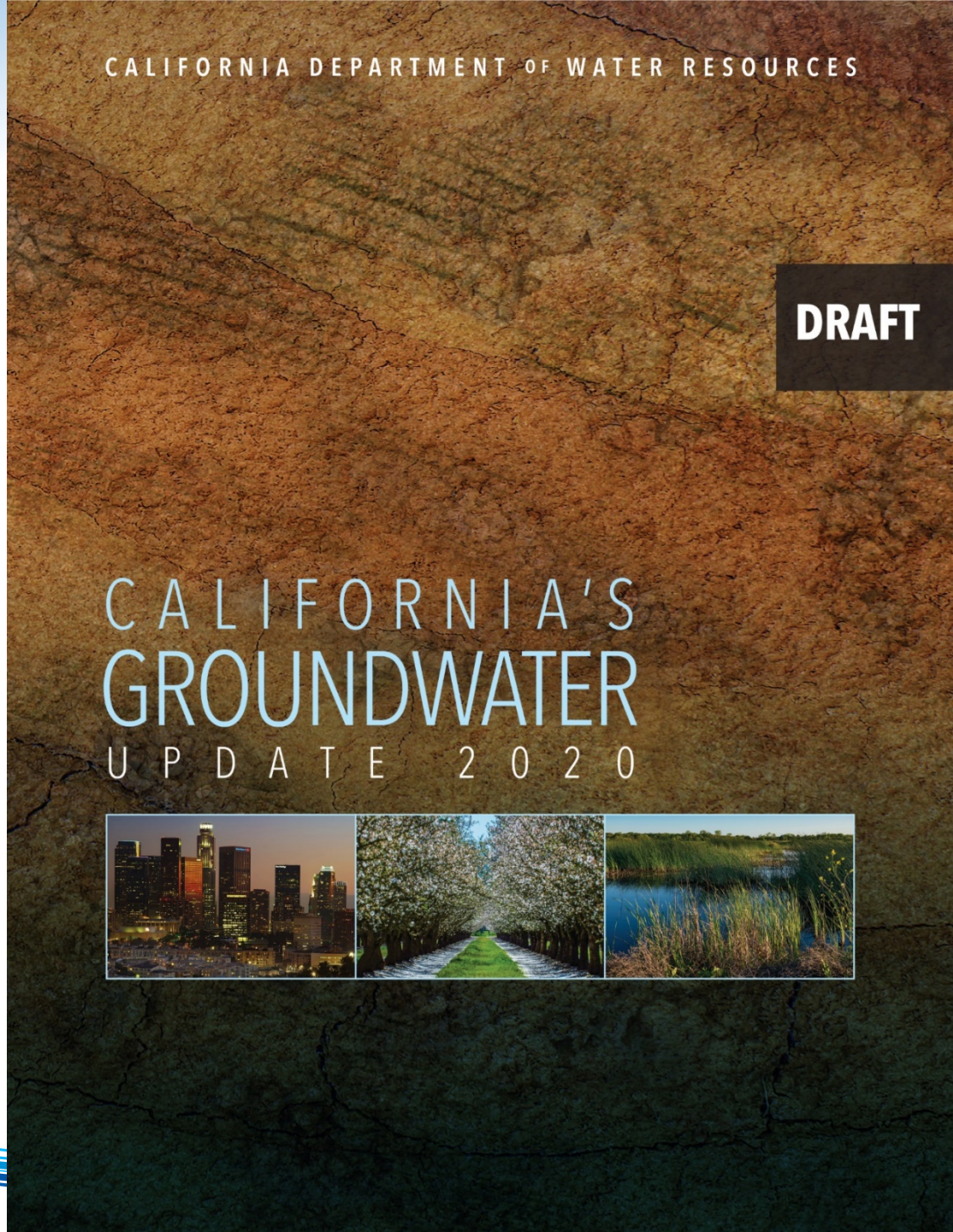
DRAFT California's Groundwater – Update 2020 (Bulletin 118)

Public Webinar

Sustainable Groundwater Management Office



Today's Presenters

Steven Springhorn

Brett Wyckoff

Roy Hull

Shane Edmunds

Purpose: Introduce Update 2020 and provide information on how to submit comments

Presentation Outline

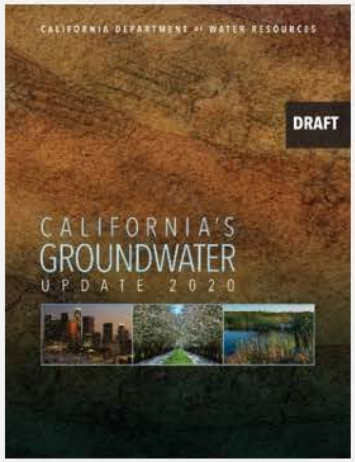
- Live Poll
- Where does California's Groundwater (CalGW) Fit with Other Water Initiatives?
- What is CalGW?
- What is in Update 2020?
- Live Demonstration of CalGW Online
- Closing Remarks
- Question and Answer Session

Live Poll

Purpose: Collect information about webinar participants and their interests in California's Groundwater.

Relationship with Other CA Water Initiatives

CalGW is informational

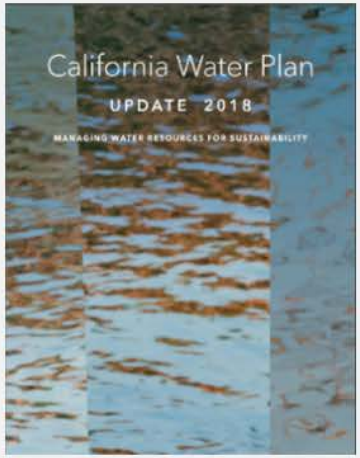


Updated in years 0 and 5

SGMA is regulatory

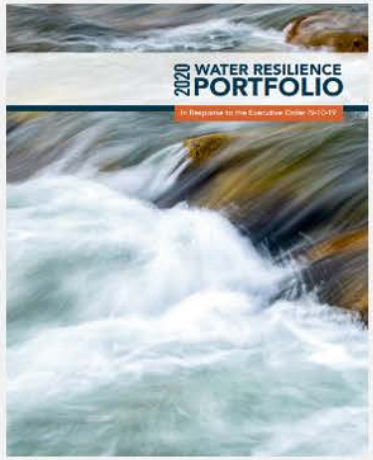
Went in Effect in 2015

CWP is a strategic plan



Updated in years 3 and 8

WRP is a water vision



Released in 2020

California's Groundwater Information

Update 2020 and the Sustainable Groundwater Management Act (SGMA)

With the passage of SGMA, CalGW now serves an additional role by **archiving three critical pieces of information** regarding groundwater basins:

1. Critically Overdrafted Status *(Updated in 2016)*
2. Basin Boundaries *(Updated in 2016 and 2018)*
3. Basin Priorities *(Updated in 2015 and 2019)*

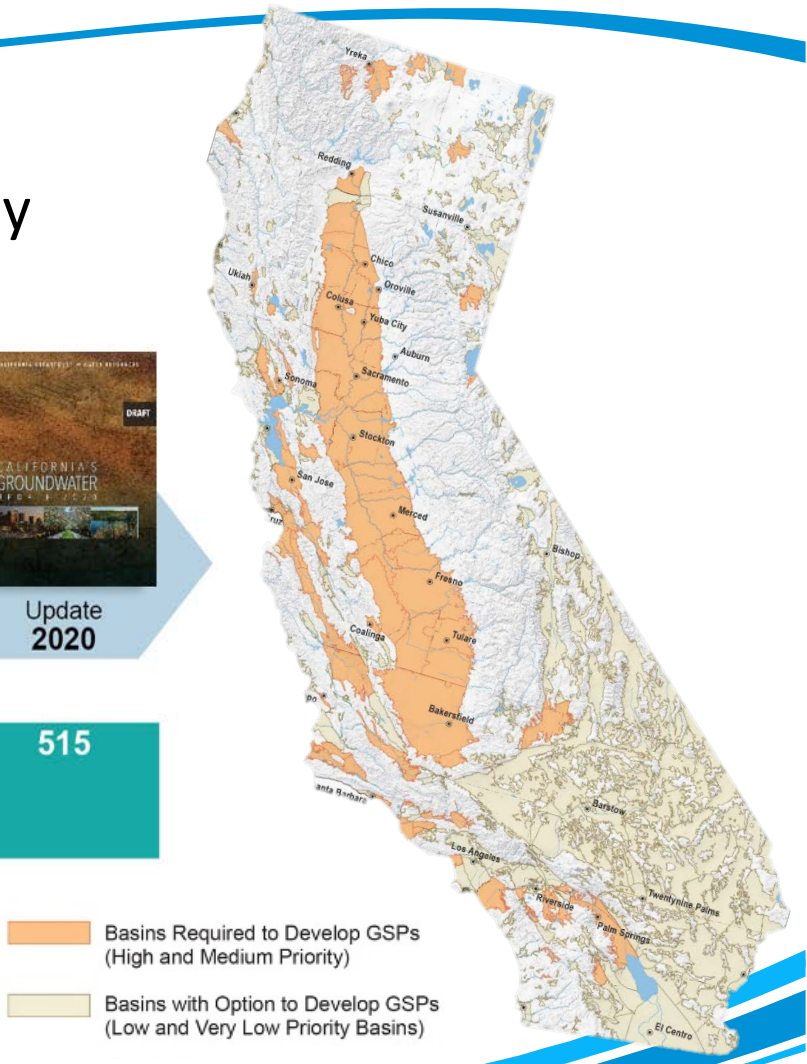
What is California's Groundwater (CalGW)?

- Describes California's groundwater occurrence, use, management, monitoring, and conditions with a series of findings and recommendations
- Fulfills legislative requirement for DWR to report groundwater conditions to the Governor and the Legislature every 5 years
- Supports numerous actions included in the 2020 California Water Resilience Portfolio

The History of CalGW

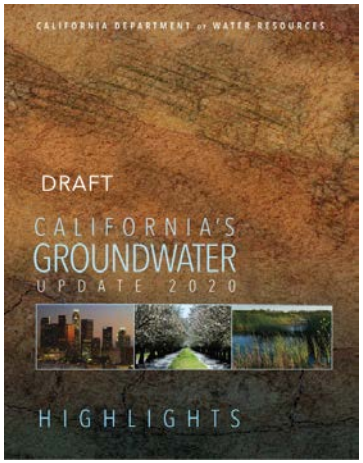
CalGW - Update 2020 builds upon historical groundwater publications by the DWR and provides new content

Number of groundwater basins:

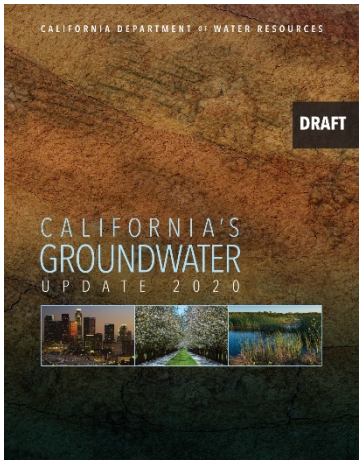


What is Included in CalGW - Update 2020?

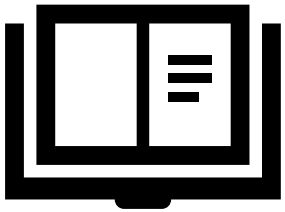
Highlights (~50p)
(English & Spanish)



Statewide Report (~400p)



Appendices (A-H)



Region Summaries

What Type of Information is Included in CalGW - Update 2020?

- CalGW - Update 2020 features more than two dozen new datasets including:


Water Use


Groundwater Monitoring

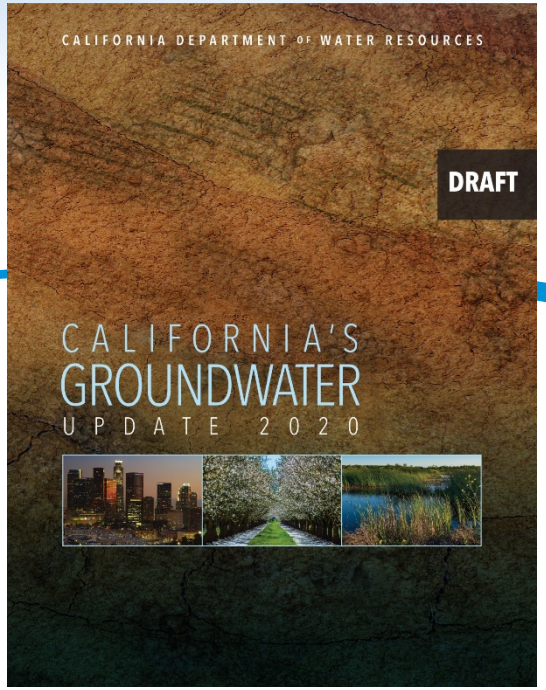

Well Infrastructure


Groundwater Conditions

- Includes data up to 12/31/2018

Highlights
(English and Spanish)

- High Level Summary of Statewide Report
- Findings
- Recommendations



CalGW Recommendations

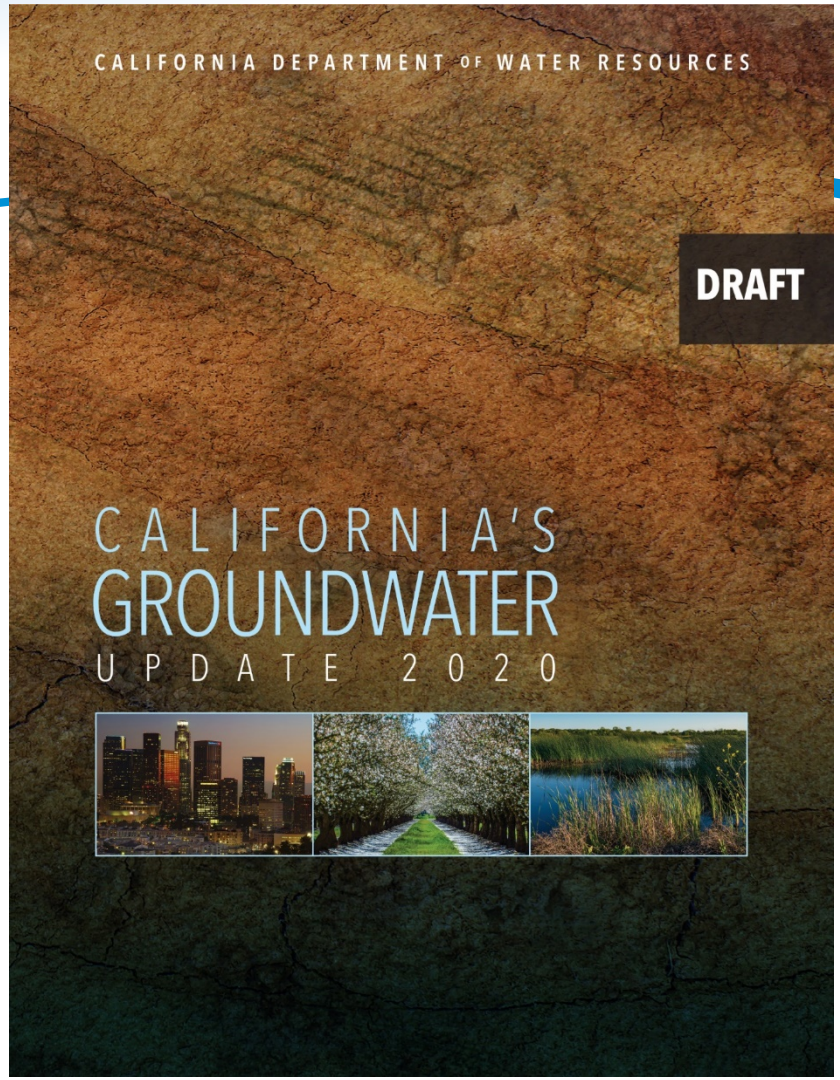
Fifty-three (53) recommendations divided into four categories

1. **Advance Data Driven Decisions**
2. **Maintain Momentum for Sustainability**
3. **Engage, Communicate, and Educate**
4. **Invest, Innovate, and Incentivize**

Statewide Report (English)

1. Introduction
2. Groundwater: Occurrence, Economic Value, and Climate Change
3. Groundwater: Use, Extraction, and Water Budgets
4. Groundwater Management
5. Groundwater Monitoring
6. Groundwater Conditions
7. Regional Groundwater at a Glance

Plus Appendices and Supporting Data



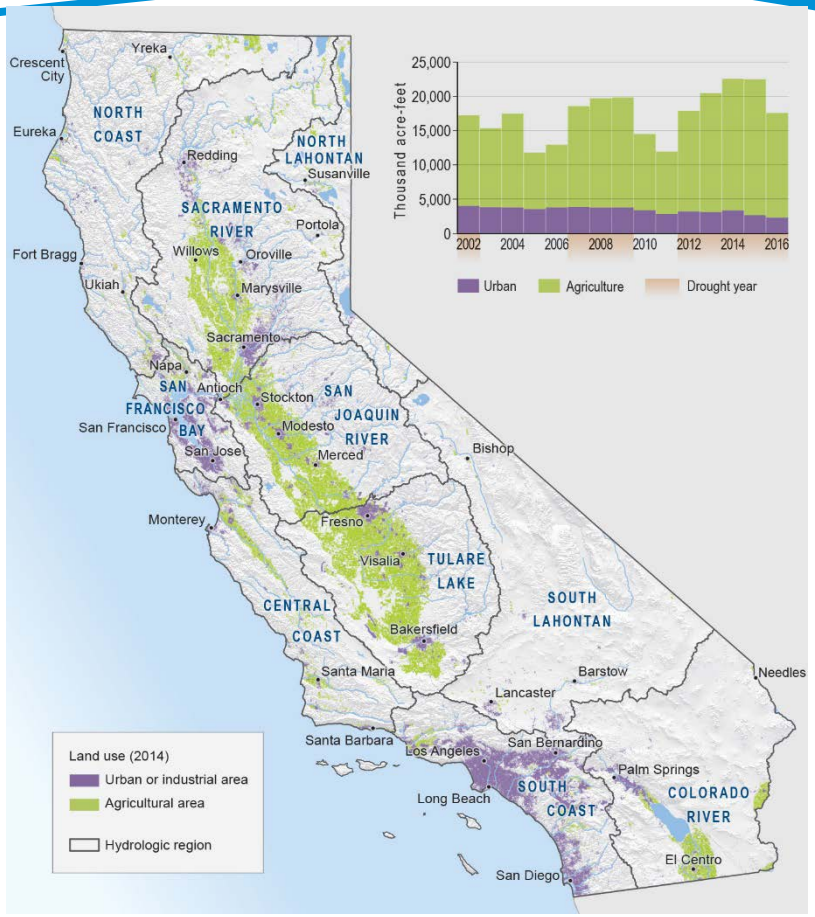
Chapter 1: Introduces Groundwater in California & Update 2020

Groundwater is a “Precious Resource”

Groundwater Update 2020 Benefits From Past Publications

CalGW is a “Compendium of Information”

Report Organization

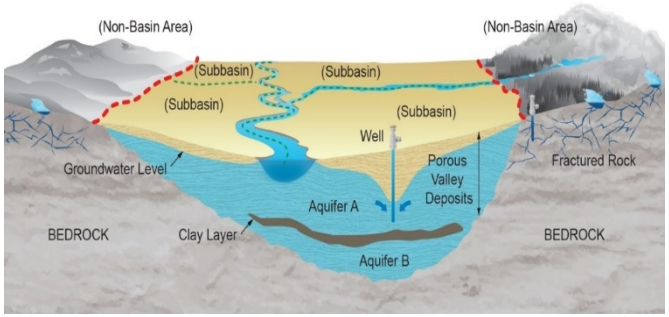


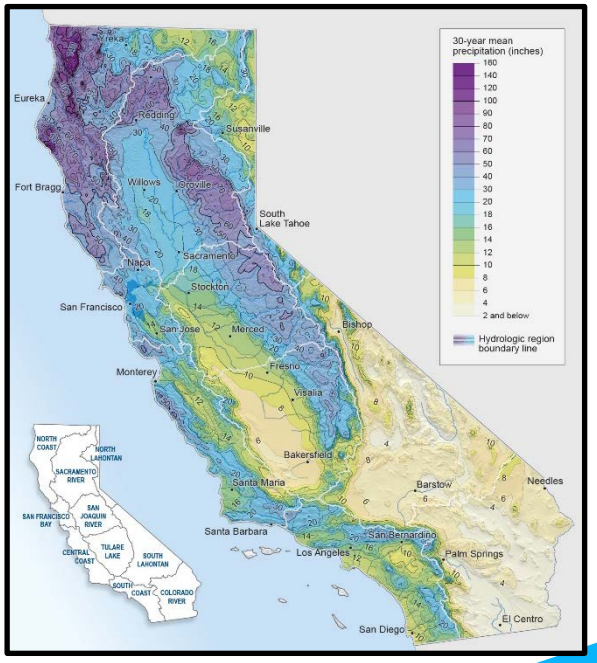
Chapter 2: Discusses Where Groundwater Is Found & Major Drivers

Introduces and defines key groundwater terms

Economic value of groundwater

Drought, climate change and policies that affect groundwater

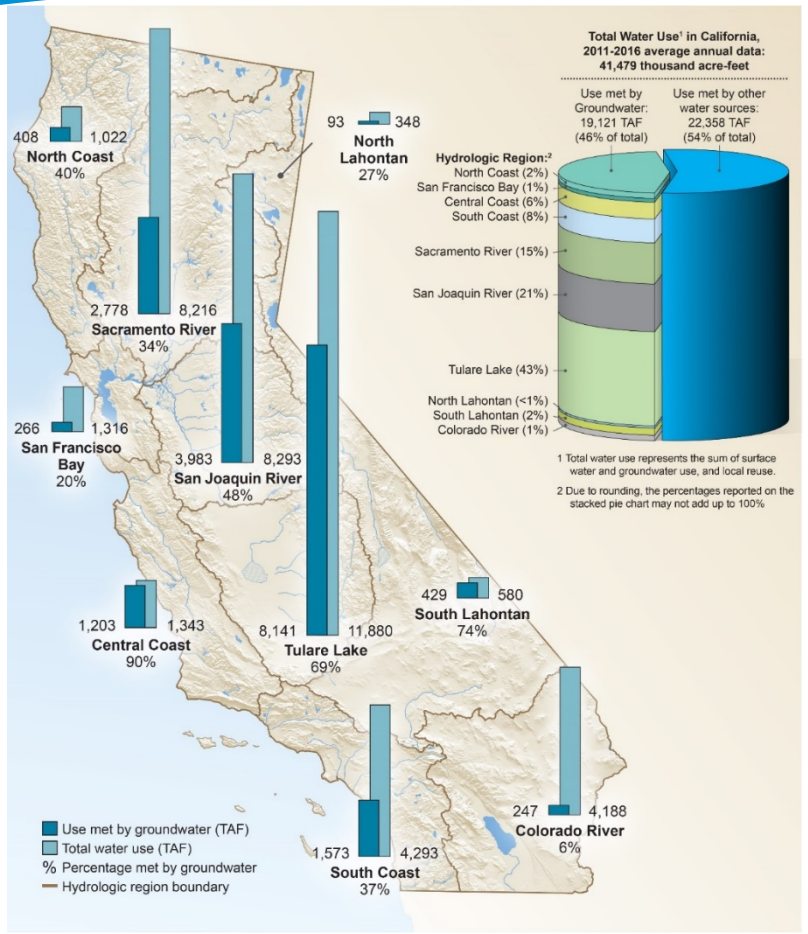




Chapter 3: Water Use & Well Infrastructure

Average groundwater and total water use

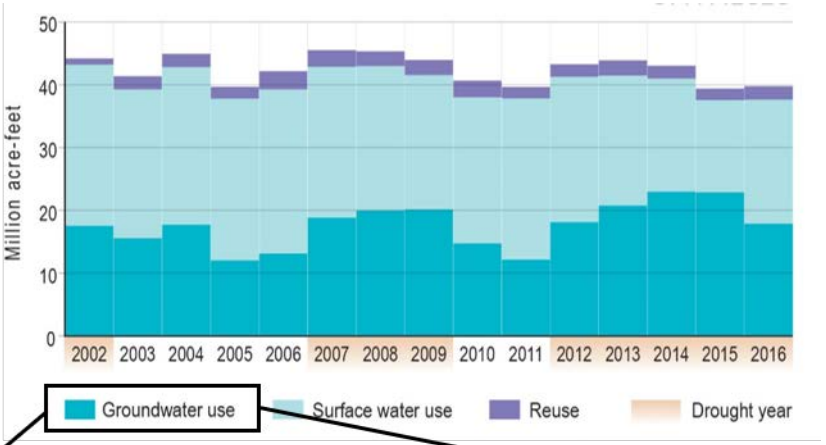
Short term trends (2011-2016)



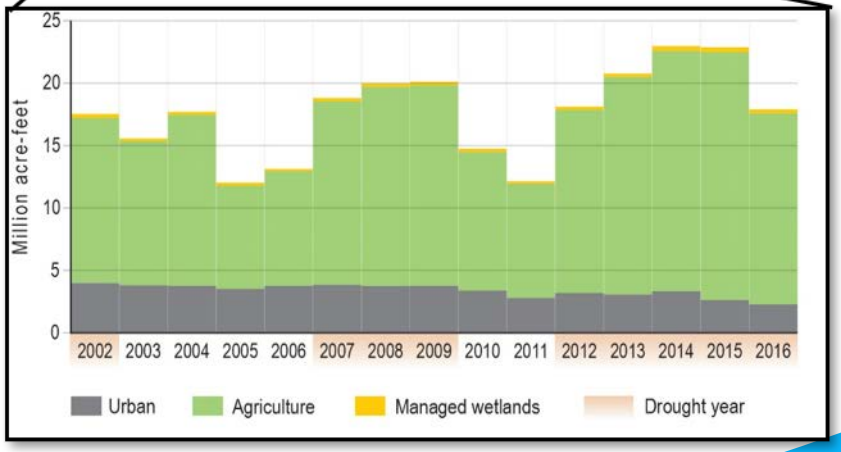
Chapter 3: Water Use & Well Infrastructure

Long term trends (2002-2016):

Annual water use by source



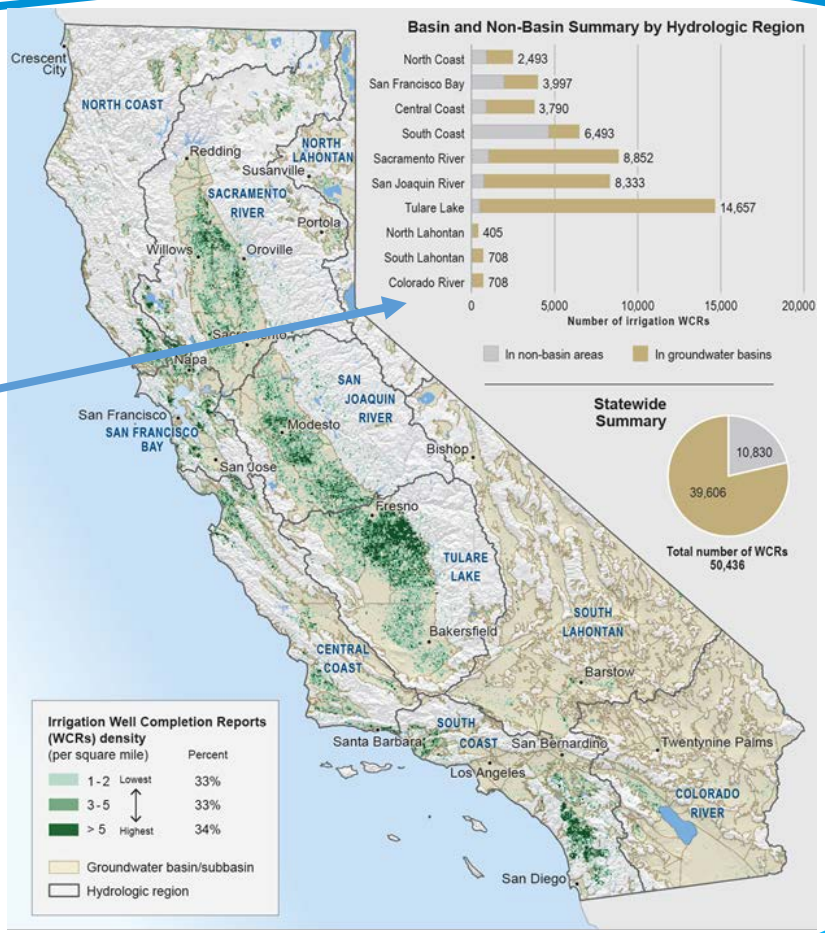
Annual groundwater use by sector



Chapter 3: Water Use & Well Infrastructure

Statewide well infrastructure

Basin & non-basin area well counts



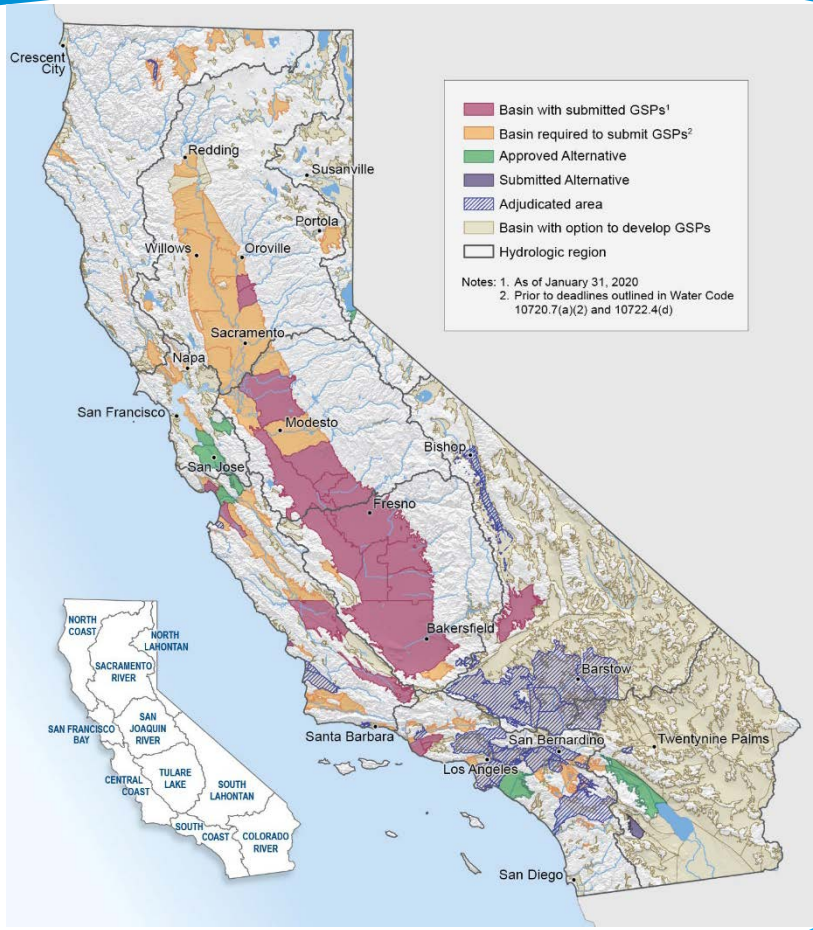
Chapter 4: Groundwater Management

Groundwater management implementation and activities

Data and tools

Financial and technical support

Water transfers, water markets, and recharge activities



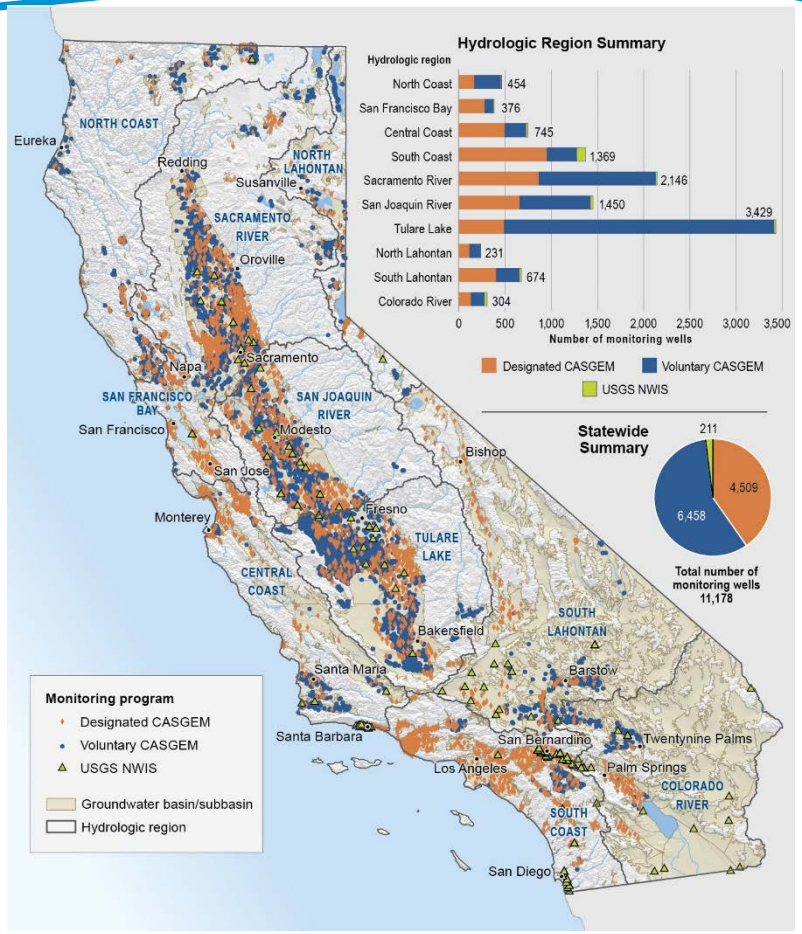
Chapter 5: Groundwater Monitoring

Groundwater level monitoring

- CASGEM – California Statewide Groundwater Elevation Monitoring (DWR)
- NWIS – National Water Information System (USGS)

Groundwater quality monitoring

- GAMA – Groundwater Ambient Monitoring Assessment (State Water Board)



Chapter 5: Groundwater Monitoring

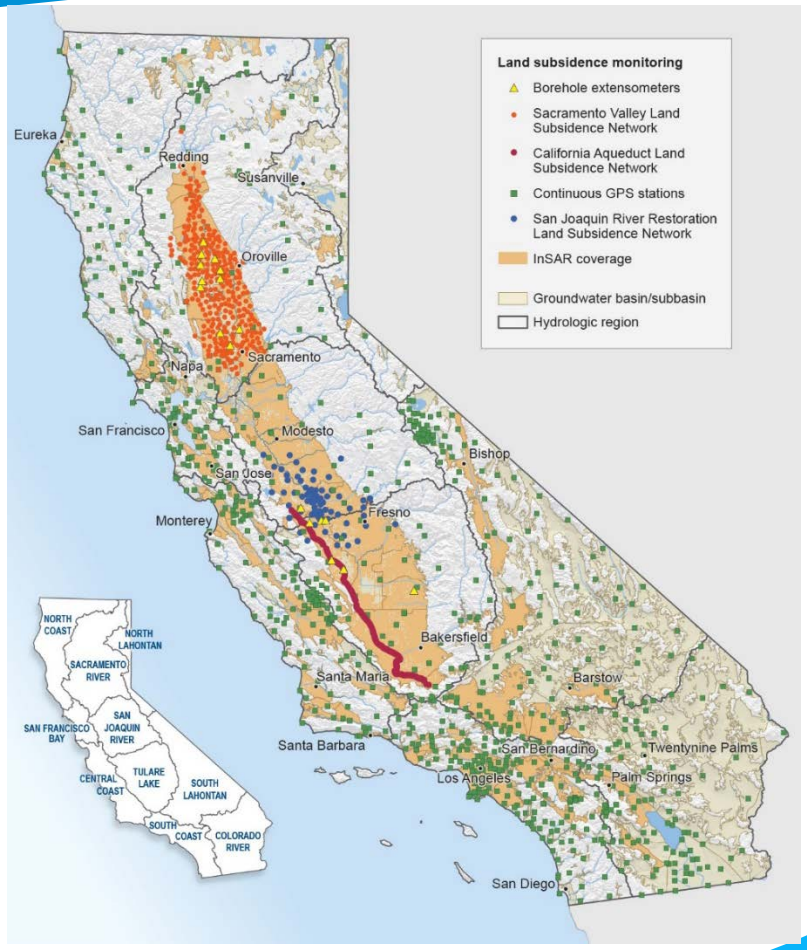
Land subsidence monitoring

InSAR - interferometric synthetic aperture radar

GPS - global positioning system

Groundwater-surface water interaction monitoring

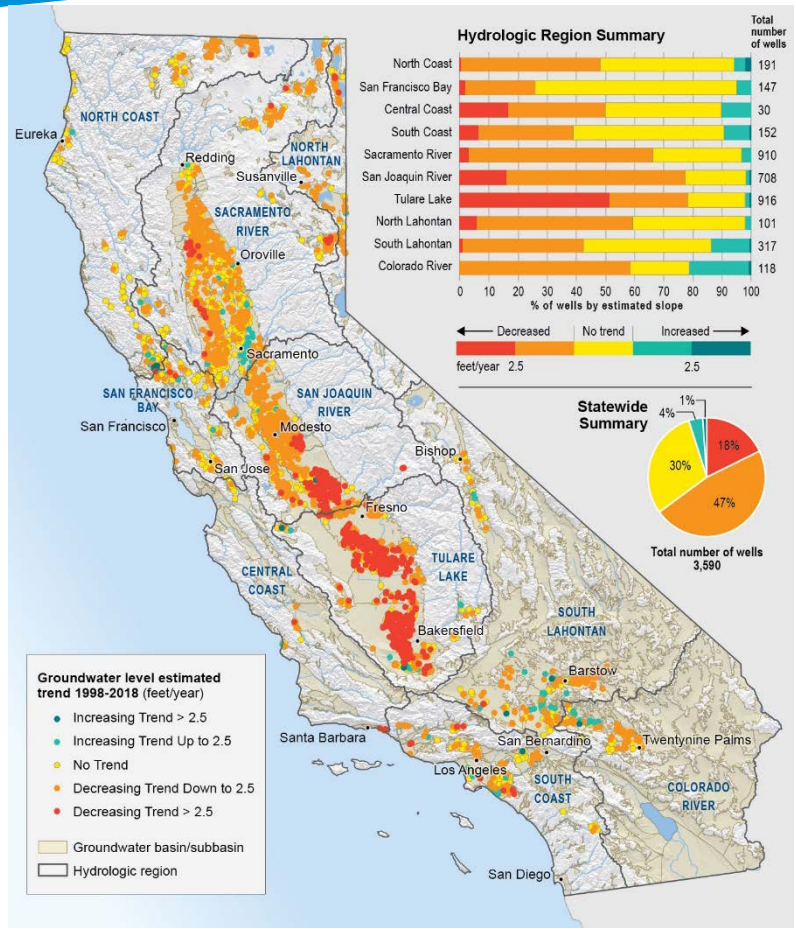
Stream Gages (Gauges)



Chapter 6: Groundwater Conditions

Depth to groundwater and flow directions

Groundwater level trends

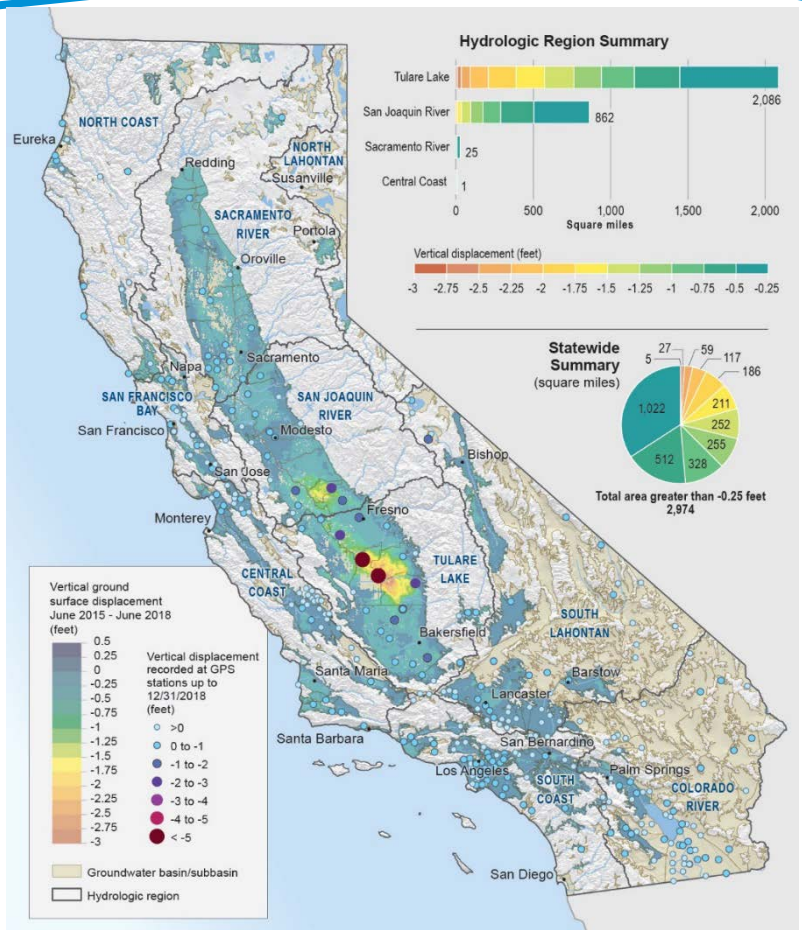


Chapter 6: Groundwater Conditions

Central Valley change in storage

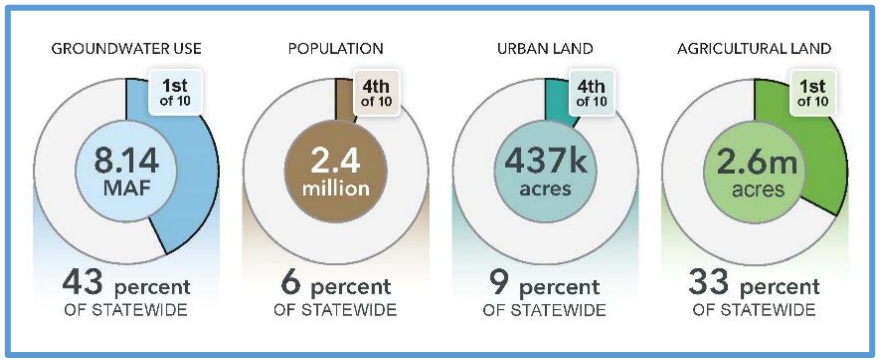
Groundwater quality

Land subsidence



Chapter 7: Provides Data-Rich, Informational Summaries For Each Hydrologic Region

- General Information
- Water Use
- Well Infrastructure
- Management
- Monitoring / Conditions
- Local Projects
- Local Assistance



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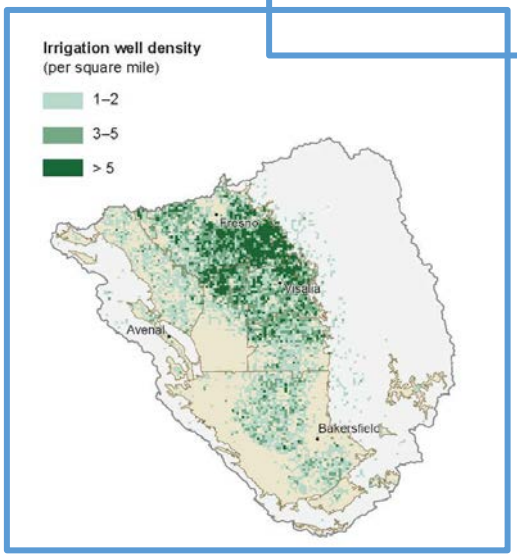


Chapter 7: Provides Data-Rich, Informational Summaries For Each Hydrologic Region

- Demographics
- Water Use
- Well Infrastructure
- Management
- Monitoring / Conditions
- **Local Projects**
- **Local Assistance**

Chapter 7: Groundwater at a Glance

Tulare Lake Region Groundwater Assistance

TECHNICAL SUPPORT

Monitoring Wells
12 Installed at 5 Sites
12 Planned at 6 Sites

Statewide Datasets
5,570 mi² of Land Use
7,335 mi² of Land Subsidence Monitoring

FACILITATION SUPPORT

FSS Contracts
4 Awarded in 2 Basins

Points of Contact (POCs)
8 POCs in 8 Basins

GRANT FUNDING

Grants Awarded
48 Grants since 2010

Total Funding
$45.5 Million Awarded

Note: Assistance summaries are from Department of Water Resources' Groundwater Program. Many other local, state and federal entities also provide assistance in this region

Local Project Spotlight: Groundwater Recharge

Many efforts to provide groundwater recharge are underway in the Tulare Lake Region. These recharge efforts are active as many local areas that rely on groundwater have experienced a recent decline in groundwater levels, loss of storage, and land subsidence.

Groundwater managers in the region are finding innovative ways to recharge local aquifers. Along the Kings River, a Flood-managed Aquifer Recharge (FloodMAR) project has been built at Terranova Ranch. This FloodMAR project captures excess runoff during high winter flows in the Kings River. Flood waters are conveyed to seasonally idle farmlands where the water percolates into the ground and recharges local aquifers. The project has the capacity to convey water to over 18,000 acres of local farmland providing up to 1,000 acre-feet per day of groundwater recharge.

Groundwater Recharge Basin near Fresno, California.

Headwaters Gate to Terra Nova FloodMAR project along Kings River in Tulare Lake Region.

Did you know?

Near Fresno, local water managers have invested in recharge projects involving municipal stormwater. These multi-benefit projects capture floodwater and stormwater in newly constructed percolation ponds, which reduces flood risk to the local areas, prevents pollutants from entering local waterways, and recharges aquifers. One project located near Fancher Creek removed nearly 700 acres of urban areas from the FEMA flood zone by capturing stormwater runoff. The water is collected in the percolation ponds and recharges local aquifers.

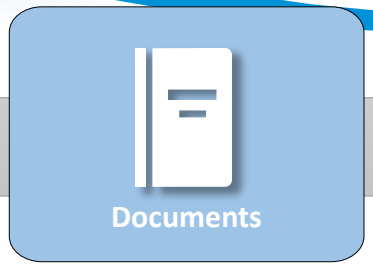
CalGW – Update 2020 Online Content

- CalGW Website

- CNRA Open Data

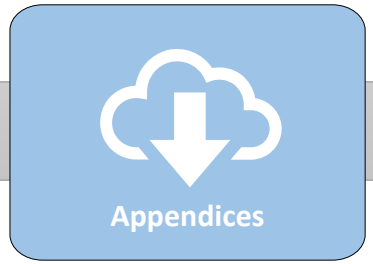
- CalGW Online

CalGW Update 2020 – CNRA Open Data



- Highlights
- Statewide
- Regional Summaries

- Water Use
- Monitoring
- Conditions

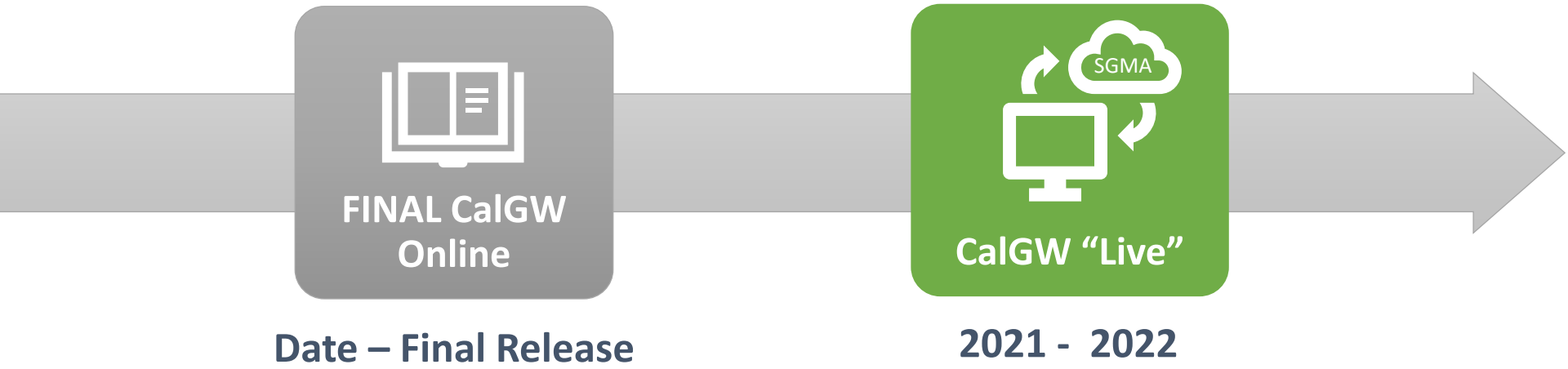


- Appendices A-H

- Well Infrastructure
- GW Conditions
- Land Subsidence

Live Demonstration

Future of CalGW Online



- Seeking public comments on draft CalGW Online
- Future vision for CalGW Live will include:
  - Additional dashboards
  - Live data links

Timeline for CalGW - Update 2020

3/11 **3/30** **4/26** **Early Summer 2021**

1. **Draft Release**
2. **Public Webinar**
3. **Public Comment Period Ends**
4. **Consider Public Comments**
5. **Final Release – Early Summer 2021**

How to Submit Public Comments for CalGW – Update 2020

- **Please email all public comments to calgw@water.ca.gov**
- Please include all attachments in one email
- Accepting comments until April 26, 2021 @ 23:59
- Public comments will be made available upon request to calgw@water.ca.gov

Closing Remarks

- CalGW builds upon previous DWR groundwater publications
- Will be updated every 5 years moving forward
- Will transition to a more digital footprint with CalGW Live

We appreciate and look forward to receiving your comments on draft CalGW-Update 2020 and online content

Question and Answer Session

- Please type questions into the chat
- Open to any questions about the CalGW Update 2020, online content, and timeline
- Questions received during webinar are not considered official public comments
- Please send all official public comments to calgw@water.ca.gov