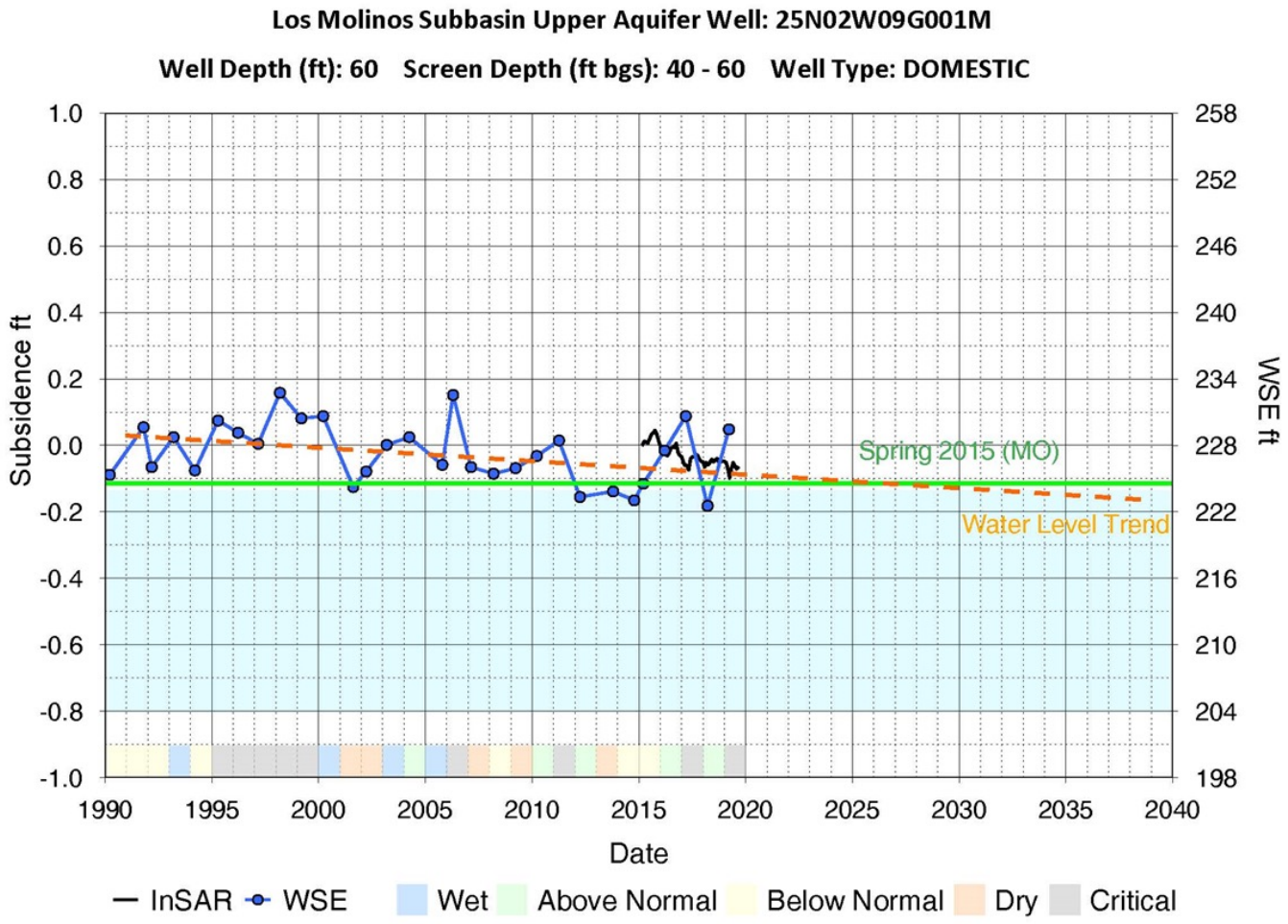
- Historically, Tehama County has experienced minor levels of subsidence

- Typically (Not the case in Tehama County ), in areas near significant infrastructure minimal amounts of additional subsidence could be significant and unreasonable due to the susceptibility of infrastructure to subsidence



# Land Subsidence

TEHAMA COUNTY
Flood Control and Water Conservation District



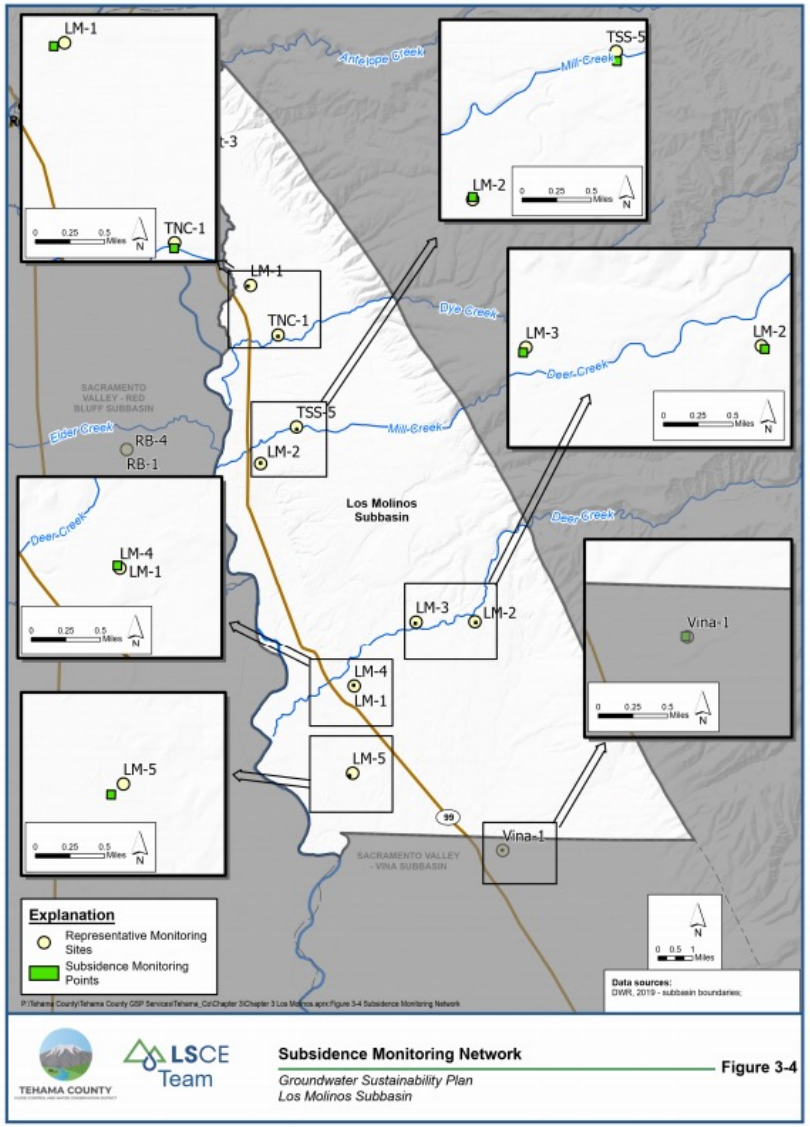
# Land Subsidence

TEHAMA COUNTY
Flood Control and Water Conservation District

| Sustainability Indicator | Minimum Threshold | Measurable Objective | Undesirable Result |
|---|---|---|---|
| Land Subsidence | Two feet over 20 years (i.e., no more than 0.5 feet of cumulative subsidence over a five-year period (beyond the measurement error), solely due to lowering of groundwater elevations | One foot over 20 years (Zero inelastic subsidence, in addition to any measurement error). If InSAR data are used, the measurement error is 0.1 feet and any measurement 0.1 feet or less would not be considered inelastic subsidence | 50% of RMS exceed the MT over a 5-year period that is irreversible and is caused by lowering of groundwater elevations |

**Table 3-9. Minimum Thresholds and Interim Milestones for Subsidence**

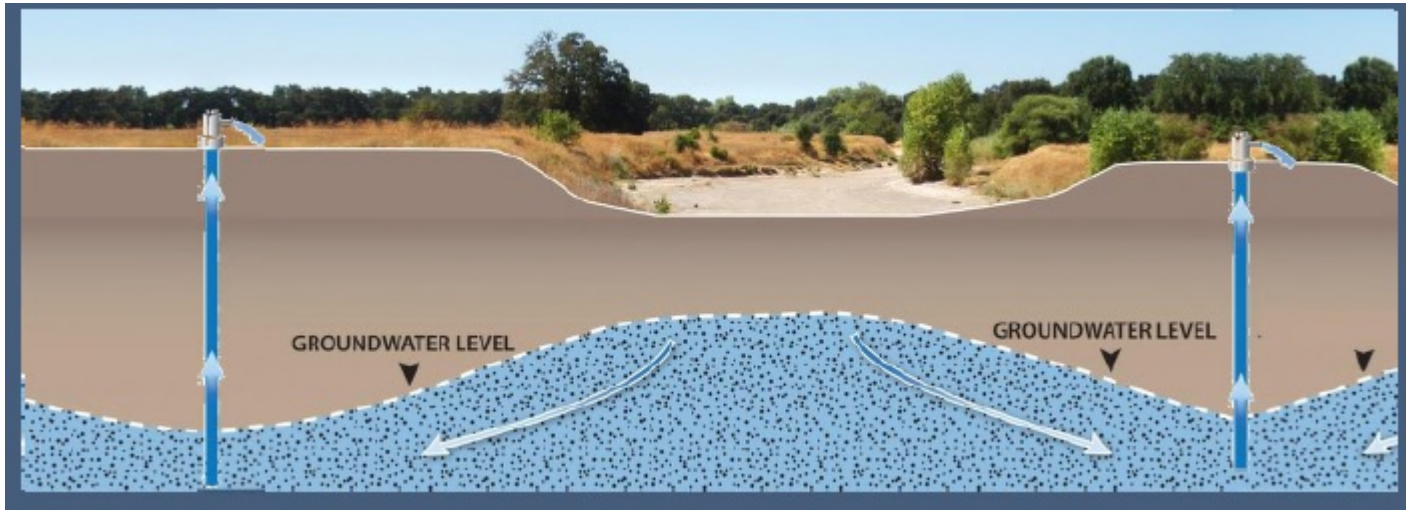
| InSAR Pixel | Interim Milestone 5 Years (ft) | Interim Milestone 10 Years (ft) | Interim Milestone 15 Years (ft) | Measurable Objective (ft) | Minimum Threshold (ft) |
|---|---|---|---|---|---|
| DSZHH9K | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DRMNXO0 | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DQF7AKD | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DPXCAE7 | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DP8XILA | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DQFSQ6X | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DSLSID3 | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |
| DRW6VCX | -1.75 | -1.5 | -1.25 | -1.0 | -2.0 |



# Depletion of Inter-Connected Surface Water



- Lowered groundwater table (from pumping) impacts groundwater dependent ecosystems
- Areas where DTW>30 feet bgs are not considered GDEs
- Areas where DTW <30 feet are considered GDEs




*Depth to Water (DTW)*
*Below Ground Surface (BGS)*
*Groundwater Dependent Ecosystems (GDE)*

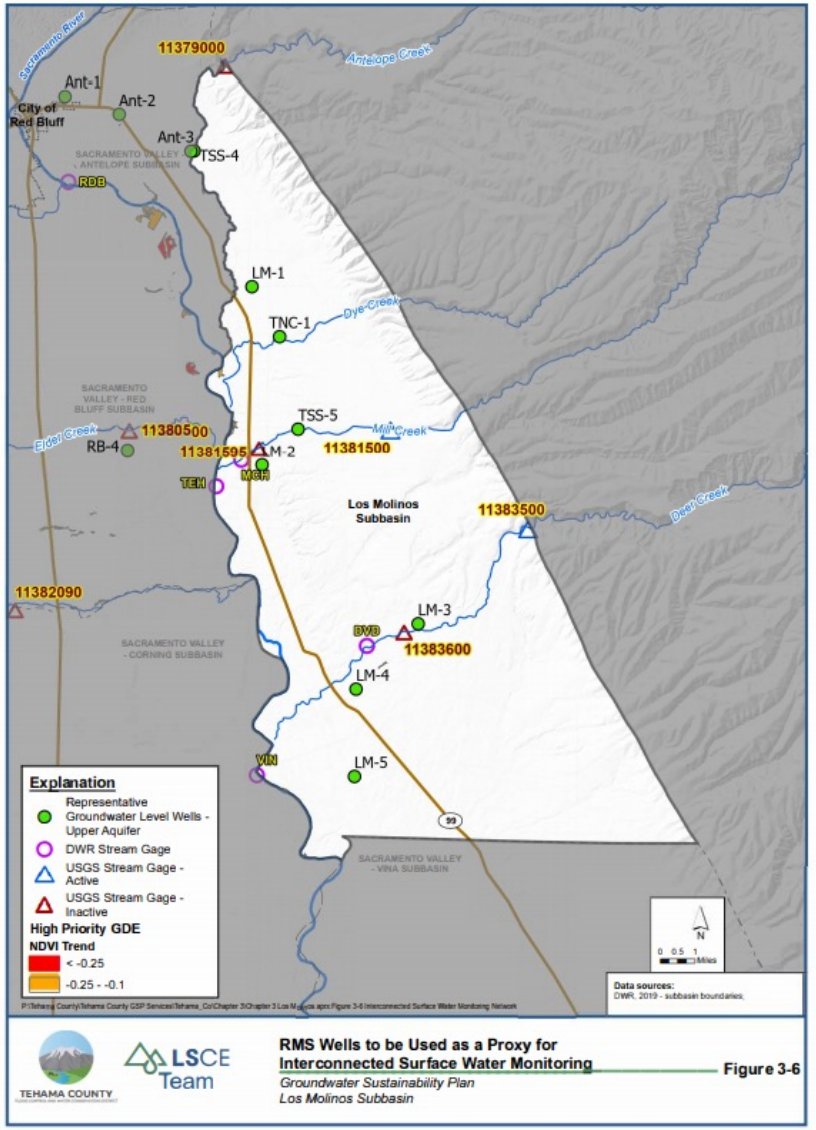
# Depletion of Inter-Connected Surface Water

TEHAMA COUNTY
Flood Control and Water Conservation District

| Sustainability Indicator | Minimum Threshold | Measurable Objective | Undesirable Result |
|---|---|---|---|
| Depletion of Interconnected Surface Water | Same as chronic lowering of | Same as chronic lowering of | 25% of groundwater elevations measured at RMS wells drop below the associated threshold |

**Table 3-11. Initial Minimum Thresholds and Interim Milestones for Interconnected Surface Water Depletions**

| Well Name | SWN | Interim Milestone 5 Years (ft NAVD88) | Interim Milestone 10 Years (ft NAVD88) | Interim Milestone 15 Years (ft NAVD88) | Measurable Objective (ft NAVD88) | Minimum Threshold (ft NAVD88) |
|---|---|---|---|---|---|---|
| LM-1 | 26N02W16C001M | 217.9325 | 218.255 | 218.5775 | 218.9 | 172.4 |
| LM-2 | 25N02W09G001M | 220.575 | 220.35 | 220.125 | 219.9 | 174.4 |
| LM-3 | 25N01W32P001M | 216.6075 | 213.005 | 209.4025 | 205.8 | 163.4 |
| LM-4 | 24N02W12P001M | 191.1075 | 188.305 | 185.5025 | 182.7 | 118.4 |
| LM-5 | 24N02W25G001M | 164.0825 | 161.755 | 159.4275 | 157.1 | 114.4 |
| TNC-1 | 26N02W02E006M | TBD | TBD | TBD | TBD | TBD |
| TSS-5 | TBD | TBD | TBD | TBD | TBD | TBD |



# GSP Chapter 4 Projects and Management Actions

TEHAMA COUNTY
Flood Control and Water Conservation District

- Projects and management actions may have to be developed to address sustainability goals, measurable objectives, and undesirable results within each of the subbasins in Tehama County, with a view towards reducing the potential socioeconomic impacts associated with actions required to sustainability manage the Subbasins.
- Potential PMAs may fall under several categories, including but not limited to the following:
  - Recharge projects
  - Supply augmentation projects
  - Water conservation projects
  - Projects to reduce non-beneficial consumptive use
  - Groundwater pumping allocations
  - Monitoring programs (groundwater pumping, water levels, stream flows, etc.)

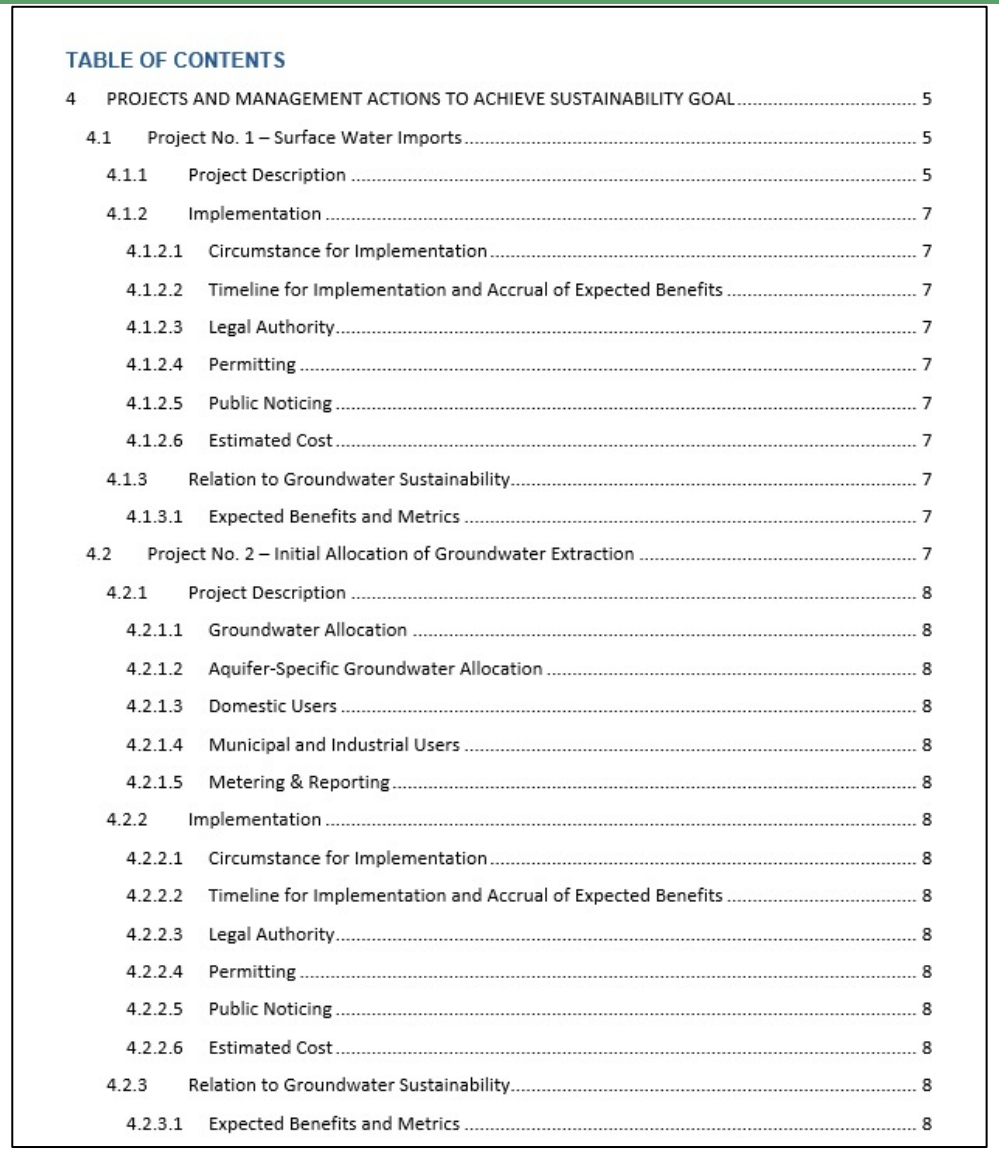


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# GSP Chapter 4 Projects and Management Actions

TEHAMA COUNTY
Flood Control and Water Conservation District

| WY Type | Cottonwood | | | | Mill | | | | Deer | | | | Antelope | | | | Elder | | | | Thomes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dec | Jan | Feb | Mar | Dec | Jan | Feb | Mar | Dec | Jan | Feb | Mar | Dec | Jan | Feb | Mar | Dec | Jan | Feb | Mar | Dec | Jan | Feb | Mar |
| W | 990 | 1030 | 1000 | 1160 | 1010 | 1000 | 770 | 900 | 1090 | 1100 | 850 | 1080 | 1020 | 980 | 770 | 960 | 810 | 870 | 810 | 930 | 900 | 960 | 880 | 1010 |
| AN | 700 | 780 | 640 | 540 | 550 | 630 | 680 | 430 | 590 | 610 | 670 | 360 | 470 | 600 | 640 | 410 | 580 | 710 | 780 | 310 | 680 | 770 | 860 | 380 |
| BN | 140 | 270 | 330 | 220 | 80 | 300 | 410 | 410 | 70 | 210 | 410 | 340 | 70 | 230 | 370 | 310 | 110 | 270 | 210 | 170 | 130 | 300 | 230 | 200 |
| D | 260 | 160 | 110 | 270 | 200 | 140 | 150 | 280 | 250 | 90 | 100 | 250 | 180 | 100 | 120 | 250 | 210 | 180 | 110 | 230 | 250 | 190 | 110 | 280 |
| C | 300 | 100 | 90 | 70 | 190 | 50 | 80 | 120 | 60 | 40 | 50 | 60 | 50 | 20 | 20 | 20 | 230 | 80 | 100 | 130 | 290 | 80 | 110 | 150 |
| All Years | 560 | 560 | 530 | 580 | 510 | 520 | 470 | 510 | 530 | 530 | 490 | 540 | 480 | 490 | 450 | 490 | 460 | 490 | 460 | 460 | 520 | 540 | 500 | 520 |

# GSP Chapter 5 GSP Implementation

TEHAMA COUNTY
Flood Control and Water Conservation District

- GSP implementation, administration and management
- Implementation of the monitoring program
- Reporting, including annual reports and 5-year evaluations and updates
- Implementation of adaptive management strategies
- Funding

| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Reporting** | | | | | | | | | | | | | | | | | | | | | |
| Groundwater Level Monitoring | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Water Quality Reporting | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Pump Metering | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Land Subsidence Monitoring | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Operations & Maintenance | | | | | | | | | | | | | | | | | | | | | |
| Data Management System | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Groundwater Model Update | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| DWR Reporting | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Project Management & Coordination | | | | | | | | | | | | | | | | | | | | | |

● Occurs once a year

● Occurs twice a year

● Occurs monthly

Ongoing

*All monitoring is reported on an annual basis

# Other Activities– Financial Assurance Plan

TEHAMA COUNTY
Flood Control and Water Conservation District

The GSA intends to include a financial strategy as part of the 2022 GSP that provides sustainable GSA funding mechanisms to facilitate local control of groundwater resources.

1. Long Term GSA Funding
2. Long Term GSP Project Funding
3. Funding Options
4. Financial Assurance Plan
5. Post-GSP: GSA is financially sustainable

# GSP Development & Public Input Opportunities

TEHAMA COUNTY
Flood Control and Water Conservation District

| May | June–July | August | September | November | December | January |
|---|---|---|---|---|---|---|
| **Sustainable Management Criteria and Monitoring Network**<br>Regular GSA meetings* | **Projects & Management Actions**<br>**GSP Implementation Plan**<br>Public Workshops<br>Regular GSA meetings* | **Administrative Draft GSPs in development**<br>Regular GSA meetings* | **Draft GSPs available for review and comment**<br>Access via websites<br>Regular GSA meetings* | Public Workshops<br>Regular GSA meetings* | Public Hearings for adoption of Final GSPs<br>Regular GSA meetings* | Final GSPs submitted to the State<br>Regular GSA meetings* |

** Regular GSA meetings: Groundwater Commission, District Board, and Corning Subbasin Advisory Board (CSAB)*

# How to Stay Involved and Provide Input

TEHAMA COUNTY
Flood Control and Water Conservation District

## EMAIL UPDATES

Sign Up for the interested parties email list and/or to receive meeting agendas - contact nbethurem@tcpw.ca.gov

## QUARTERLY NEWSLETTER

Sign Up for the interested parties email list

## REGULAR MEETINGS

**Groundwater Commission Meetings** | 4th Wednesdays @ 8:30a*

**Regular meetings**: September 22 at 8:30 AM

**District Board Meetings** | 3rd Monday, every other month @ 11:00a | Next meeting Sep 20

**Corning Subbasin Advisory Board Meetings** | 1st Wednesdays @ 1:30p | Next meeting Sep 1

## PUBLIC MEETINGS

**5th Webinar / Meeting – Fall 2021**

Draft GSP webinar & workshop

## WEBSITE: DRAFT GSP SECTIONS

Review drafts / submit comments via TehamaCountyWater.org CorningSubbasinGSP.org

## SURVEYS

Domestic Well Owner: www.surveymonkey.com/r/TehamaSGMA_WellOwners

TEHAMA COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

# How best can we connect with you?

Let us know in the Chat Box

- Websites - TehamaCountyWater.org and CorningSubbasinGSP.org
- Email (subscribe to our mailing list - contact nbethurem@tcpw.ca.gov)
- eNewsletter (quarterly)
- Social media (which platforms?)
- Paper Mail
- Direct Call
- Newspaper
- Radio
- Public Workshops and Meetings
- Neighborhood hubs for sign postings (specific locations?)
- Other Suggestions?

# Thank You! General Questions?

TEHAMA COUNTY
Flood Control and Water Conservation District

## How to Ask Questions

**Zoom Options:**

Verbal – "Raise Hand" to speak

Written – Use Chat Box

**Calling-In Options:**

*9 to Raise Hand

*(*6 to Unmute/Mute)*

E-mail shorii@cbi.org or

Text: 408.768.9394

## Project Team

Tehama County GSA

- Nichole Bethurem, GSA Project Manager

Technical Consultants, LSCE

- Eddy Teasdale

Facilitator, CBI

- Stephanie Horii

**COMMON TERMS**

**SGMA *("Sigma")*:** Sustainable Groundwater Management Act • **GSA:** Groundwater Sustainability Agency • **GSP:** Groundwater Sustainability Plan