



TURLOCK GSP

ANNUAL REPORT: DATA REQUESTS

WTSGSA & ETSGSA TECHNICAL ADVISORY COMMITTEES

NOVEMBER 18, 2021

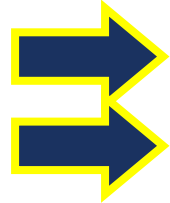


TURLOCK GSP ANNUAL REPORT

- The Turlock GSP is due to DWR on January 31, 2022.
- The First Annual Report is due to DWR on April 1, 2020
 - Annual Reports are due to DWR “by April 1 of each year following the adoption of the Plan” (§356.2).
- The first Annual Report must cover water years 2016-2021 (6 years)
 - Annual Report regulations require that water budget analyses (i.e., change in storage) use “historical data to the greatest extent available, including from January 1, 2015, to the current reporting year” (§356.2 (b)(1)(B) and §356.2 (b)(5)(B)).
 - Effectively, we need to bridge the GSP study period (1991-2015) and the current Annual Report (WY 2021)

TURLOCK GSP: ANNUAL REPORT

General Tasks:



Task 1: Compile Data

Task 2: Update C2VSimTM

Task 3: Develop Hydrographs

Task 4: Develop Groundwater Elevation Contour Maps































Task 5: Develop Water Budgets




Task 6: Analyze Change in Groundwater in Storage

Task 7: Perform Water Quality Analysis

Task 8: Prepare and Submit Annual Report to DWR

PROJECT SCHEDULE

TASK	DATES	2021		2022			
		Nov	Dec	Jan	Feb	Mar	Apr
Project Begins	11/15/21						
1 Compile Data	11/15/21 - 12/15/21						
2 Update Local C2VSimTM	12/1/21 - 2/28/22						
3 Prepare Hydrographs	12/1/21 - 2/28/22						
4 Prepare Groundwater Elevation Contour Maps	12/1/21 - 2/28/22						
5 Develop Model Water Budgets in Standard C2VSimTM Template	1/1/22 - 4/30/22						
6 Analyze Change in Groundwater in Storage	2/1/22 - 3/15/22						
7 Water Quality Analysis	12/1/21 - 2/28/22						
8 Prepare Draft and Final Annual Report and Submit to DWR	1/1/22 - 3/30/22						
9 Project Management and Meetings	11/15/21 - 4/30/22						

-  Project begins
-  Meetings (3 meetings: 2 Ad Hoc, 1 Joint TAC)
-  Submittal to DWR

MODEL UPDATE

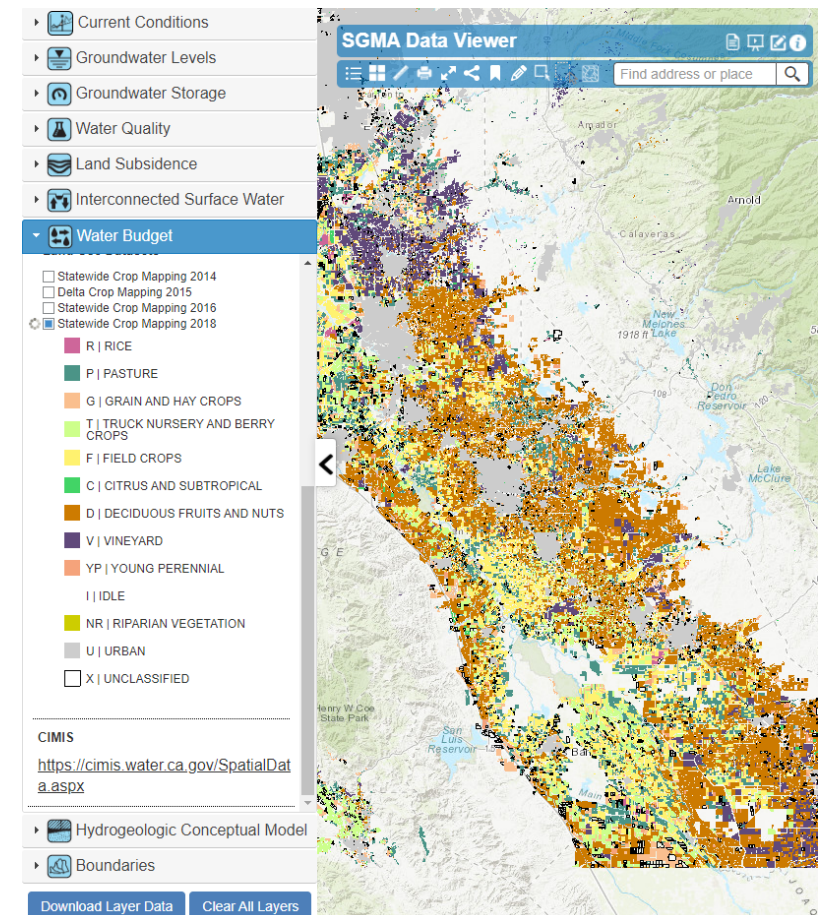
- **Goals:** Support the Annual Report by developing:
 - Subbasin-wide water budgets
 - Temporal and spatial estimates of groundwater production
 - Temporal and spatial estimates of change in storage by aquifer
- **Model Use:** Update the Turlock Groundwater Model from 2016-2021
 - Extend all time-series input files with the best available data.
 - A verification of the model performance will be performed.
 - No changes to the model parameters or structure will be made.

PUBLICLY AVAILABLE DATA

State, Federal, & Other Resources:

- Precipitation
- Evapotranspiration
- Land Use Data
- Stream Flow Data
- Groundwater Levels

PRISM
CIMIS
LandIQ
CDEC & USGS
CASGEM & WDL



DATA REQUEST: GROUNDWATER SUPPLY

- Volumetric Production by Well
- New Production Wells
 - Location
 - Total depth
 - Top perforation
 - Bottom perforation
- **Local GWL Monitoring Data**

Water Purveyors

- Turlock Irrigation District
- Merced Irrigation District
- City of Modesto
- City of Turlock
- City of Ceres
- City of Hughson
- Denair
- Delhi
- Hilmar
- Keyes






















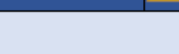








DATA REQUEST: SURFACE WATER SUPPLY




- **River Inflow**
 - Tuolumne River at La Grange Dam
 - Merced River at Merced Falls
- **Diversions**
 - TID Main Canal
 - MID Northside Canal
- **Deliveries**
 - TID delivery by service area
 - MID deliveries to Northside area
 - TID/MID out of district sales
 - Other: recycled and reused water
- **Conveyance-Based Recharge**
 - TID Upper Main
 - TID Turlock Lake
 - TID Lower System
 - MID Northside Canal
- **Operational Spills**
 - TID/MID spills to major rivers

Notes: MID references Merced Irrigation District

Temporal data is requested on a monthly time-step

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-  Project begins
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Note: All data is needed no later than December 15, 2021; any information received after this date will not be incorporated in the model update or annual report

SUMMARY

- The first Turlock Subbasin Annual Report is due to DWR on April 1, 2021 – only two months after submission of the GSP.
- Both GSAs will be receiving a detailed data request early next week. List to include:
 - Existing model features described above
 - Data input forms for each type of data

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- Project begins
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- ★ Submittal to DWR

- **Reminder that all data is needed no later than December 15, 2021**

QUESTIONS?

