Figure 41: Calibrated Horizontal Hydraulic Conductivity of Layers 3

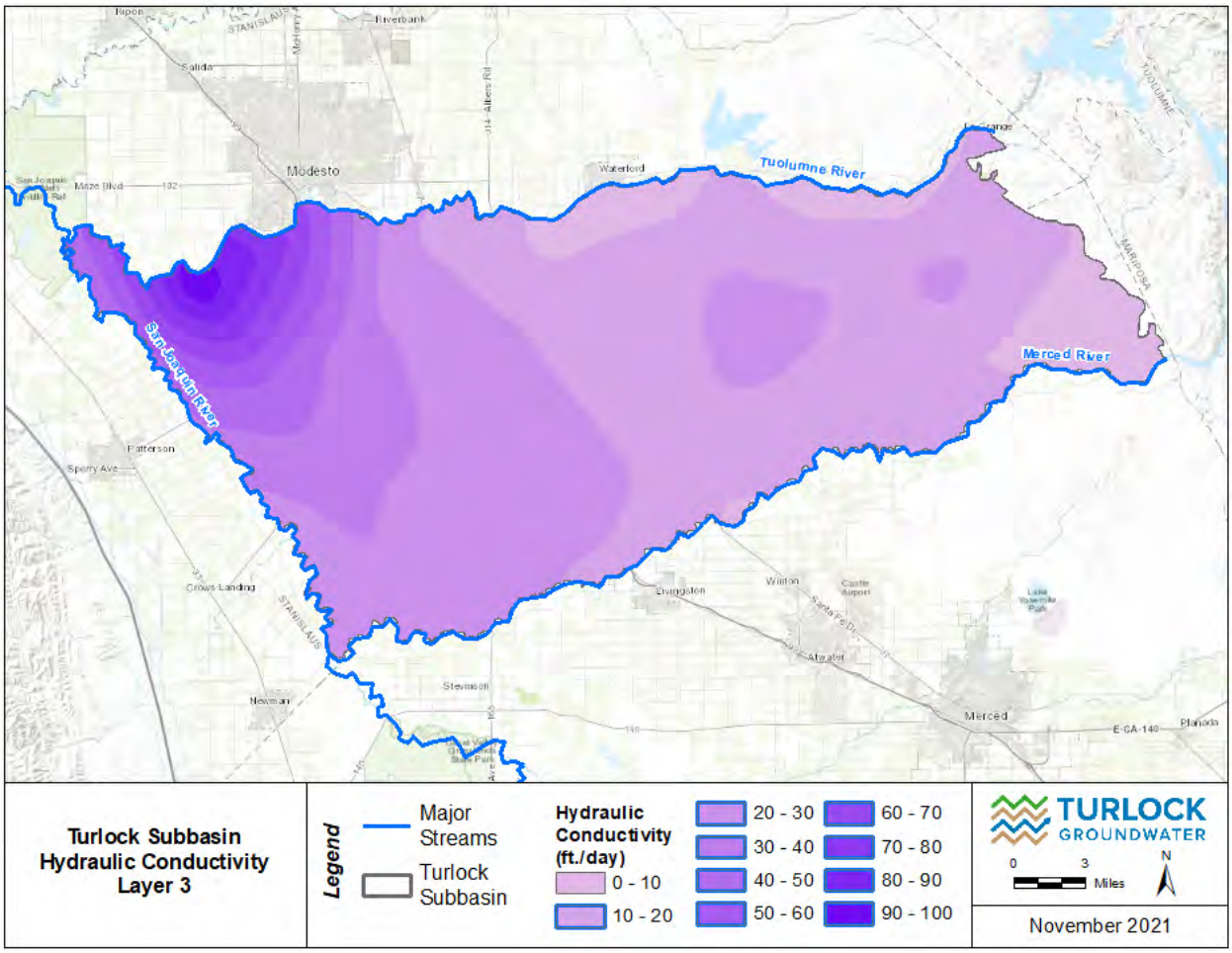
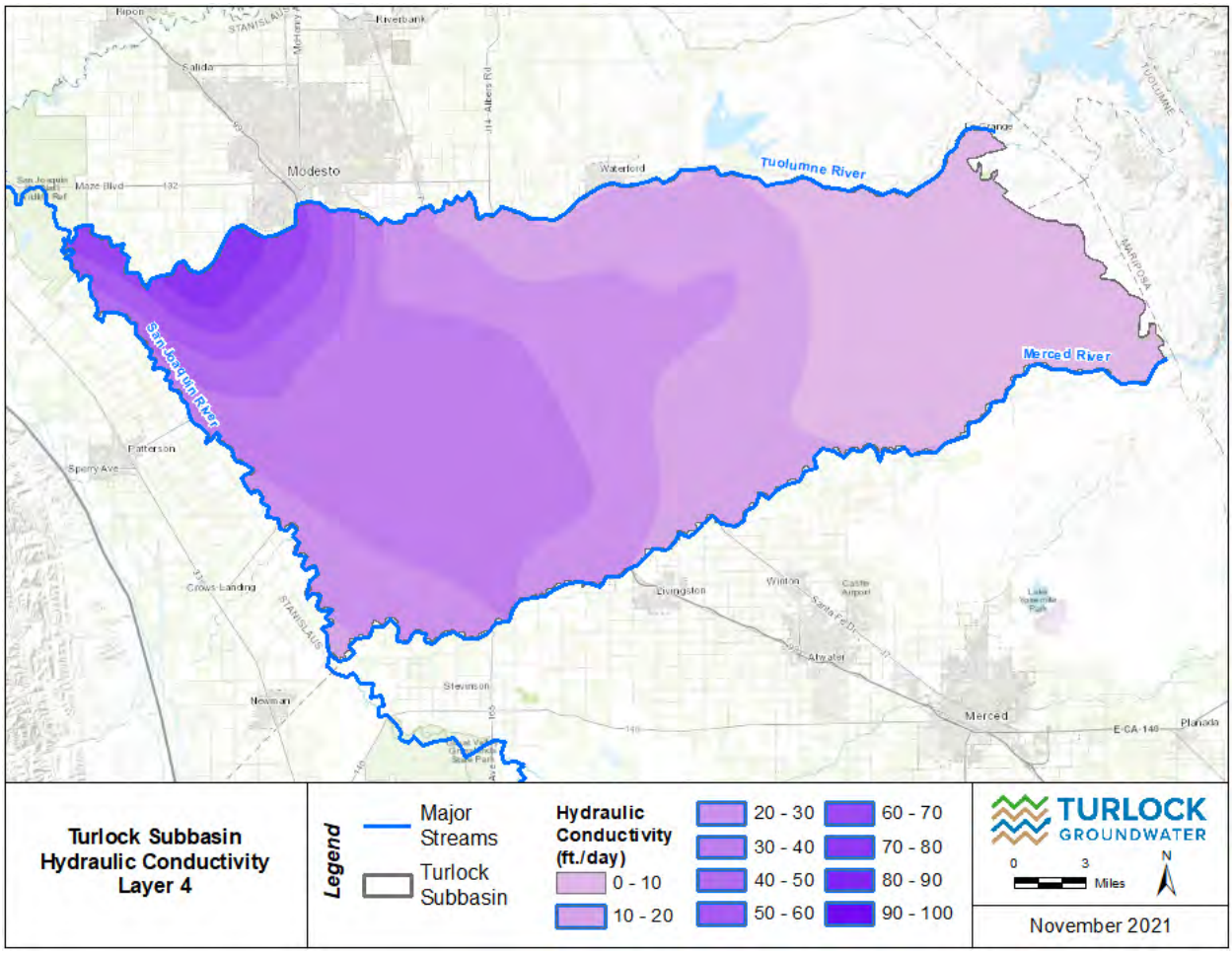


Figure 42: Calibrated Horizontal Hydraulic Conductivity of Layers 4



5.4.2 Measurement of Calibration Status

The Turlock Model's calibration was primarily assessed using two metrics: groundwater level trends and the correlation between simulated and observed groundwater levels. Quantitative measures included the calculation of statistical measures of error, residual scatter plots and histograms, while qualitative methods included review of stream hydrographs, groundwater level hydrographs, residual maps, and the spatial and temporal distribution of trends therein.

Statistics related to the differences between simulated and observed groundwater levels were evaluated relative to the American Standard Testing Method (ASTM) standard. The "Standard Guide for Calibrating a Groundwater Flow Model Application" (ASTM D5981) states that "the acceptable residual should be a small fraction of the head difference between the highest and lowest heads across the site." The residual is defined as the simulated head minus the observed head. An analysis of all calibration water levels within the model indicated the presence of a range in groundwater levels of nearly 165 feet. Using 10 percent as the small fraction, the acceptable residual level would be 16 feet. The calibration exceeds that standard, as shown by the following statistics.

- 75.0% of observed groundwater levels are within +/- 10 feet of its respective simulated values
- 95.0% of observed groundwater levels are within +/- 20 feet of its respective simulated values
- 99.5% of observed groundwater levels are within +/- 30 feet of its respective simulated values

An additional method of evaluating model calibration is provided by Rumbaugh and Rumbaugh, 2017, in which the quotient between the Root Mean Square Error (RMSE) and the Range is compared against a 10% threshold. For the hydrograph set used in the calibration, the RMSE was calculated at 9.18, while the range is of 165 feet, for which the quotient would be 5.6%, making the results acceptable, using unweighted head residuals.

The residual histogram and scatter plot for the Turlock Model is shown in **Figure 43**. Additional calibrational statistics of the Turlock Model are presented in **Table 19**. In the Turlock Subbasin, simulated groundwater levels were on average lower than observed values by 2.31 feet. The mean and median residuals are similar, suggesting few extreme outliers, with a maximum absolute residual of 61.07 feet. The absolute average residual of the hydrograph set is 6.99 feet, meaning that on average, simulated values are within approximately seven feet of observed values. The absolute average is also more than four times the absolute value of the average residual, suggesting that there is a relatively normal distribution of positive and negative residuals.

RMSE was also calculated for the hydrograph set. The RMSE for the set was calculated at 9.18 feet.

Table 19: Model Residual Statistics

R^2	Average Residual	Median Residual	Absolute Average Residual	Absolute Maximum Residual	RMSE[1]	Number of Obs.	Normal Standard Residual	Normal RMSE
0.78	-2.31	-2.24	6.99	61.07	9.18	3225	0.06	0.06

All residuals and RMSE in feet

[1] RMSE = Root Mean Square Error

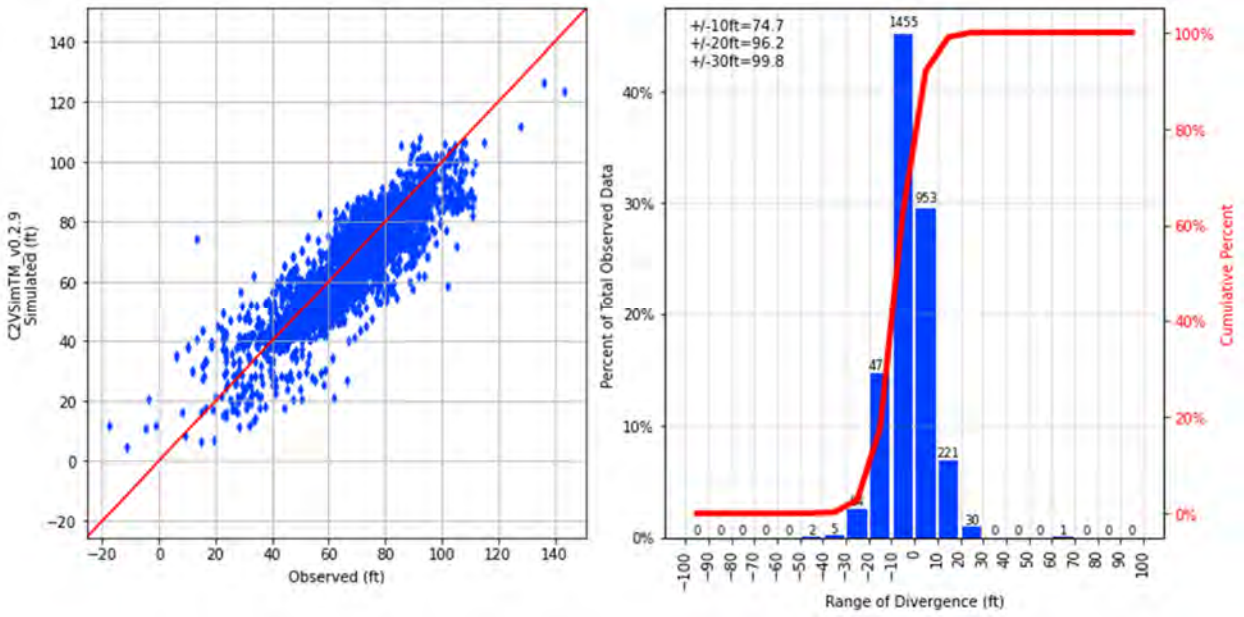
Simulated and observed groundwater elevation data and their residuals were plotted on scatterplots and assessed visually, as shown on **Figure 43**. The simulated-observed scatterplot shows that correlation between simulated and observed data is generally strong, though it weakens at the extreme high and low

groundwater elevations; the model typically underestimates extreme high groundwater levels and typically overestimates extreme low groundwater levels.

The residual histogram shows a near-normal distribution with a slight left skew. The histogram also shows "thin-tailed" distribution, suggesting an overall low probability that the model would produce extreme outlier values. As shown on **Figure 43**, residuals greater than 20 feet have approximately a five percent probability of occurring, while residuals between 10 and 20 feet have approximately a 20 percent probability of occurring. 75 percent of the simulated groundwater levels are within 10 feet of observed levels.

Qualitative assessment was also performed on groundwater level hydrographs at the set of 97 locations described above. The hydrographs, presented in **Appendix A**, allow for review of temporal patterns that may not appear in the residuals.

Figure 43: Model Residual Histogram and Scatter Plot



6. RESULTS AND DISCUSSION

6.1 MODEL FEATURES, STRENGTHS, AND LIMITATIONS

Modeling limitations result from the simplifying assumptions made to produce a mathematical representation of a complex hydraulic system and the inherent uncertainty in model inputs. It is not possible to develop a complete mathematical description of the physical world without introducing certain simplifying assumptions. These simplifying assumptions include the Darcy's equation and the governing set of differential equations that are universally used in all groundwater models. As such, the model data sets, conceptual representation of the groundwater system, the interaction with the surface water and land surface processes, and model calibration contain inherent limitations that are outlined as follows:

6.1.1 Spatial Extent and Resolution

The accuracy of the model simulation is a function of spatial resolution of the data, as well as spatial discretization of the finite elements. As the spatial data such as land use or soil conditions are mapped to the elements, the size of elements reflect the accuracy of the underlying data sets as mapped. Much of the spatial data has been reviewed and verified against available statewide and local data available, or was derived from the accepted C2VSimFG model developed by DWR. The model is calibrated to target levels based on the spatial resolution in the model. However, when using the model for local scale analysis and modeling, the experienced user is encouraged to perform further validation of the underlying spatial data prior to use of the model for analysis of specific projects or management actions, and to assess the extent to which the existing model can meet the project-specific data objectives.

Within the Turlock Subbasin, one modeling limitation is that the C2VSimFG framework includes four stratigraphic layers. While this is generally considered sufficient to estimate macro-scale aquifer dynamics in the Central Valley, it can make it difficult to evaluate the perched or shallow groundwater levels and movement often associated with groundwater dependent ecosystems, or to evaluate vertical groundwater flow and seepage at a fine scale in a heterogeneous system. Additionally, the average element grid size is approximately 0.5 miles, so the model can only represent water budgets and drawdown at this scale.

6.1.2 Temporal Scale

The Turlock Model includes monthly hydrologic data for the period WY 1969-2018. The model is calibrated for the period WY 1991-2015. A monthly time step has been widely accepted for development of regional and subregional models, and reflects the resolution of much of the recorded and reported data. However, the monthly time step at times may pose limitations for simulation of some of the model features, such as streamflow and surface-groundwater interaction during peak flow conditions. This is not of major concern at the regional scale, and utilization of the model for most long-term regional water supply planning needs is unlikely to be affected by this limitation.

6.1.3 Land Use Data

Land use is one of the key data sets that affect water demand estimation as well as rainfall runoff, infiltration, and recharge conditions. This data set was developed based on DWR land use surveys, and local sources. This information was assembled, analyzed, and discrepancies were reconciled, which resulted in annual crop data by each model element. Mapping of land use data from various maps to element level within the model and temporal interpolation of land use changes between years of available data may introduce inaccuracies that need to be considered in evaluation of land use conditions at smaller spatial scales, such as at the parcel or field level, and for years in between dates of source data.

6.1.4 Water Demand Estimates

Water demands in the model are estimated for both urban and agricultural entities. The urban demands are based on the reported water supply and demand data from the urban purveyors. The agricultural demand estimates are based on respective model data sets and calibration of the model for each agricultural area. While care has been given to estimation of agricultural water use estimates, and the results have been shared and reviewed by the agricultural entities within the model area, inaccuracies in the source data or those mapped to the model may introduce inaccurate estimates in certain conditions.

6.1.5 Water Supply Data

The surface water delivery data set in the model is one of the most reliable data sets as it is provided by the purveyors. However, the exact location of these deliveries by the agricultural entities are subject to uncertainty, which affects the model simulation results. Local entities are encouraged to review the surface water delivery data and provide feedback to the model developers as issues arise or inaccuracies are identified.

6.1.6 Groundwater Pumping Estimates

The Turlock Model includes both the location and a monthly timeseries of all groundwater wells operated by Turlock Irrigation District and the various municipalities across the subbasin. The model also includes estimated monthly groundwater pumping of private agricultural and rural residential users by each model element. Private groundwater pumping is estimated as the balance of agricultural or urban demand estimates and surface water that is available to meet the demand for each element and at each model time step.

6.1.7 Water Budgets

The Turlock Model provides detailed water budgets at each model element, which, when aggregated, can provide water budgets for a selected geographic area representing the subbasin, a water/irrigation district, a GSA, or geographies based on the physical watershed or aquifer system. The model water budgets have been verified for the GSAs against data and information available from local sources. Additionally, the subbasin-scale model water budgets have been reviewed and verified by the respective technical staff and/or representatives of the GSAs to check the accuracy and reliability of the water budgets for GSP use. When using the Turlock Model for more detailed analysis, the user is encouraged to verify the water budgets for reasonableness and consistency with local data and information, and to understand the implications of simulating water budgets within jurisdictional boundaries (e.g., the GSAs) versus the natural aquifer system (e.g., the Western and Eastern Principal Aquifers).

6.1.8 Groundwater Flow and Levels

The Turlock Model has been calibrated against long-term groundwater trends and seasonal groundwater level changes at approximately 96 wells throughout the model area. The calibration process included adjustments to model input data and/or parameters to ensure that reasonable water budgets are achieved for each zone, and long-term simulated groundwater levels match the observed levels within acceptable tolerances. Data gaps and inaccuracies in observation and reported groundwater levels may influence the quality of calibration. Further, lack of detailed well construction information in many of the calibration wells limited the ability to use data at those sites to properly calibrate the model with depth.

6.2 MODELING UNCERTAINTIES

A model is a numerical representation of physical process and inherently possesses uncertainties that affect the calibration, performance, and results of the model. Integrated hydrologic models are complex models that involve simulation of complex physical systems and interrelationships and require many different types of data, each of which may be available at different temporal and spatial scales. Uncertainties in the

performance of an integrated hydrologic model can arise from uncertainties in how the physical processes are conceptualized and formulated, inaccuracies in the underlying data and the calibration process. and eventually the assumptions used in applications of the model to evaluate projects, including projections of future conditions. The following are additional details on each of these uncertainty categories.

6.2.1 Structural Uncertainties

First set of model uncertainties can arise due to the structural framework of the model, which can include:

Representation of Physical Features - To properly represent natural conditions, the physical and natural features need to be well understood so that they can be conceptualized in a simplified manner for development of theoretical formulations.

Theoretical Concepts and Representation of the Natural and Physical Systems - This type of uncertainty can be attributed to the conceptualization of the physical and natural systems in the form of mathematical functions and formulas that govern the movement of groundwater and surface water systems and the interrelation of these systems. These formulas are typically referred to as governing equations for each of the hydrologic or hydrogeologic features modeled.

Formulation, Code Development, Solution Techniques, and Assumptions - The governing equations are typically so complex that analytical solutions to these equations are either not available or are so simplified that they would add to the inaccuracies in the representation of complex hydrologic systems. Therefore, numerical solutions are employed, including finite element or finite difference techniques, which require their own set of assumptions. Computer software is used to implement the theoretical formulations.

Model Spatial and Temporal Resolution - The governing equations representing the natural and/or physical systems are either solved at two levels:

- **Lumped solution -** At this level, the formulation represents a lumped parameter system, and the solution will be for an aggregated system at the large scale. This aggregated and lumped scale can be both for the spatial and temporal scale of the problem. Lumped level solutions are typically employed in conditions where there is a lack of accurate information or where the system is small enough that further spatial or temporal breakdown of the system is not possible due to lack of data and information.

- **Distributed Solution -** At this level, the system is subdivided in further spatial resolution to take advantage of spatial variability in the data and information that is available at smaller scales. Additionally, the solution to the formulation of the system is also subdivided in smaller temporal scales, such as a monthly or daily time step, so that short-term and long-term variability in the data over time is properly represented in the solution.

6.2.2 Data Uncertainties

This category of uncertainty is related to the data and information that is used and employed in development of a model.

Data and Information Accuracy, Data Gaps, and Estimates - Collection and compilation of data for natural and physical systems, including precipitation, streamflow, land use, cropping patterns, population, water use, crop evapotranspiration, soil conditions, groundwater levels, streamflow, surface water use, groundwater pumping, infrastructure, facilities, and operations all include a certain level of inaccuracy and uncertainty. This uncertainty is exacerbated when data gaps and inconsistencies exist. The methodology used to identify and fill data gaps can introduce levels of uncertainty.

Data Spatial and Temporal Resolution - In addition to the above, the spatial and temporal resolution of data may contain inaccuracies and uncertainties that would affect the data that are used in the model.

6.2.3 Calibration Uncertainties

Estimates of Hydrologic and Hydrogeologic Parameters - Often, data and/or information for specific parameters that are used to represent the governing equations in the model may not be available. In these circumstances, the modeler uses professional judgement, or adopts conditions from similar areas, which may introduce uncertainties and inaccuracies in model simulations.

Calibration Approach, Target Characteristics, and Accuracy - Model calibration requires certain quality, consistency, and care, so that the model properly represents the natural and physical conditions observed in the field. In addition to the quality and uncertainties in data and methodologies, the approach employed, tools and techniques used, and experience and expertise of the model developer affects the quality of model calibration and accuracy of the results. Often, the calibration targets are prone to uncertainty or lack of information. For example, information on the depth of the screened interval, as well as pumping rate and depth at the well, whether the recorded groundwater level reflects static or pumping conditions, and whether a well is under the influence from other nearby wells or a nearby stream can have significant bearing on the approach and quality of the calibration.

6.3 MODEL APPLICATION

It is imperative that model application be defined and considered in such a way that is supported by model calibration. Appropriate applications for a regional to subregional-scale model typically include water budget analysis, and changes in groundwater levels, cross boundary flows, seepage, discharge or storage that are induced by climate trends, land use changes, projects and management actions. Based on the calibration results, the model appears to be well suited to these kinds of applications. The model can also be useful to inform assessment of projects, management actions or management alternatives in term of compliance with specific groundwater elevation targets such as Minimum Thresholds, Measurable Objectives or Interim Milestones; however, given the current limitations of the model to predict specific heads accurately (Section 5.5.2), the results of such analyses should be interpreted with care.

Assumptions of a model application to analyze a particular project can often be generalized with little knowledge of the conditions. For example, significant uncertainties exist with respect to the following data, which can affect the quality and results of the model output for planning and policy making:

- Hydrologic conditions and rainfall patterns
- Land use and cropping patterns
- Population and water use
- Water supply conditions
- Climate change conditions

Based on the above, while modeling uncertainties need to be considered in use and application of the Turlock Model for evaluation of compliance with specific groundwater level targets, and project conditions for potential impacts, benefits, and design of plans and facilities, the model should be considered a reasonably robust tool to support the major decisions, including GSPs, projects and management actions, and sustainability analysis.

7. SUMMARY & RECOMMENDATIONS

The Turlock Model is an integrated hydrologic model, which simulates land surface processes, groundwater flow, streamflow, and the interaction between these systems. The model includes a historical, hydrologic period of WY 1991-2015. The model, adapted from the DWR's C2VSimFG, has been refined to reflect local data, information, and conditions, and has been reasonably calibrated to the local reported groundwater and streamflow conditions, making it an effective numerical analysis tool to evaluate the integrated groundwater and surface water system, including the water budgets and other groundwater sustainability criteria in the Turlock Subbasin.

Model results provide detailed water budgets that provide information on monthly and annual changes in agricultural and urban land use, surface water use and distribution, and groundwater pumping. Additionally, the model provides a robust analysis tool to evaluate the impacts of actions on the Turlock Subbasin's hydrologic system, including changes to the groundwater levels and trends and estimates of changes in groundwater storage. The results from the Turlock Model are used to better understand the Subbasin's hydrologic and hydrogeologic system and evaluate action that would result in groundwater sustainability under SGMA.

7.1 RECOMMENDATIONS

The Turlock Model, in its current state, is a defensible and well-established model for use in assessment of the water resources within the Turlock Subbasin under historical and projected conditions. However, development of the model and its application to the Turlock GSP have highlighted areas for additional study. Based on these findings, the following recommendations are to be considered for further refinement and enhancement of the Model:

Boundary Flow: The current boundary flows between the Turlock Subbasin and neighboring groundwater basins are dependent on a combination of the C2VSimFG calibration and limited groundwater data in the adjoining subbasins. It is recommended that the Subbasin continues to work with DWR along with the Merced and Delta-Mendota Subbasins to further refine and verify the groundwater flows across these boundaries.

Stream-Aquifer Interaction: Sustainability conditions in the Turlock Subbasin rely heavily on the surface water systems of the Tuolumne, Merced, and San Joaquin Rivers. These are critical features outlined in the GSP and it is recommended that future updates to the model include additional study and refinement along these water bodies. Such refinement could potentially include the evaluation of near-stream groundwater conditions, more detailed rating tables (particularly under low-flow conditions), and stream-bed parameters.

Inclusion of Local Creeks: Recharge and runoff of local tributaries (e.g. Dry Creek, Mustang Creek, and Sand Creek) are currently simulated through a combination of the small watershed and root-zone packages and their implementation of the TR-55 Curve Number Method. To support the projects outlined in the Turlock Subbasin GSP and to better quantify their natural contributions to the aquifer system, it may be beneficial to dynamically simulate these surface water features using the stream-package in IWFM. Inclusion of the local creeks would more accurately simulate recharge from these watersheds and courses. However, this requires a much higher resolution of the model grid, both spatially and vertically. This can be considered at a time that the GSAs would like to consider upgrading and enhancing the model for future applications.

Update of Monitoring Network: As part of GSP development, the Turlock Subbasin developed a representative monitoring to evaluate conditions throughout the region and have adopted a Management Action to evaluate and improve the current wells available. It is recommended that the Turlock Model

be regularly updated with any additional data. The collection and integration of supplementary observations will support future refinement of the model and understanding of simulated conditions.

Data Gaps (WTSGSA): The Turlock Model simulates surface water deliveries to Turlock Irrigation District growers by providing water to 17 distinct distribution areas. The monthly time-series for these deliveries were developed through analysis of TID records and operational water budgets. To simulate localized conditions in the WTSGSA and develop detailed water budgets, it is recommended that surface water delivery data continue to be developed and refined to best reflect operations within the district.

Additionally, to further support the simulation of operations within the western principal aquifers, it is recommended that additional data be collected relating to groundwater conditions and operations. Implementation of additional monitoring data, combined with known depths of groundwater production, would be helpful to further enrich model calibration and support the evaluation of flow dynamics related to groundwater heads, pumping and inter-subbasin flow in the western areas of the subbasin.

Data Gaps (ETSGSA): To improve the representation of the eastern principal aquifer, particular in the far-eastern areas of the subbasin, it is recommended that additional data be collected relating to geologic, hydrogeologic, and land surface operations. Model calibration should be improved upon collection of additional groundwater level data from the representative monitoring wells throughout the eastern sections of the Subbasin.

Model update schedule: To keep the Turlock Model up-to-date and current for analysis of water resources and especially for supporting SGMA implementation, it is recommended that the model hydrology, land, and water use data be updated and used for preparation of the GSP Annual Reports on an annual basis. It is further recommended that the model be updated for other major data sets, as well as enhanced for additional features every 5 years. This 5-year update would include an update of the model calibration and would be developed for use in the 5-year GSP update.

8. REFERENCES

Allen, R. G., Tasumi, M., and Trezza, R. 2007. "Satellite-based energy balance for mapping evapotranspiration with internalized calibration METRIC—Model." *J. Irrig. Drain. Eng.*, 133.4, pp. 380–394.

Allen, R. G., Pereira, L. S.; Howell, T. A.; and Jensen, M. E. 2011. Evapotranspiration information reporting: I. Factors governing measurement accuracy. Publications from USDA-ARS / UNL Faculty. Paper 829. Available at: http://digitalcommons.unl.edu/usdaarsfacpub/829.

American Society of Agricultural and Biological Engineers (ASABE). 2007. "Design and Operation of Farm Irrigation Systems, Second Edition." Hoffman, G.J., Evans, R.G Jensen, M.E., Martin, D.L. and Elliott, R.L. (eds), Am. Soc. Ag and Bio. Engrs., pp. 863. Available at: https://elibrary.asabe.org/monographs.asp?confid=dos2007.

American Society of Civil Engineers (ASCE). 2016. "Second Edition Manual 70. Evaporation, Evapotranspiration and Irrigation Water Requirements." Jensen, M.E. and Allen, R.G.(eds). Am. Soc. Civ. Engrs., 624 pp. App. M, D , pp. 216-262,437. Available at: https://elibrary.asabe.org/abstract.asp?aid=46439.

American Society of Civil Engineers-Environmental and Water Resources Institute (ASCE-EWRI). 2005. "The ASCE standardized reference evapotranspiration equation." *ASCE-EWRI Standardization of Reference Evapotranspiration Task Committee Rep.*, ASCE Bookstore. Available at: https://ascelibrary.org/doi/book/10.1061/9780784408056.

Bartow, J. A., & Doukas, M. P. (1979). *Preliminary geologic map of the southeastern border of the San Joaquin Valley, California* . U.S. Geological Survey Miscellaneous Field Studies Map MF-944, scale 1:125,000.

Bastiaanssen, W. G. M., Noordman, E. J. M., Pelgrum, H., Davids, G., Thoreson, B. P., and Allen, R. G. 2005. "SEBAL model with remotely sensed data to improve water-resources management under actual field conditions." *J. Irrig. Drain. Eng.*, 131.1, pp. 85–93.

Davis, S., & Hall, F. (1959). *Water quality of eastern Stanislaus and northern Merced Counties, California.* Stanford University Publications, Geological Science 6(1).

Dogrul, E.C., Brush, C.F. and Kadir, T.N. 2016. Groundwater modeling in support of water resources management and planning under complex climate, regulatory, and economic stresses. Water, 8(12), p.592.

DWR. (1967). *Bulletin 146, San Joaquin County Investigation.* California Department of Water Resources.

DWR. (1978). *Evaluation of ground water resources: Sacramento Valley.* Sacramento, CA: California Department of Water Resources Bulleting 118-6.

DWR. (2015). Criteria for Approximating Base of Fresh Groundwater. California Department of Water Resources.

DWR. (2020) California Central Valley Groundwater-Surface Water Simulation Model –Fine Grid (C2VSimFG) Development and Calibration Version 1.0. Sustainable Groundwater Management Office (SGMO) California Department of Water Resources.

ESJGA. (2019). *Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan.* Eastern San Joaquin Groundwater Authority

Ferriz, H. (2001). *Groundwater Resources of Northern California: An Overview.*

Hotchkiss, W. R., & Balding, G. O. (1971). Geology, hydrology, and water quality of the Tracy-Dos Palo area, San Joaquin Valley, California. U.S. Geological Survey Open-File Report 72-169. Retrieved August 28, 2019, Available at: https://doi.org/10.3133/ofr72169

Marchand, D. E., & Allwardt, A. (1981). *Late Cenozoic stratigraphic units, northeastern San Joaquin Valley, California.* U.S. Geological Survey Bulletin 1470.

Northwest Alliance for Computational Science & Engineering (NACSE). 2021. PRISM Climate Data. Available at: https://prism.oregonstate.edu/.

Norris, R. M., & Webb, R. W. (1990). *Geology of California (2nd edition).* New York: John Wiley & Sons.

Olivera, C. (2016). Personal Communications. April 8, 2016, Conversation on Base of Fresh Water. (M. Cayar, Interviewer).

Olmsted, F. H., & Davis , G. H. (1961). *Geologic features and ground-water storage capacity of the Sacramento Valley, California.* Washington, DC: U.S. Geological Survey Water-Supply Paper 1497.

Rumbaugh, J.O. and Rumbaugh, D.B. (2017). *Guide to Using Groundwater Vistas, Version 7*, Environmental Simulations, Inc., pg 420.

Thoreson, B., Clark, B., Soppe, R., Keller, A., Bastiaanssen, W., and Eckhardt, J. 2009. Comparison of Evapotranspiration Estimates from Remote Sensing (SEBAL), Water Balance, and Crop Coefficient Approaches. Proceedings of the 2009 World Environmental & Water Resources Congress. American Society of Civil Engineers Environmental and Water Resources Institute. Kansas City, MO.

United States Department of Agriculture (USDA). 1986. Urban hydrology for small watersheds. Technical Release 55 (TR-55) (Second ed.). Natural Resources Conservation Service, Conservation Engineering Division.

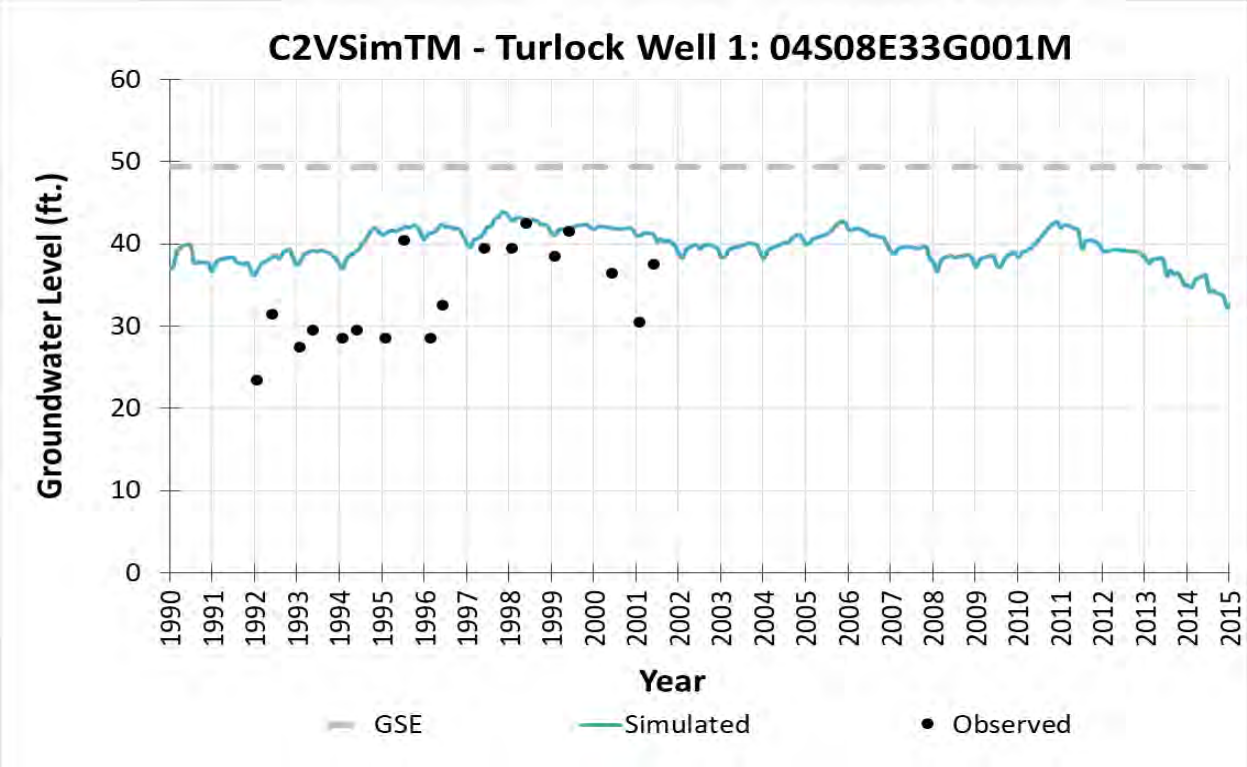
USDA, National Resources Conservation Service. 2004. National Engineering Handbook. Washington (DC): U.S. Department of Agriculture. Part 630, Hydrology, Chapters 9 and 10. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/water/manage/hydrology/?cid=stelprdb1043063.

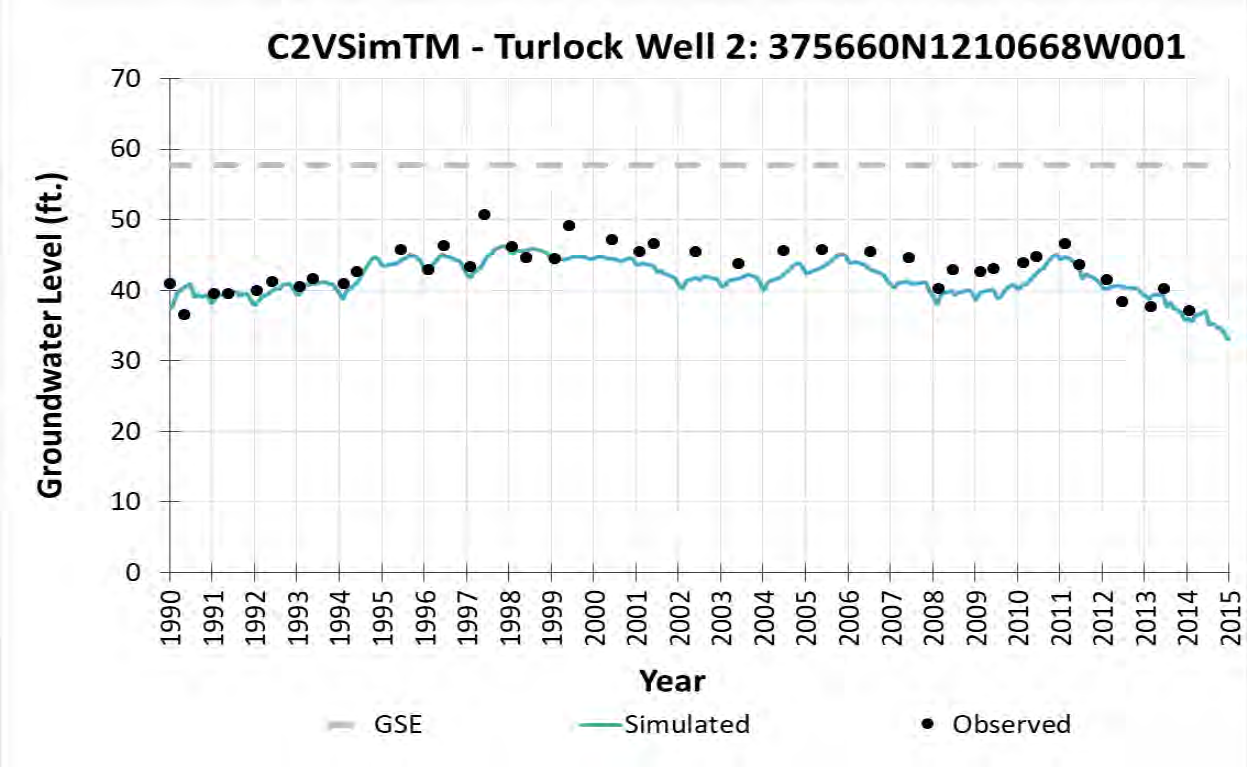
USDA, National Resources Conservation Service. 2009. National Engineering Handbook. Washington (DC): U.S. Department of Agriculture. Part 630, Hydrology, Chapter 7. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/water/manage/hydrology/?cid=stelprdb1043063.

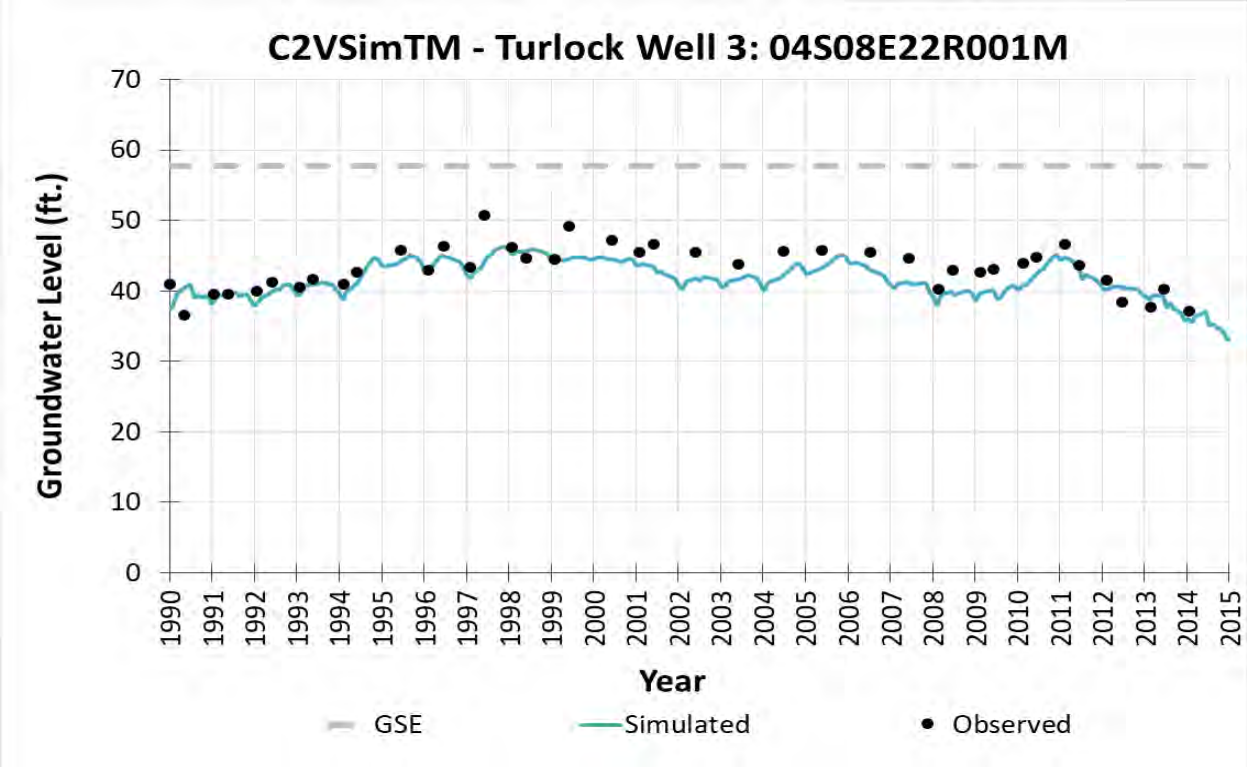
Williamson, A. K., Prudic, D. E., & Swain, L. A. (1989). *Ground-water flow in the Central Valley, California.* Washington, DC: U.S. Geological Survey Professional Paper 1401-D.

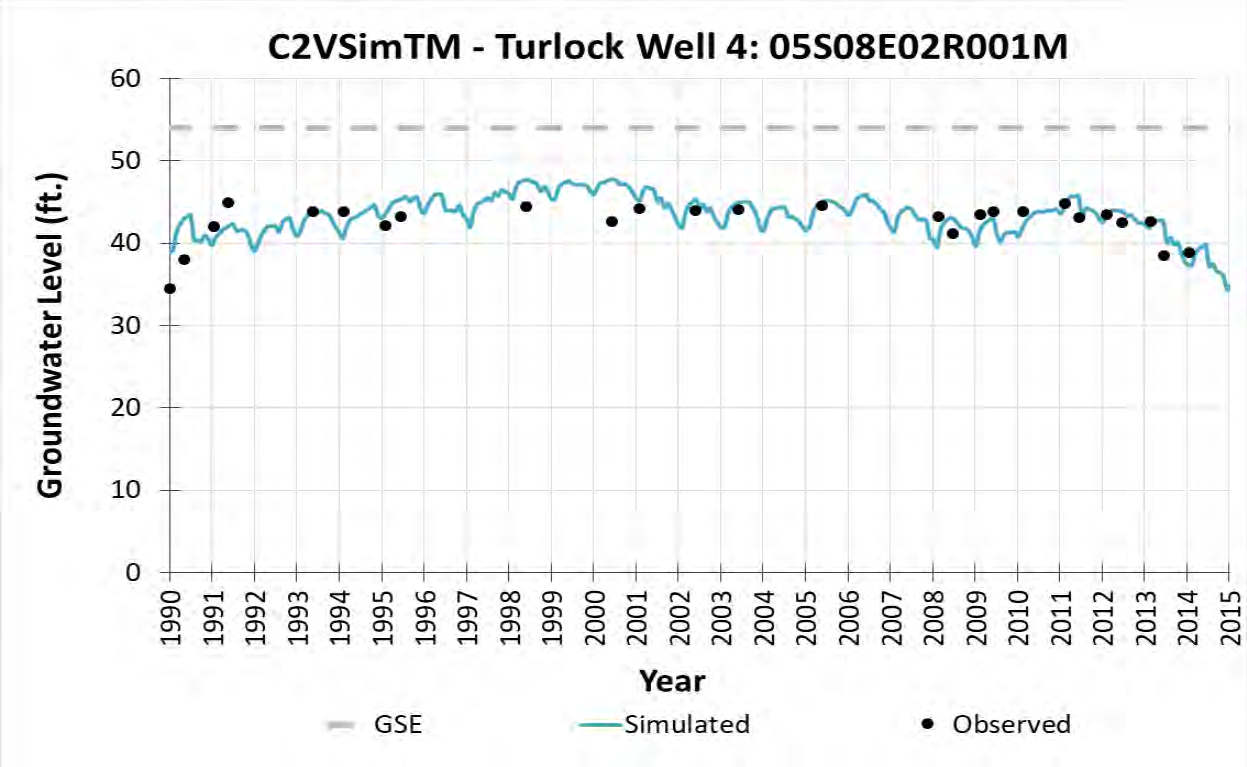
Wood, P. R., & Dale, R. H. (1964). *Geology and groundwater features of the Edison-Maricopa area, Kern County, California.* Washington, DC: U.S. Geological Survey Water Supply Paper 1656.

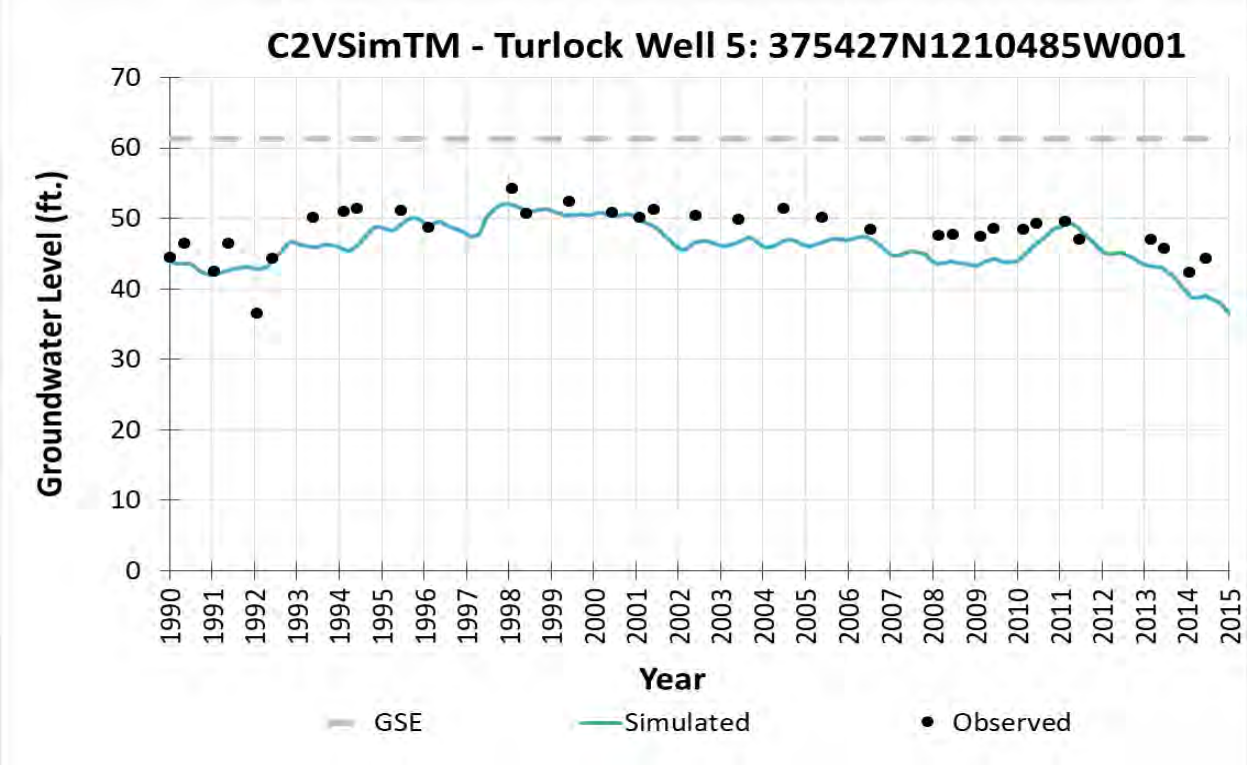
APPENDIX A:
GROUNDWATER LEVEL HYDROGRAPHS

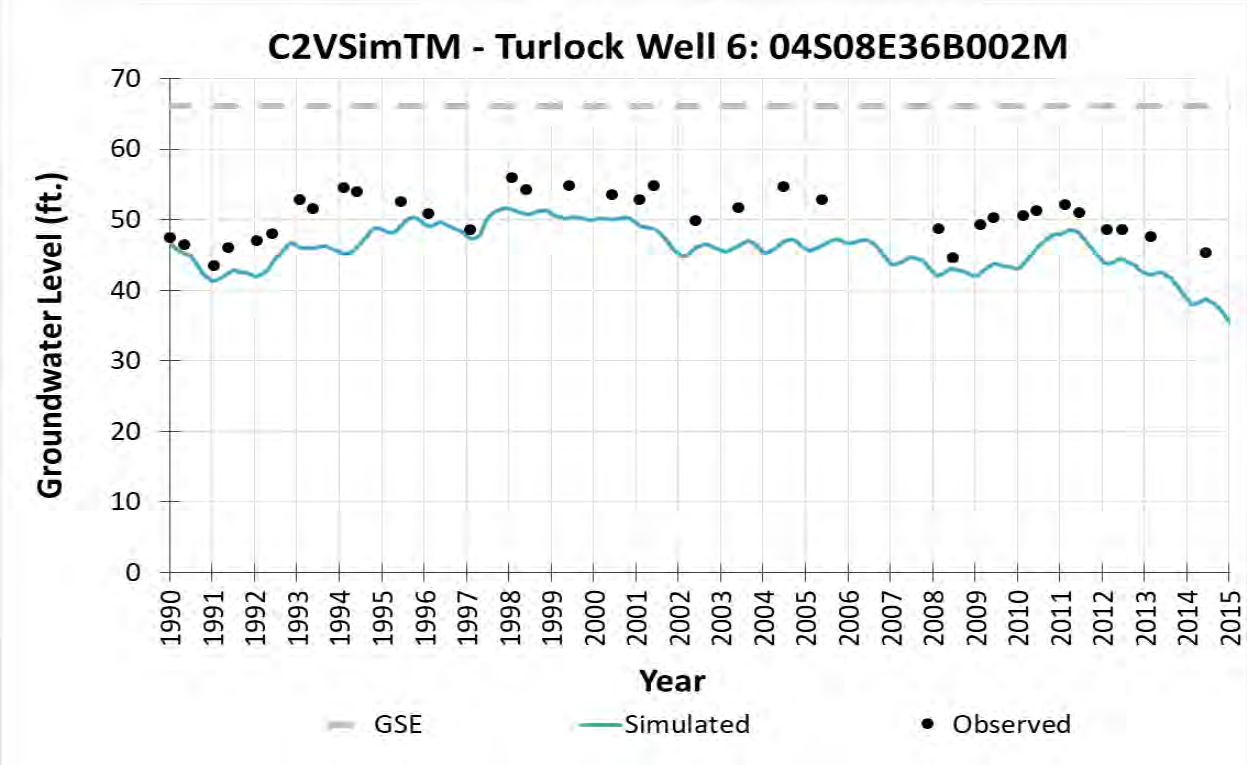

C2VSimTM - Turlock Well 1: 04S08E33G001M
Groundwater Level (ft.)
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

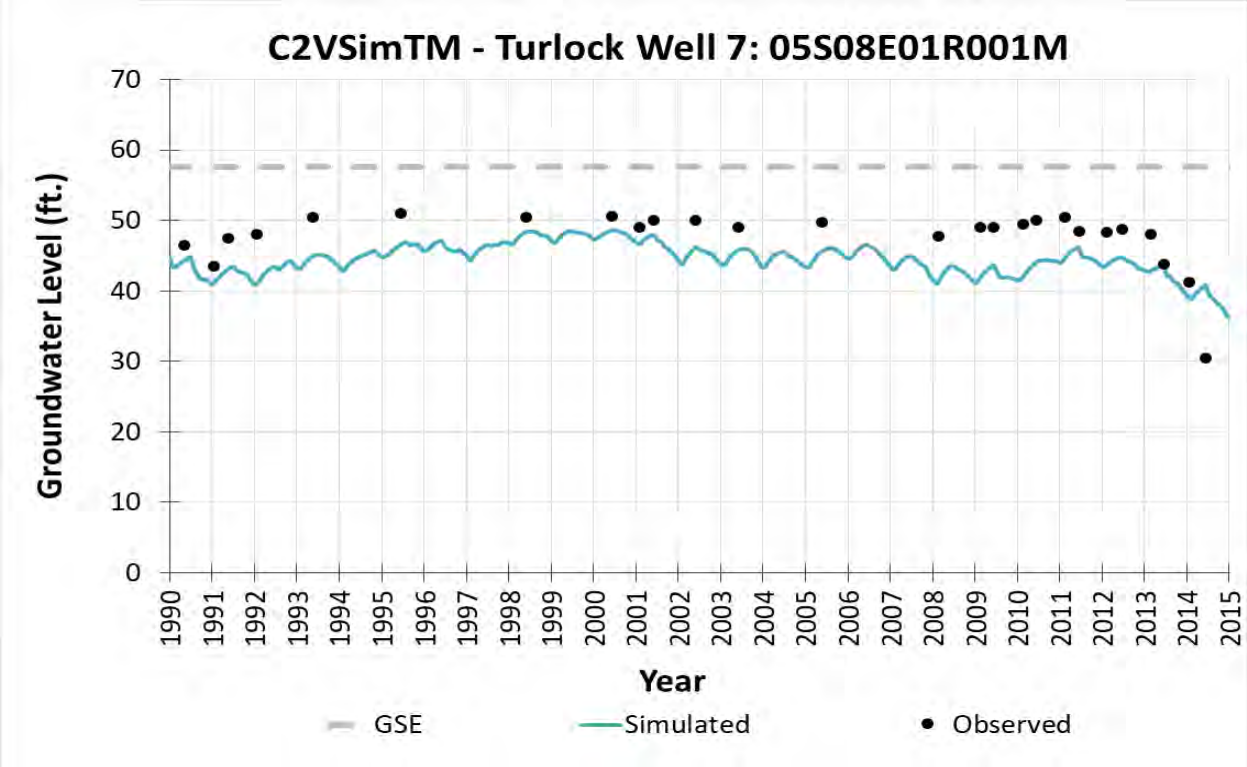

C2VSimTM - Turlock Well 2: 375660N1210668W001
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

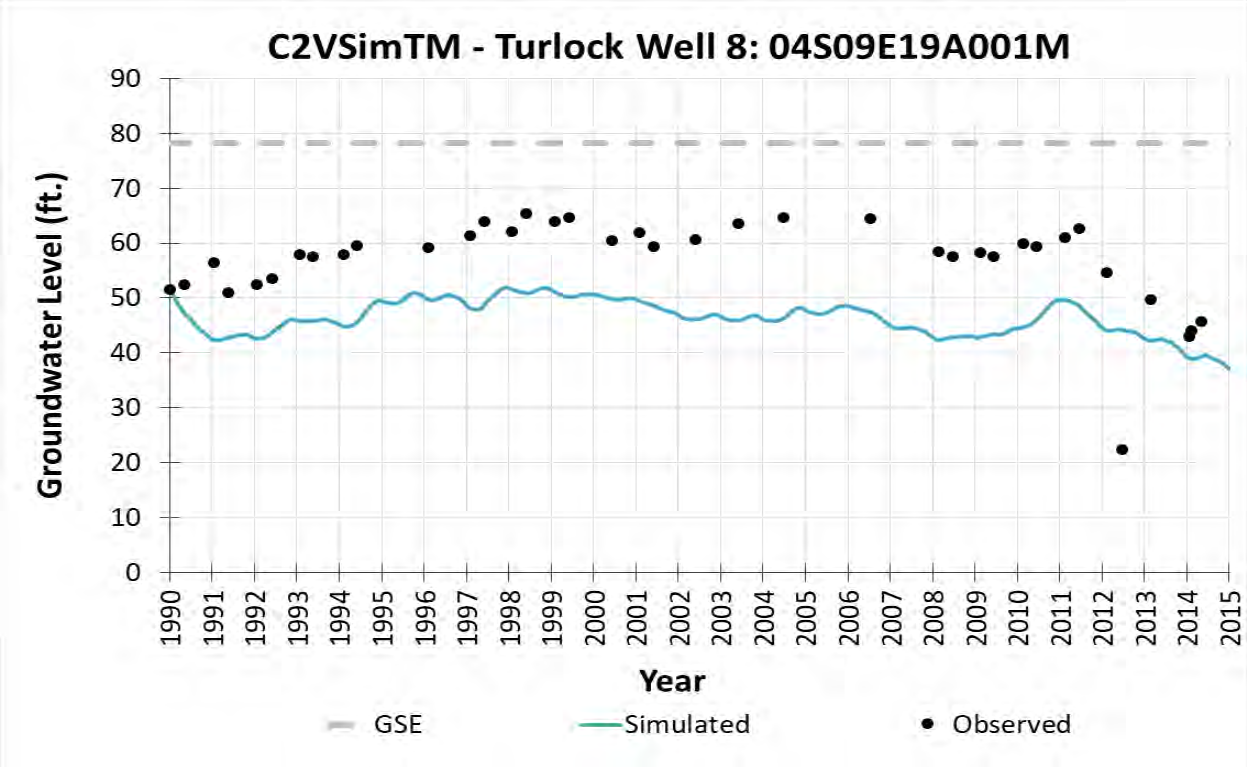

C2VSimTM - Turlock Well 3: 04S08E22R001M
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

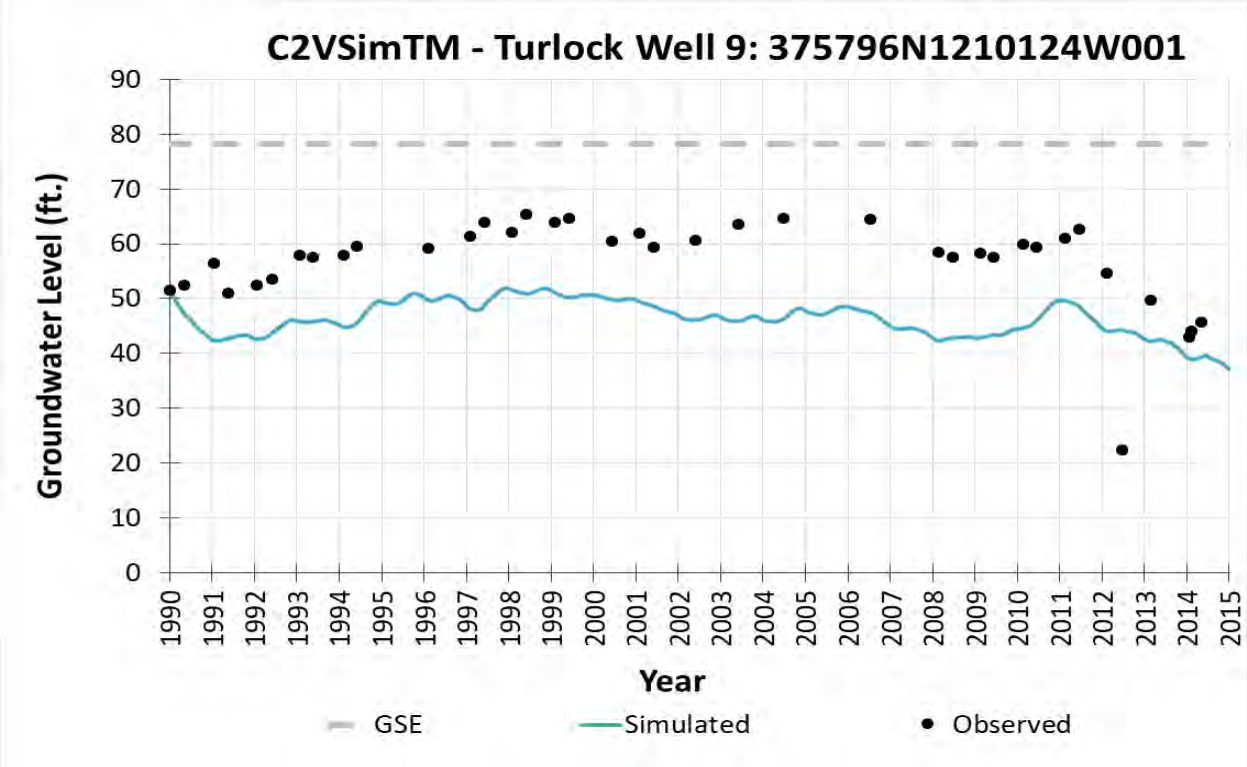

C2VSimTM - Turlock Well 4: 05S08E02R001M
Groundwater Level (ft.)
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

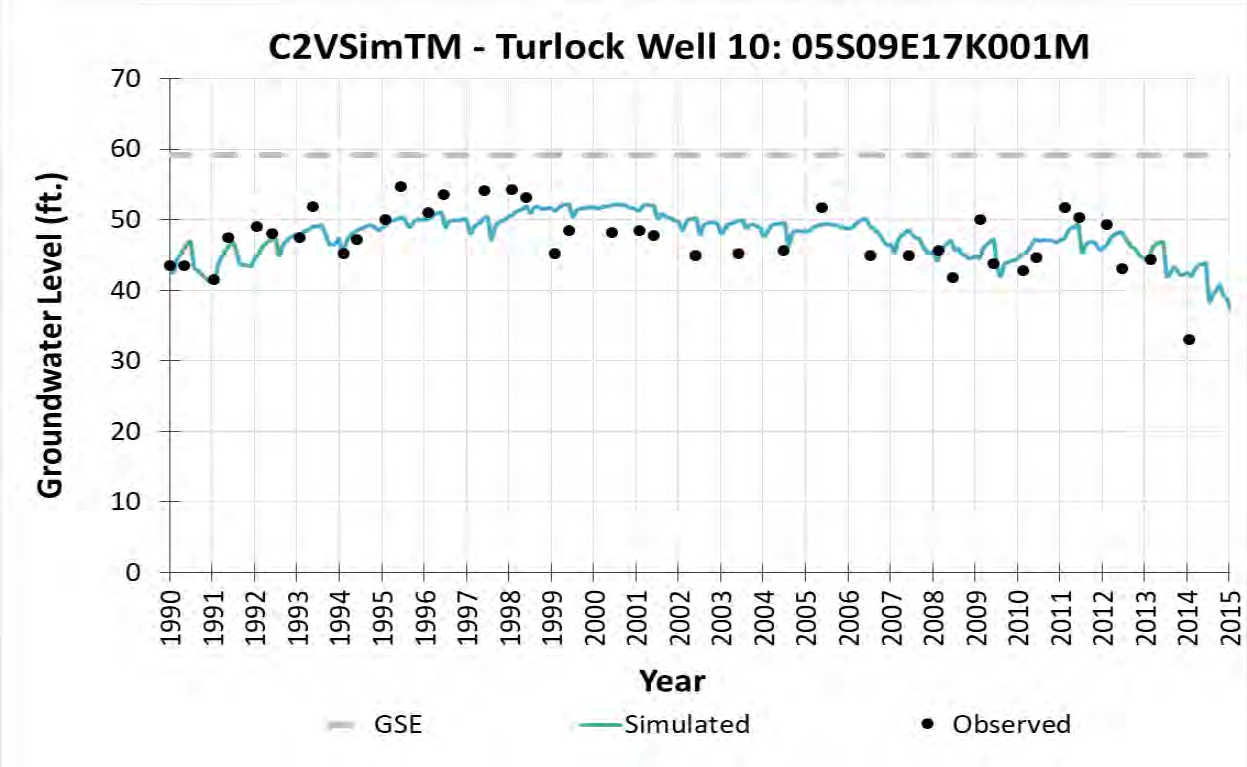

C2VSimTM - Turlock Well 5: 375427N1210485W001
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

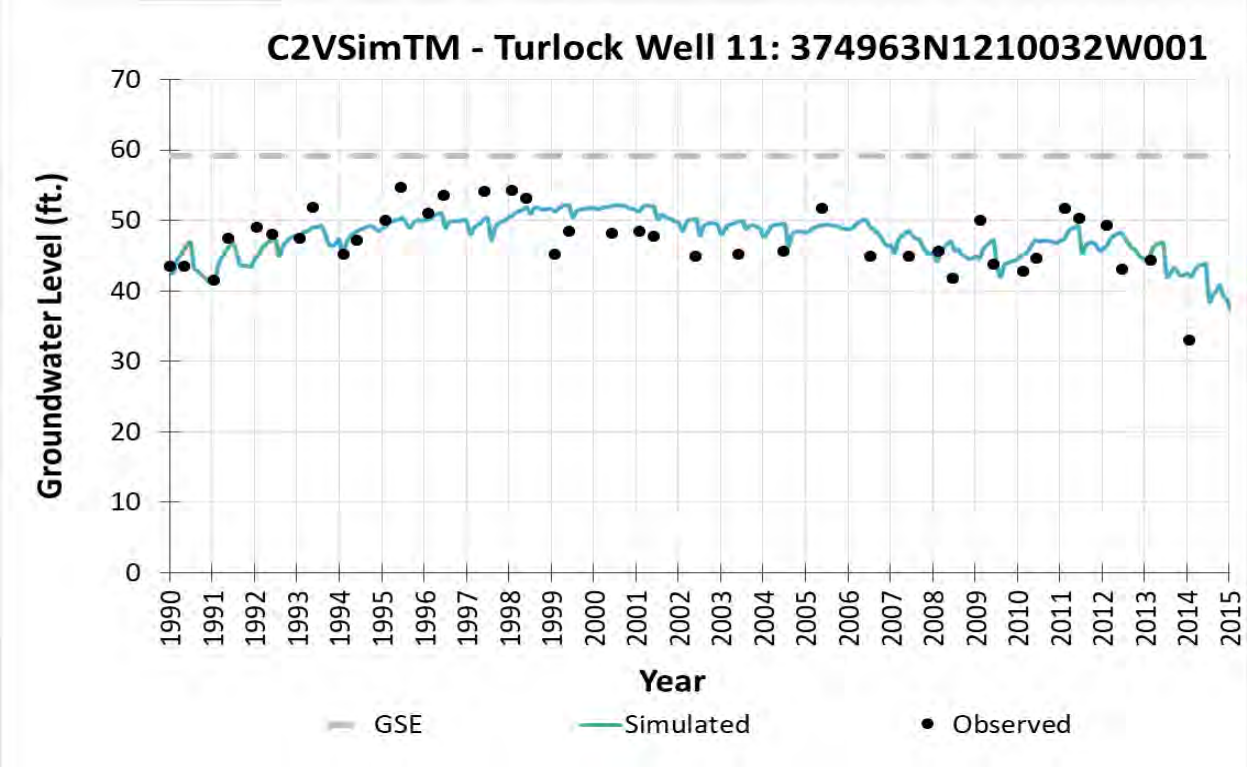

C2VSimTM - Turlock Well 6: 04S08E36B002M
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

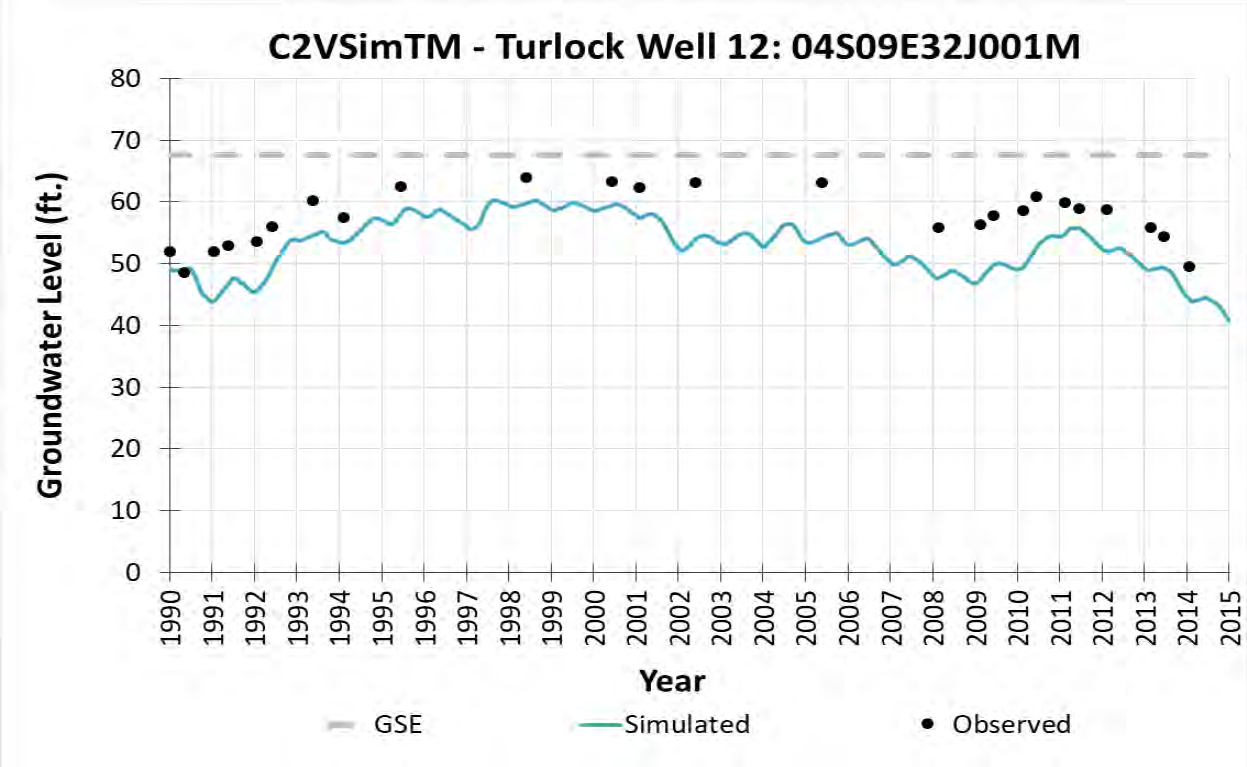

C2VSimTM - Turlock Well 7: 05S08E01R001M
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

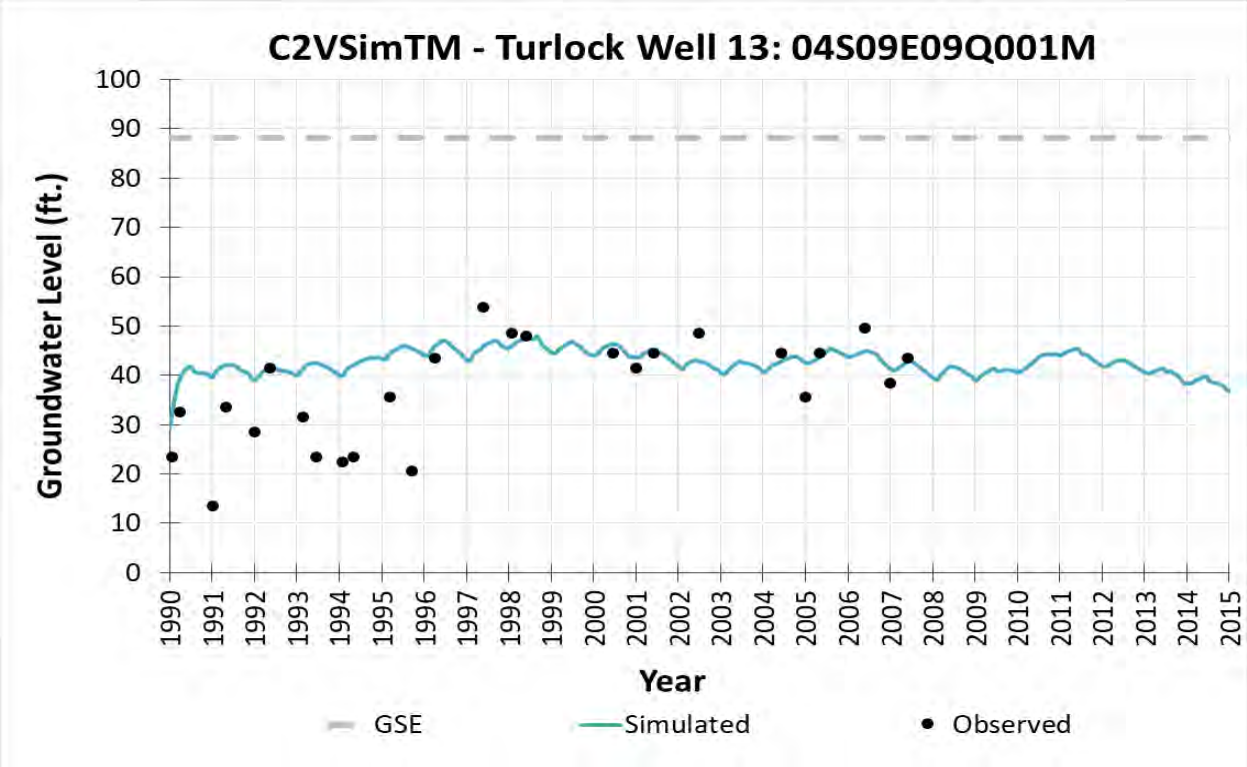

C2VSimTM - Turlock Well 8: 04S09E19A001M
Groundwater Level (ft.)
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

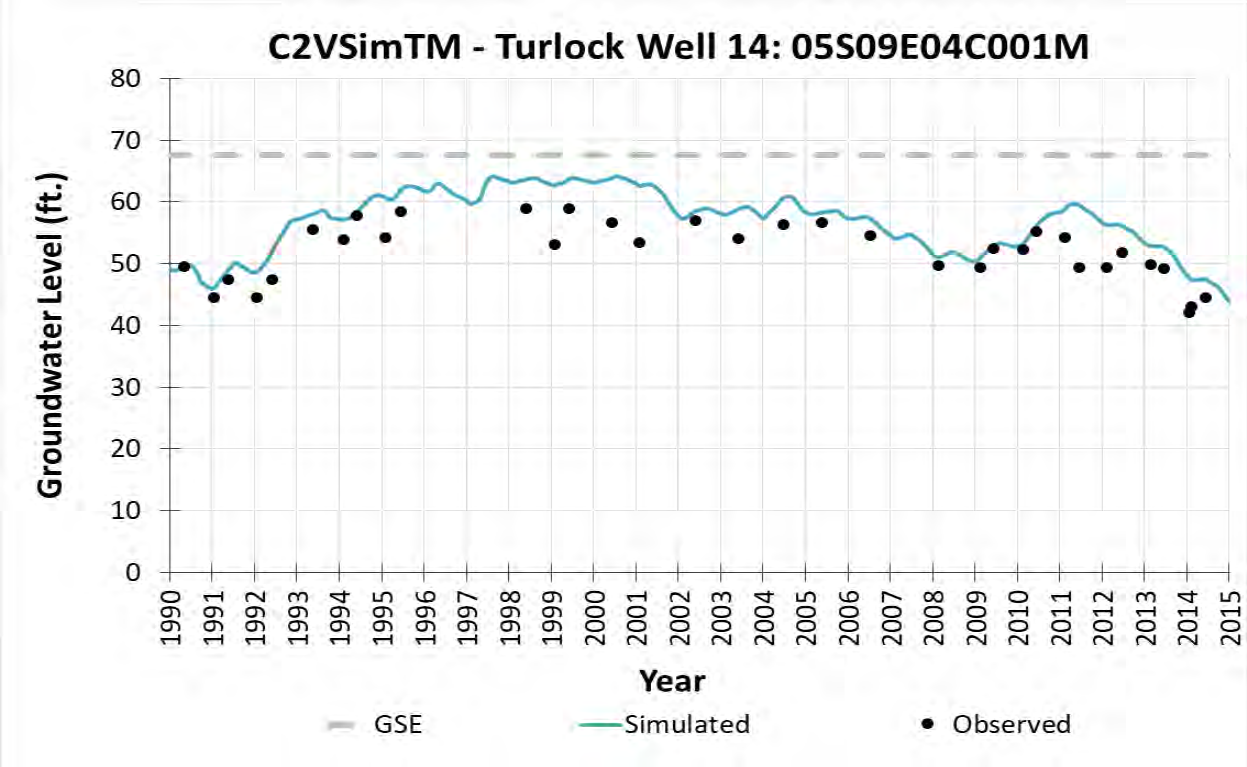

C2VSimTM - Turlock Well 9: 375796N1210124W001
Groundwater Level (ft.)
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

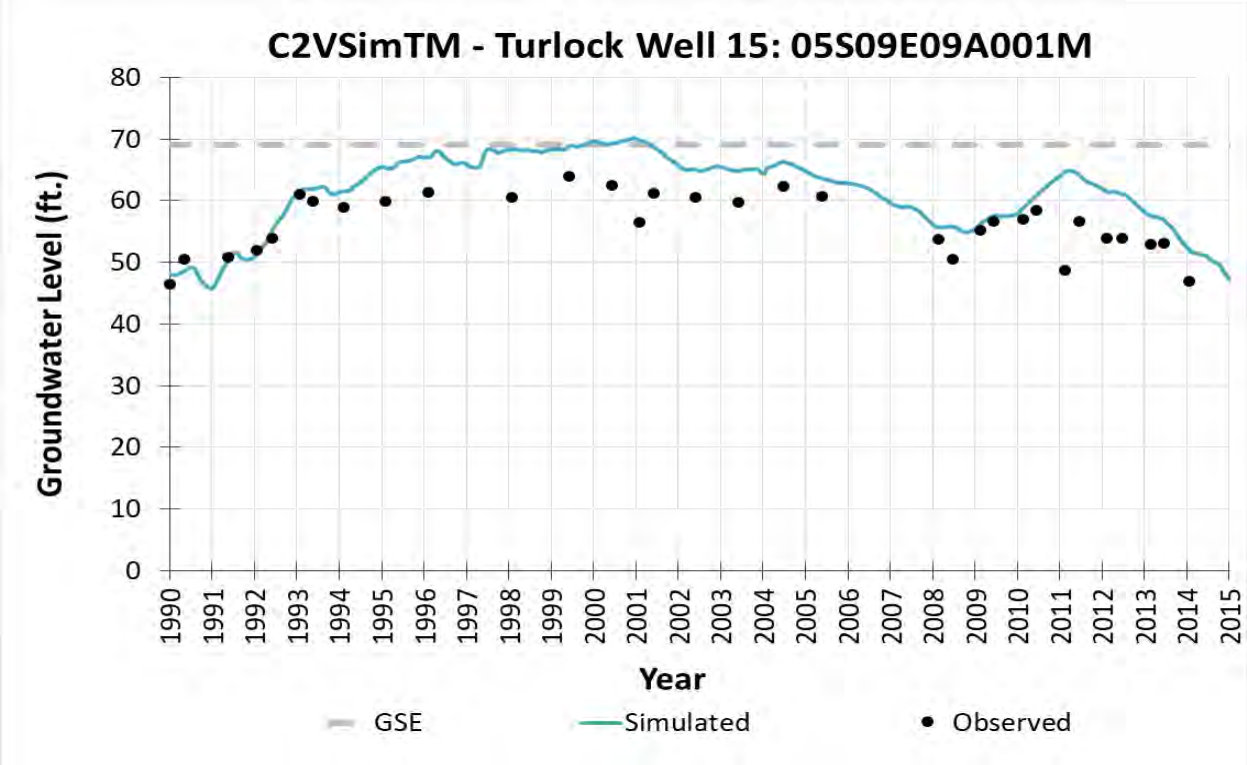

C2VSimTM - Turlock Well 10: 05S09E17K001M
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

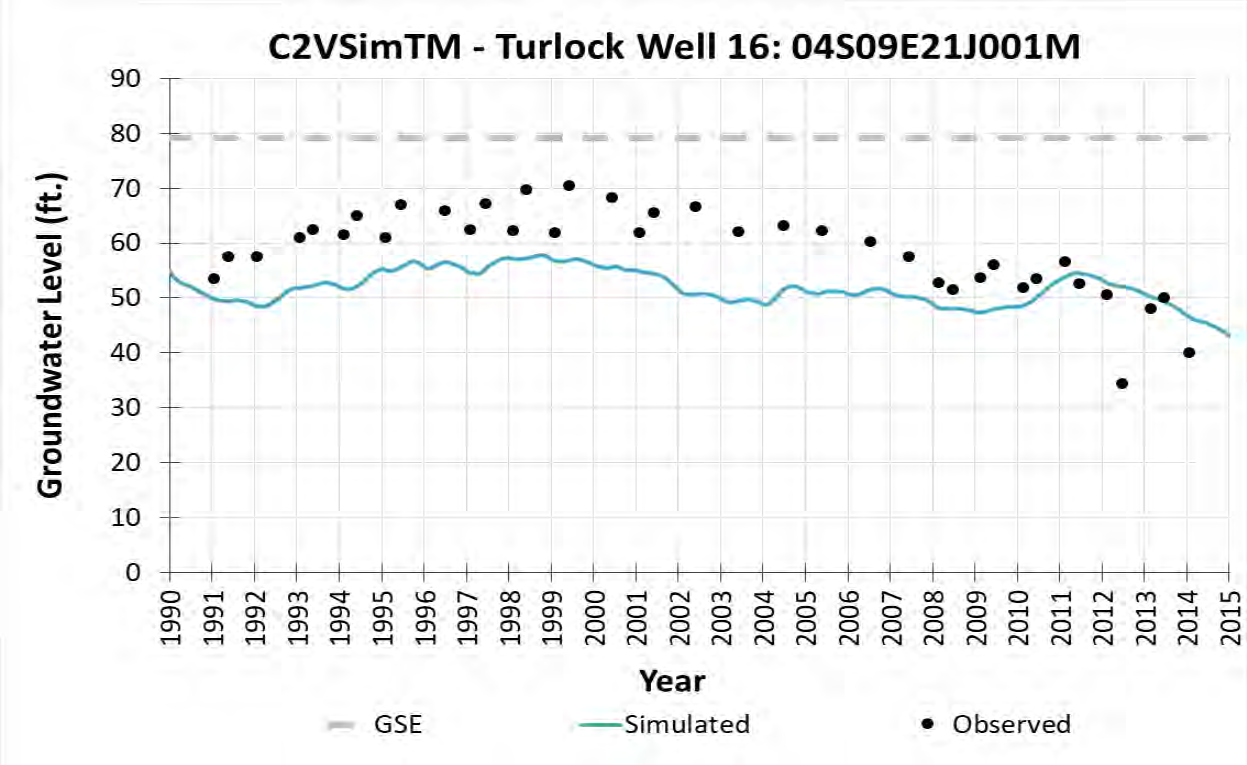

C2VSimTM - Turlock Well 11: 374963N1210032W001
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

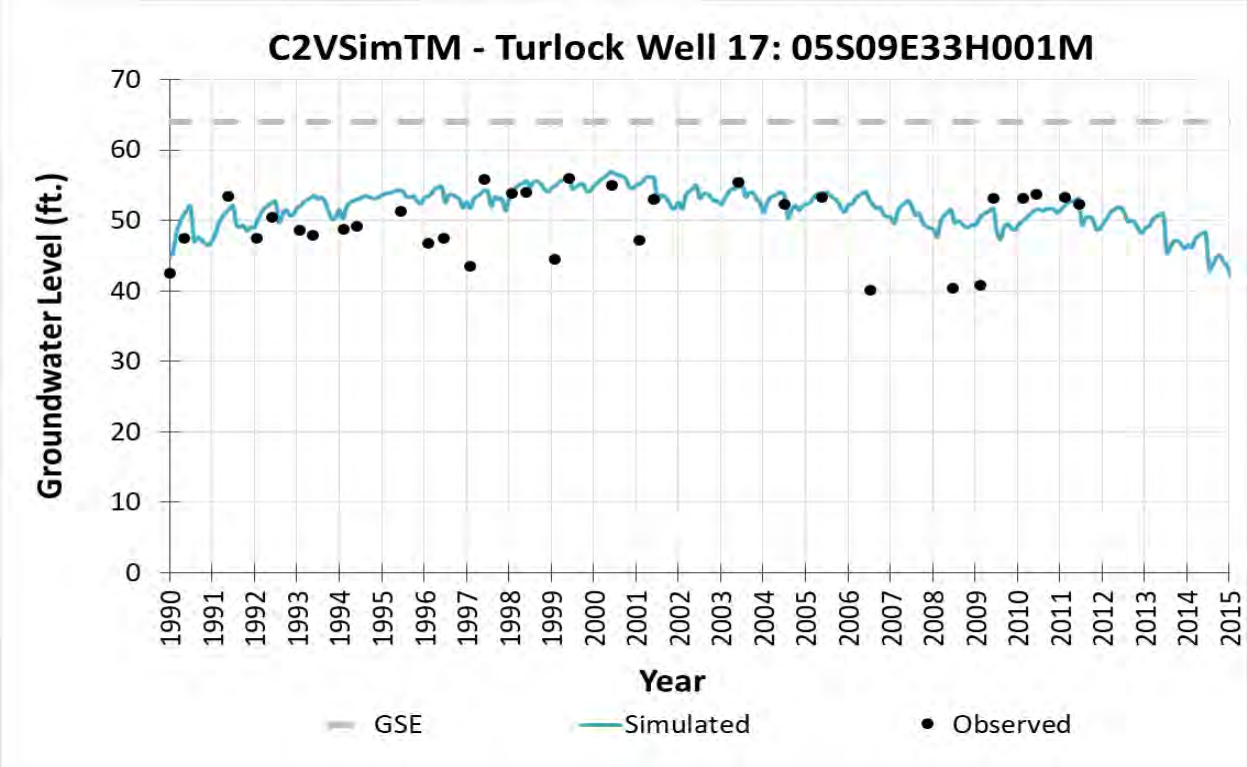

C2VSimTM - Turlock Well 12: 04S09E32J001M
Groundwater Level (ft.)
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

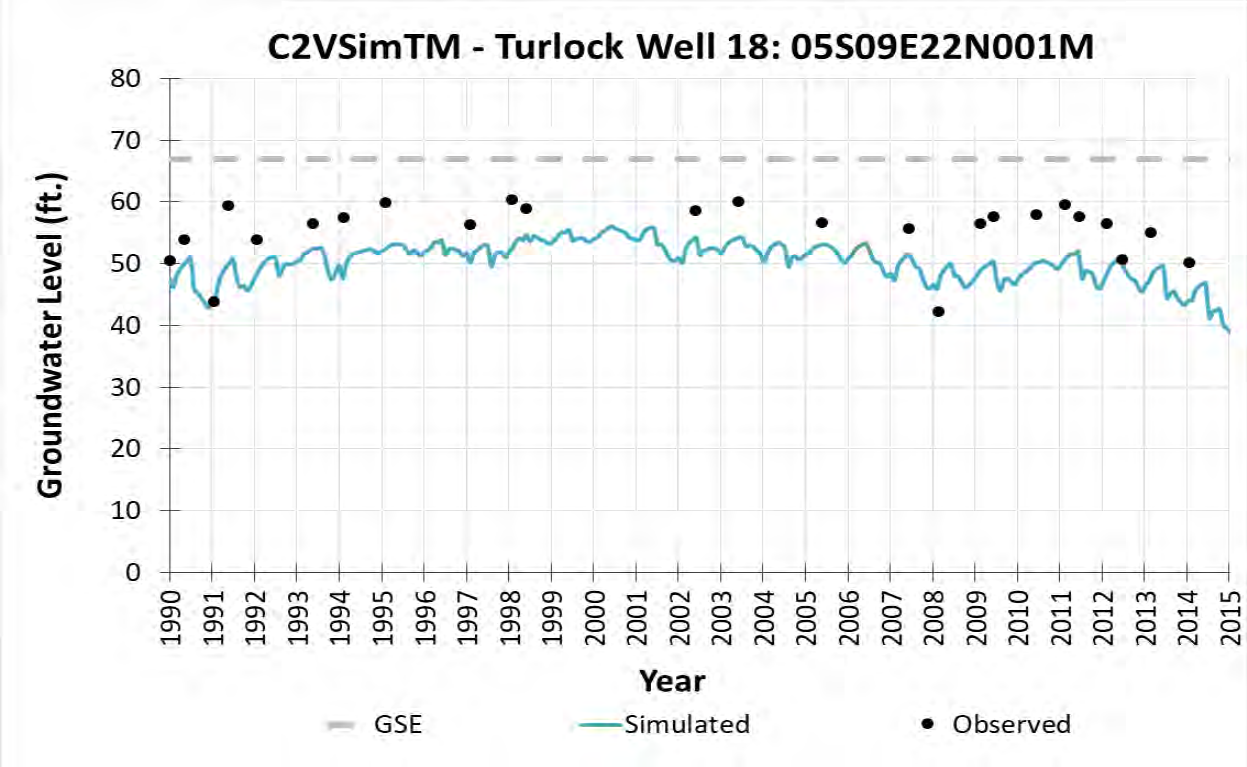

C2VSimTM - Turlock Well 13: 04S09E09Q001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

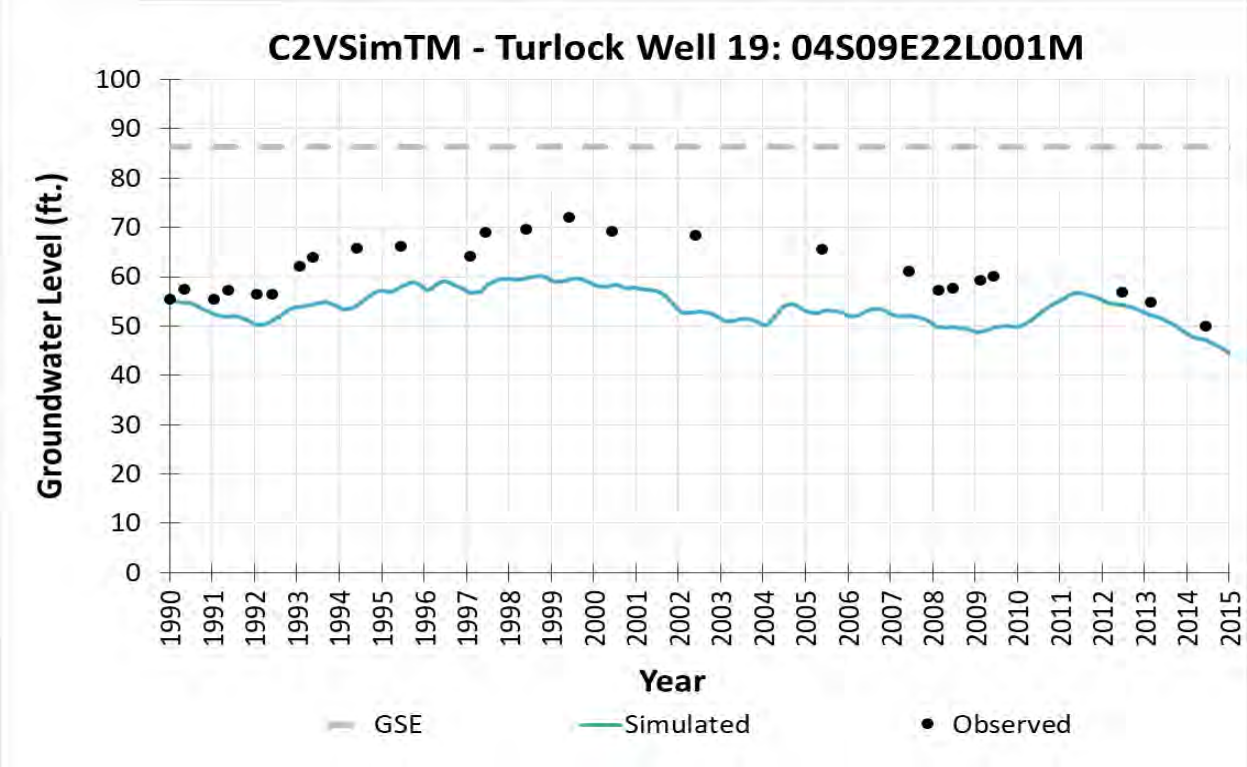

C2VSimTM - Turlock Well 14: 05S09E04C001M
Groundwater Level (ft.)
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

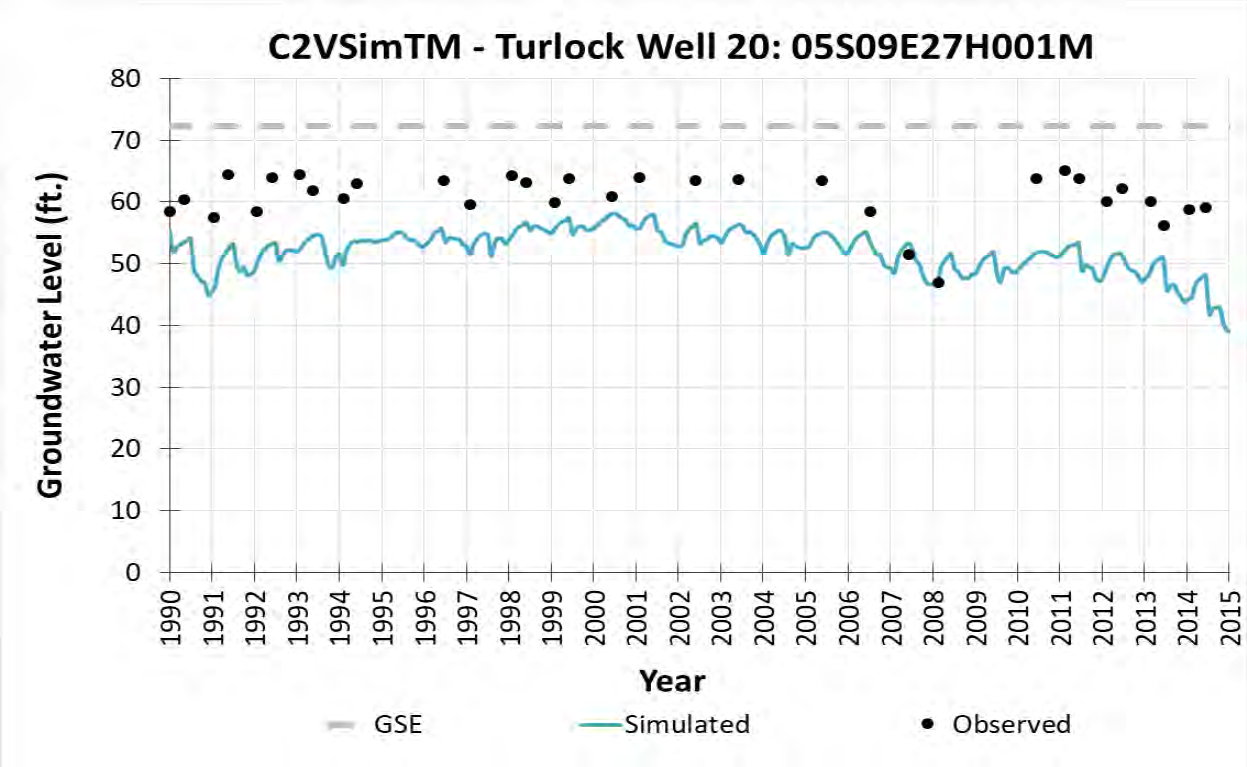

C2VSimTM - Turlock Well 15: 05S09E09A001M
Groundwater Level (ft.)
0
10
20
30
40
50
60
70
80
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

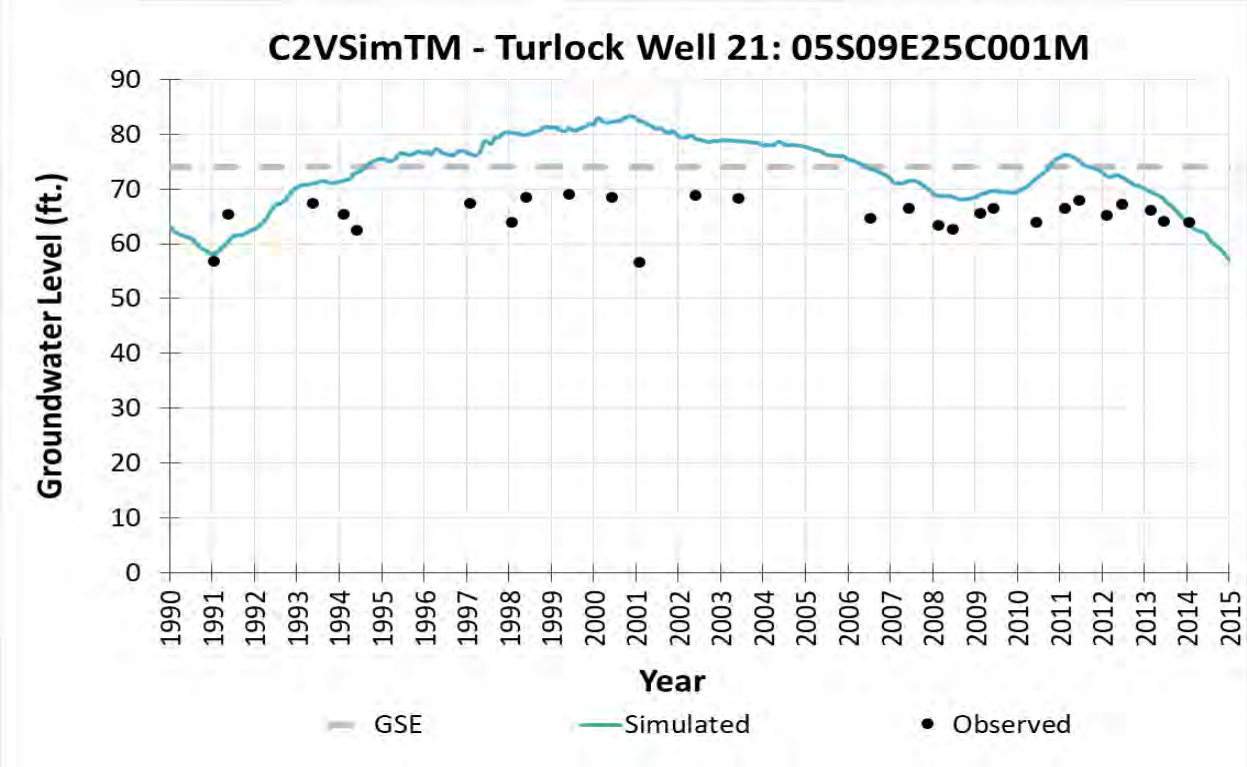

C2VSimTM - Turlock Well 16: 04S09E21J001M
Groundwater Level (ft.)
0
10
20
30
40
50
60
70
80
90
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

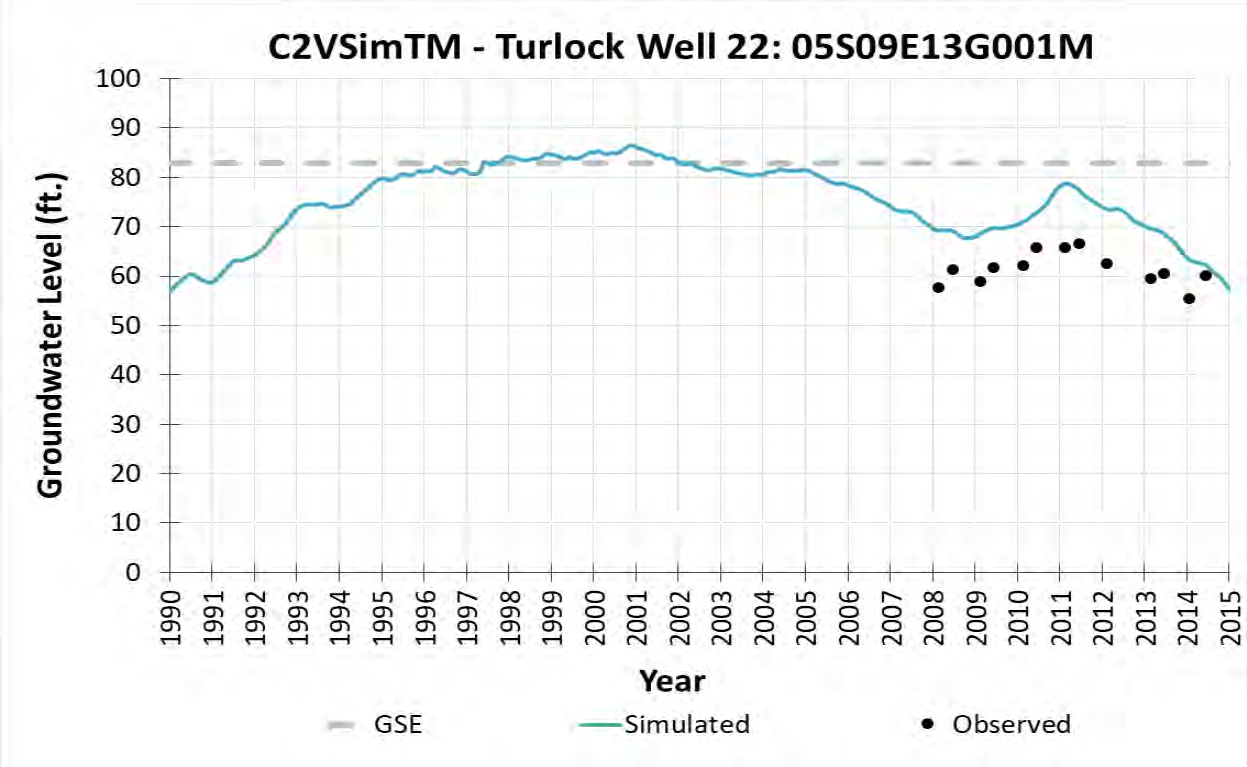

C2VSimTM - Turlock Well 17: 05S09E33H001M
Groundwater Level (ft.)
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

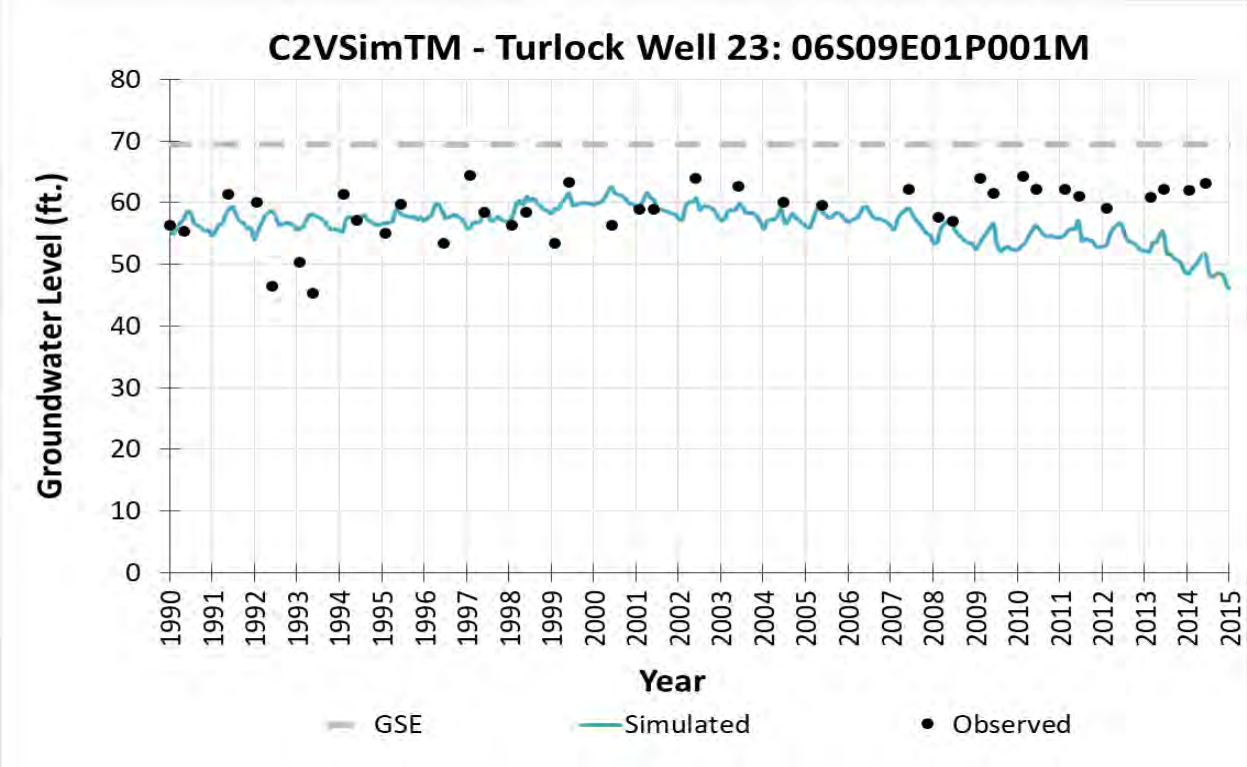

C2VSimTM - Turlock Well 18: 05S09E22N001M
Groundwater Level (ft.)
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

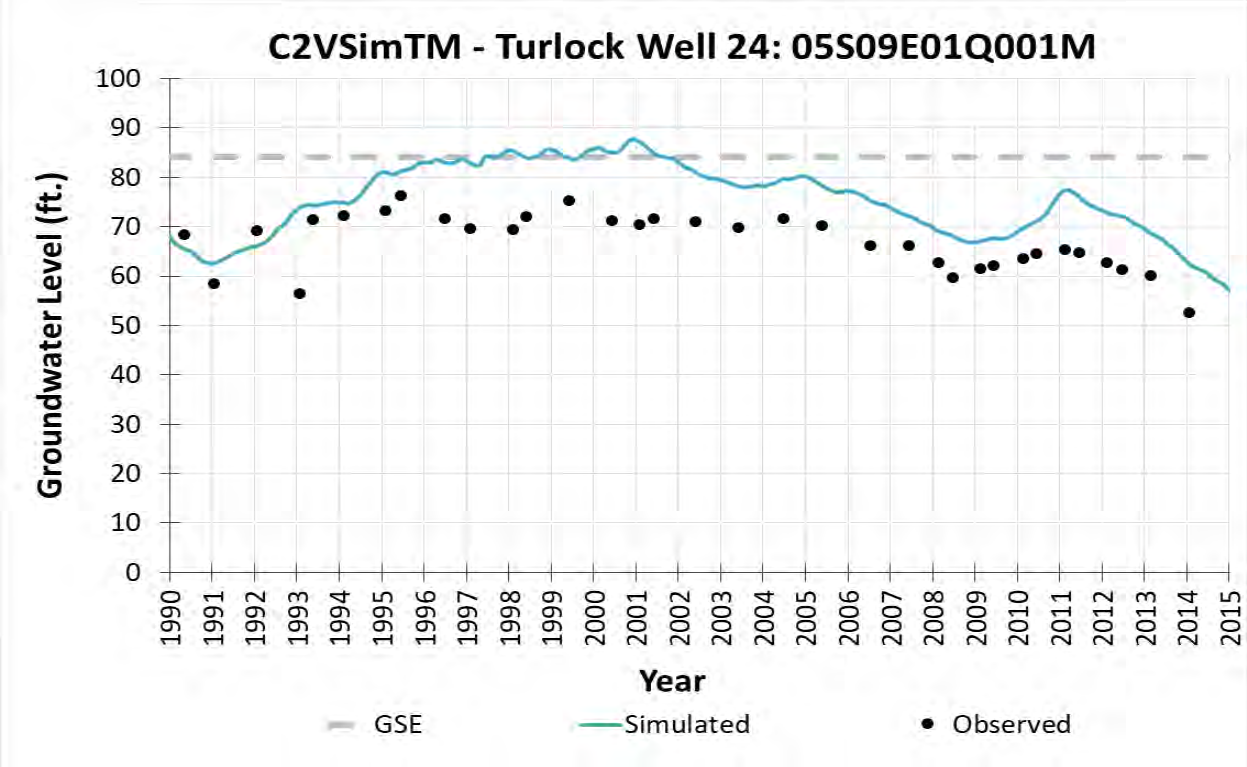

C2VSimTM - Turlock Well 19: 04S09E22L001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

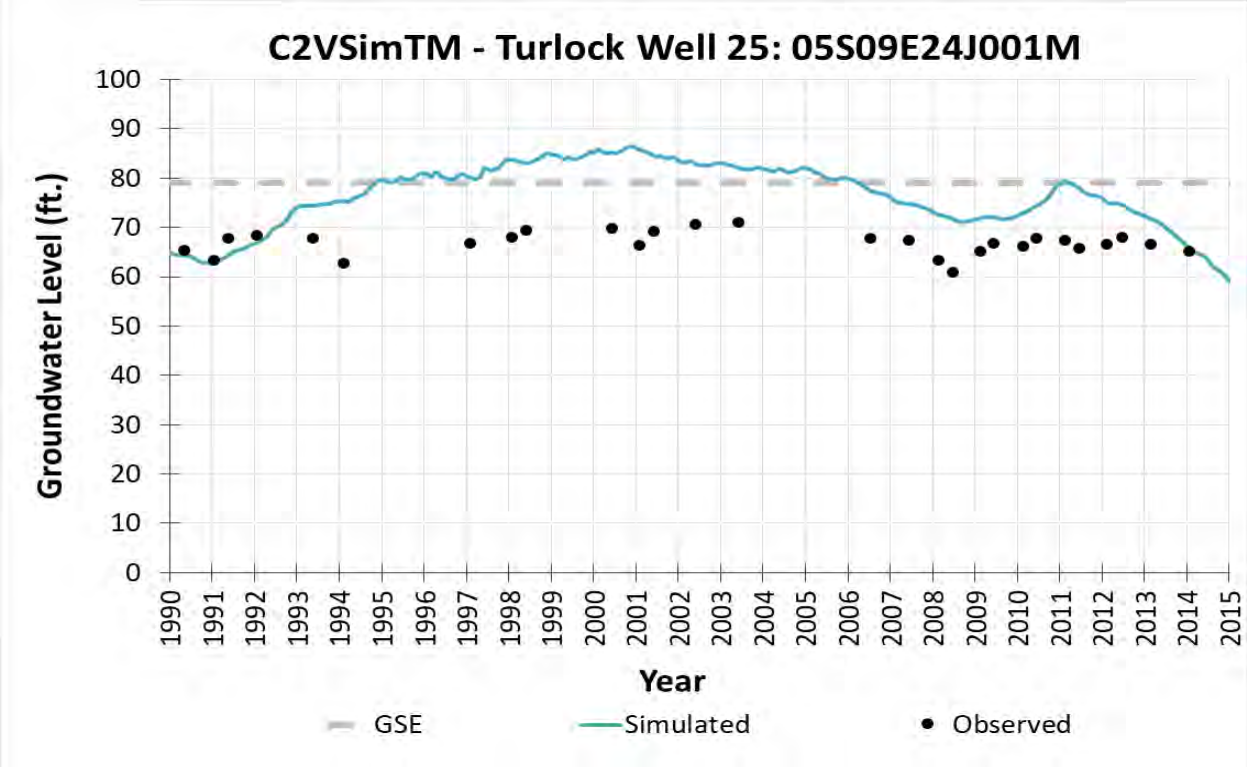

C2VSimTM - Turlock Well 20: 05S09E27H001M
Groundwater Level (ft.)
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

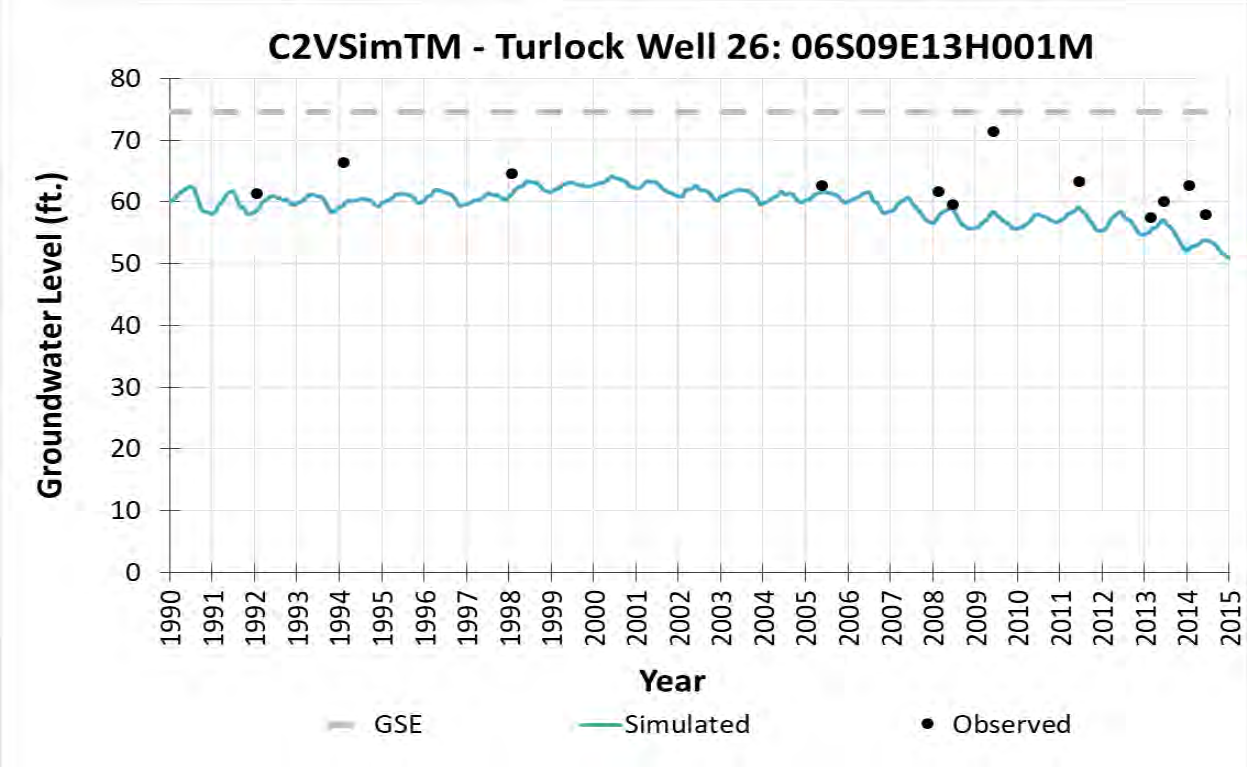

C2VSimTM - Turlock Well 21: 05S09E25C001M
Groundwater Level (ft.)
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

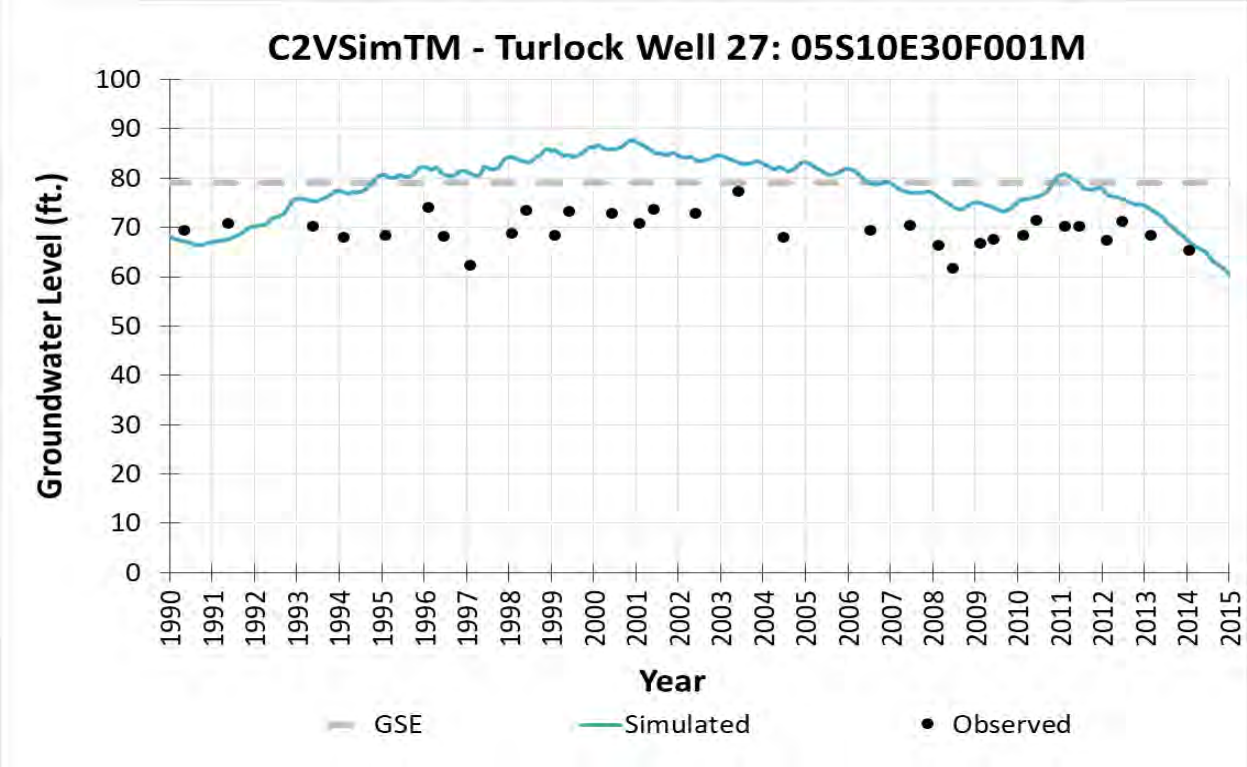

C2VSimTM - Turlock Well 22: 05S09E13G001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

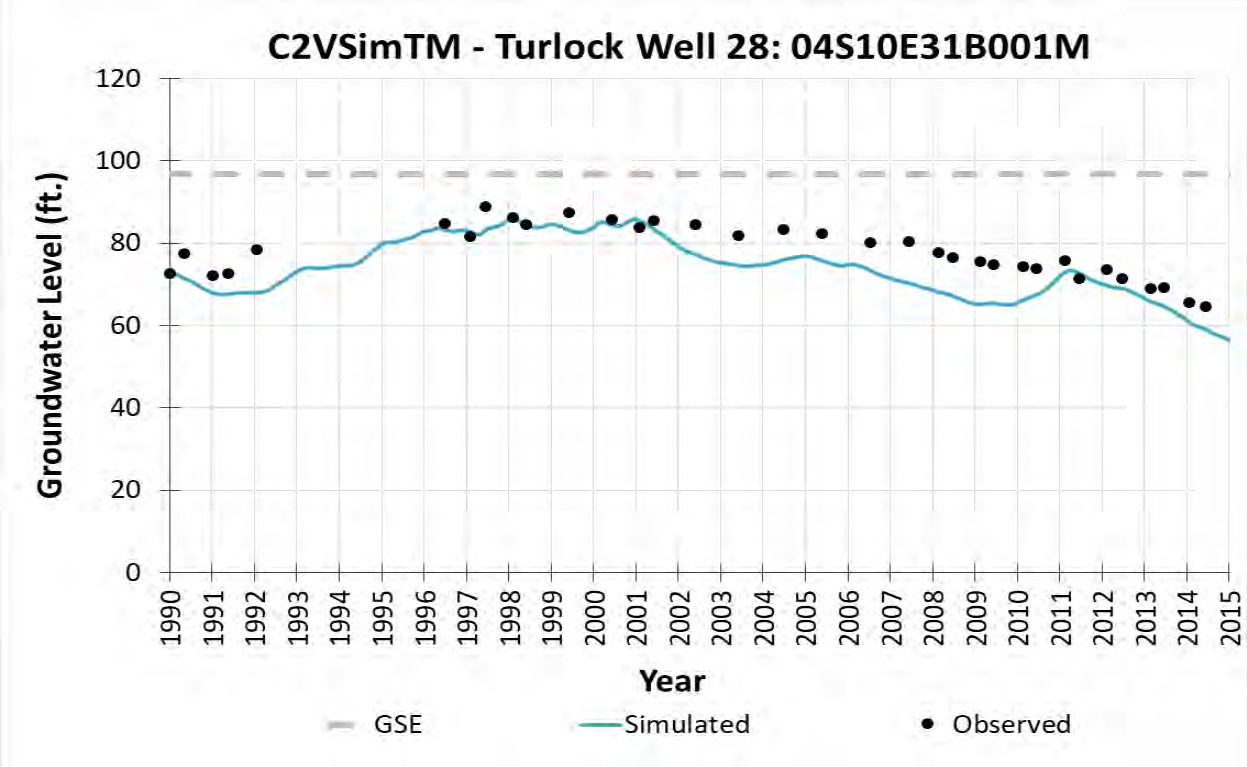

C2VSimTM - Turlock Well 23: 06S09E01P001M
Groundwater Level (ft.)
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

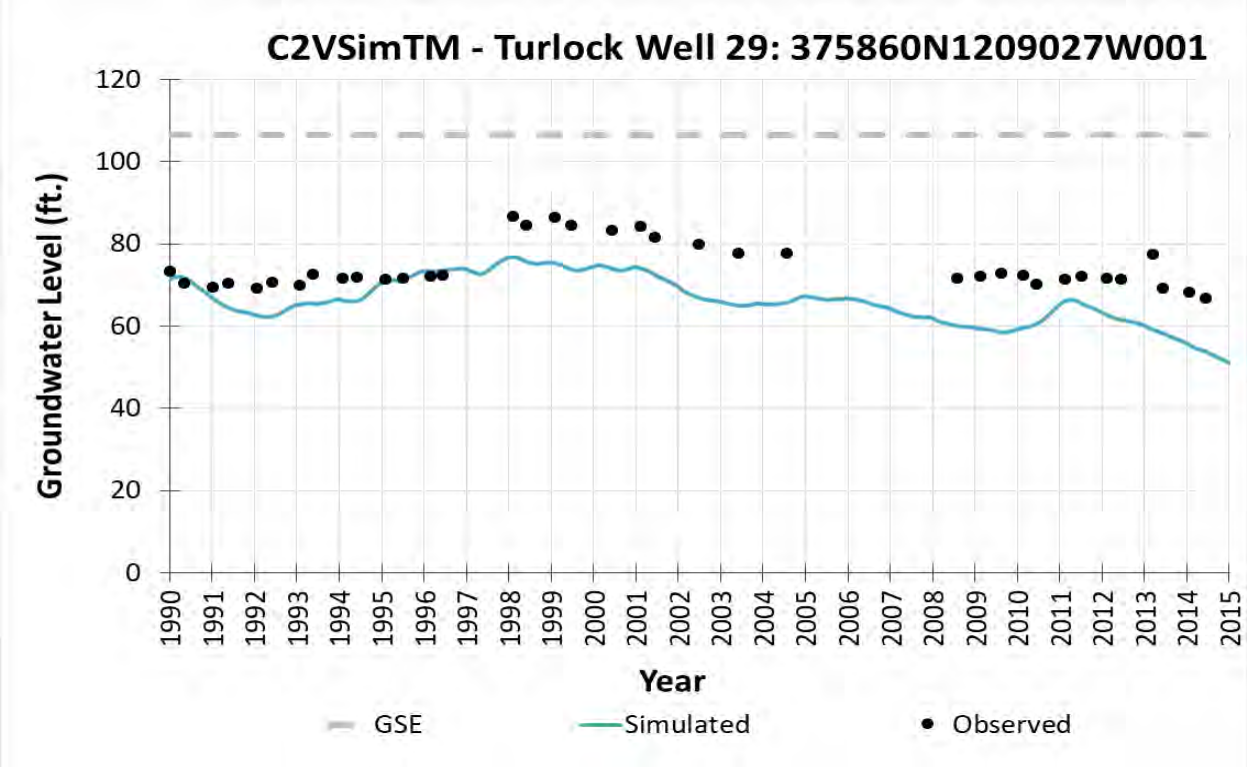

C2VSimTM - Turlock Well 24: 05S09E01Q001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

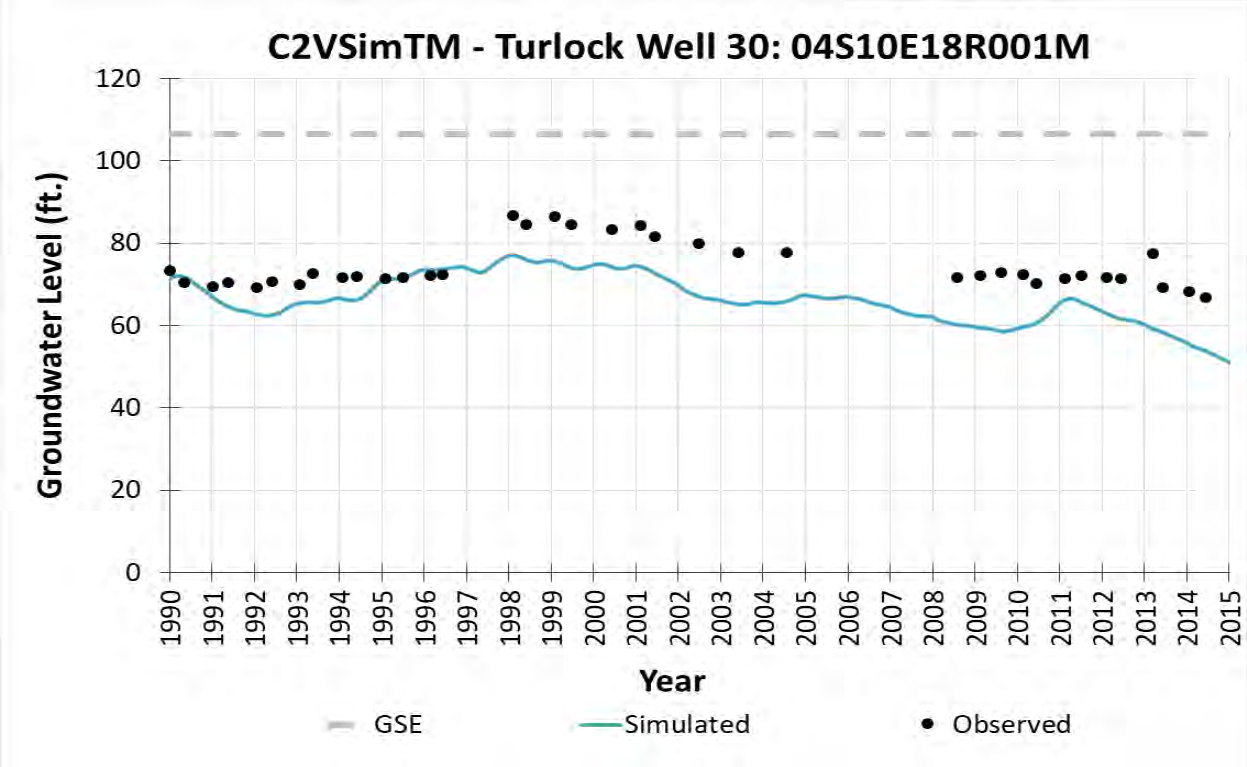

C2VSimTM - Turlock Well 25: 05S09E24J001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

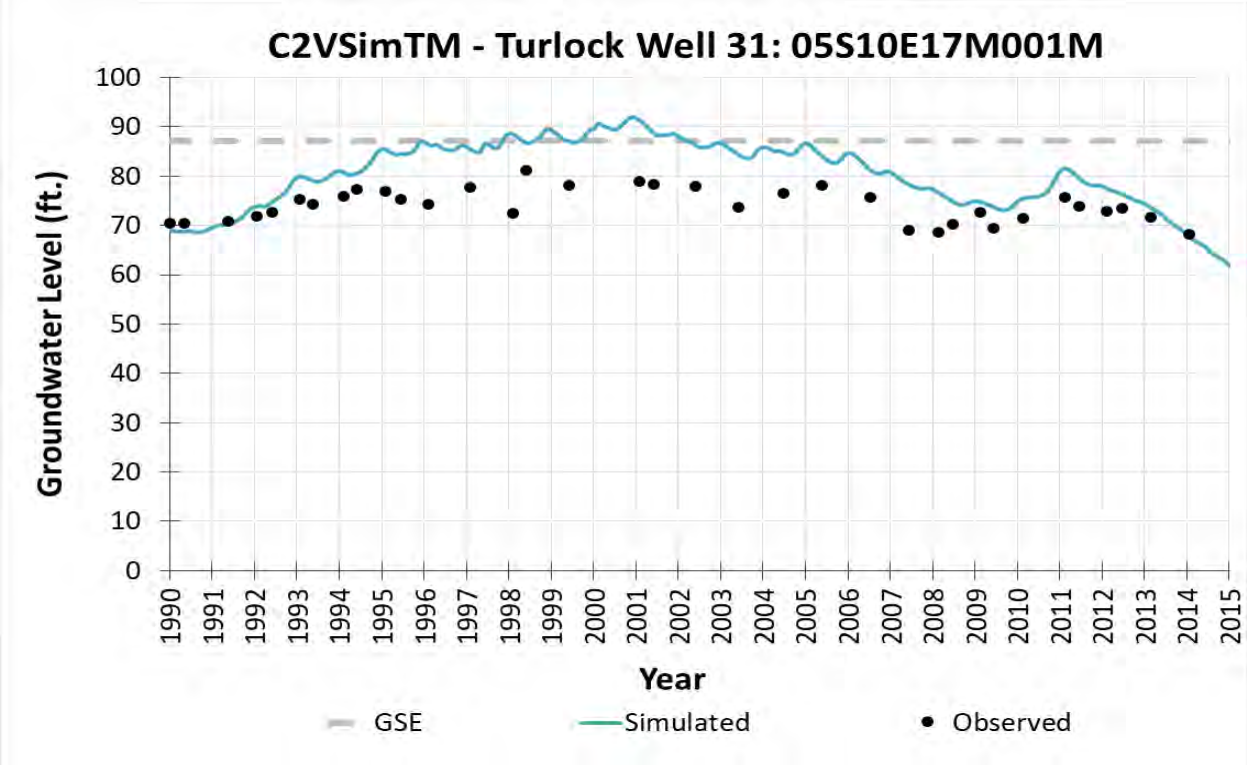

C2VSimTM - Turlock Well 26: 06S09E13H001M
Groundwater Level (ft.)
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

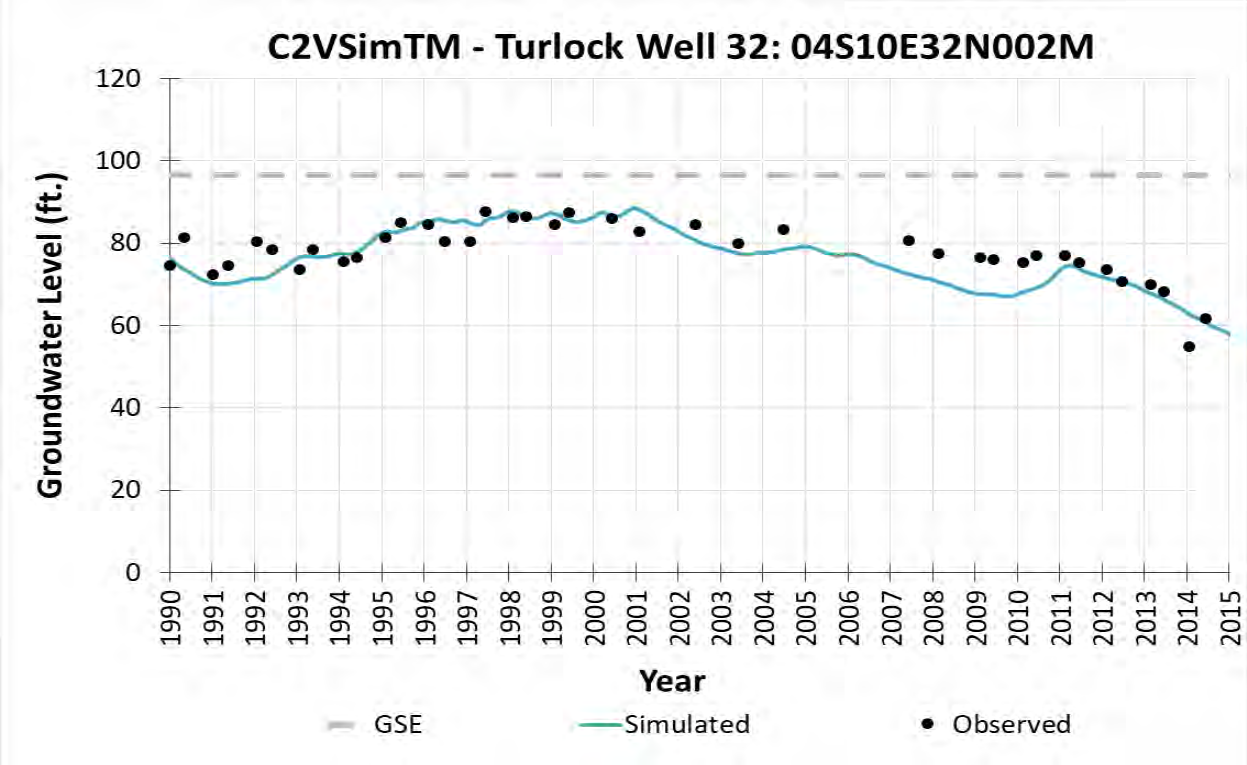

C2VSimTM - Turlock Well 27: 05S10E30F001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

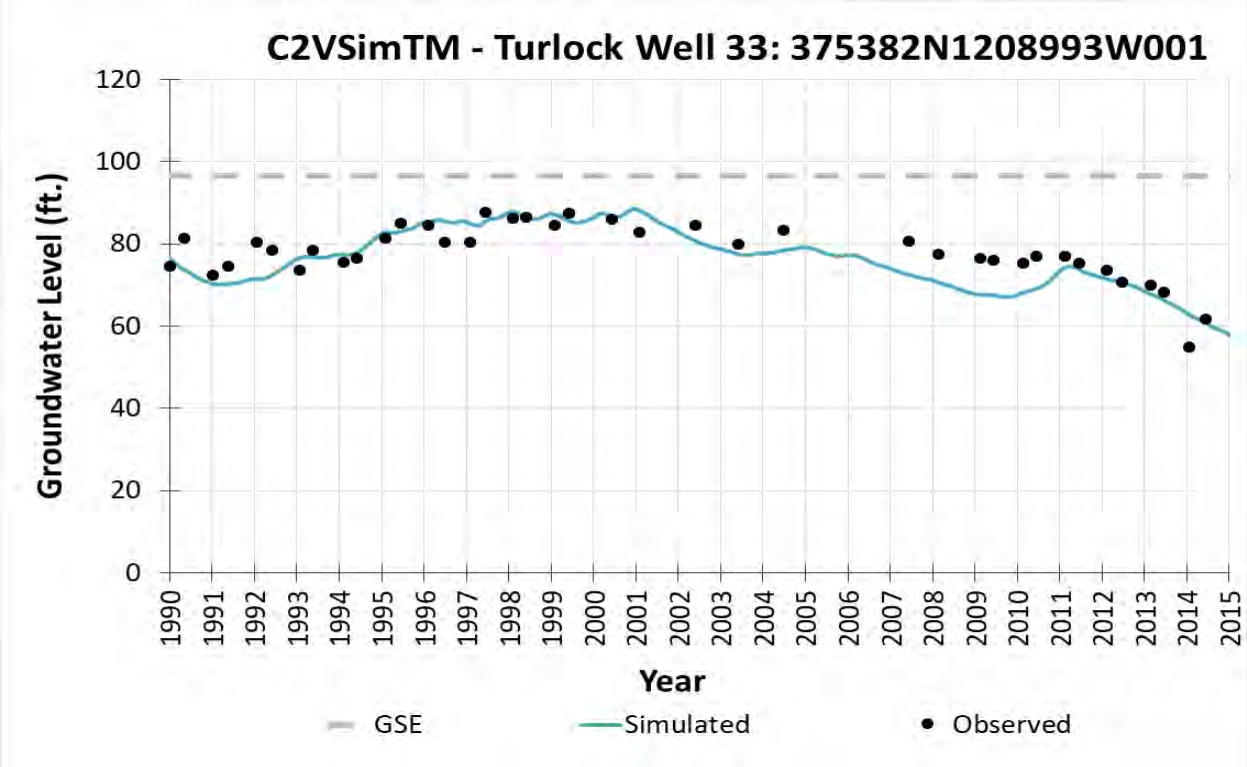

C2VSimTM - Turlock Well 28: 04S10E31B001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

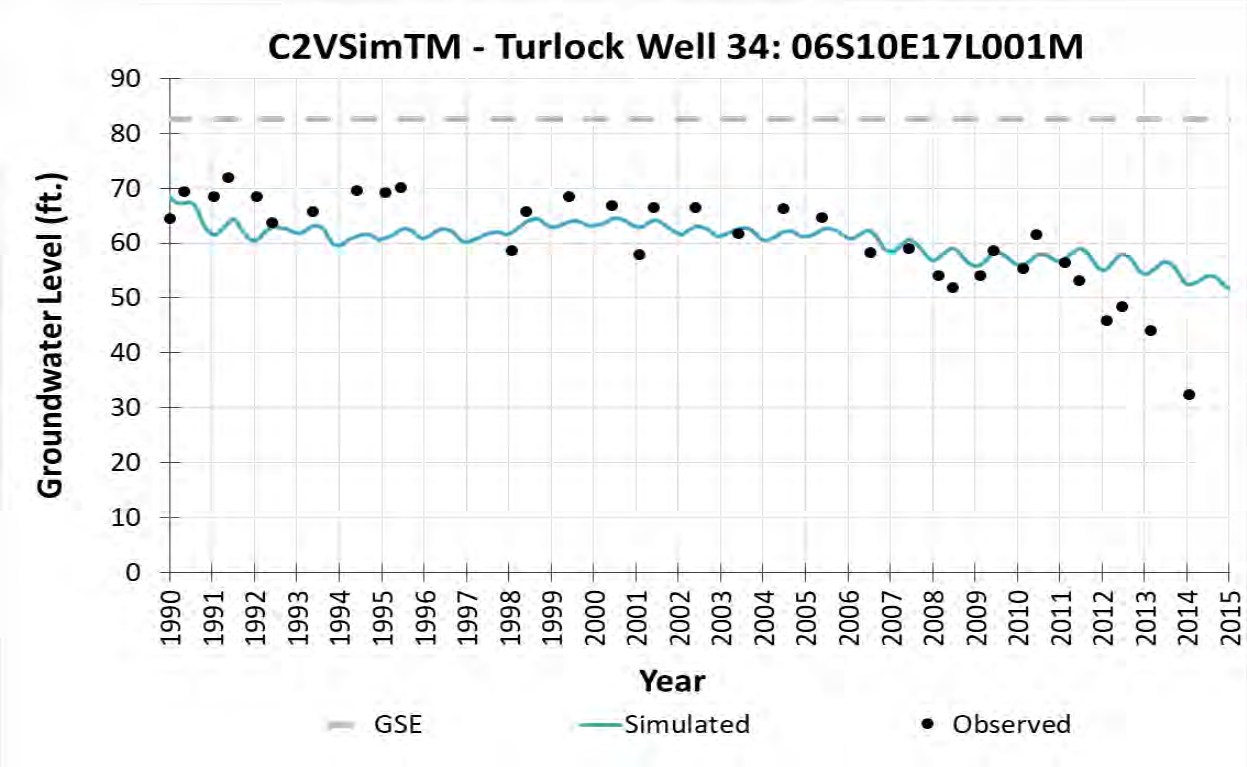

C2VSimTM - Turlock Well 29: 375860N1209027W001
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

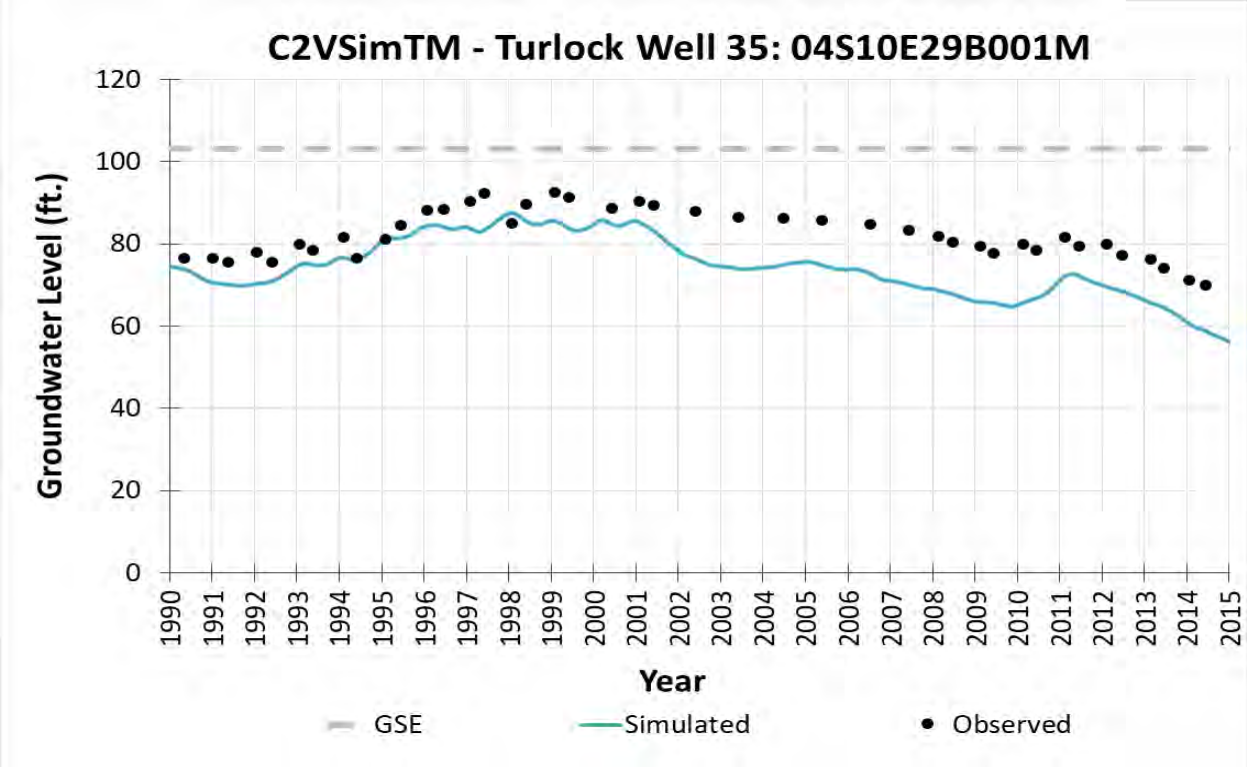

C2VSimTM - Turlock Well 30: 04S10E18R001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

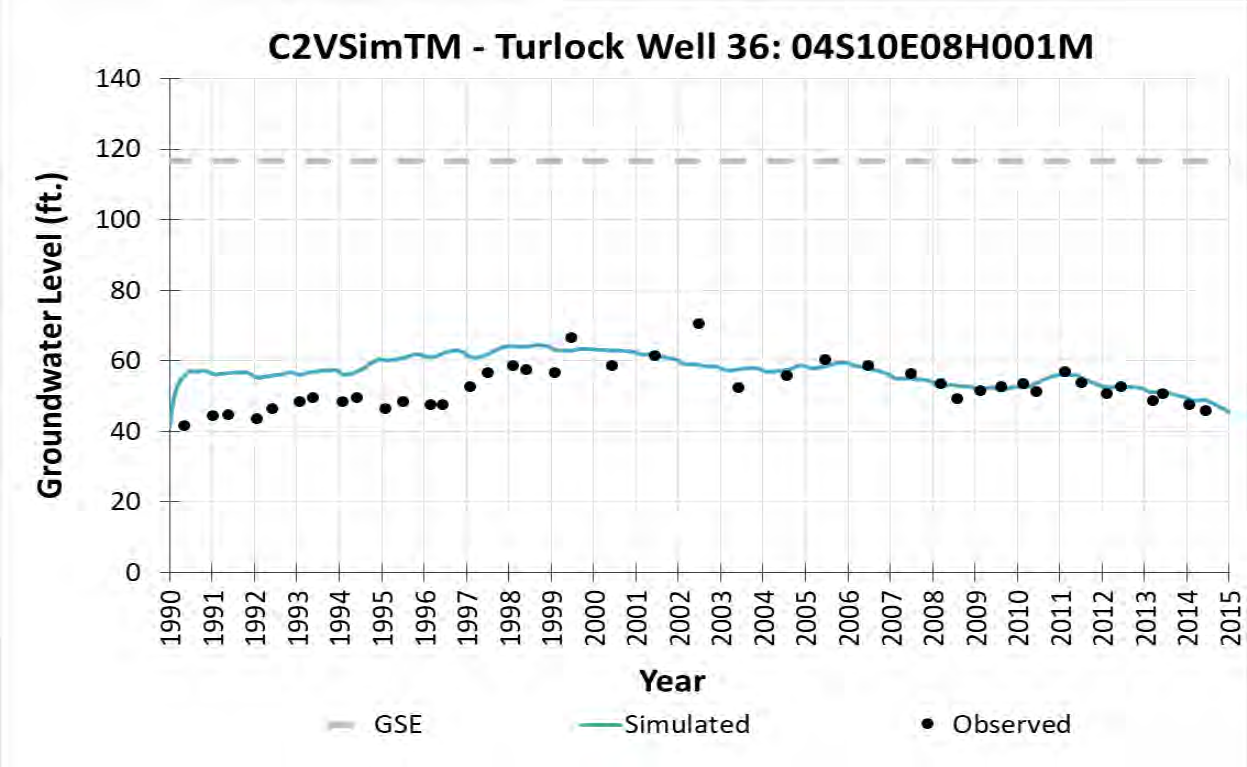

C2VSimTM - Turlock Well 31: 05S10E17M001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

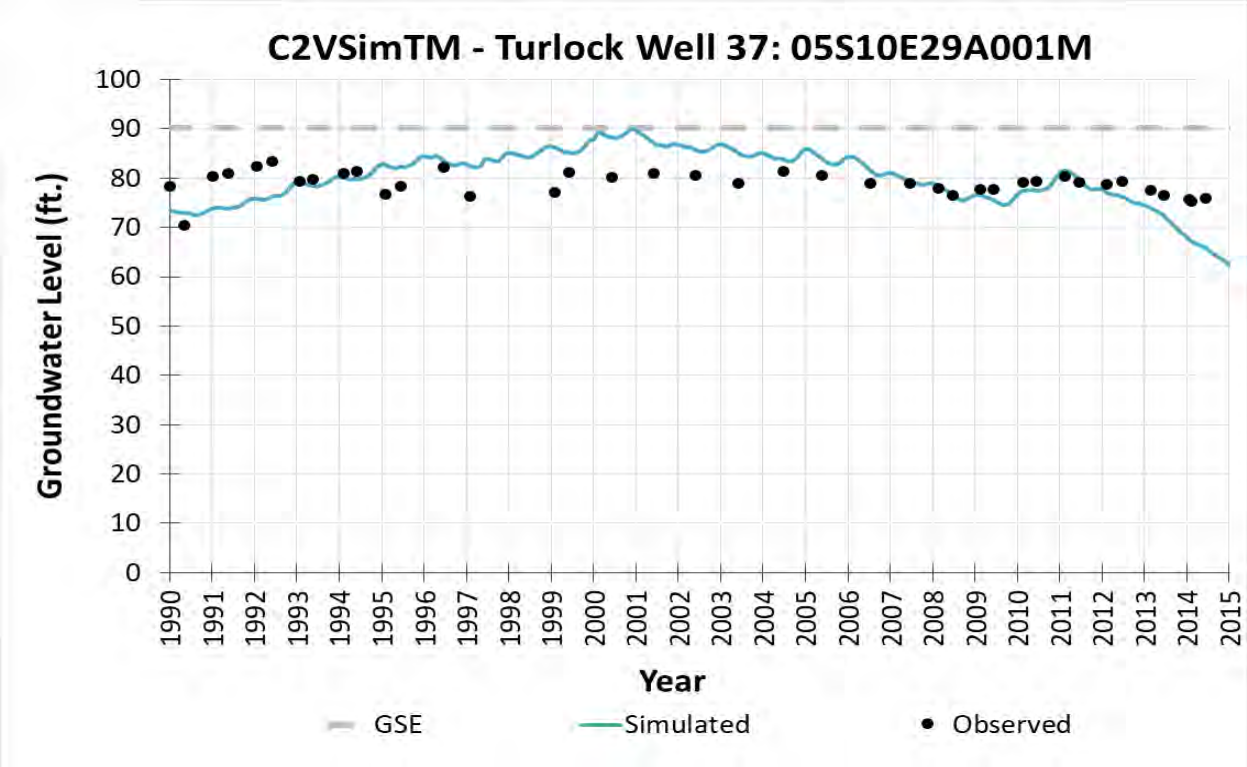

C2VSimTM - Turlock Well 32: 04S10E32N002M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

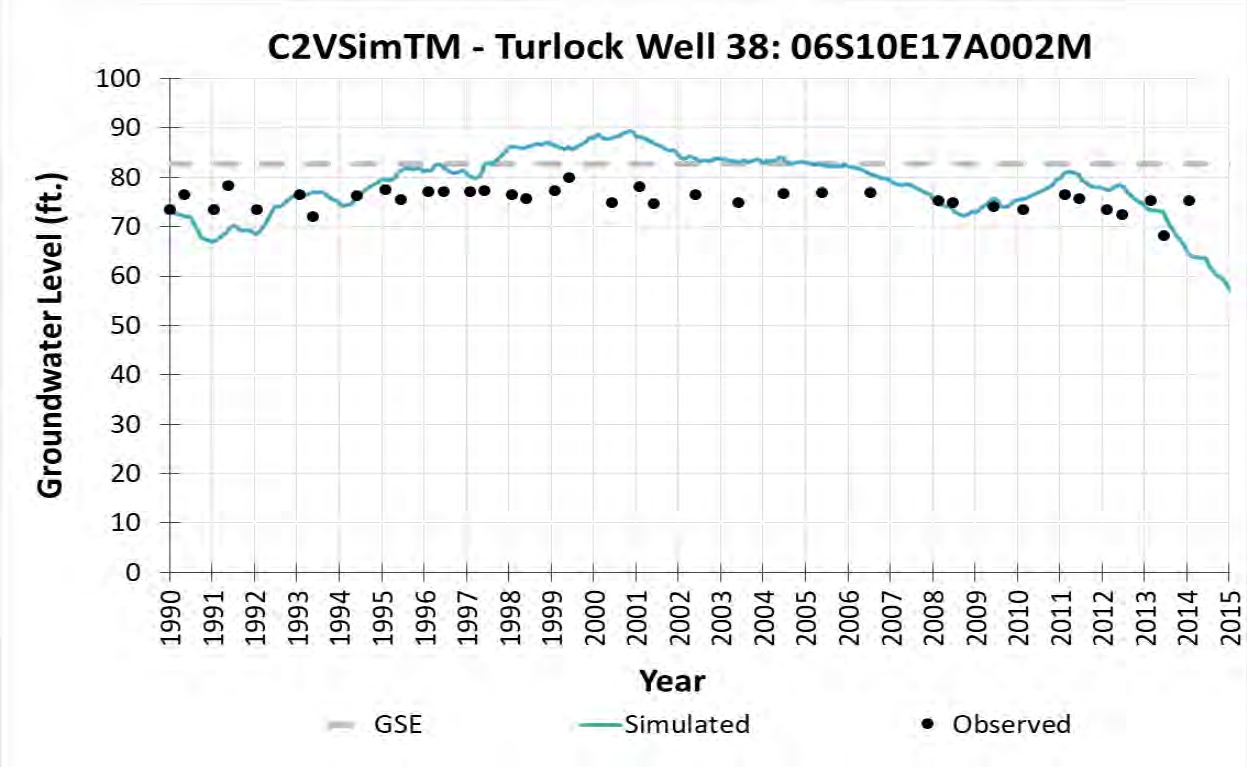

C2VSimTM - Turlock Well 33: 375382N1208993W001
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

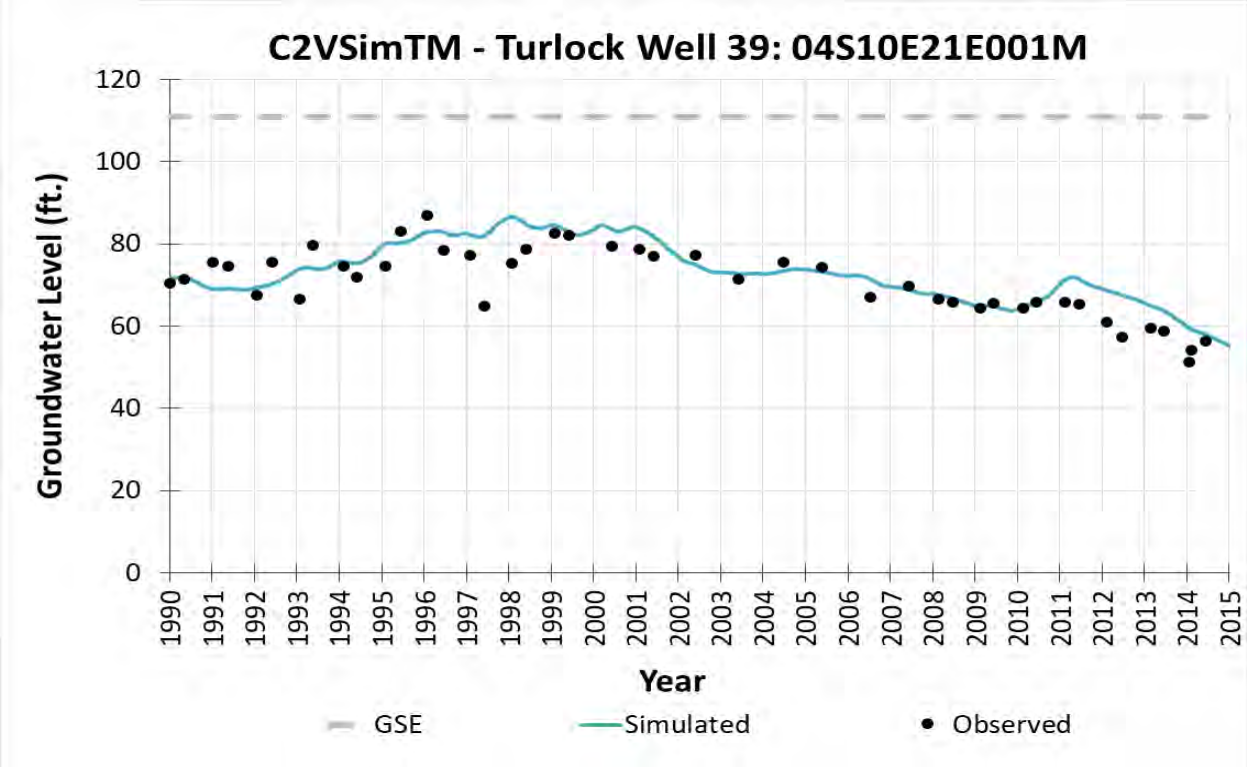

C2VSimTM - Turlock Well 34: 06S10E17L001M
Groundwater Level (ft.)
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

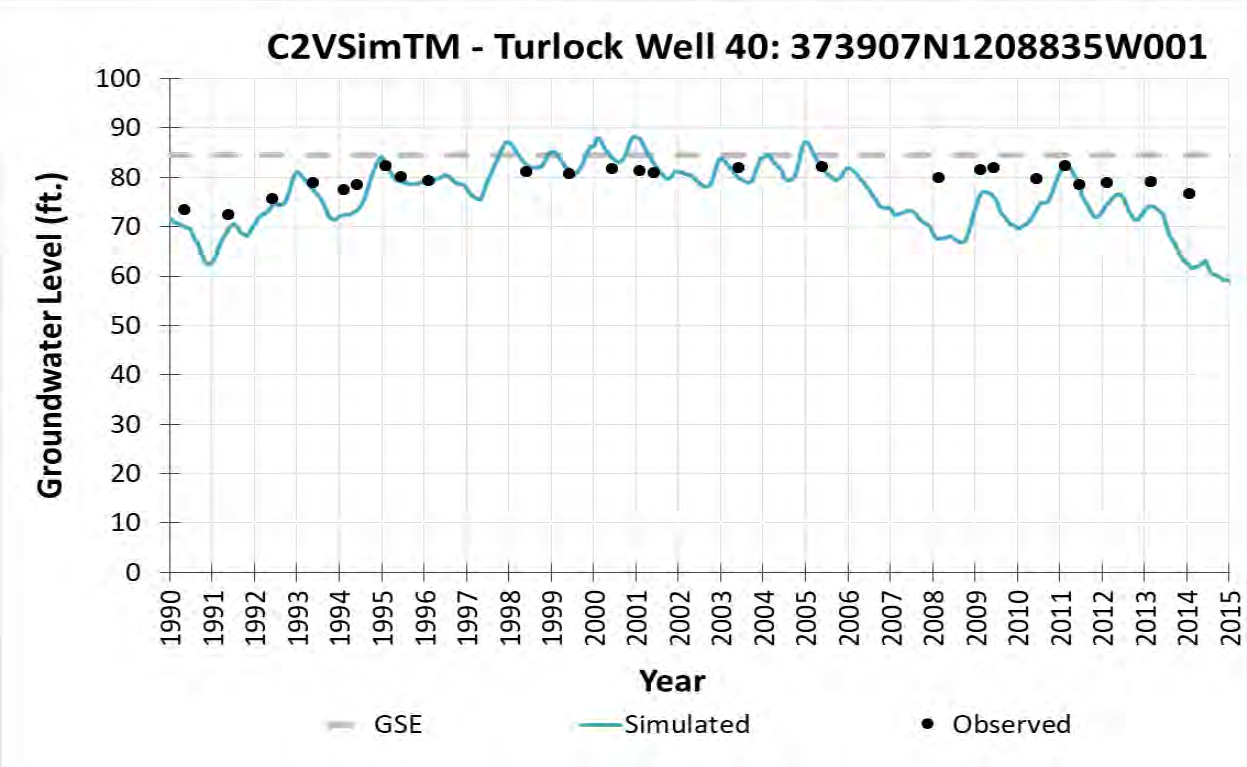

C2VSimTM - Turlock Well 35: 04S10E29B001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

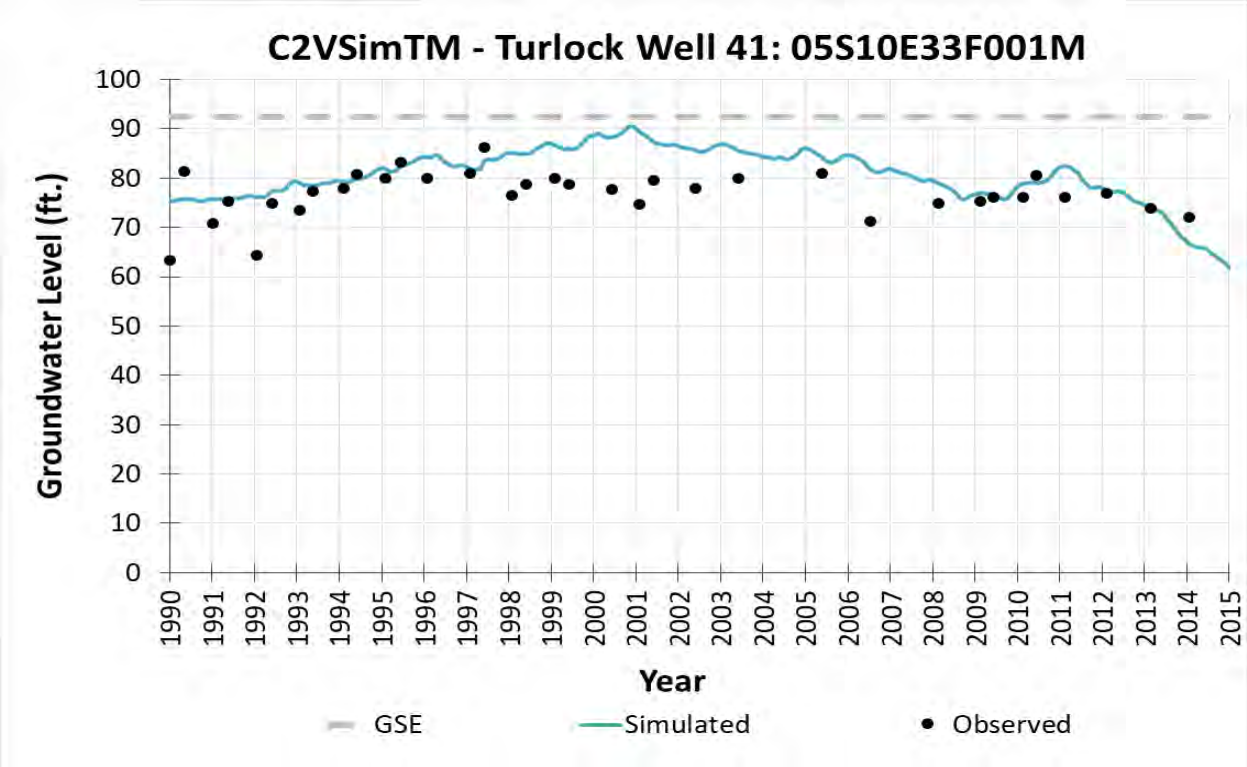

C2VSimTM - Turlock Well 36: 04S10E08H001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

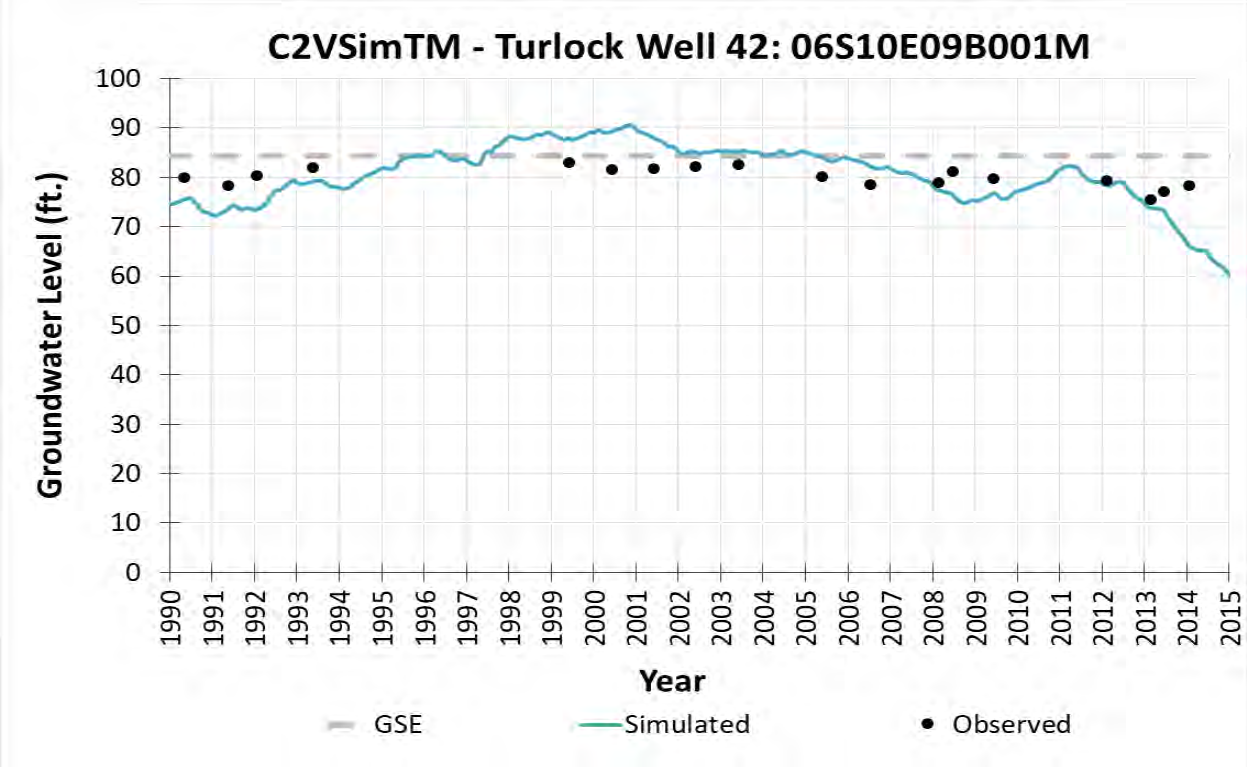

C2VSimTM - Turlock Well 37: 05S10E29A001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

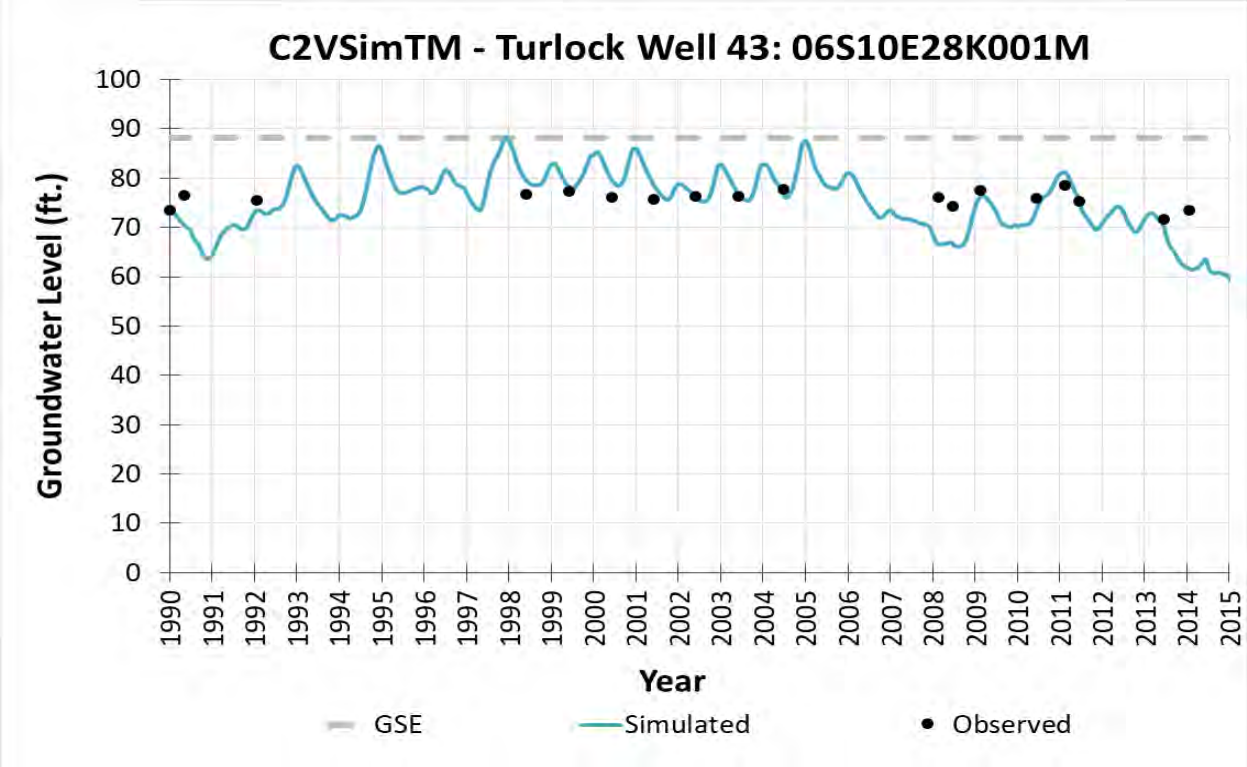

C2VSimTM - Turlock Well 38: 06S10E17A002M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

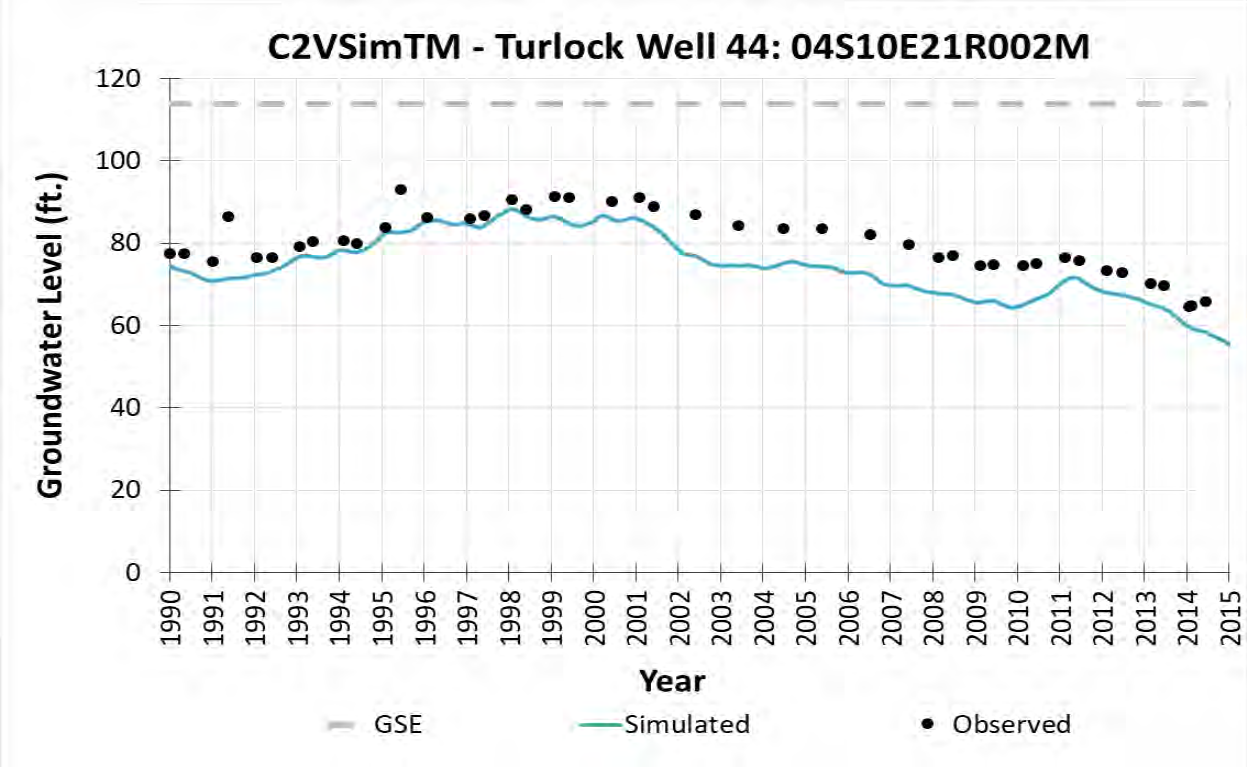

C2VSimTM - Turlock Well 39: 04S10E21E001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

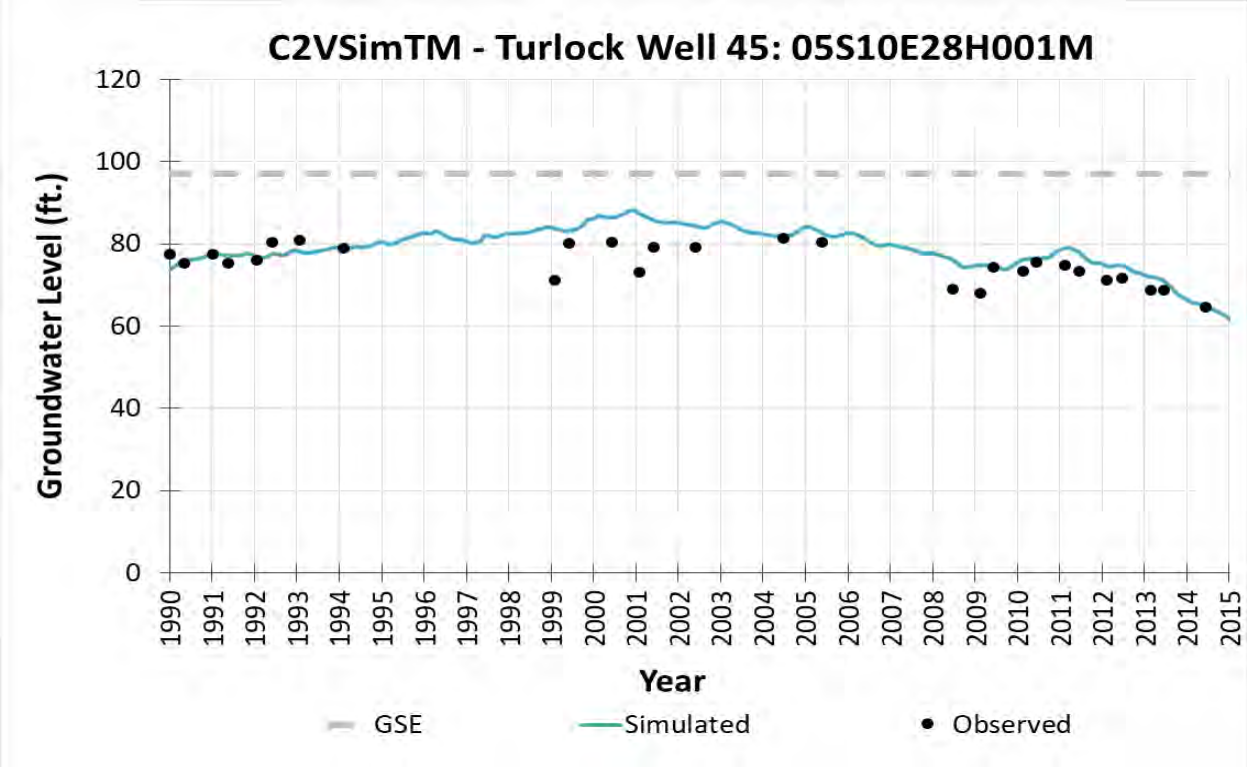

C2VSimTM - Turlock Well 40: 373907N1208835W001
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

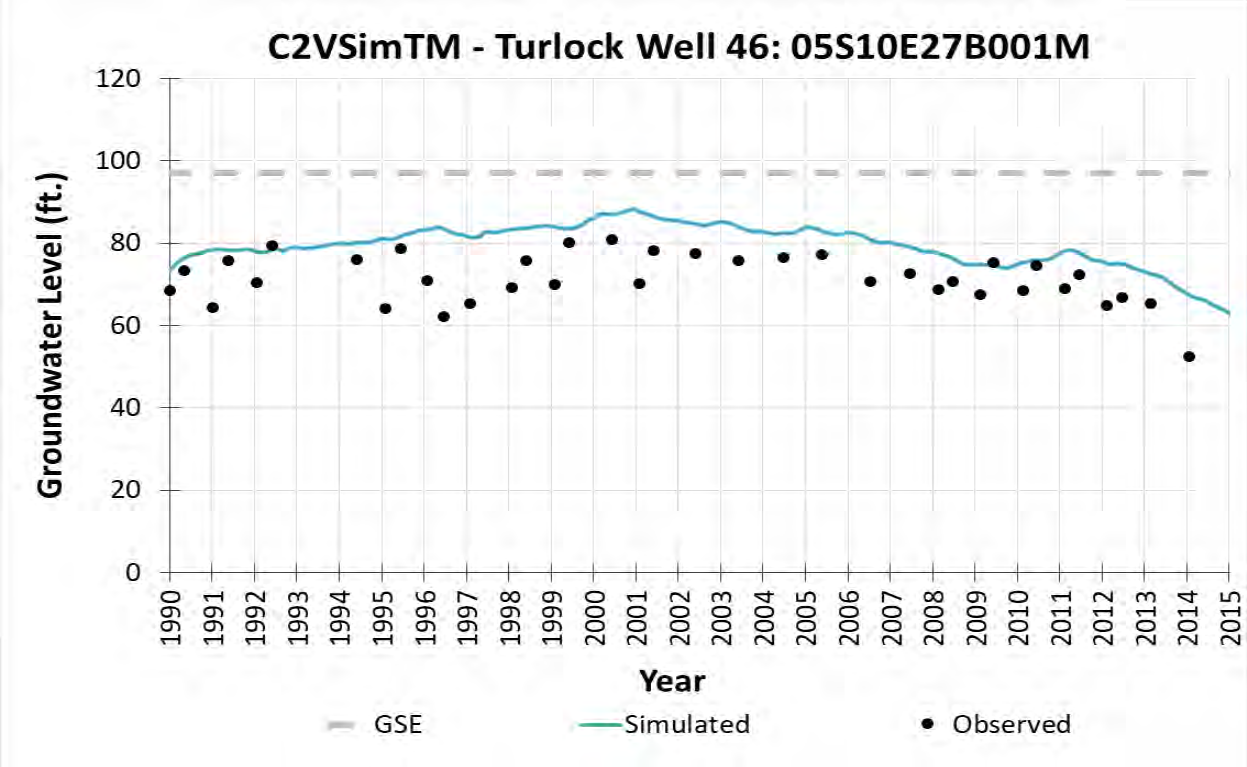

C2VSimTM - Turlock Well 41: 05S10E33F001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

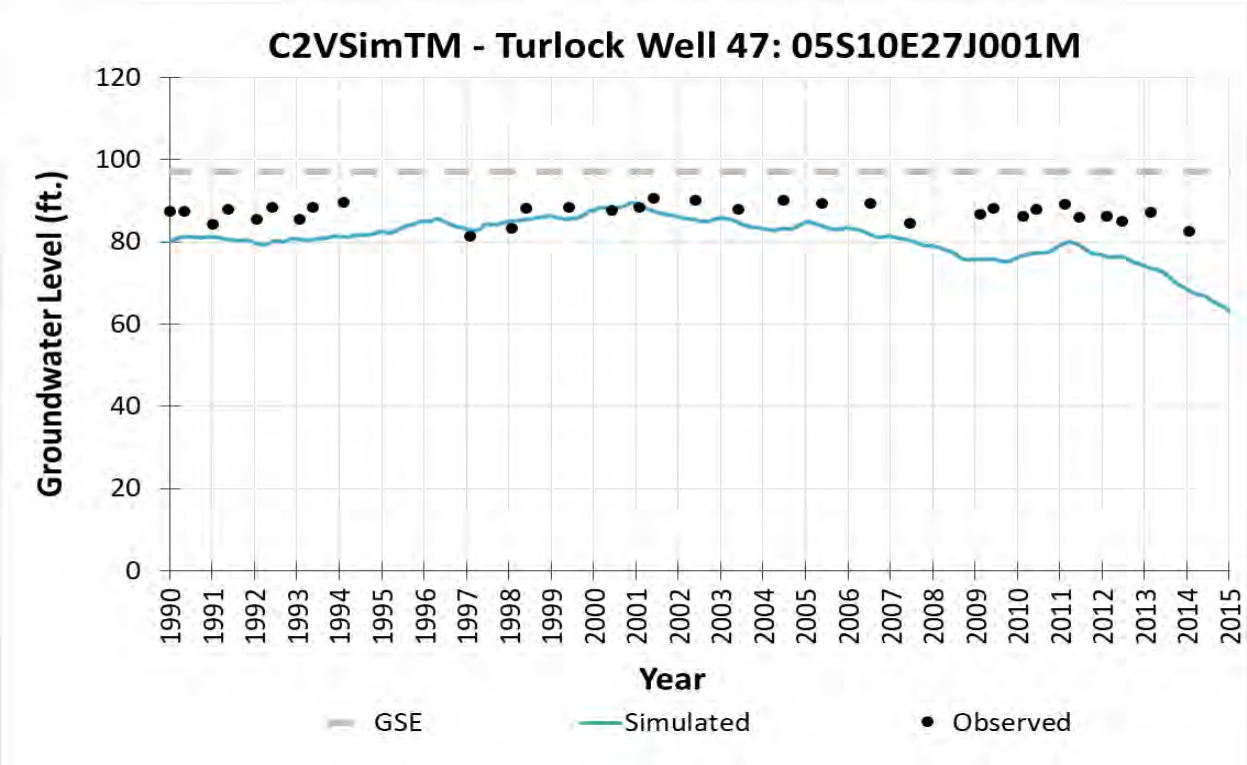

C2VSimTM - Turlock Well 42: 06S10E09B001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

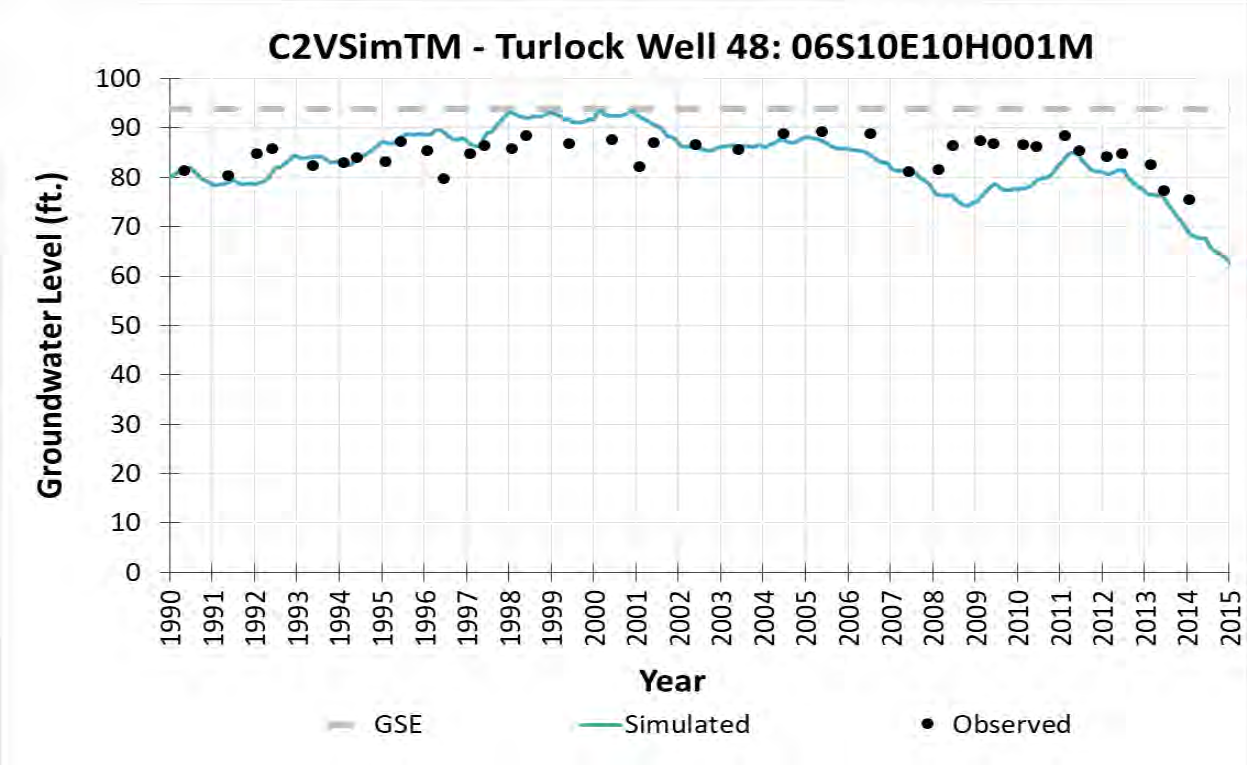

C2VSimTM - Turlock Well 43: 06S10E28K001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

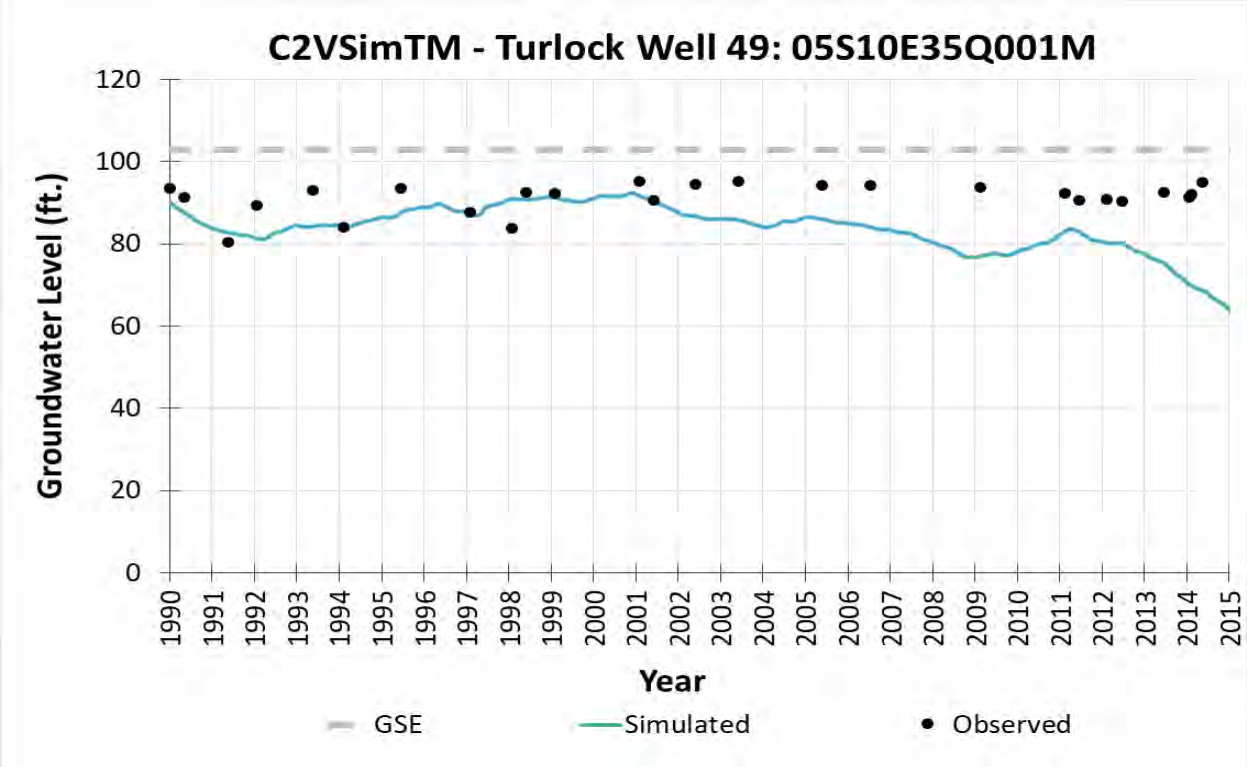

C2VSimTM - Turlock Well 44: 04S10E21R002M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

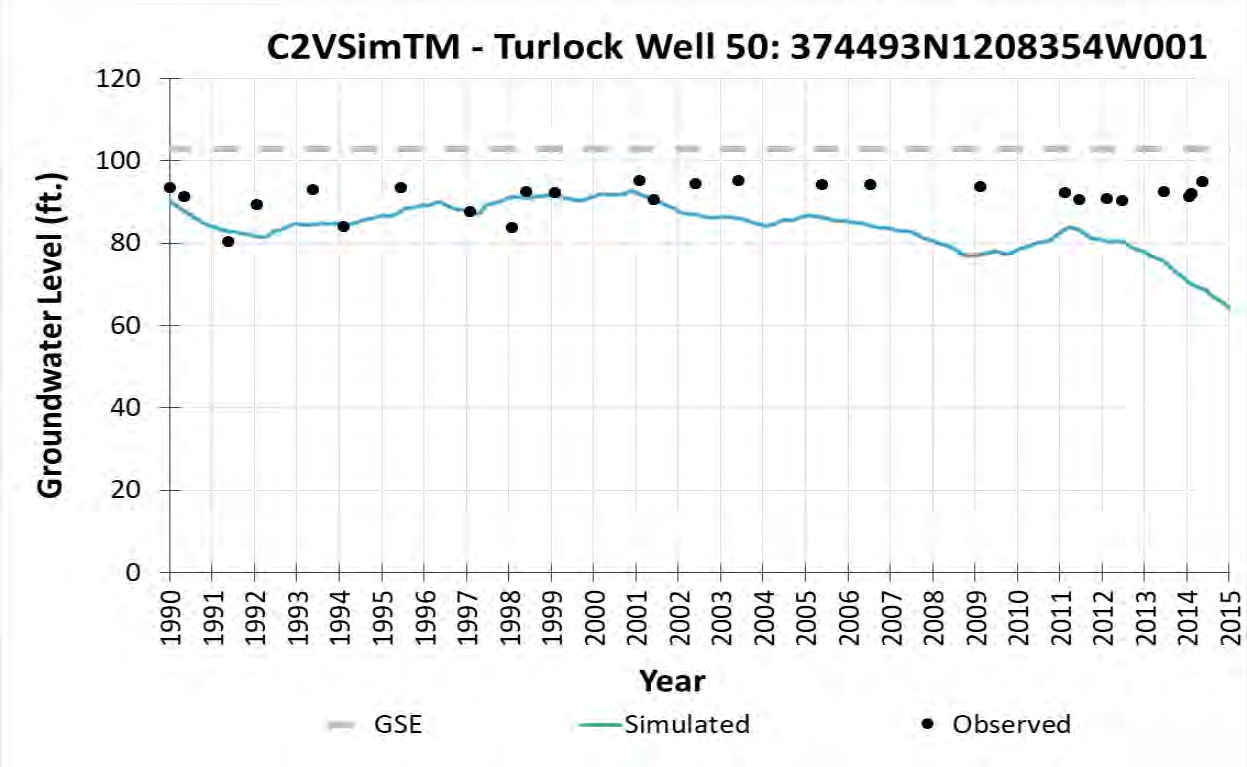

C2VSimTM - Turlock Well 45: 05S10E28H001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

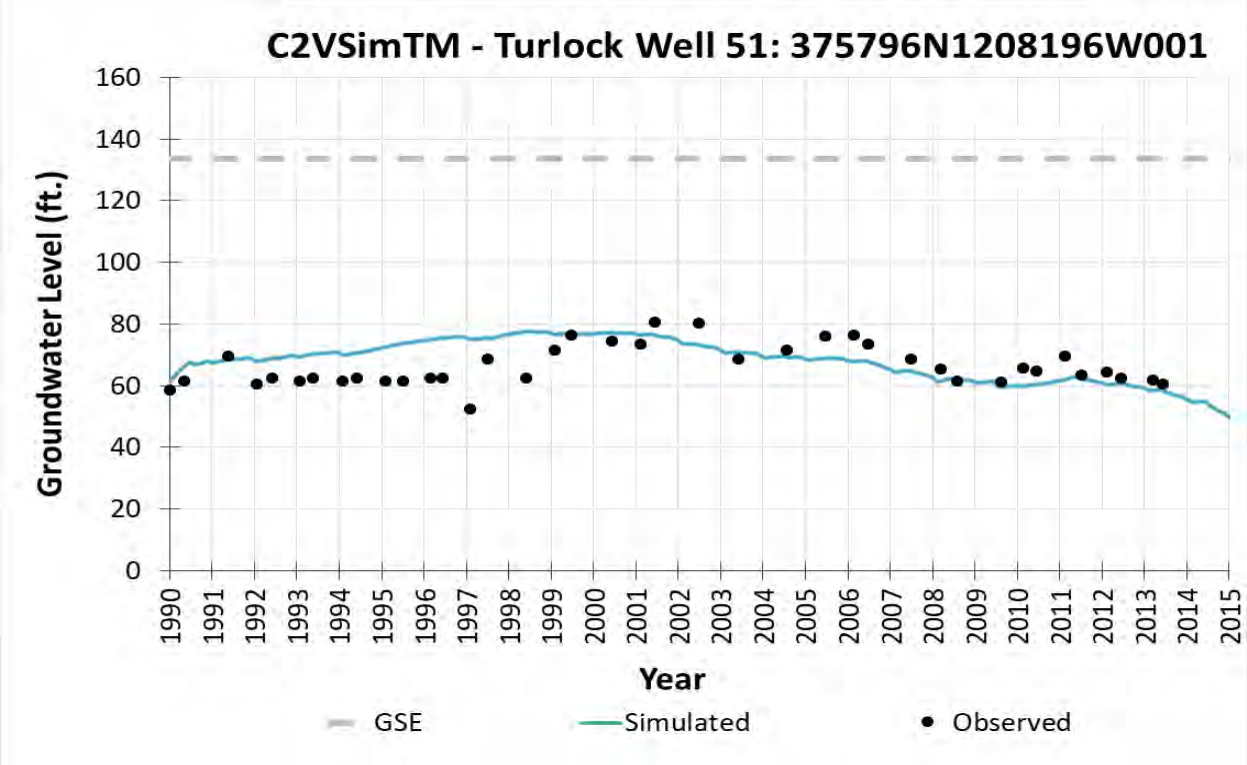

C2VSimTM - Turlock Well 46: 05S10E27B001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

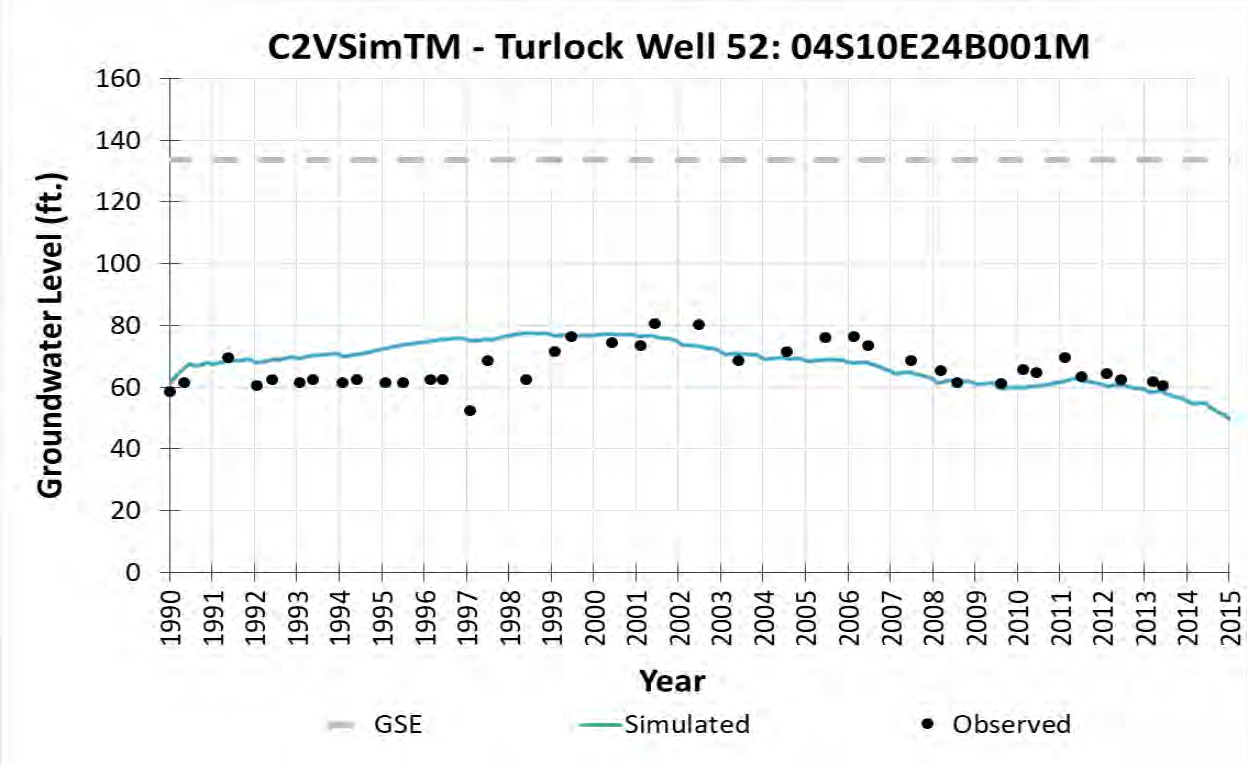

C2VSimTM - Turlock Well 47: 05S10E27J001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

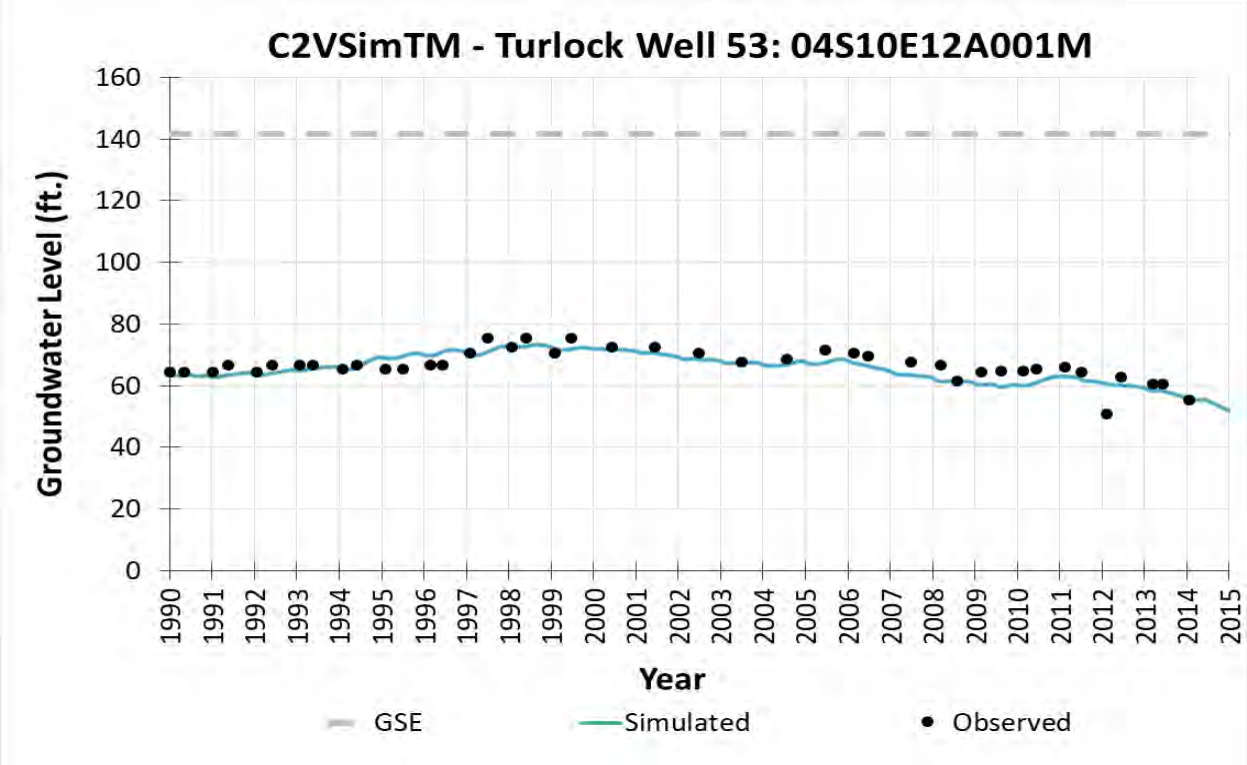

C2VSimTM - Turlock Well 48: 06S10E10H001M
Groundwater Level (ft.)
100
90
80
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

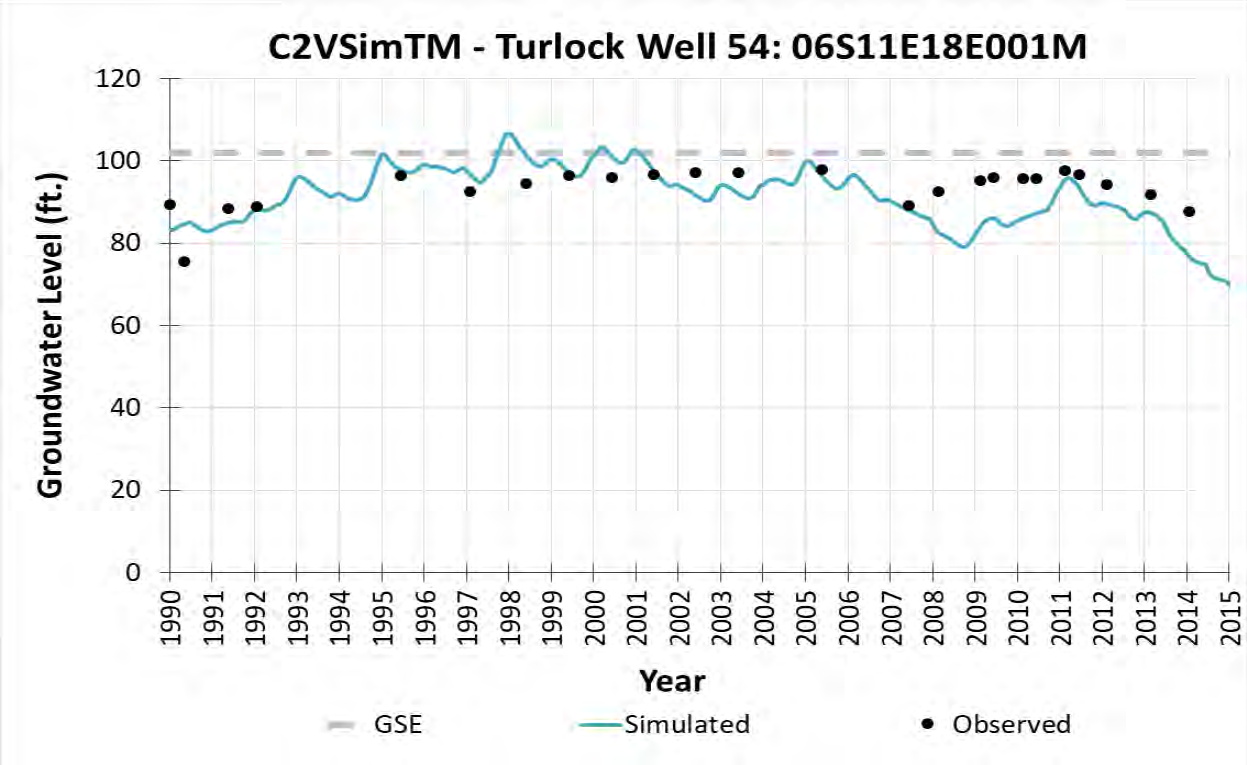

C2VSimTM - Turlock Well 49: 05S10E35Q001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

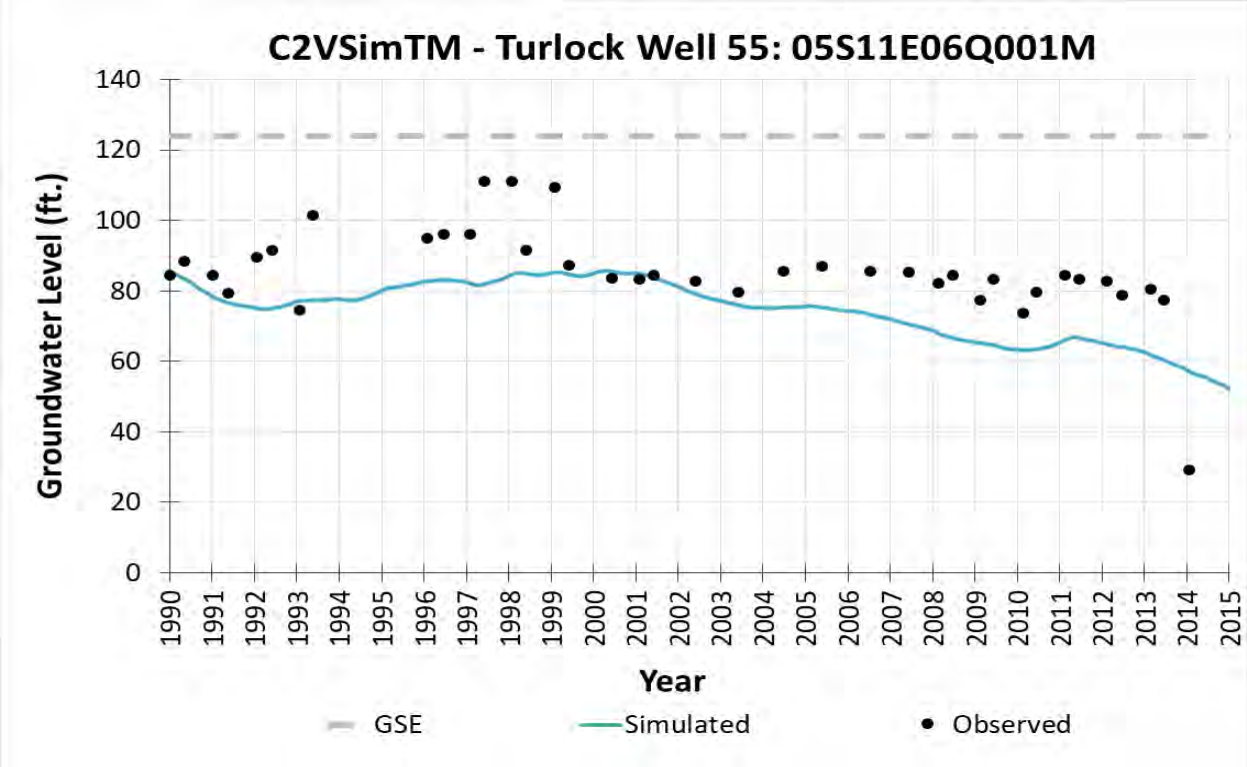

C2VSimTM - Turlock Well 50: 374493N1208354W001
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

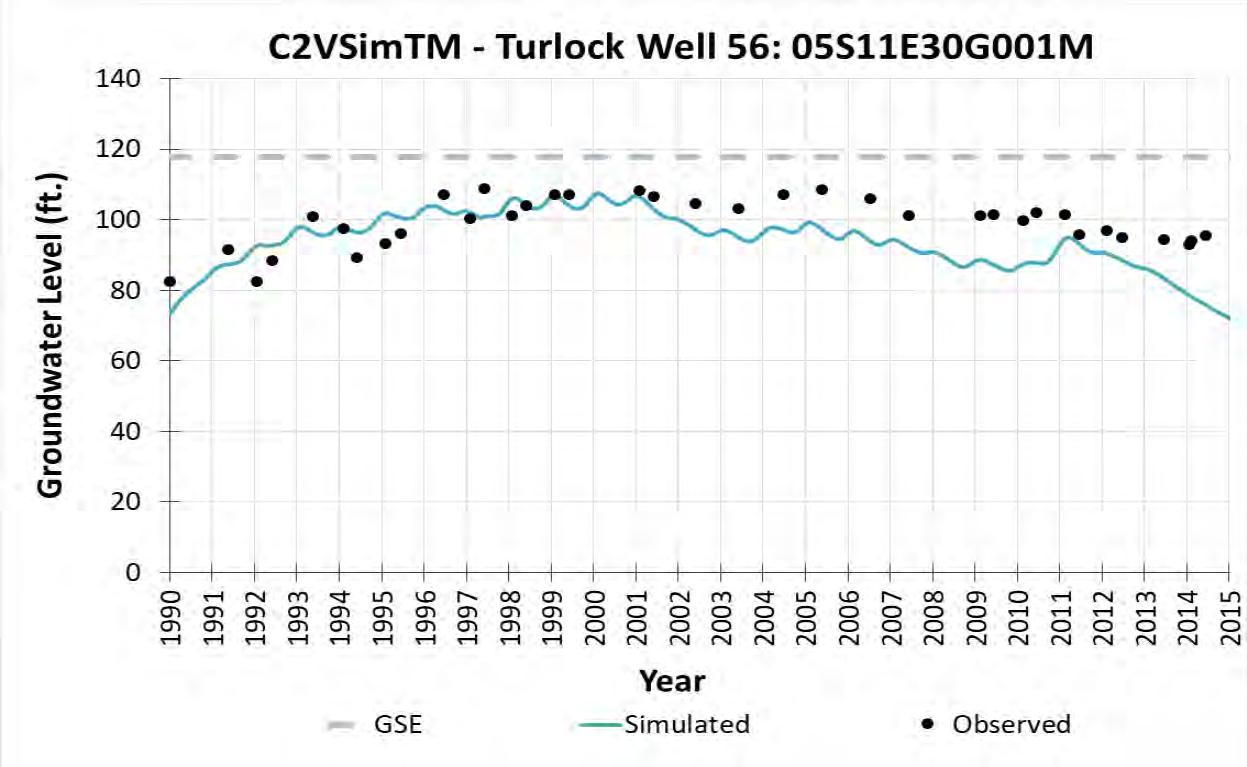

C2VSimTM - Turlock Well 51: 375796N1208196W001
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

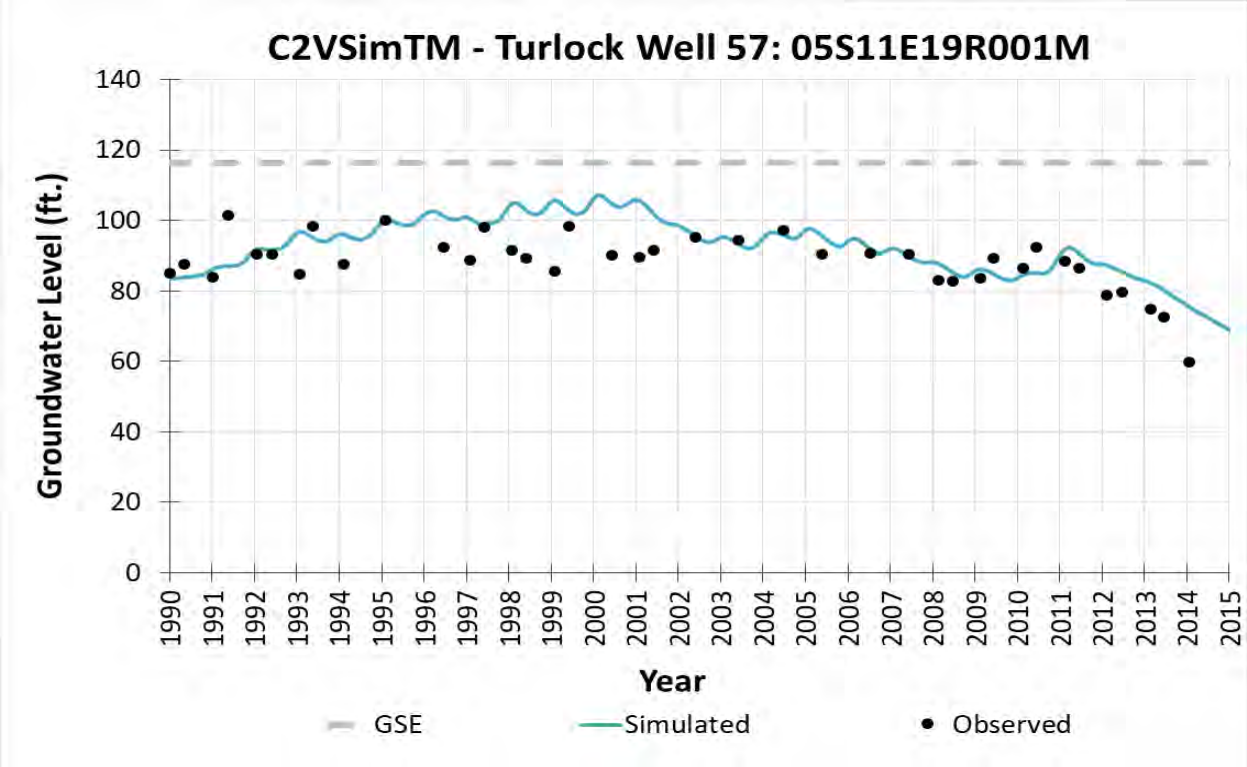

C2VSimTM - Turlock Well 52: 04S10E24B001M
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

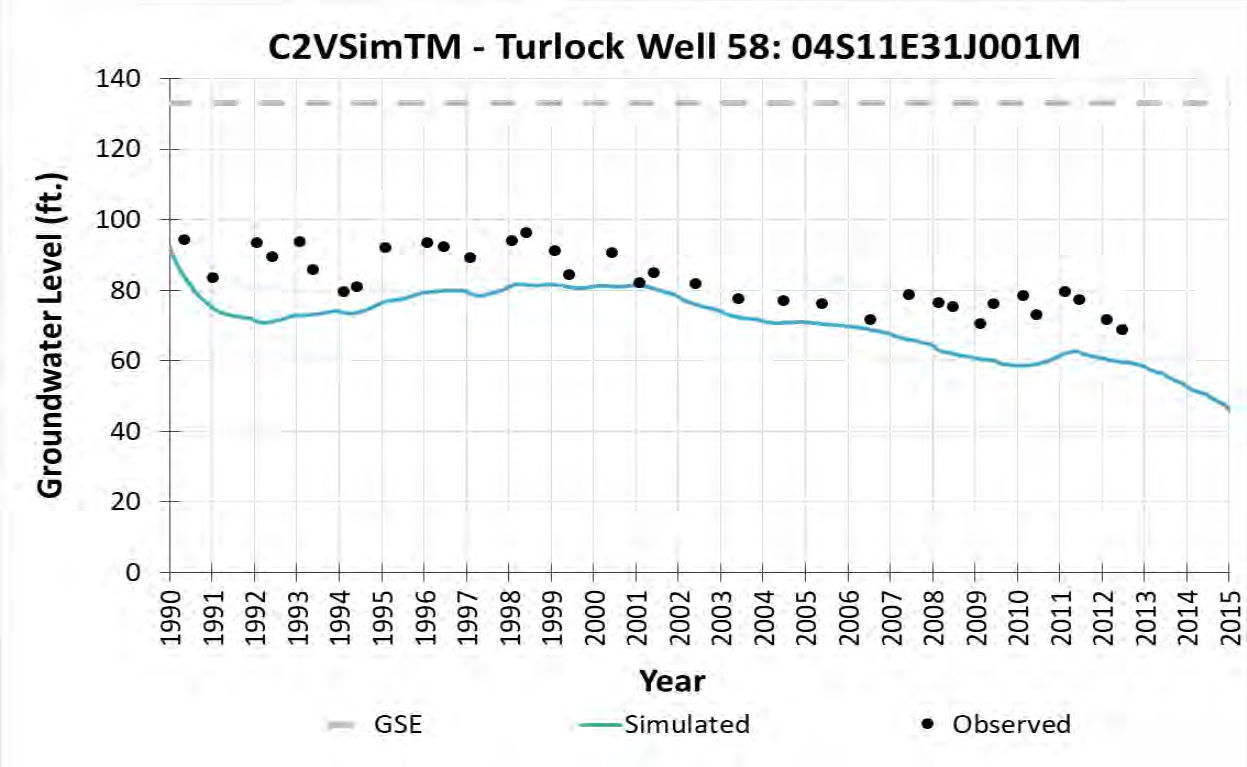

C2VSimTM - Turlock Well 53: 04S10E12A001M
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

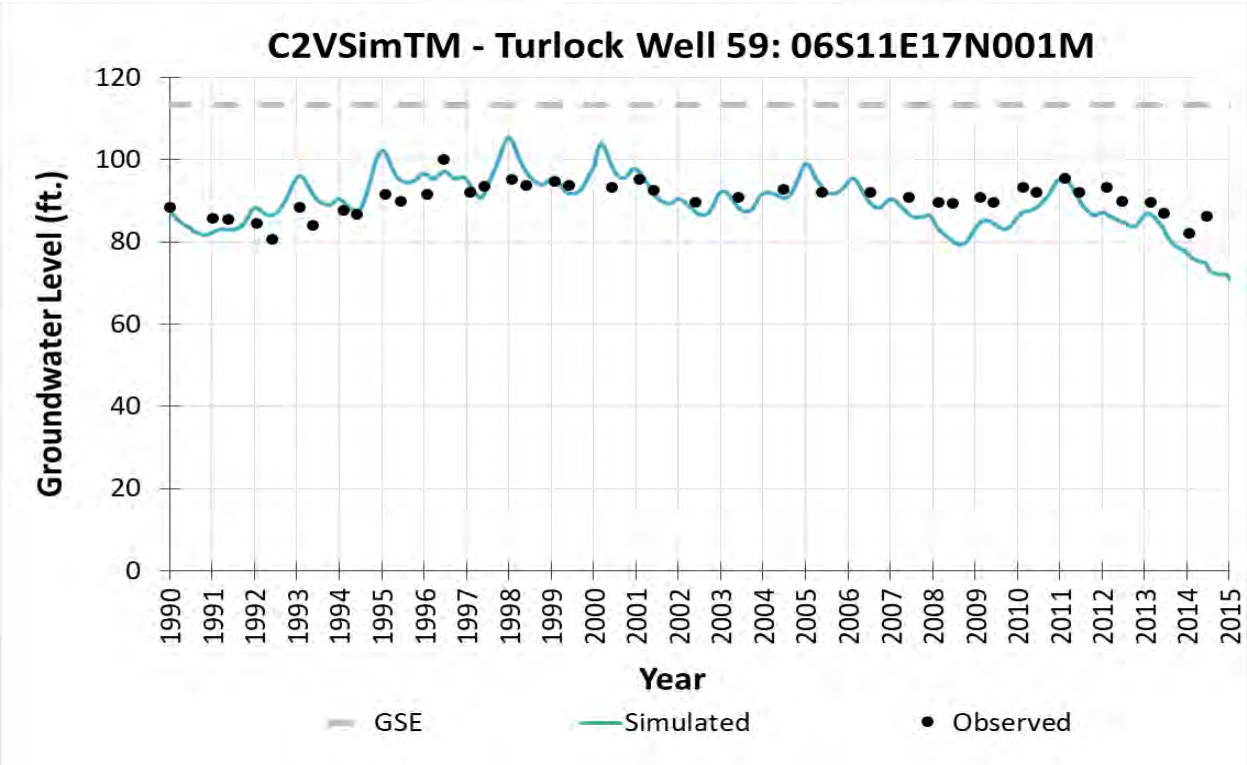

C2VSimTM - Turlock Well 54: 06S11E18E001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

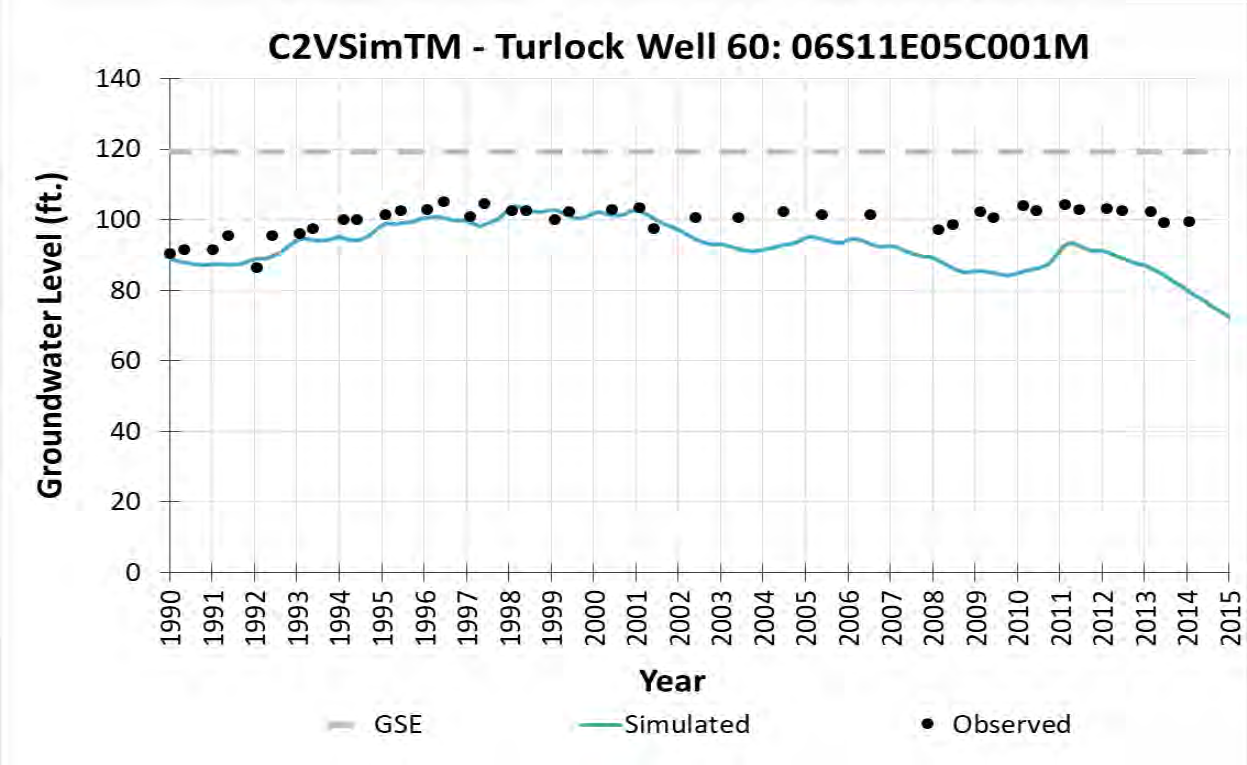

C2VSimTM - Turlock Well 55: 05S11E06Q001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

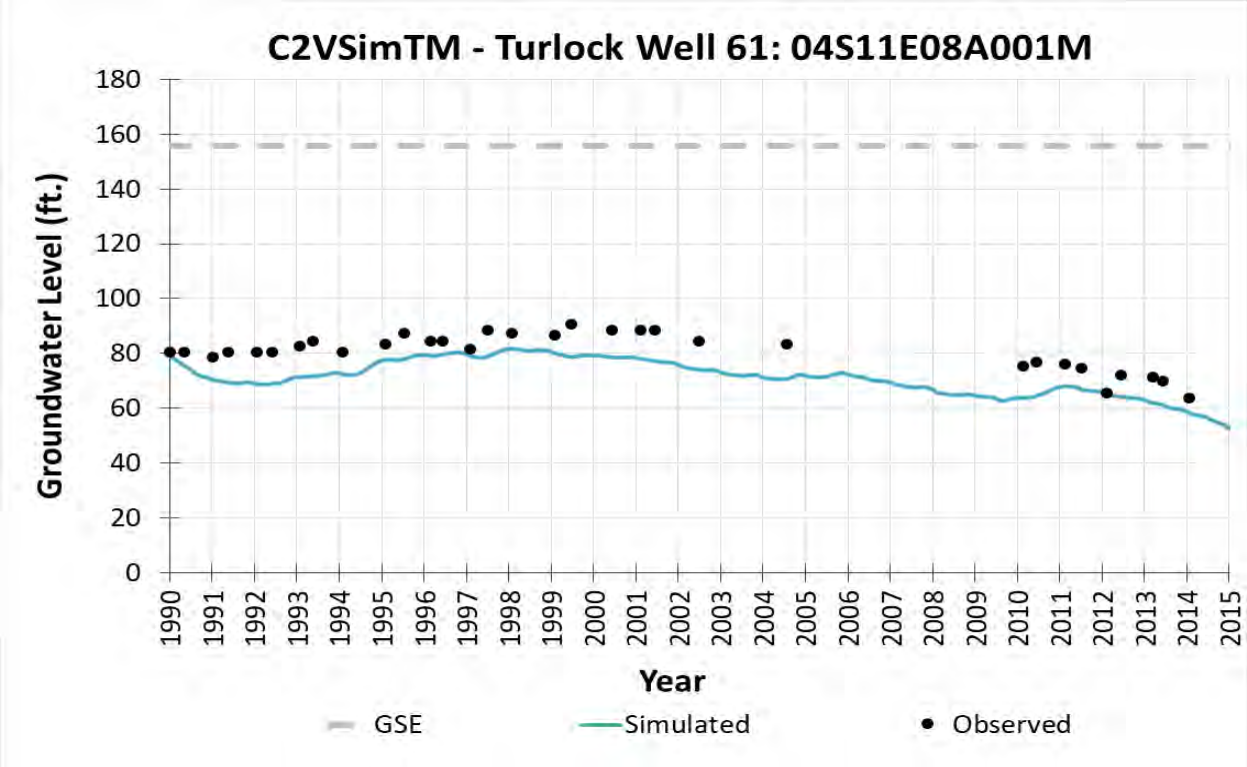

C2VSimTM - Turlock Well 56: 05S11E30G001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

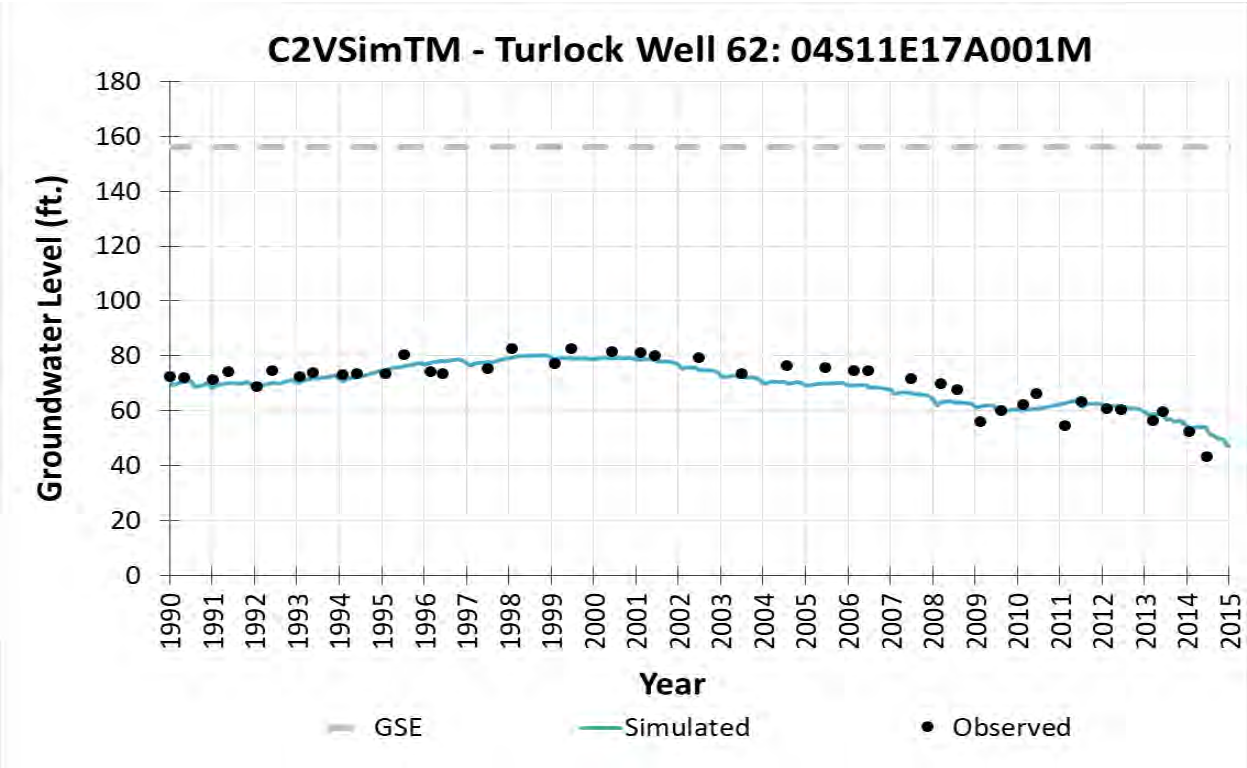

C2VSimTM - Turlock Well 57: 05S11E19R001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

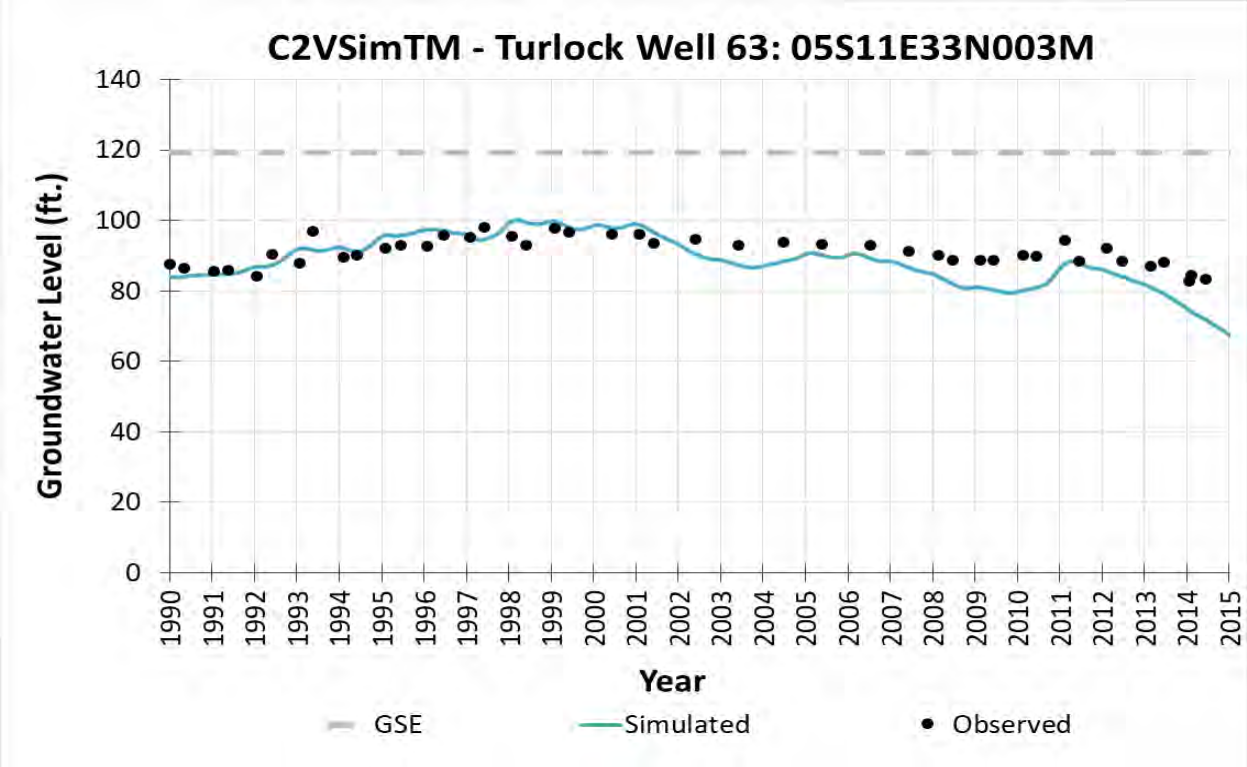

C2VSimTM - Turlock Well 58: 04S11E31J001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

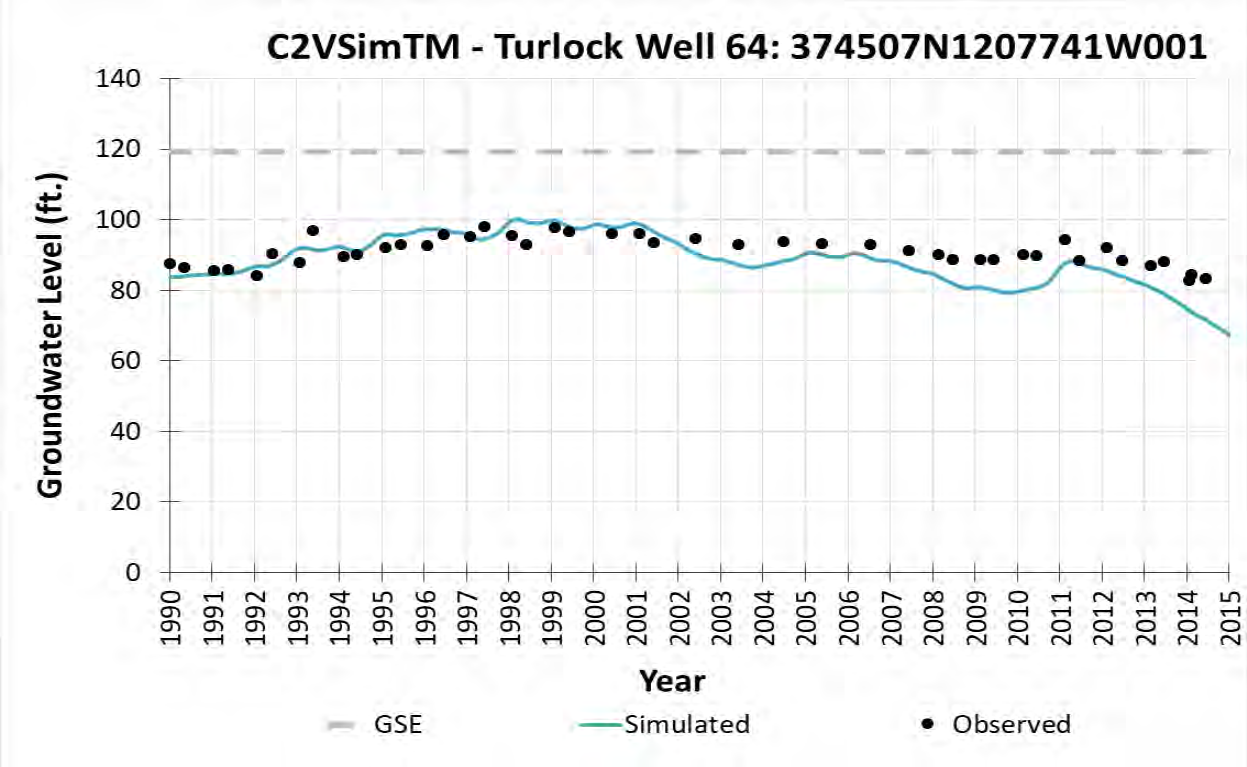

C2VSimTM - Turlock Well 59: 06S11E17N001M
Groundwater Level (ft.)
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

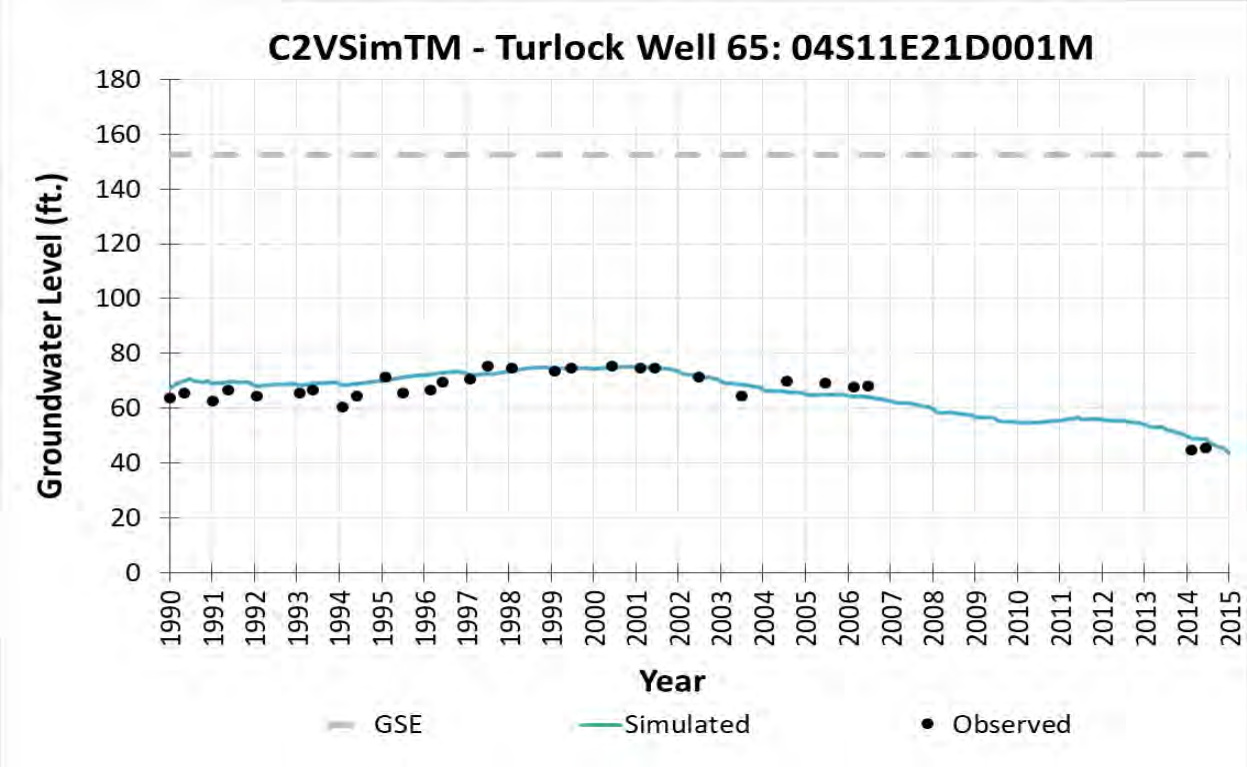

C2VSimTM - Turlock Well 60: 06S11E05C001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

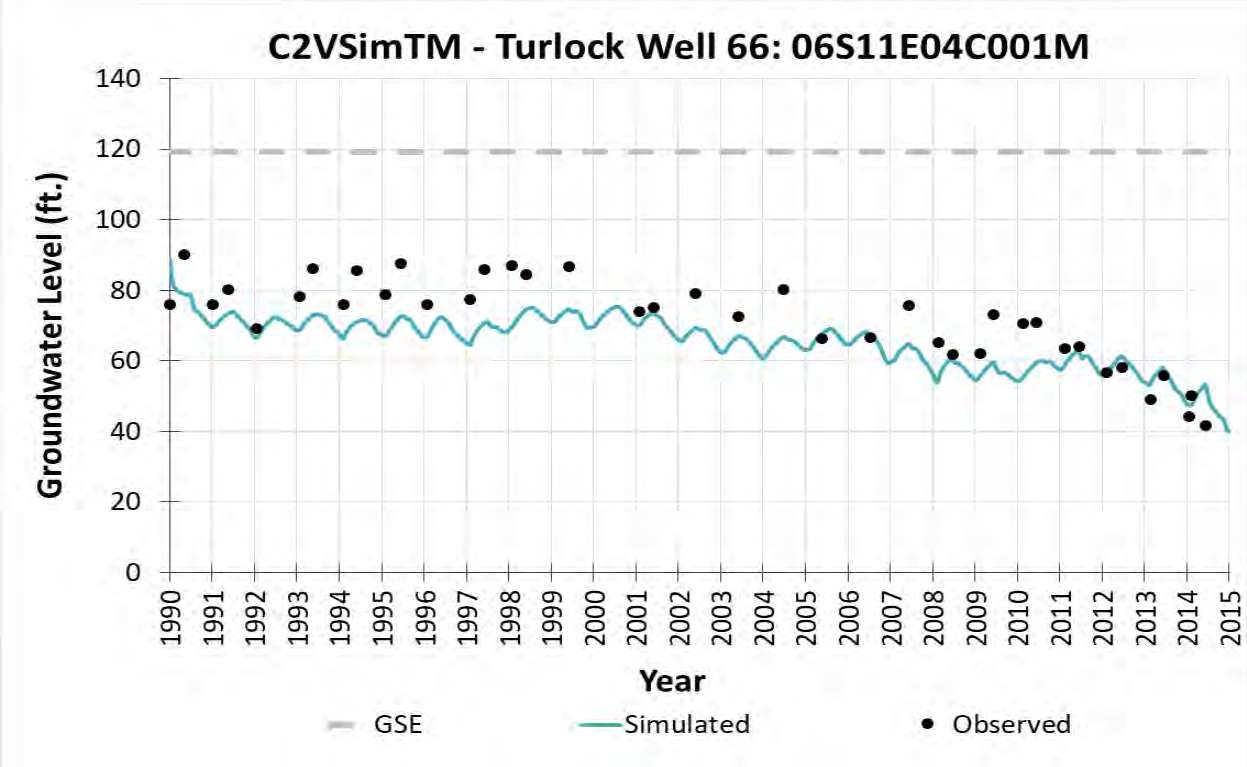

C2VSimTM - Turlock Well 61: 04S11E08A001M
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

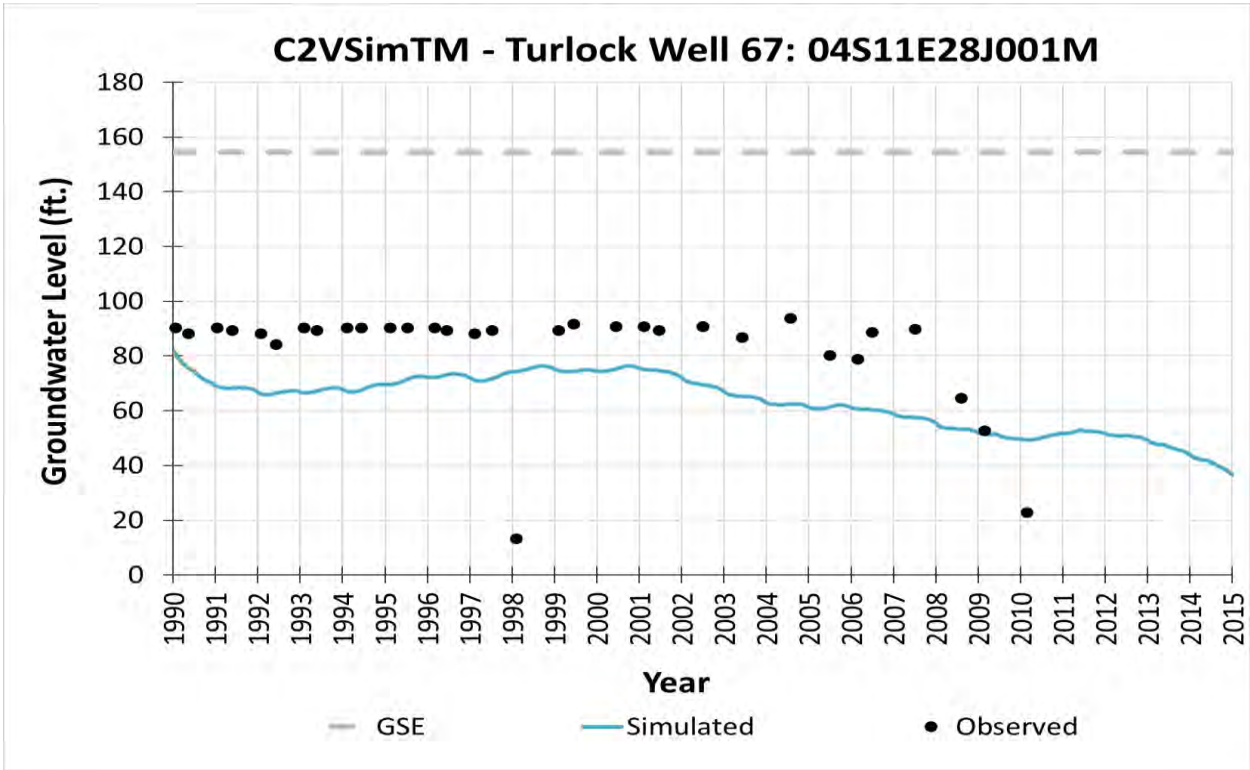

C2VSimTM - Turlock Well 62: 04S11E17A001M
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

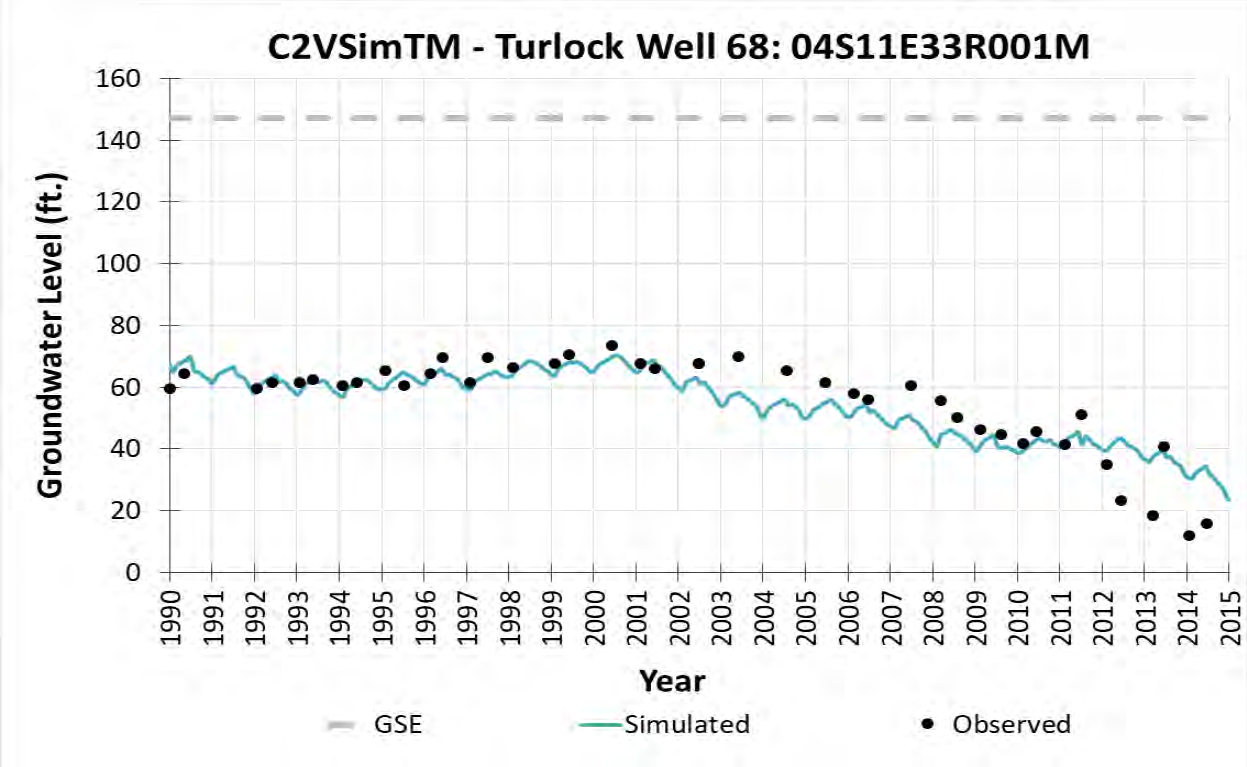

C2VSimTM - Turlock Well 63: 05S11E33N003M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

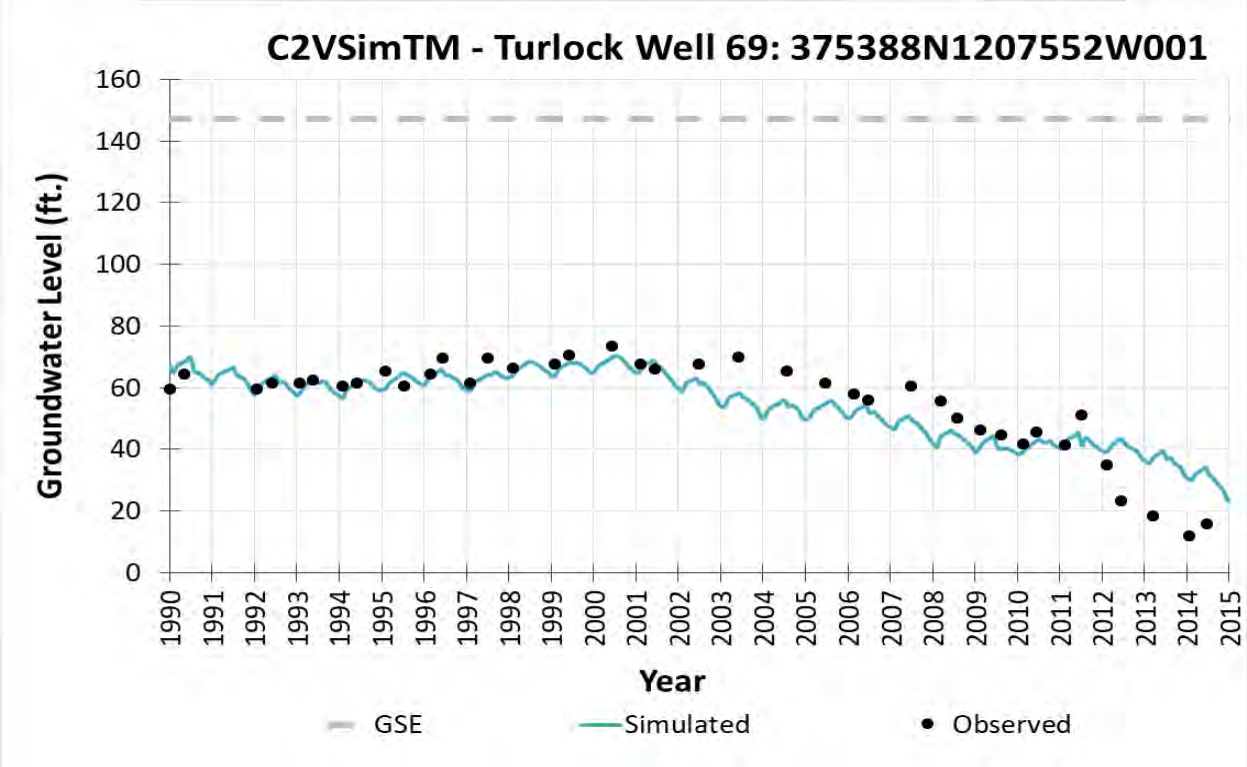

C2VSimTM - Turlock Well 64: 374507N1207741W001
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

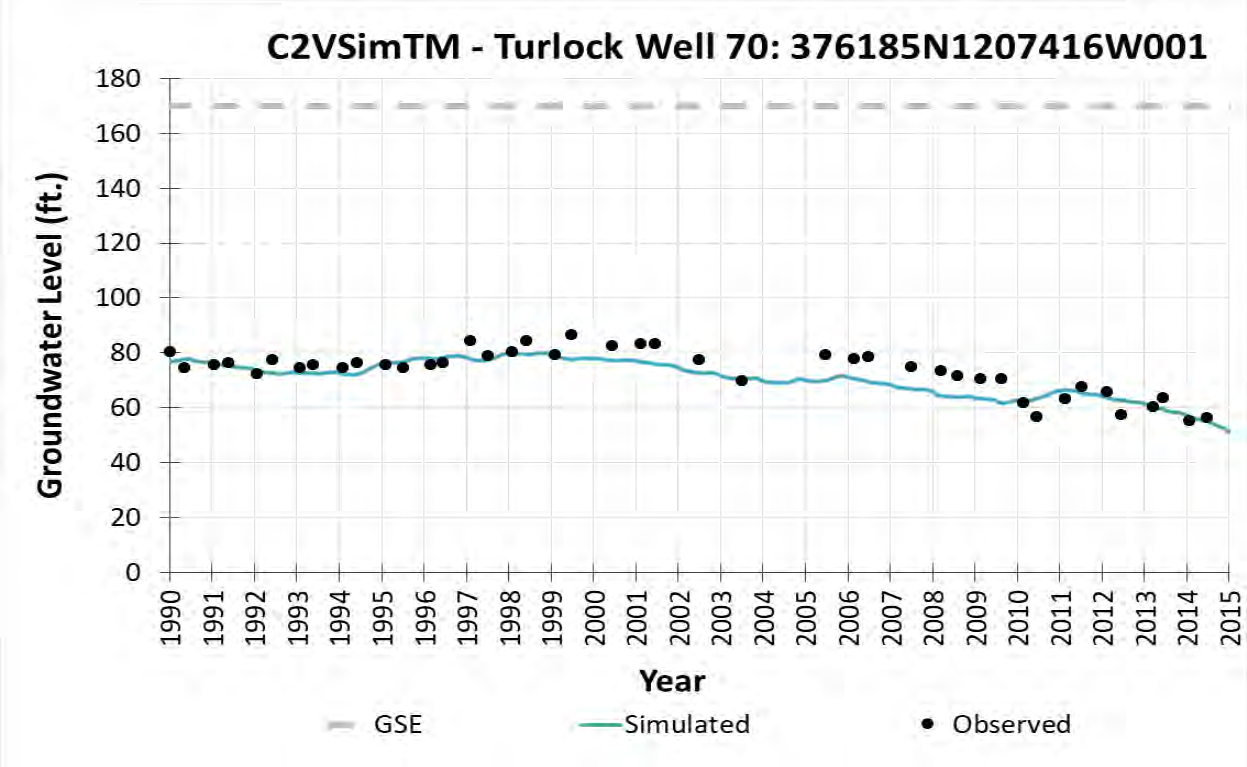

C2VSimTM - Turlock Well 65: 04S11E21D001M
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

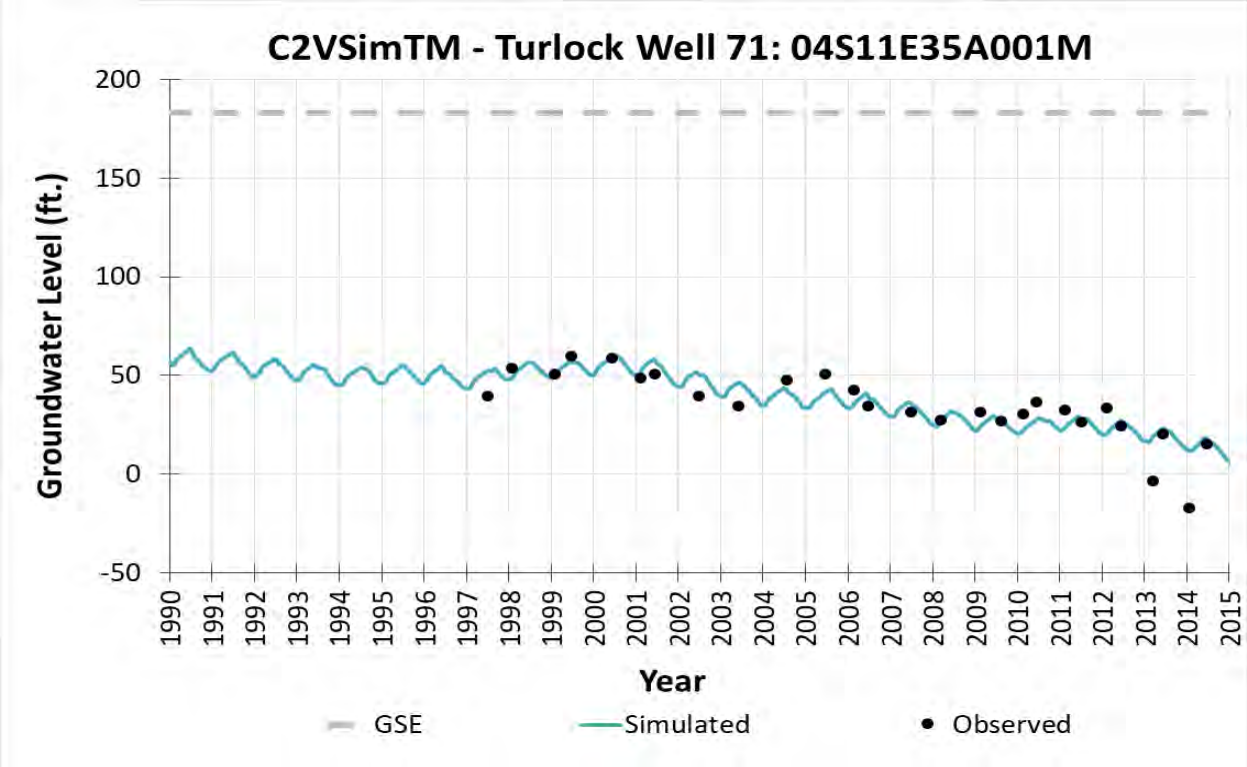

C2VSimTM - Turlock Well 66: 06S11E04C001M
Groundwater Level (ft.)
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

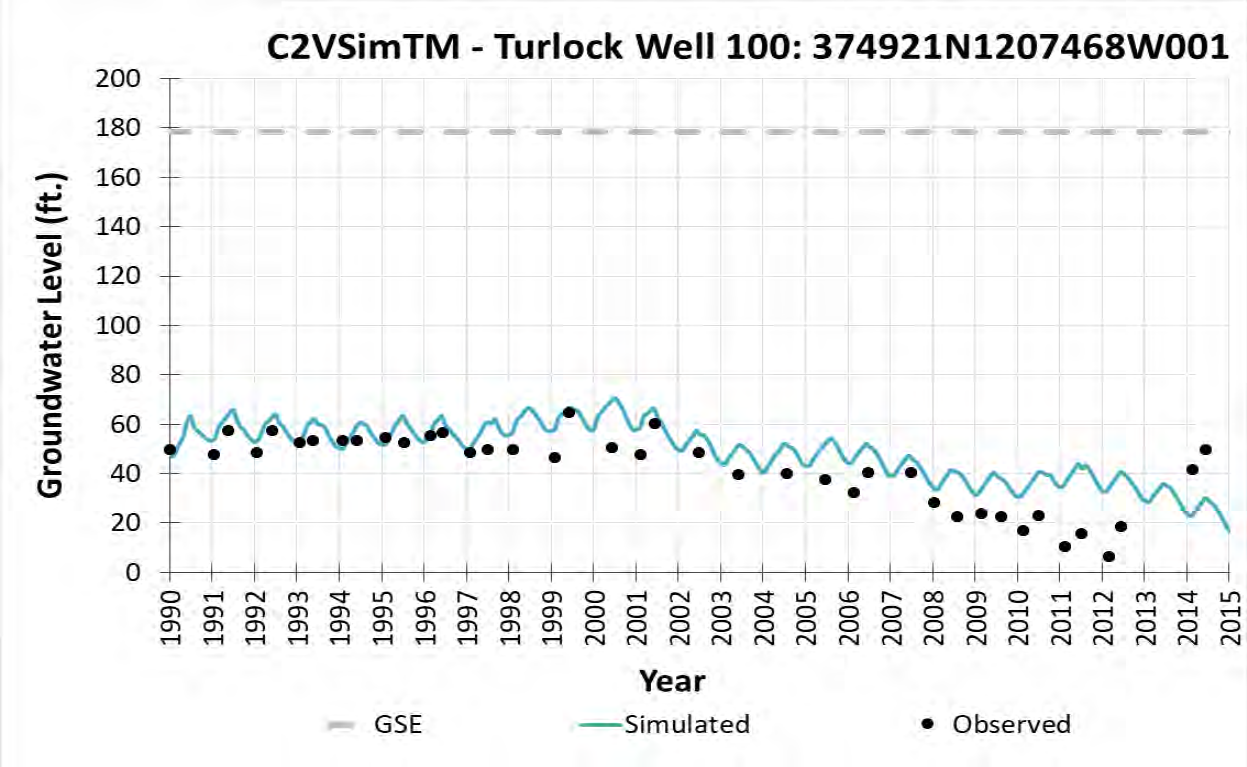

C2VSimTM - Turlock Well 67: 04S11E28J001M
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

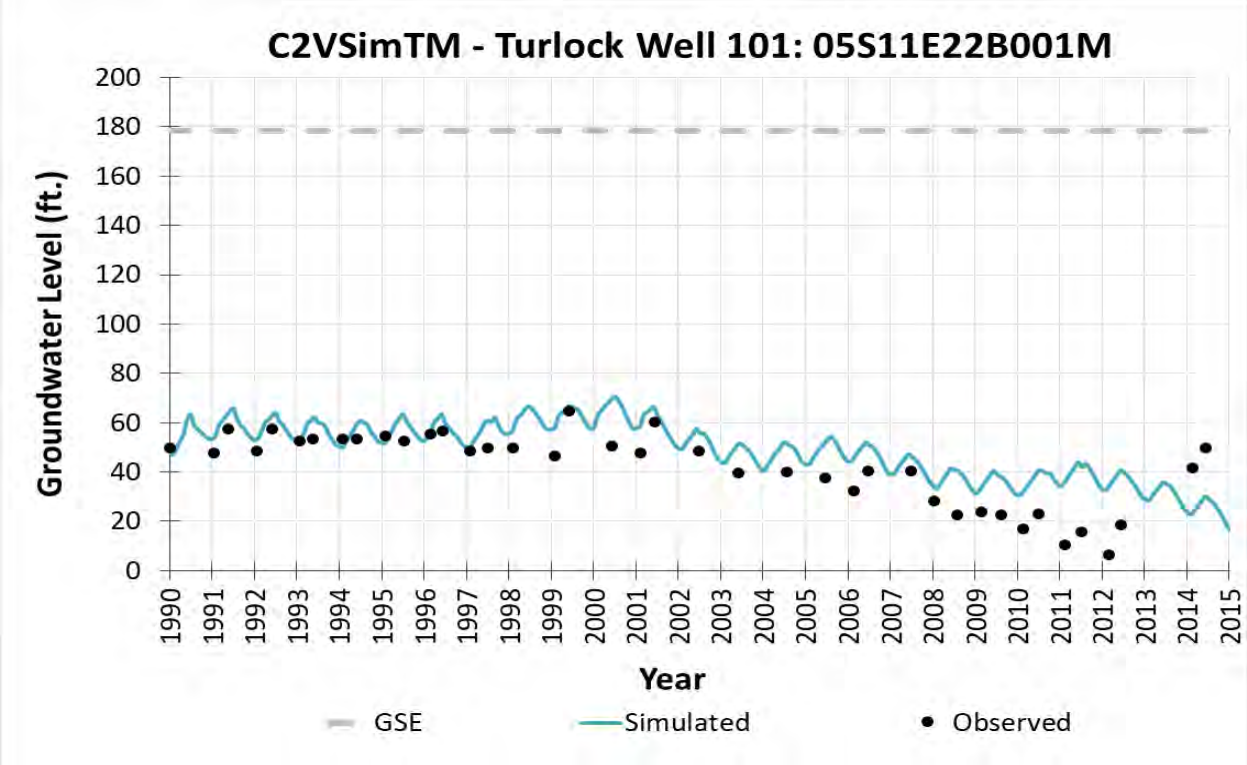

C2VSimTM - Turlock Well 68: 04S11E33R001M
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

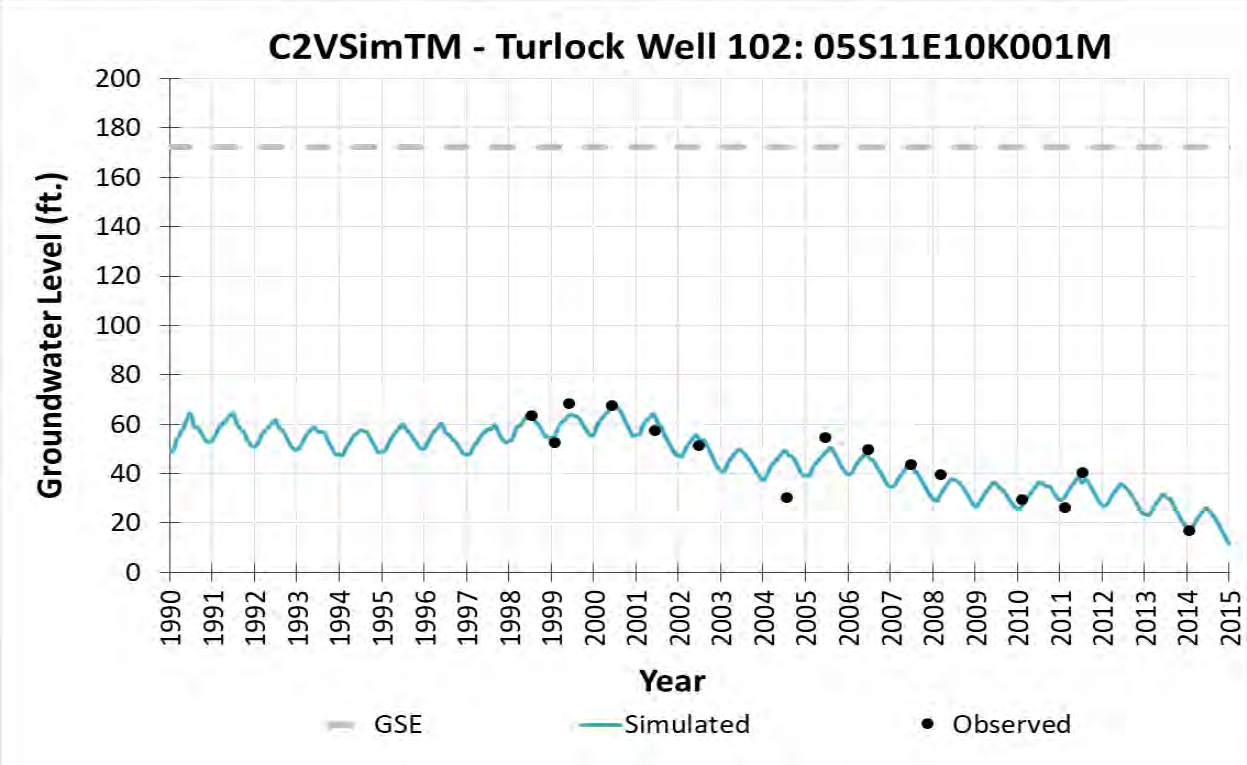

C2VSimTM - Turlock Well 69: 375388N1207552W001
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

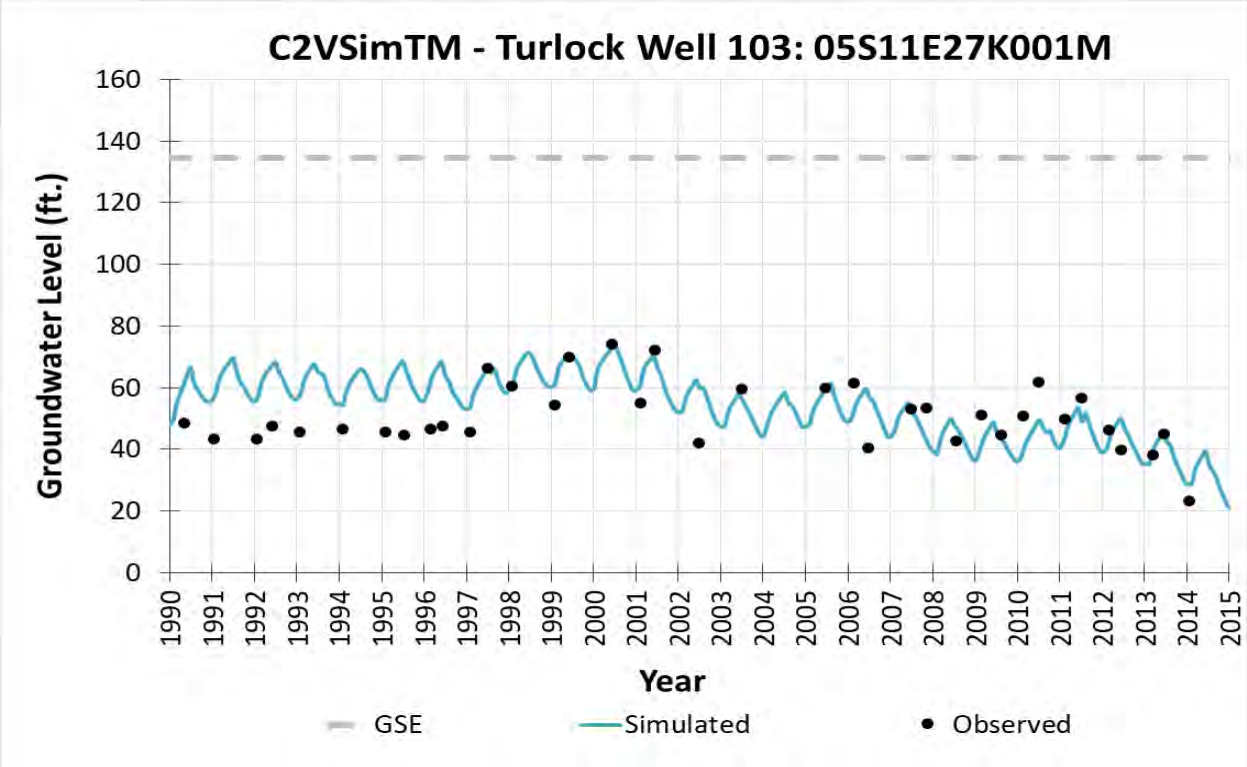

C2VSimTM - Turlock Well 70: 376185N1207416W001
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

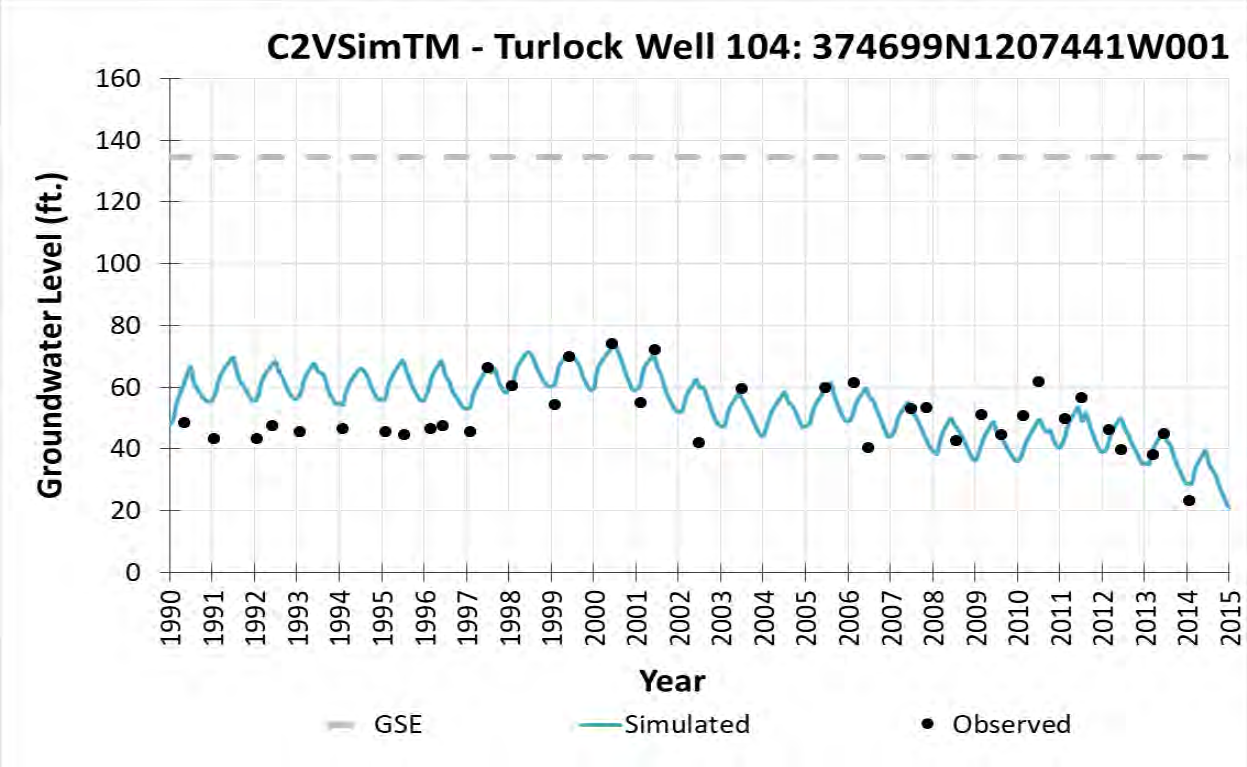

C2VSimTM - Turlock Well 71: 04S11E35A001M
Groundwater Level (ft.)
200
150
100
50
0
-50
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

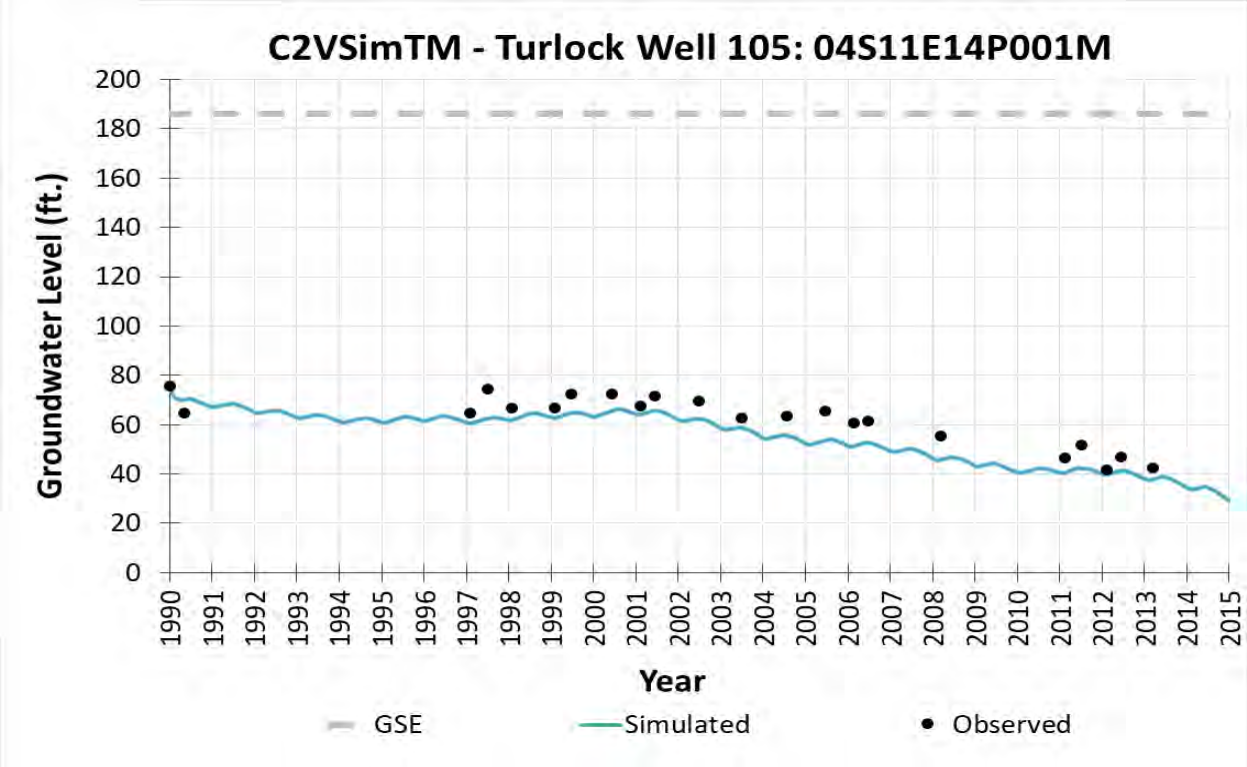

C2VSimTM - Turlock Well 100: 374921N1207468W001
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

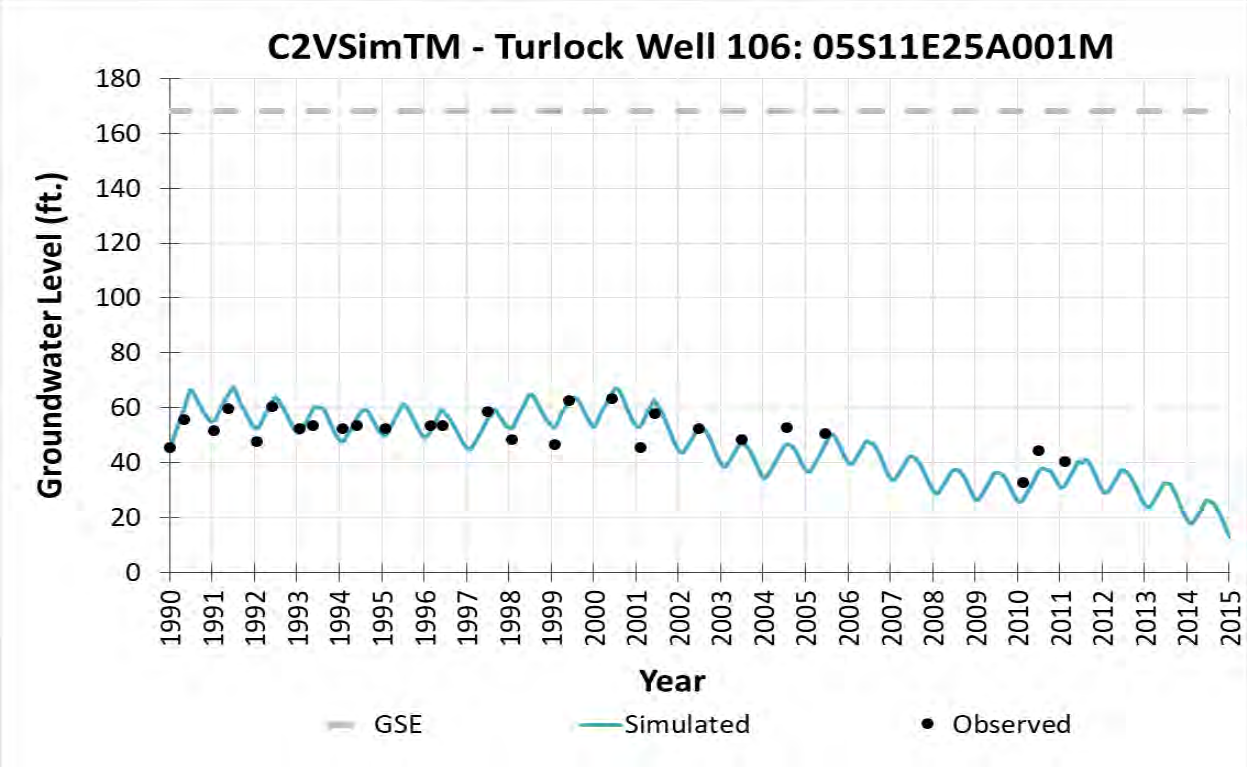

C2VSimTM - Turlock Well 101: 05S11E22B001M
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

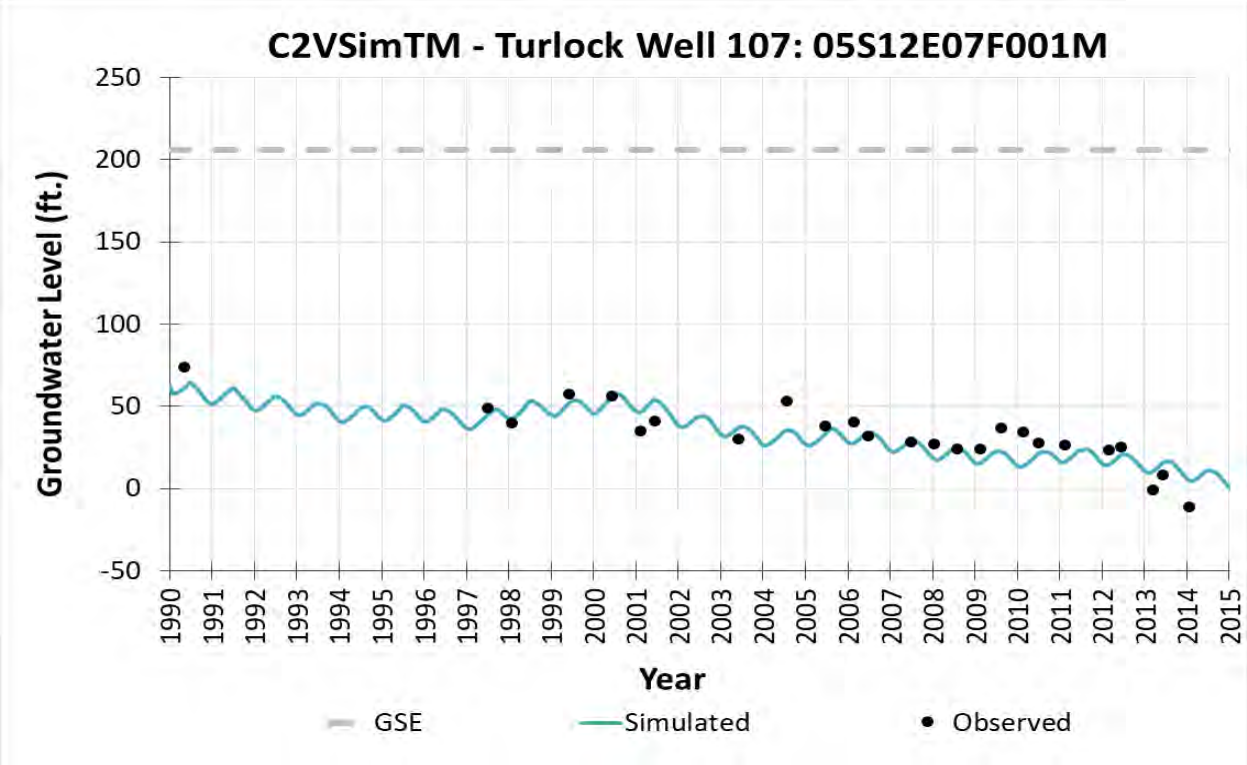

C2VSimTM - Turlock Well 102: 05S11E10K001M
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

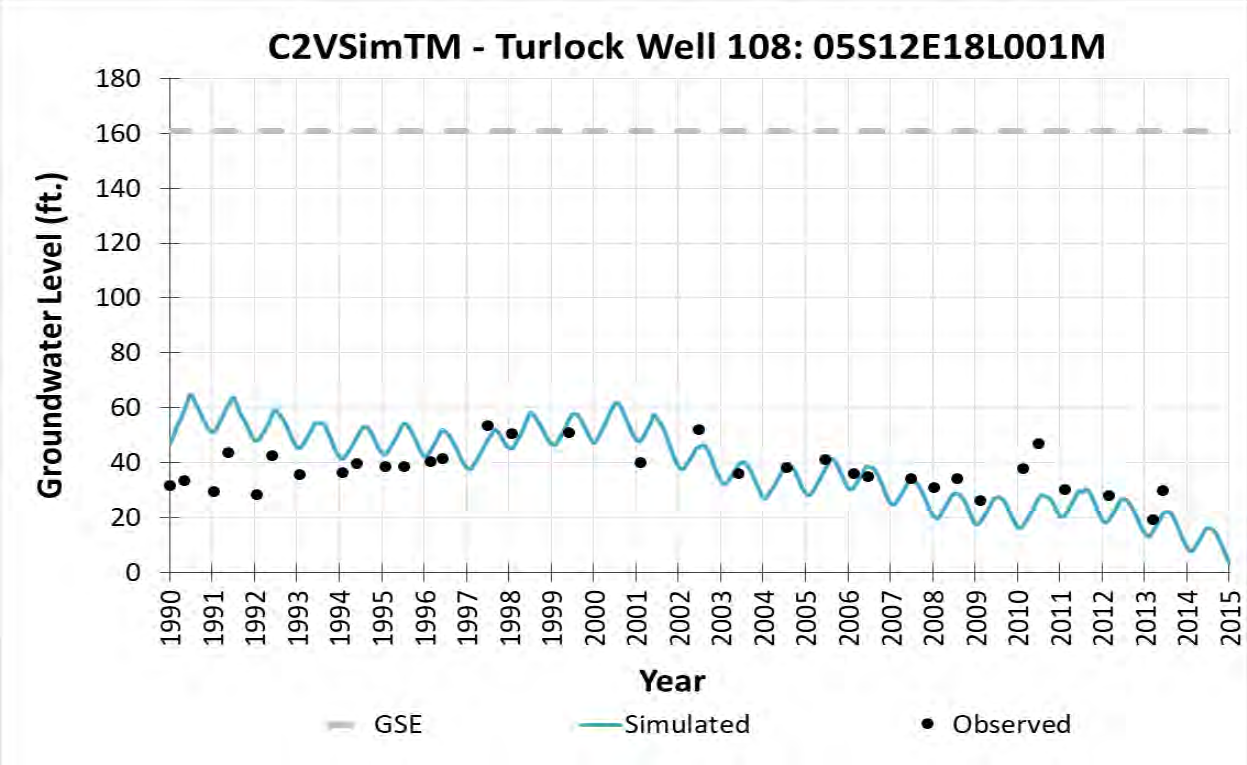

C2VSimTM - Turlock Well 103: 05S11E27K001M
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

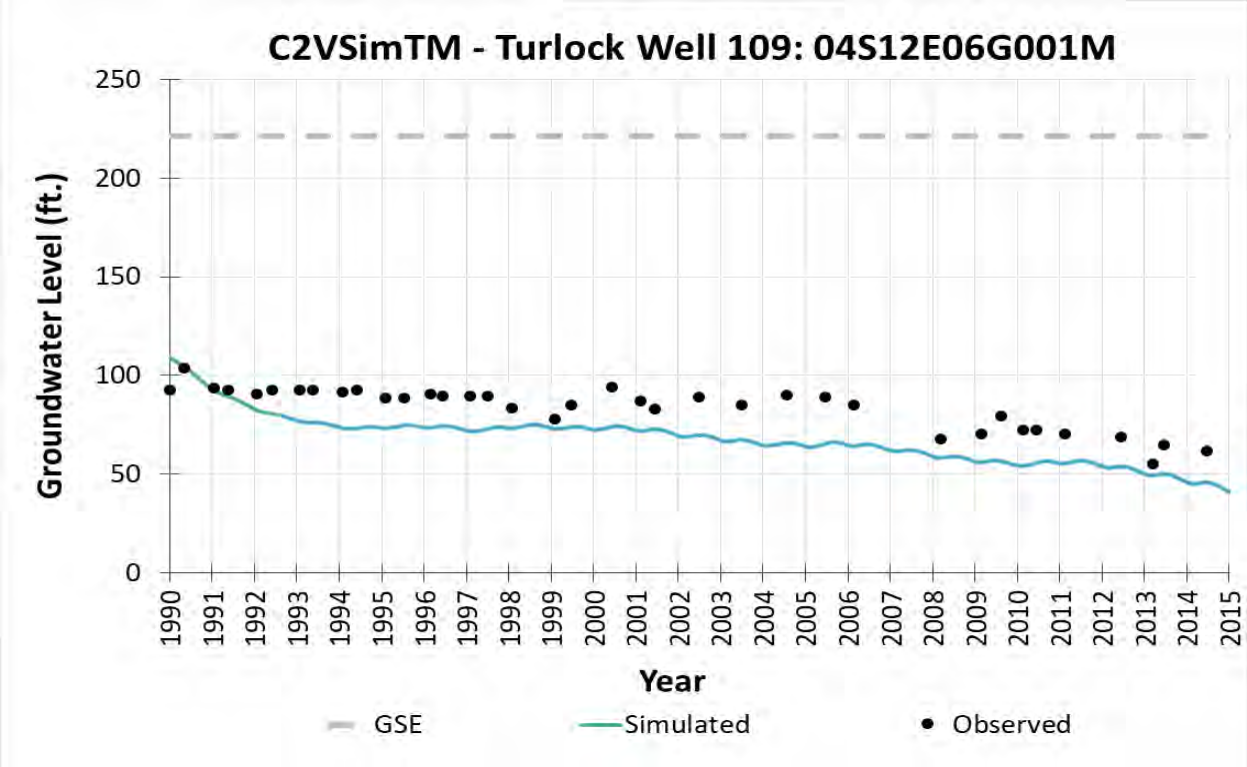

C2VSimTM - Turlock Well 104: 374699N1207441W001
Groundwater Level (ft.)
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

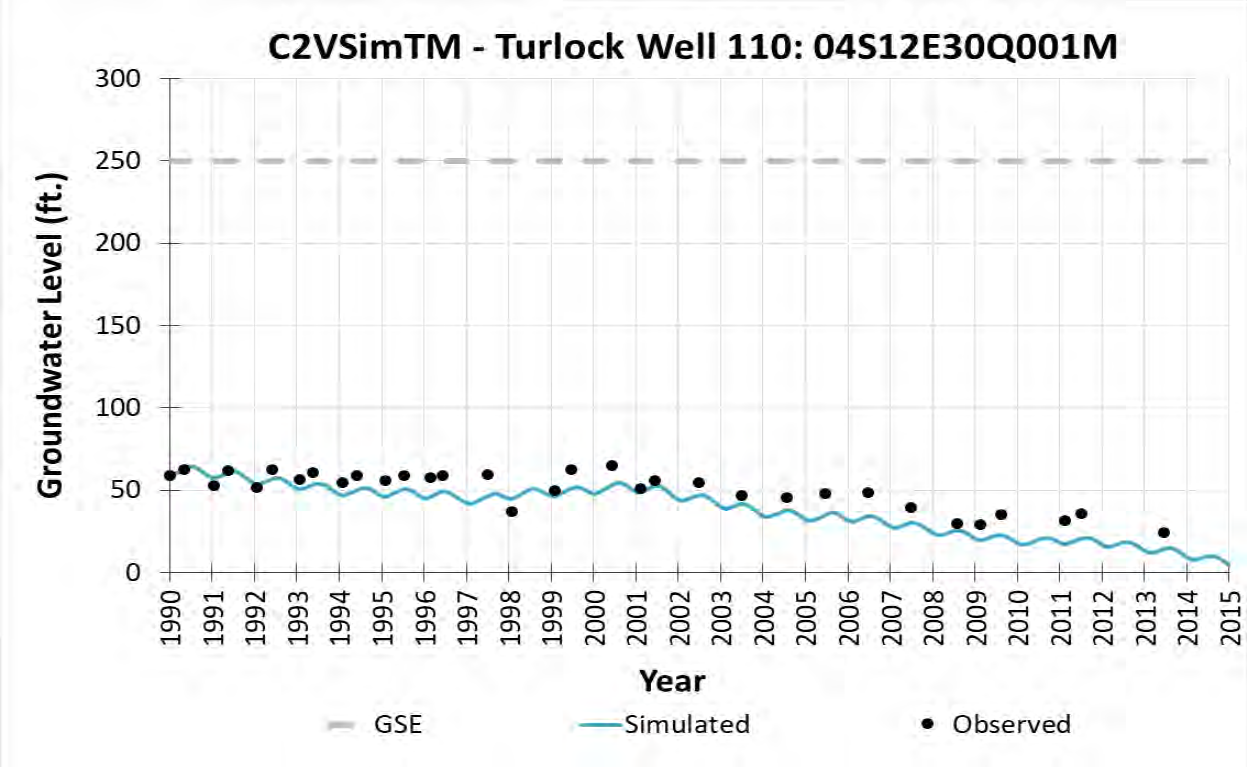

C2VSimTM - Turlock Well 105: 04S11E14P001M
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

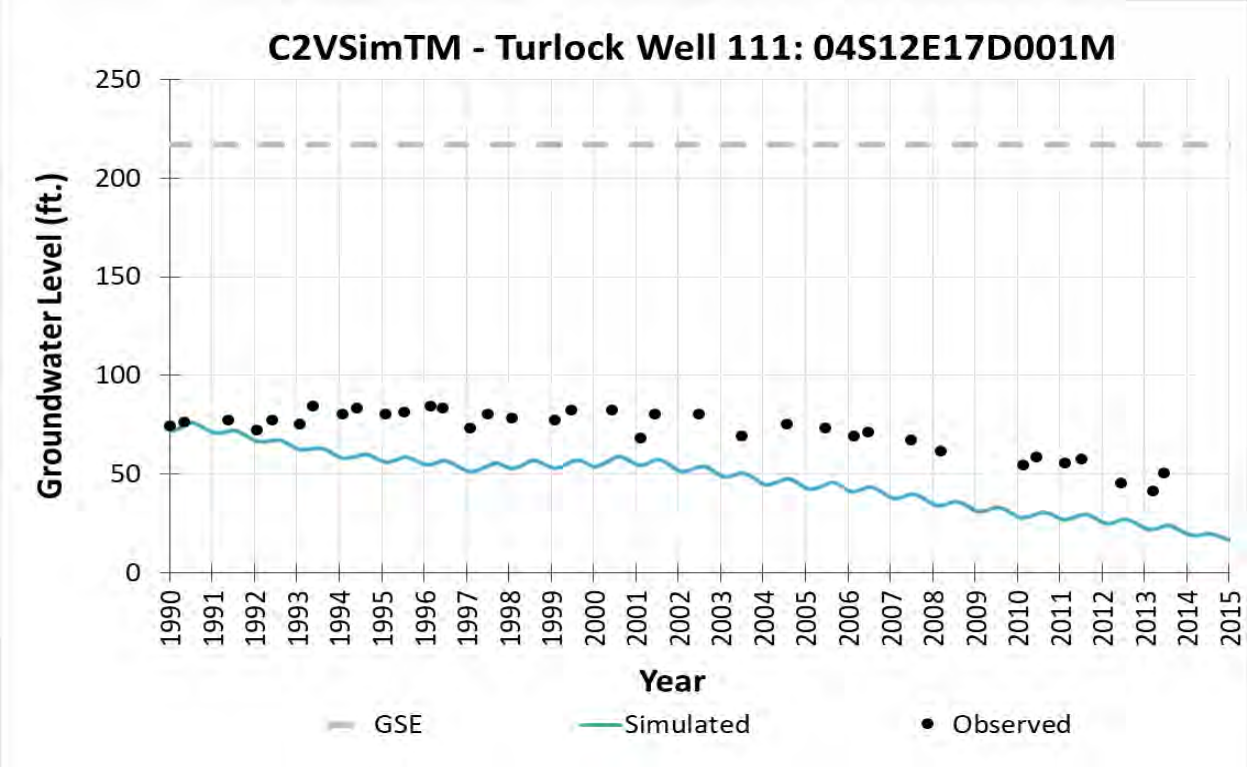

C2VSimTM - Turlock Well 106: 05S11E25A001M
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

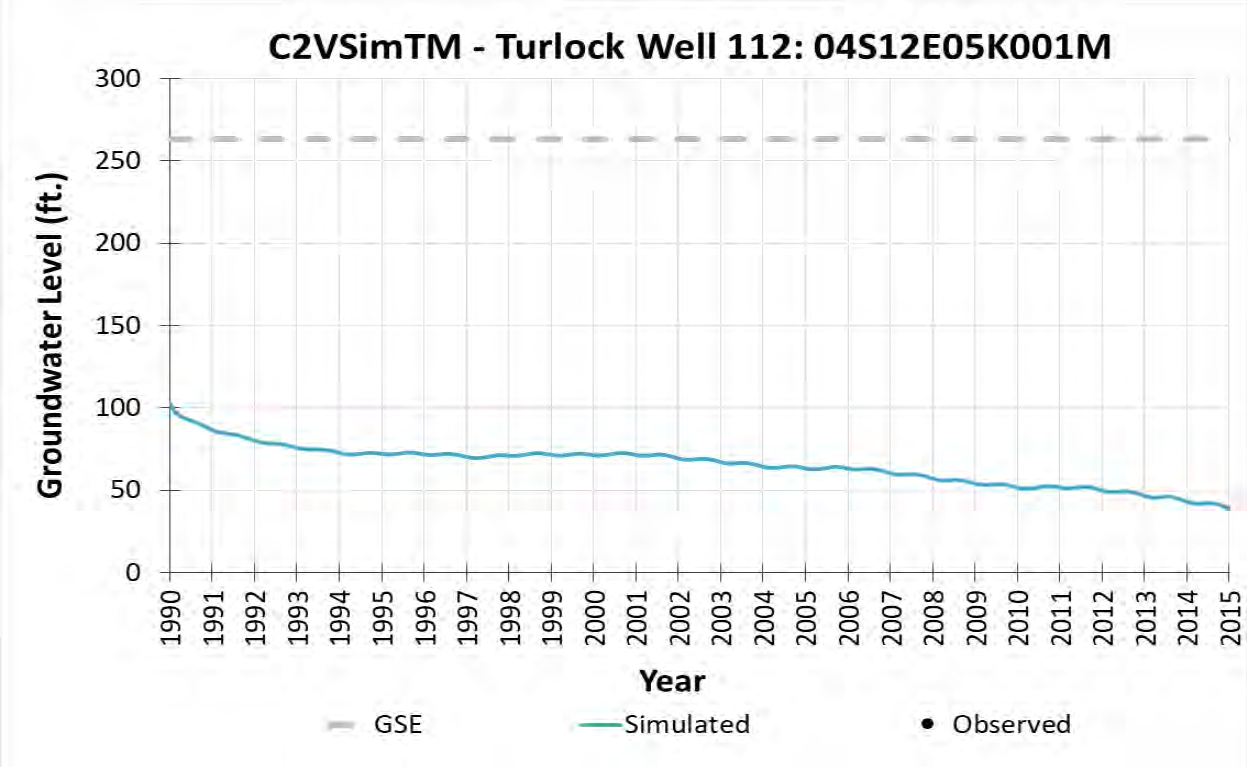

C2VSimTM - Turlock Well 107: 05S12E07F001M
Groundwater Level (ft.)
250
200
150
100
50
0
-50
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

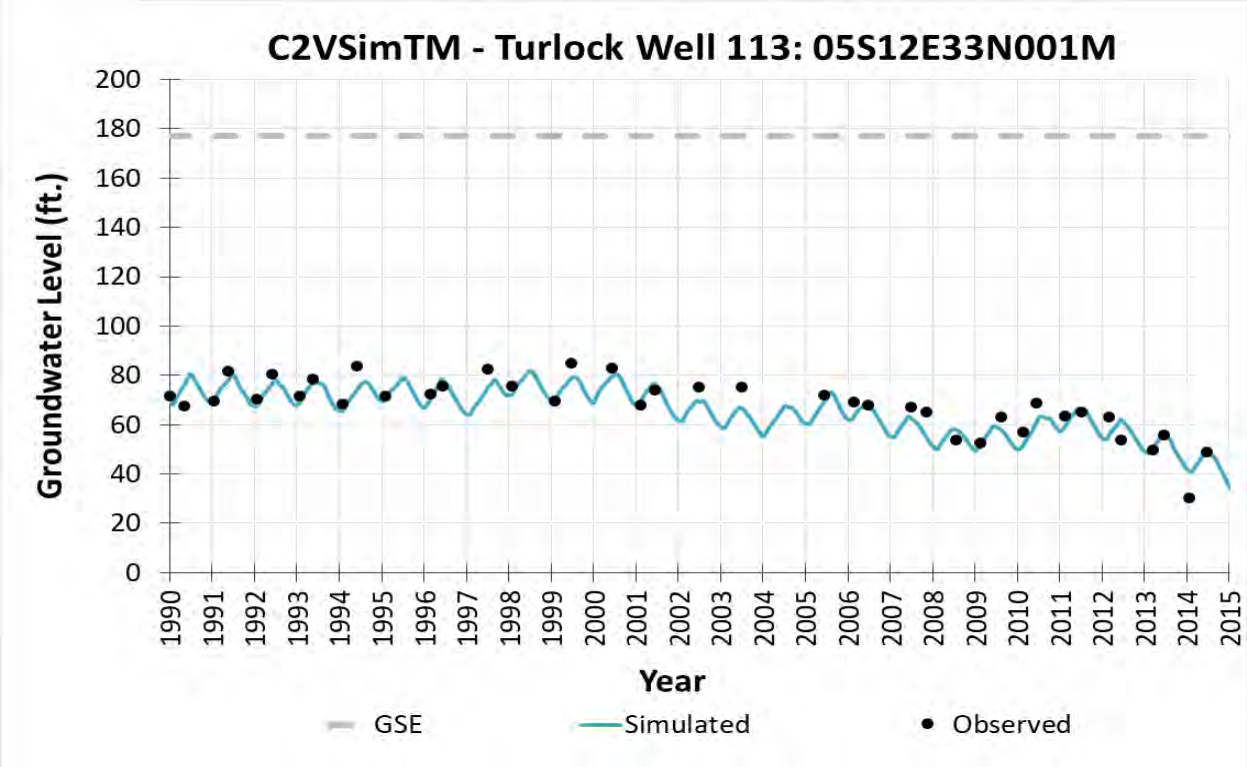

C2VSimTM - Turlock Well 108: 05S12E18L001M
Groundwater Level (ft.)
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

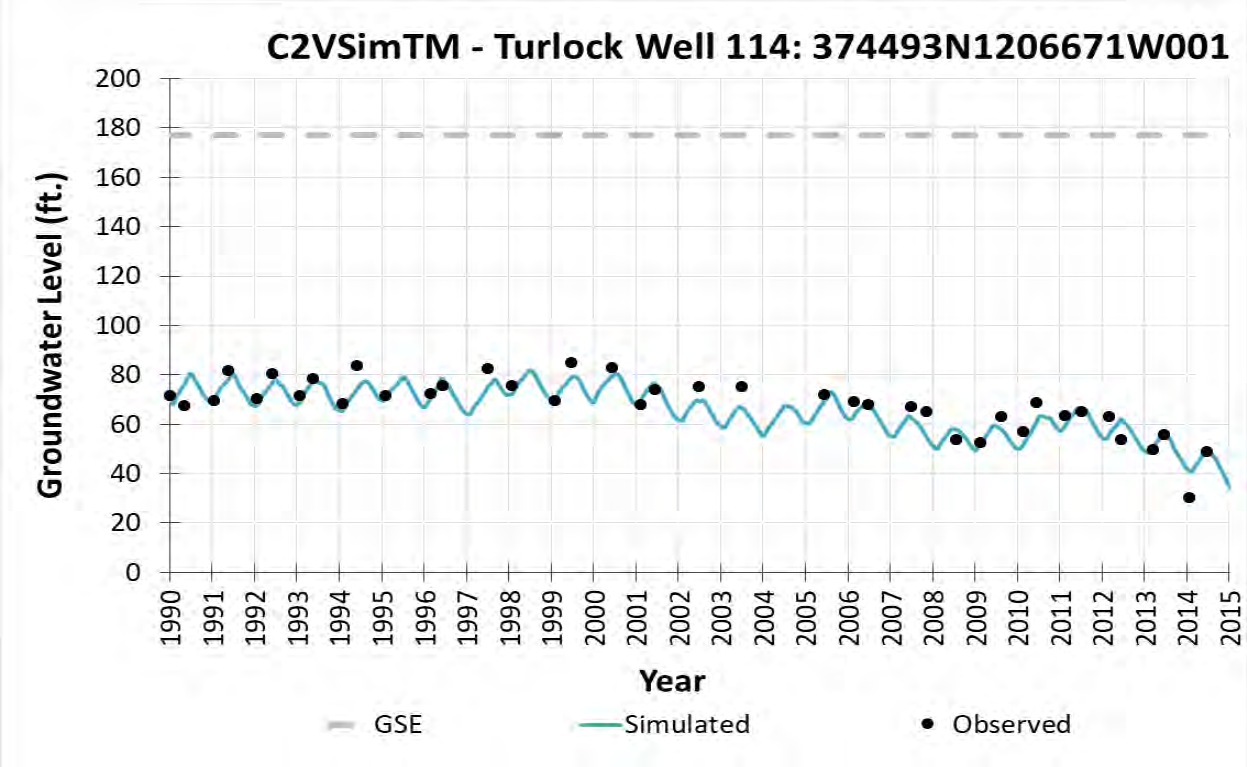

C2VSimTM - Turlock Well 109: 04S12E06G001M
Groundwater Level (ft.)
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

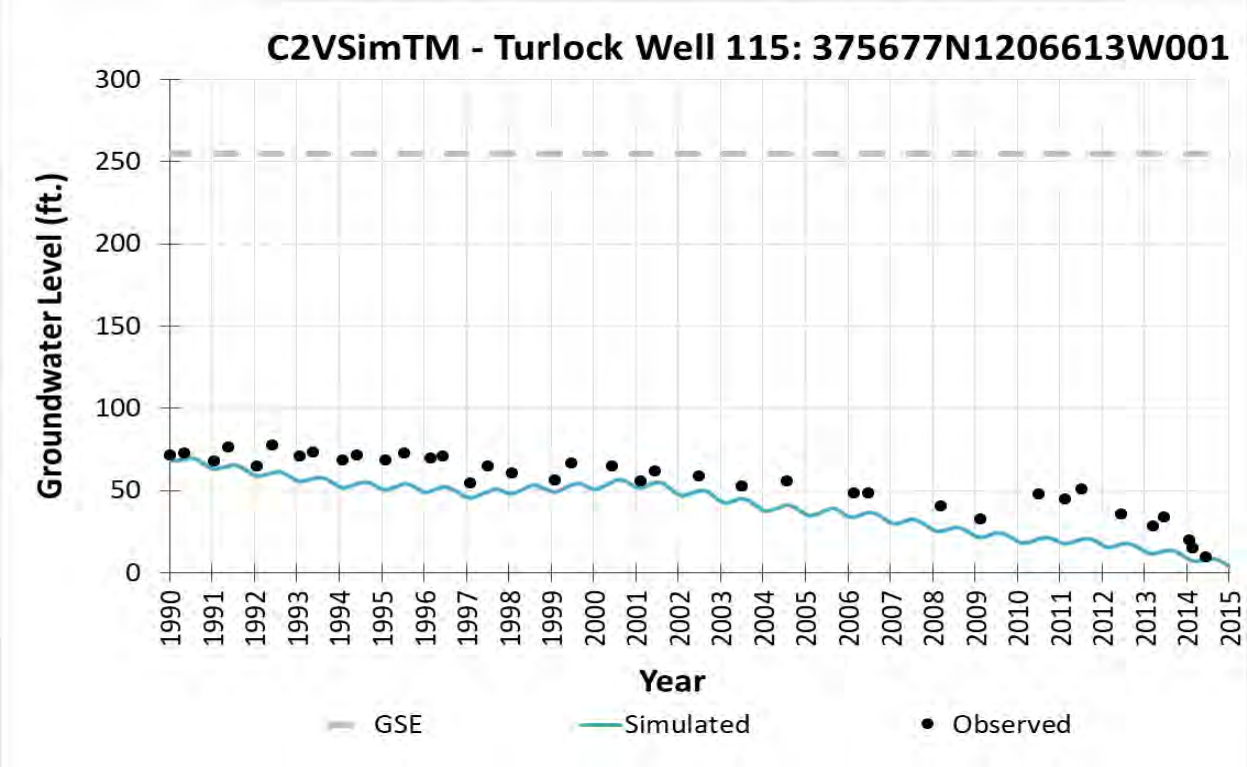

C2VSimTM - Turlock Well 110: 04S12E30Q001M
Groundwater Level (ft.)
300
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

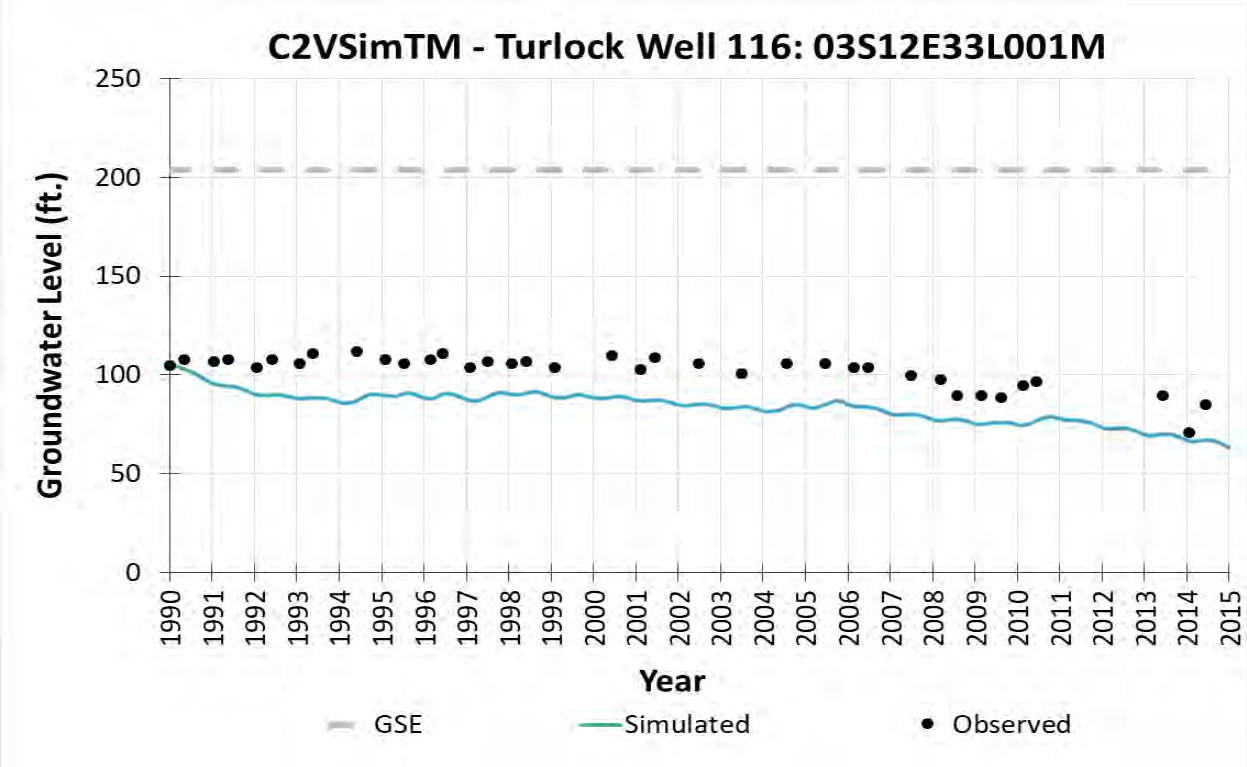

C2VSimTM - Turlock Well 111: 04S12E17D001M
Groundwater Level (ft.)
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

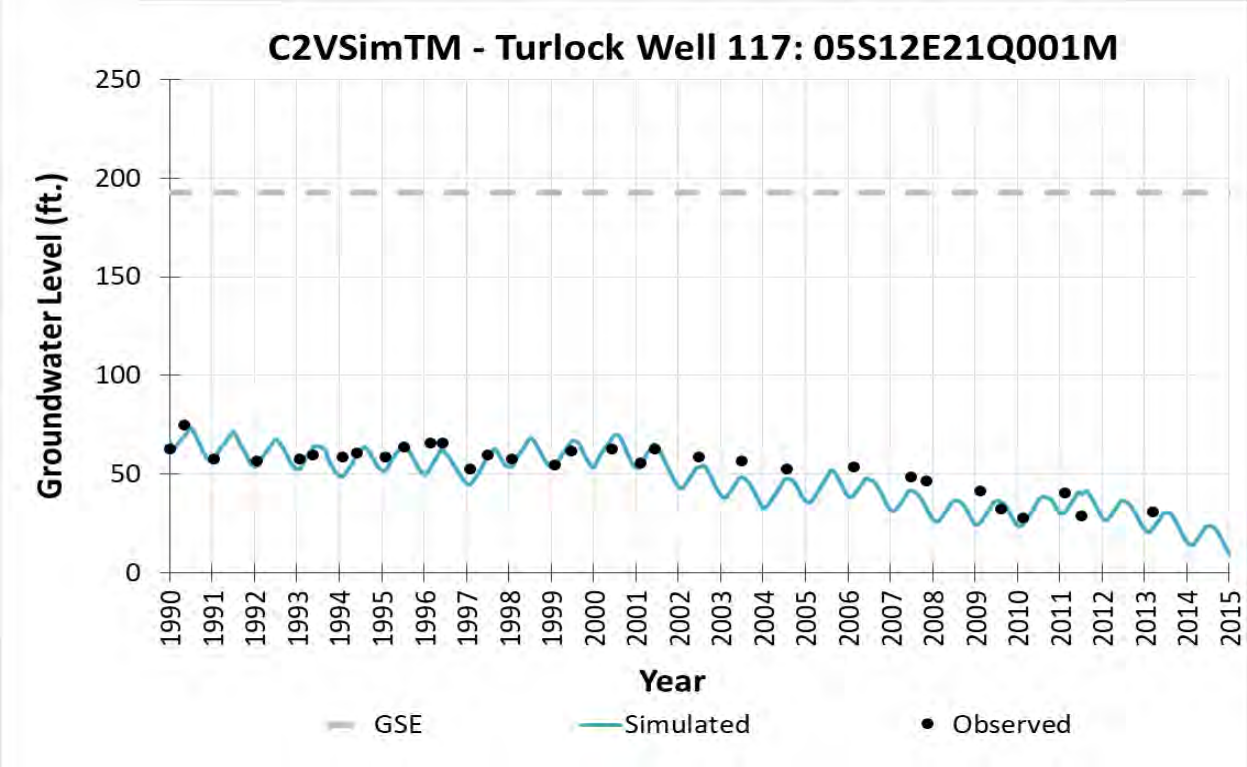

C2VSimTM - Turlock Well 112: 04S12E05K001M
Groundwater Level (ft.)
300
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

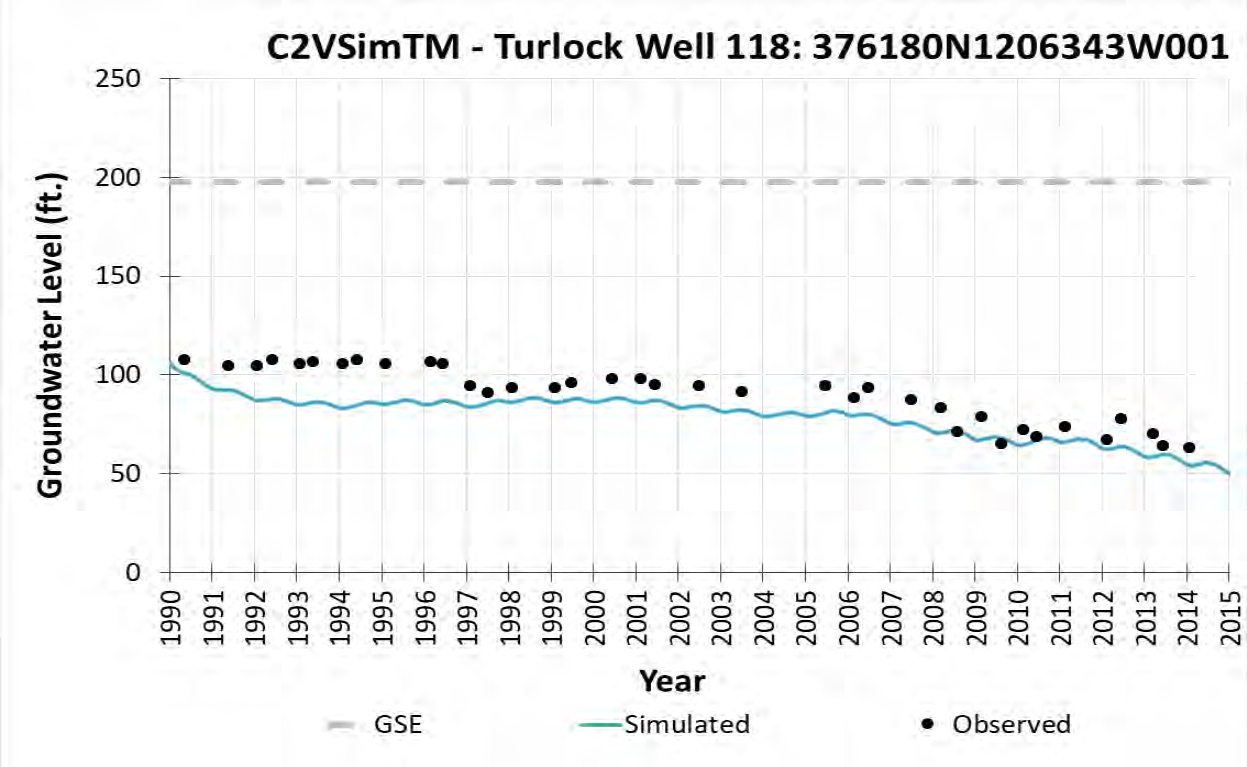

C2VSimTM - Turlock Well 113: 05S12E33N001M
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

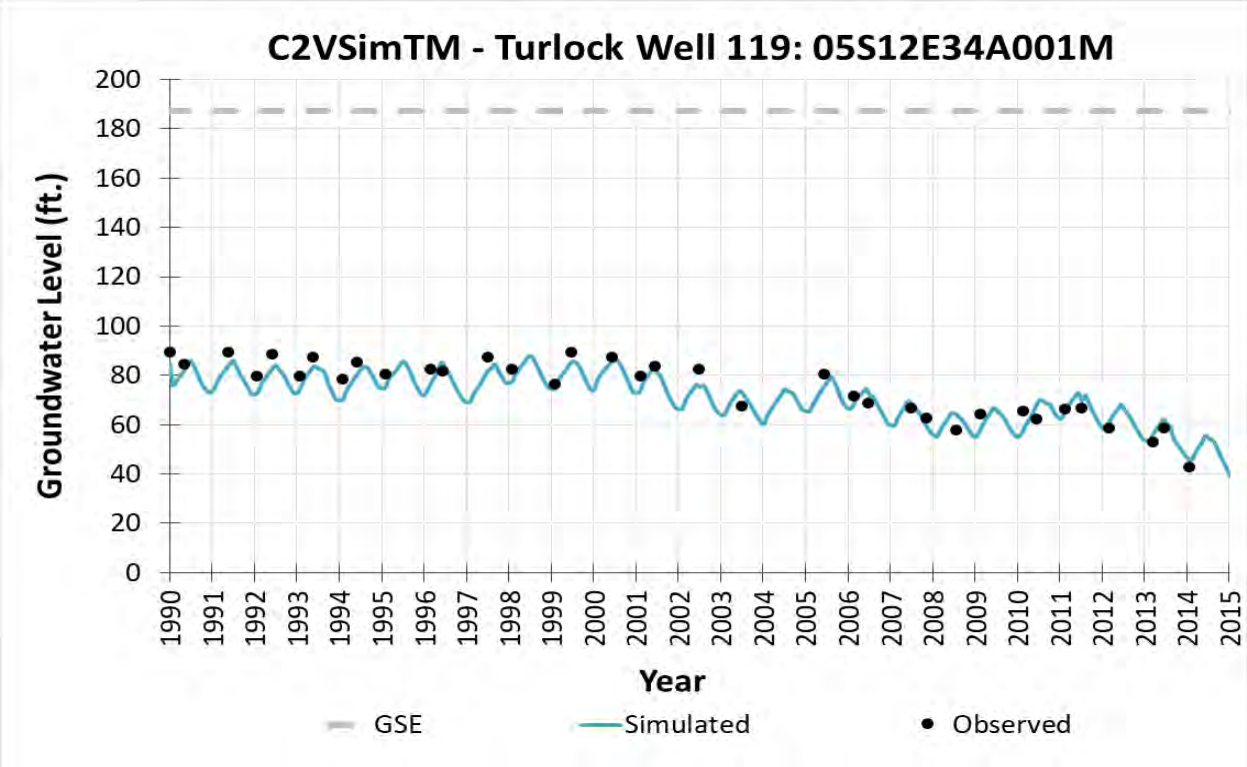

C2VSimTM - Turlock Well 114: 374493N1206671W001
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

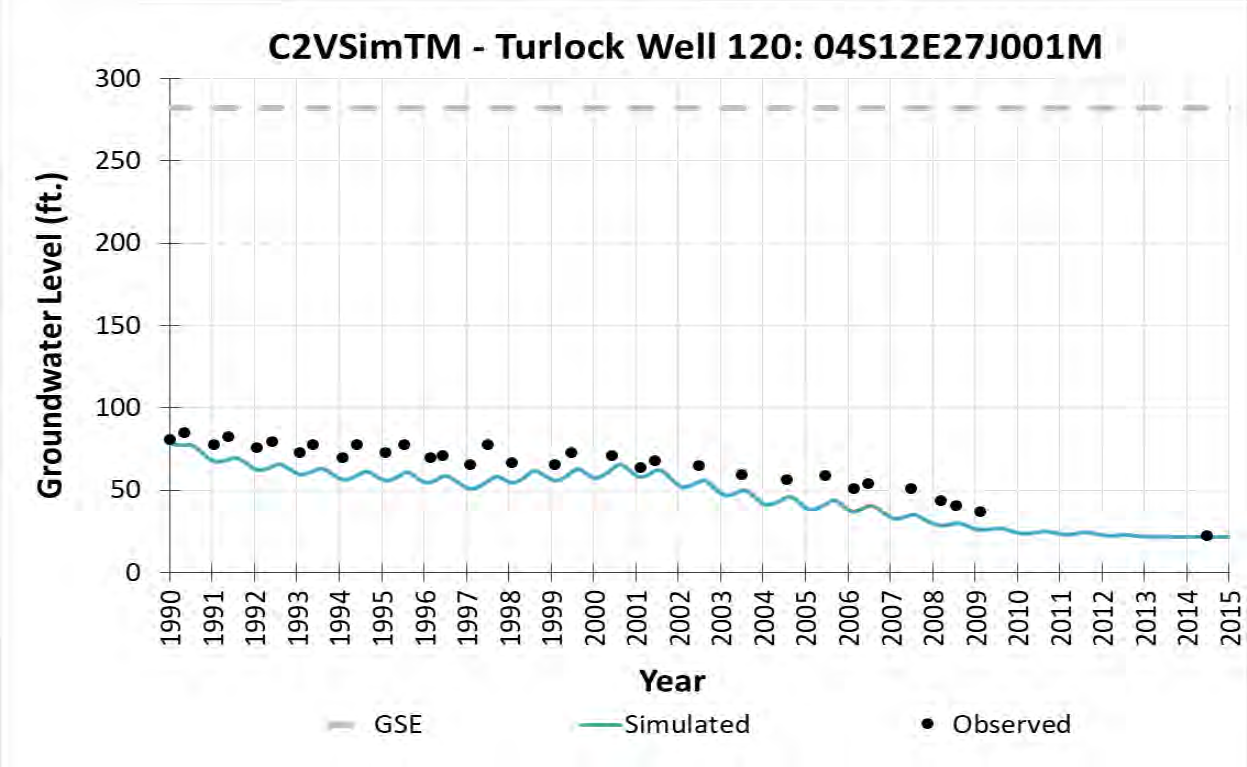

C2VSimTM - Turlock Well 115: 375677N1206613W001
Groundwater Level (ft.)
300
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

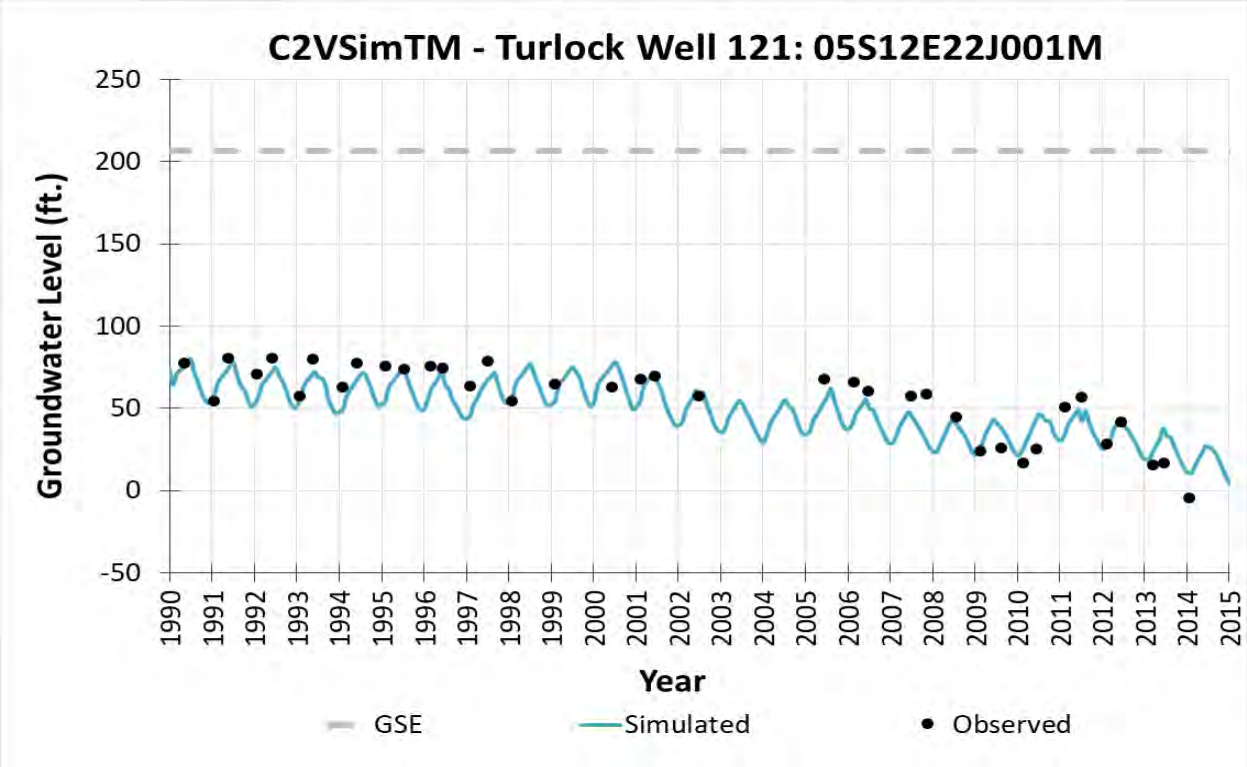

C2VSimTM - Turlock Well 116: 03S12E33L001M
Groundwater Level (ft.)
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

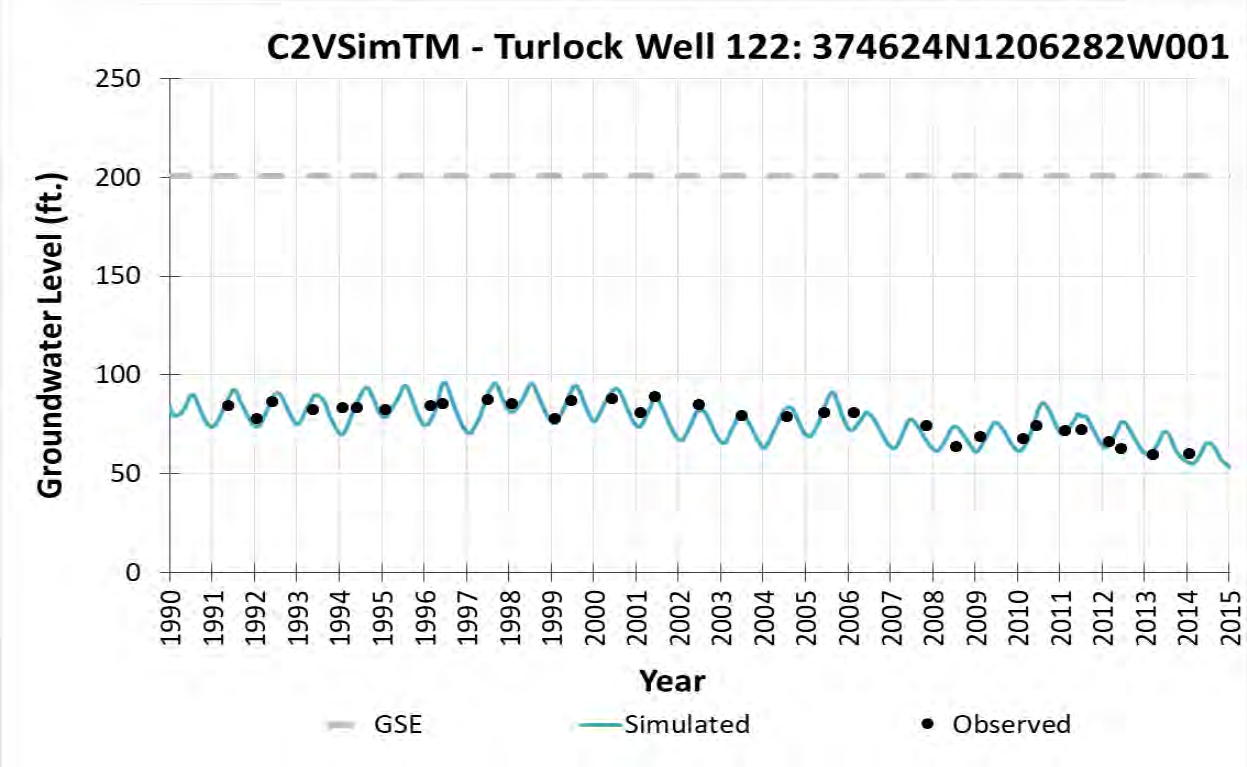

C2VSimTM - Turlock Well 117: 05S12E21Q001M
Groundwater Level (ft.)
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

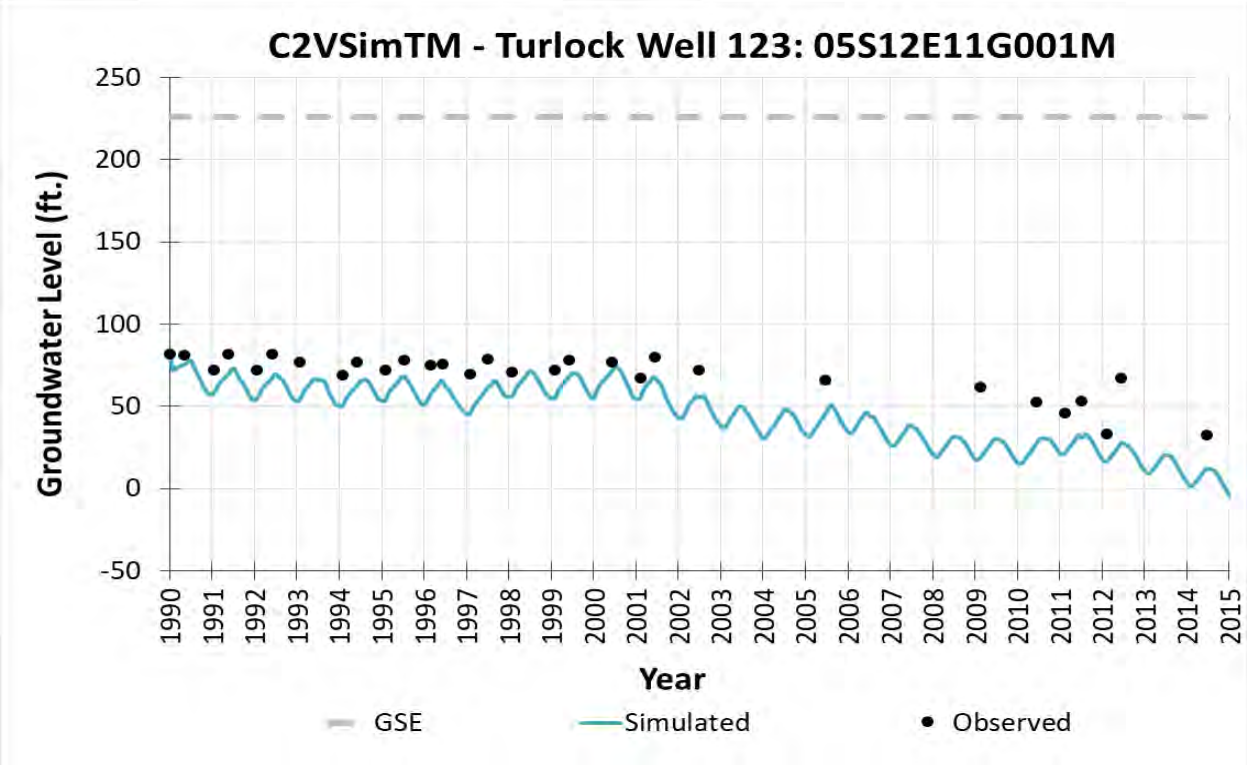

C2VSimTM - Turlock Well 118: 376180N1206343W001
Groundwater Level (ft.)
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

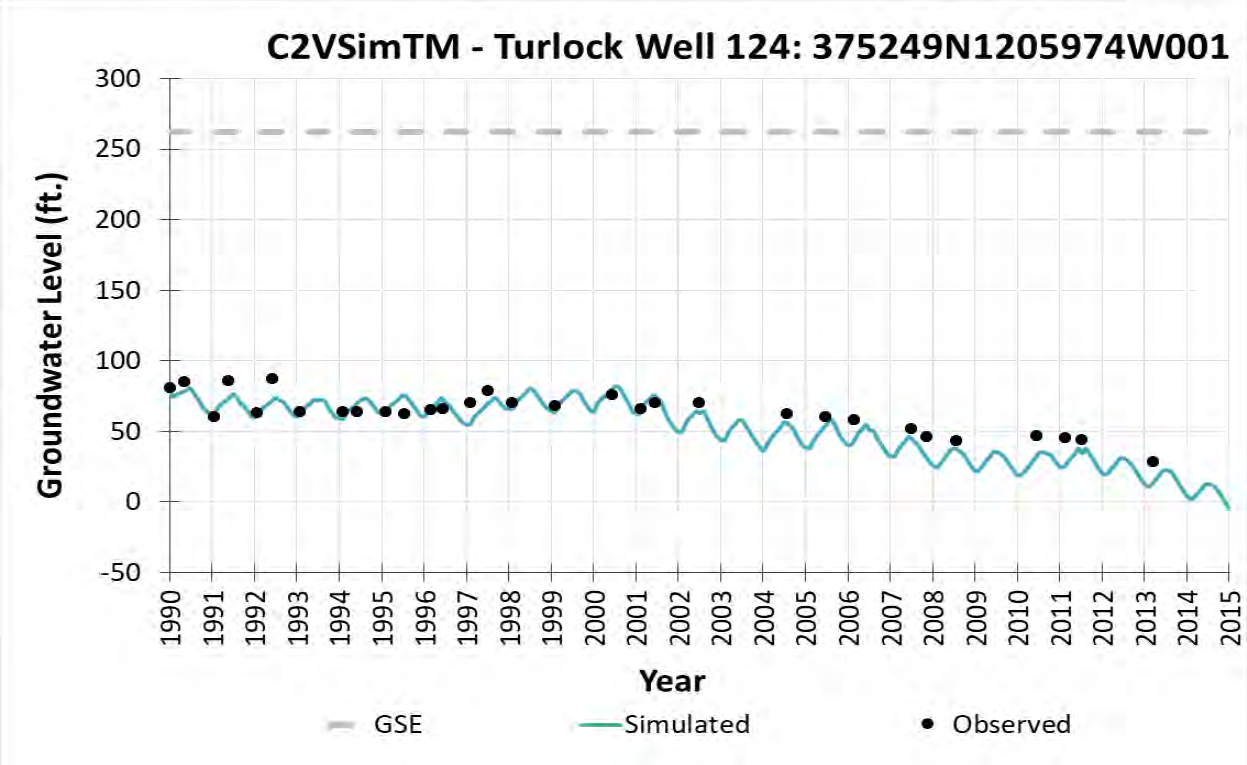

C2VSimTM - Turlock Well 119: 05S12E34A001M
Groundwater Level (ft.)
200
180
160
140
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

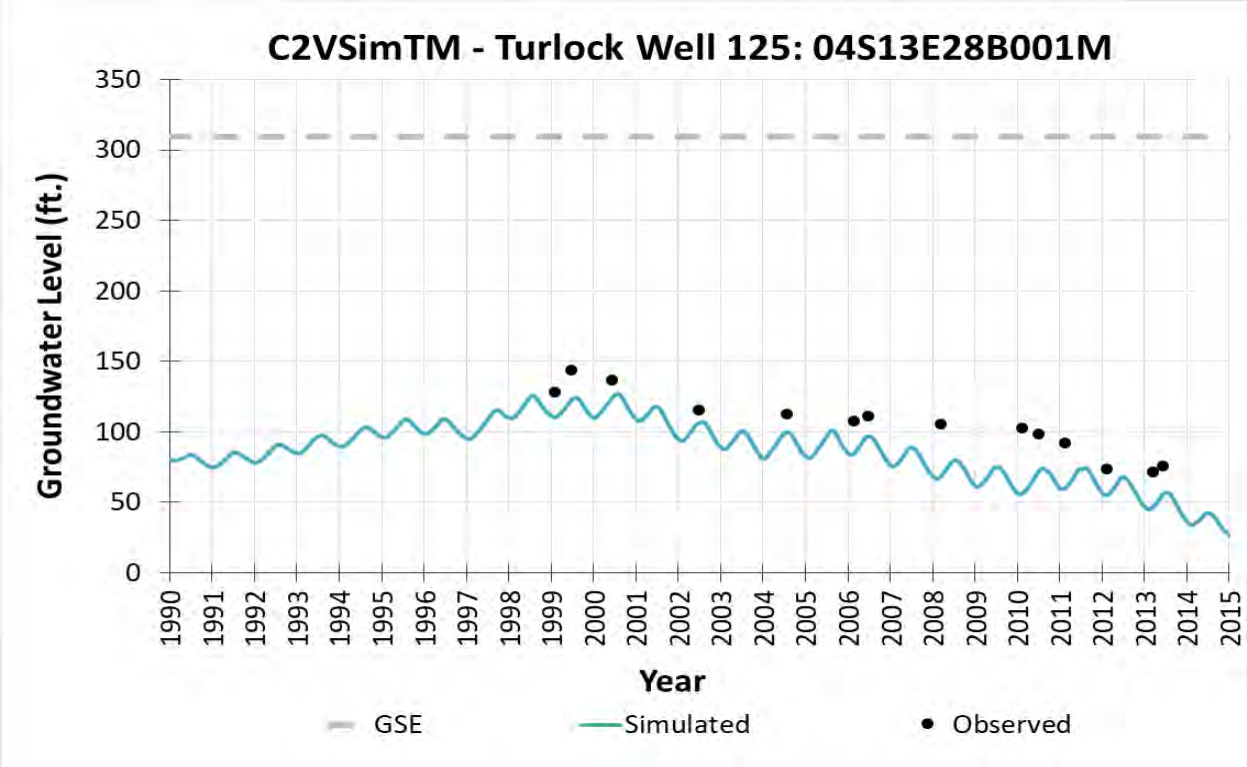

C2VSimTM - Turlock Well 120: 04S12E27J001M
Groundwater Level (ft.)
300
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed


C2VSimTM - Turlock Well 121: 05S12E22J001M
Groundwater Level (ft.)
250
200
150
100
50
0
-50
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed


C2VSimTM - Turlock Well 122: 374624N1206282W001
Groundwater Level (ft.)
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed


C2VSimTM - Turlock Well 123: 05S12E11G001M
Groundwater Level (ft.)
250
200
150
100
50
0
-50
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed


C2VSimTM - Turlock Well 124: 375249N1205974W001
Groundwater Level (ft.)
300
250
200
150
100
50
0
-50
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed


C2VSimTM - Turlock Well 125: 04S13E28B001M
Groundwater Level (ft.)
350
300
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Year
GSE
Simulated
Observed

Appendix E

Outreach Material

Appendix E-1: Turlock Subbasin Communications Plan
Appendix E-2: Stakeholder Gap Analysis
Appendix E-3: NAHC response regarding Sacred Lands File
Appendix E-4: Tribal Contact Report
Appendix E-5: Tribal Contact Call Log
Appendix E-6: Template Letter to review the GSP
Appendix E-7: List of Meetings Spreadsheet
Appendix E-8: Summary of Delhi Community Meeting of Dec. 1, 2021
Appendix E-9: Public Notices announcing Jan. 6, 2022, GSP Public Hearing
Appendix E-10: Email Distribution Report
Appendix E-11: Examples of Turlock Subbasin Informational Materials
Appendix E-12: Turlock Groundwater Logo and Branding
Appendix E-13: Turlock Subbasin Stakeholder Survey Results
Appendix E-14: Water Leadership Institute promotional flyers
Appendix E-15: Turlock Subbasin GSP Public Comment Summary
Appendix E-16: Memorandum of Intent to Coordinate Between the Merced Subbasin and Turlock Subbasin

Appendix E-1
Turlock Subbasin Communications Plan

The following Turlock Subbasin Communications Plan contains recommendations developed by the Center for Collaborative Policy (CCP) pursuant to a Department of Water Resources (DWR) grant for local assistance services. Recommendations provided herein are based on CCP experience as well as the expertise of Turlock Groundwater Sustainability Agencies (GSAs) and their member agencies' experiences.

Turlock Subbasin Communications Plan

Updated April 2019

NOTE: To ensure an adaptive, responsive approach to stakeholder outreach and engagement, the components of this plan were developed in collaboration with the Turlock Subbasin stakeholders, including GSA members, Technical Advisory Committees, board members, and staff. This plan will be updated as the collaborative process continues.

TURLOCK SUBBASIN COMMUNICATIONS PLAN

Contents

The following outlines the components of a general engagement and communications plan for use by Turlock Subbasin Groundwater Sustainability Agencies (GSAs). Key messages, strategies and avenues of consideration will require determination by individual GSAs. Stakeholders are generally referenced as Turlock Subbasin Stakeholders or stakeholders. Individual GSAs may seek to differentiate between East Turlock Subbasin GSA (East Turlock) stakeholders and West Turlock Subbasin GSA (West Turlock) stakeholders. The following also incorporates examples and templates from the Turlock GSAs' activities and experiences.

Purpose

The purpose of this Communications Plan is to assist the GSAs in their efforts to develop general and strategic communications to engage Turlock Subbasin stakeholders in groundwater management activities.

Overview and Background

California's Sustainable Groundwater Management Act (SGMA) of 2014 requires broad stakeholder involvement in the development and implementation of the Groundwater Sustainability Plans (GSPs) for 127 groundwater basins around the State, including the Turlock Subbasin. SGMA's intent is to ensure successful management of groundwater resources at the local level. Success will require cooperation by all stakeholders, and cooperation is far more likely if stakeholders help shape the path forward.

To that end, the intention of the Communications Plan is to make transparent to stakeholders their opportunities to contribute to the development of a GSP that can effectively address groundwater management within the Turlock Subbasin. At the same time, the intention of the Communications Plan is to provide community leaders and GSAs with a roadmap to follow to ensure stakeholders have meaningful input into GSA decision-making, including GSP development, through a process widely seen as fair and respectful to the range of interested parties.

Communications Plan Goals

The plan seeks to accomplish the following goals:

A. Educate stakeholders about:
    1. SGMA and its requirements.
    2. GSAs within the Turlock Subbasin as SGMA management units.
    3. SGMA's potential to change current groundwater management.
    4. How stakeholders will be represented by their GSAs.
B. Communicate deadlines and important dates.
C. Encourage stakeholder engagement by communicating when meetings and workshops will happen as opportunities to participate in the planning process. This will include opportunities to engage in GSA decisions.
D. Gain early and continuing feedback to inform GSP design and development.
E. Coordinate outreach and engagement activities between GSAs to ensure efficiencies and support stakeholders.

Major Audiences

A Turlock Subbasin stakeholder is anyone who has an interest in groundwater management or is a member of the Turlock Subbasin community. Their interest may be GSA activities, GSP development and implementation, or water management in general.

A. **Turlock Subbasin Stakeholders.** There is a broad variety of stakeholders including representatives and people from the following groups listed below. This list is based on discussions regarding groundwater with GSAs and their member agencies, and not assumed to be exhaustive.
    1. Water supply providers and their customers
    2. Private agricultural pumpers
    3. Private rural domestic well pumpers
    4. Small community water systems
    5. Individual groundwater users
    6. Disadvantaged Communities (DACs)
    7. Organized agricultural interests (including county Farm Bureaus, etc.)
    8. Environmental interests
    9. Local governmental interests
    10. Tribal interests
    11. Community organizations
    12. Educational institutions
    13. Public Natural Resource Management
        i. Resource Conservation Districts
        ii. Flood Control Districts
        iii. Natural Resources Conservation Service
    14. "Interested parties" as specified in Water Code §10723.2 and identified by the GSAs' "interested parties list."

B. GSA Member Agencies

1. City of Ceres
2. City of Turlock
3. City of Hughson
4. City of Modesto
5. Hilmar County Water District
6. Delhi County Water District
7. Denair Community Services District
8. Keyes Community Services District
9. City of Waterford (Hickman)
10. Turlock Irrigation District
11. Merced Irrigation District
12. Eastside Water District

13. Ballico-Cortez Water District
14. Merced County
15. Stanislaus County

Key Messages

As the GSAs reach out to stakeholders and engage them in groundwater management issues and items, the GSAs will need to share several key messages. Two separate subbasin Technical Advisory Committees (TACs) rely on an Ad-Hoc Communications Committee to ensure these messages are reaching the public. The key messages are as follows, in no particular order:

- Two GSAs in the Turlock Subbasin were formed in order to ensure local control of groundwater management, including: decision-making, funding, implementation of the GSP and enforcement of the GSP requirements.
- The GSAs are committed to proactively, and sustainably, managing the groundwater in the Subbasin.
- GSAs will ensure compliance with SGMA to prevent state intervention.
- The GSAs seek to coordinate efforts in managing their respective portion of the Subbasin, to achieve compliance with SGMA.
- As made known in a formal Memorandum of Agreement (MOA), the GSAs will develop a single GSP for the basin as part of SGMA compliance.
- In the spirit of transparency, the GSAs are committed to proactive outreach and engagement with stakeholders and Subbasin community members during the GSP planning process and beyond.

Turlock Subbasin Decision-Making

The WTS GSA TAC and the ETS GSA shall be the primary decision-making bodies for the Turlock Subbasin. Each of the GSAs has a Technical Advisory Committee (TAC). Representatives from these make up the Joint Technical Advisory (Joint TAC). This is a meeting/convening of the WTS GSA TAC and the ETS GSA TAC. Turlock Subbasin decisions will be made by the individual GSAs. However, staff direction, development of recommendations, and implementation of Turlock Subbasin GSA decisions may be advanced through Joint TAC discussions, but must be provided by each individual GSA TAC to their respective GSAs for decision. GSAs and their staff representatives will engage with Subbasin stakeholders through the strategies outlined in this Plan to help inform the GSAs decisions. Please see Appendix I for SGMA Governance Model and example GSA decision-making process schematic.

Summary of Recommended Communication Strategies and Mechanisms

GSAs representatives and staff will engage with Subbasin stakeholders and will be responsible to track the needs of its community. The GSAs will consider stakeholder input gathered from outreach efforts. Three sets of strategies are important to consider when planning outreach and

engagement activities. These strategies include the following categories; individual strategies can be utilized and grouped separately as needed:

1. **SGMA-Required**: The law requires GSAs to undertake specific types of outreach and engagement activities.
2. **Essential Strategies:** Activities proven to successfully engage stakeholders.
3. **Secondary Strategies**: Activities that will enhance engagement efforts on an as needed basis.

SGMA-Required Strategies

SGMA strongly encourages broad stakeholder engagement in establishing GSAs and in developing and implementing GSPs. According to SGMA:

- "The groundwater sustainability agency shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the groundwater sustainability plan." [CA Water Code Sec. 10727.8(a)]
- "The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater." [CA Water Code Sec. 10723.2]

GSAs are given broad discretion in the methods and processes utilized to meet engagement requirements. SGMA explicitly authorizes GSAs to form Public Advisory Committees if they choose but does not require them to do so. The decision to form an advisory committee is left to the GSA(s) based on need and effectiveness of these processes within their communities. However, SGMA does have several GSA-specific requirements regarding public notice, public hearings, and public meetings. These include:

A. **Local agencies seeking to become a GSA** must issue public notice and hold a public hearing before doing so. The public notice must be consistent with Section 6066 of the Government Code. The hearing must take place in a county overlying the groundwater basin of interest. [CA Water Code Section 10723 (b)]

   Within 30 days of electing to be (or forming) a GSA, the GSA must inform the State of this development and its intent to manage groundwater sustainably. In doing so, the GSA must:

   a. Include a list of parties who wish to receive "plan preparation, meeting announcements, and availability of draft plans, maps, and other relevant documents"; and
   b. Explain how the interested parties' perspectives will be considered, both during the development and operation of the GSA and during development and implementation of the GSP. This information must also be sent to the legislative bodies of any city and county in the area covered by the plan.

Illuminating the term “interested parties,” SGMA requires that GSAs consider the interests of “all beneficial uses and users of groundwater,” along with entities expected to share responsibilities for implementing GSPs. As a starting point, SGMA specifies a number of types of “interested parties”. The GSA must maintain its list of interested parties on an ongoing basis. Anyone who wishes to be put on this list can do so upon making this request in writing. [CA Water Code Section 10730. (b) (2); 10723.2; 10723.4; and 10723.8. (a)]

**The above item (A) has already been complied with for the Turlock Subbasin.*

B. **GSAs planning to develop a GSP** must provide notice of their intent to do so to the public and the state before proceeding. The notice must describe opportunities for interested parties to participate in the development and implementation of the GSP. This written notice must be provided to the legislative bodies of any city or county located within the basin to be managed by the GSP. [CA Water Code Section 10727.8. (a)]

C. **A GSA seeking to adopt or amend a GSP** must provide notice to cities and counties within the area encompassed by the proposed plan or amendment, and consider comments provided by the cities and counties. Cities and counties receiving the notice may request consultation with the GSA, in which case the GSA must accommodate that request within 30 days.

   The GSA also must hold a public hearing prior to adopting or amending a GSP. There must be at least 90 days between the notice issued to cities and counties and the public hearing. [CA Water Code Section 10728.4]

D. **If a GSA intends to impose or increase a fee**, it must first hold at least one public meeting, at which attendees may make oral or written comments. This public notice must include information about the time and place of the meeting and a general explanation of the topic to be discussed.

   Public notice must be posted on the GSA’s website and mailed to any interested party who submits a written request for mailed notice of meetings on new or increased fees. (The GSA must establish and maintain a list of interested parties, and the list is subject to renewal by April 1 of each year.) The public notice must also be consistent with Section 6066 of the Government Code. In addition, the GSA must share with the public the data upon which the proposed fee is based, and this must be done at least ten days before the public meeting takes place. [CA Water Code Section 10730.(b)(1),(2), and (3)]

Essential Communication Strategies

The following strategies are proven successful at engaging Turlock Subbasin stakeholders. The GSAs shall incorporate these strategies to ensure that "interested parties" (as defined under SGMA) and other Turlock Subbasin stakeholder interests are considered in the development and operation of the GSAs and the development and implementation of the GSP.

A. **GSA Website(s) and Social Media Accounts**
   1. Maintain website www.turlockgroundwater.org with information about Subbasin planning efforts related to SGMA efforts, such as joint GSP planning activities and meetings, and other information.
      i. Site shall include various resources and materials, as needed and determined:
         a. Links to external sites such as Department of Water Resources (DWR), State Water Resources Control Board, relevant blogs, etc.
         b. Frequently Asked Questions (FAQ) and/or white papers
         c. GSA Documents such as Joint Powers Agreement, By-laws, etc.
         d. Meeting calendar
   2. Develop and regularly post pertinent information (e.g. upcoming public meetings and workshops, comment deadlines, etc.) to website and social media accounts. Social media to include associated FaceBook, Twitter, and YouTube accounts.

B. **Develop Regular Email Notices and Updates**
   1. Types of notices include:
      i. GSP development and planning updates
      ii. GSP implementation and enforcement updates
      iii. General GSA updates, including without limitation:
         a. GSA Board Meetings
         b. Technical Advisory Committee Meetings
         c. Public Workshops
         d. GSA Annual Reports
         e. Other SGMA related updates
            a. As the work evolves, **new items could be added to the list of update topics** that stakeholders are provided, to help highlight their importance (for example, an event like an annual forum, or an ongoing activity like groundwater monitoring).
   2. Schedule
      i. Notices should be sent bi-monthly, and/or
      ii. As needed.
   3. Content Development

i. Match content to the audience and their interests.
ii. Ensure information is easily understood. For example, notices to community members with less SGMA experience should be easily understood.
iii. Updates and messages should be condensed to **one page only**, provide a **succinct summary of the issue discussed**, and include links for further or additional information.
iv. As applicable**, specific items should have an estimated timeline and a designated point of contact**, including the person's position, email, and telephone.

4. Staff Responsible
    i. Membership of the Ad-Hoc Communications Committee, along with other Subbasin staff and in consultation with others as needed:
        a. **Develops the information content**.
        b. As needed, **communicates with other agencies to develop content and messages for joint efforts** (for example, on joint GSA meetings, or projects).
5. Dissemination
    i. Listserve delivered via email.
    ii. Information shared via webpage, Facebook and Twitter Accounts.
    iii. Information shared via direct mailers, as deemed appropriate.

C. **Provide Notice and Updates in Local Newspaper Periodicals**

1. Format:
    i. Advertisements or Public Notices.
    ii. Op-Ed articles or Earned media: Send information or a media release to regional media contacts that may preview the event or advertise. Wrap-up or follow-up articles written by staff are recommended.
    iii. Letters to the Editor
2. Types of notices for:
    i. Public workshops
    ii. Special stakeholder meetings (targeted meetings or special topic meetings)
    iii. Optional - standing meetings of particular interest
    iv. GSA Board meetings
    v. Technical Advisory Committee Meetings
    vi. Op-Ed Pieces on major issues of interest (see above for email updates)
        a. GSP development and planning updates

b. GSP implementation and enforcement updates
c. General GSA updates
d. Other SGMA-related updates
    a. As the work evolves, new items could be added to the list of update topics

3. Schedule
    i. Advertisements (if applicable): allow 21 to 30 days advance (with content approved)
        a. Identify advertisement space
        b. Develop content
    ii. Letters to Editor: allow up to two weeks for preparation of letter and posting. Letters to the Editor can be published easily without advertisement space.
    iii. Posting: minimum of one week in advance of meetings for placement final advertisement.
4. Content Development
    i. Identify designated point of contact, including the person's position, email, and telephone.
    ii. Match content to the audience and their interests.
    iii. For longer pieces ensure information is easily understood with relevant links for additional details.
5. Staff Responsible
    i. Membership of the Ad-Hoc Communications Committee, along with other Subbasin staff, and in consultation with others as needed:
        a. Develops the content and coordinates securing space and posting.
        b. As needed, communicate with other agencies to develop content and messages for joint efforts (for example, on joint GSA meetings, or projects).
        c. As needed, conduct personalized, frequent outreach to media contacts up to two weeks in advance of scheduled publication. Outreach via direct phone calls and personalized emails strongly suggested to ensure information is shared.
6. Dissemination may include:
    i. Modesto Bee
    ii. Turlock Journal
    iii. Weekly, small community periodicals

D. **Institute Regular Stakeholder Engagement Opportunities**

1. Standing Business Meetings
    i. GSA Board meetings
    ii. Technical Advisory Committees (TAC) meetings
2. Schedule Public Workshops
    i. Biannual and as needed
    ii. Public workshop content
        a. Updates on GSA formation and coordination activities
        b. GSP background (see GSP Topics for details)
        c. Intent to develop GSP and outline of opportunities for interested parties to participate in the development and implementation of the GSP
        d. Updates on GSP planning and development
        e. Notice of GSA intent to adopt or amend a GSP
        f. Updates on groundwater management activities in the Subbasin
        g. Notice to impose fees

E. **Coordinate with Local Special SGMA Identified Groups and Groups Not Easily Engaged**
    1. See Targeted Communication Strategies in Appendix II for details on how to engage such groups.
        i. Groups include: Disadvantaged Communities (DACs), underrepresented communities, Latino communities, and remote private pumpers.
        ii. Recommendation: Develop volunteer coordinator to manage targeted audience outreach activities and coordinate activities among outreach team.

Secondary, Conditional Communication Strategies

The following strategies and activities are options for increased stakeholder engagement, or to address particularly difficult discussions either due to political factors or limited stakeholder knowledge of content. These are for consideration on an as-needed basis to generate more or specialized stakeholder engagement and participation.

A. Develop and update Frequently Asked Questions (FAQ) document
B. Create an inexpensive informational brochure
C. Develop a strategic media plan, including short informational videos
D. Actively cultivate relationships and updates with state and local elected officials
E. Participate in related planning efforts in the local area and region
F. Create an annual electronic newsletter (annual report)
G. Engage stakeholders through personal outreach of members of Ad Hoc Communications Committee

Table of Strategic Communication & Schedule

The following outlines a list of existing and planned communication milestones the GSAs should consider for stakeholder outreach and engagement, identifies a process to coordinate resource management and updates, and a structure to assess cost-sharing and in-kind contribution for outreach and engagement activity by the GSAs.

Communications Schedule

To employ the Communication Plan effectively, the GSA will need to develop a schedule for the outreach and engagement activities (Figure 1, next page). Figure 1 only includes those milestones required under SGMA and identified as essential strategies. Please see Appendix III for recommendations for developing and implementing communications strategies, and Appendix IV, for comprehensive Work Plan for GSP development, including outreach and engagement opportunities.

Remainder of this page intentionally left blank.

Figure 1: Summary of Engagement Opportunities and Milestones

Timeframe	Milestone or Stage	Required Community Engagement Under SGMA	Additional (Essential / Secondary) Communication Recommendations	Completed
After GSA formation, before GSP development activities	After transition of outreach responsibilities to GSAs		▪ Provide Notice of GSA outreach resources: website, email listserv, calendar of GSA TAC meetings and GSA Board meetings.	▪ Ongoing
After GSA formation but before GSP planning activities	Prior to beginning GSP development	Provide to the public and state notice of intent to begin GSP development and description of opportunities for interested parties to participate in GSP development and implementation.	▪ Public workshop on general GSP development information (e.g. required components of a GSP, how sustainability indicators are developed, etc.) ▪ Email notice and updates ▪ Newspaper notice of Public Workshop	▪ In progress
Between Notice of GSP Planning and October 31, 2021	During GSP Development	Ensure interested parties have an opportunity to engage in GSP development	▪ Targeted Audience Communication Strategy	▪ In progress
Between Notice of GSP Planning and October 31, 2021	During GSP Development	Public Workshops or Meetings providing Stakeholder opportunities to participate in GSP Development	*Essential* ▪ Public workshop or meeting(s) on GSP development. See topics for GSP development (e.g. basin conditions, GSP roadmap, etc.) ▪ Email notice of Public Workshop ▪ Newspaper notice of Public Workshop *Secondary* ▪ Meet with editorial boards of Turlock Journal or Modesto Bee to	▪ In progress

Timeframe	Milestone or Stage	Required Community Engagement Under SGMA	Additional (Essential / Secondary) Communication Recommendations	Completed
			explain intent and approach. ▪ Develop handouts ▪ Develop media strategies on topics of special interest or concern.	
See above	During GSP development	Active involvement of diverse social, cultural, and economic elements of the population within the Subbasin	*Essential* ▪ Provide bi-monthly email notices and updates ▪ Update website regularly ▪ Convene monthly or bi-monthly meetings of Technical Advisory Committee, quarterly or more frequent meetings of GSA Board, and identify opportunities for public engagement. Provide clear messages that GSA retains legal responsibility for final GSA and GSP-related decisions; and provide public comment opportunity at each meeting. ▪ Arrange for technical support to stakeholder groups through presentations or workshops. *Secondary* ▪ Update area legislative bodies at strategic mileposts (and any group upon request)	▪

Timeframe	Milestone or Stage	Required Community Engagement Under SGMA	Additional (Essential / Secondary) Communication Recommendations	Completed
GSP adoption no later than January 1, 2022	Prior to GSP adoption or amendment	▪ Provide notice to cities and counties within area encompassed by the proposed plan or amendment ▪ Consider comments provided by the cities and counties. ▪ Accommodate requests for consultation received from the cities and counties within 30 days.	▪ See above	▪
GSP adoption no later than January 1, 2022	Prior to GSP adoption or amendment	▪ No sooner than 90 days following public notice, hold public hearing/ public Workshop	▪ See above	▪
Prior to GSA imposing fee or increasing fee	If GSA intends to impose or increase a fee	▪ Provide public with access to the data serving as the basis for the proposed fee, the time and place of explanatory public meeting, and general explanation of topic to be discussed. Post on project website and mail to any interested party who submits written request for mailed notice of meetings on new or increased fees. ▪ No sooner than 10 days following public notice, hold public meeting.	▪ See above	▪

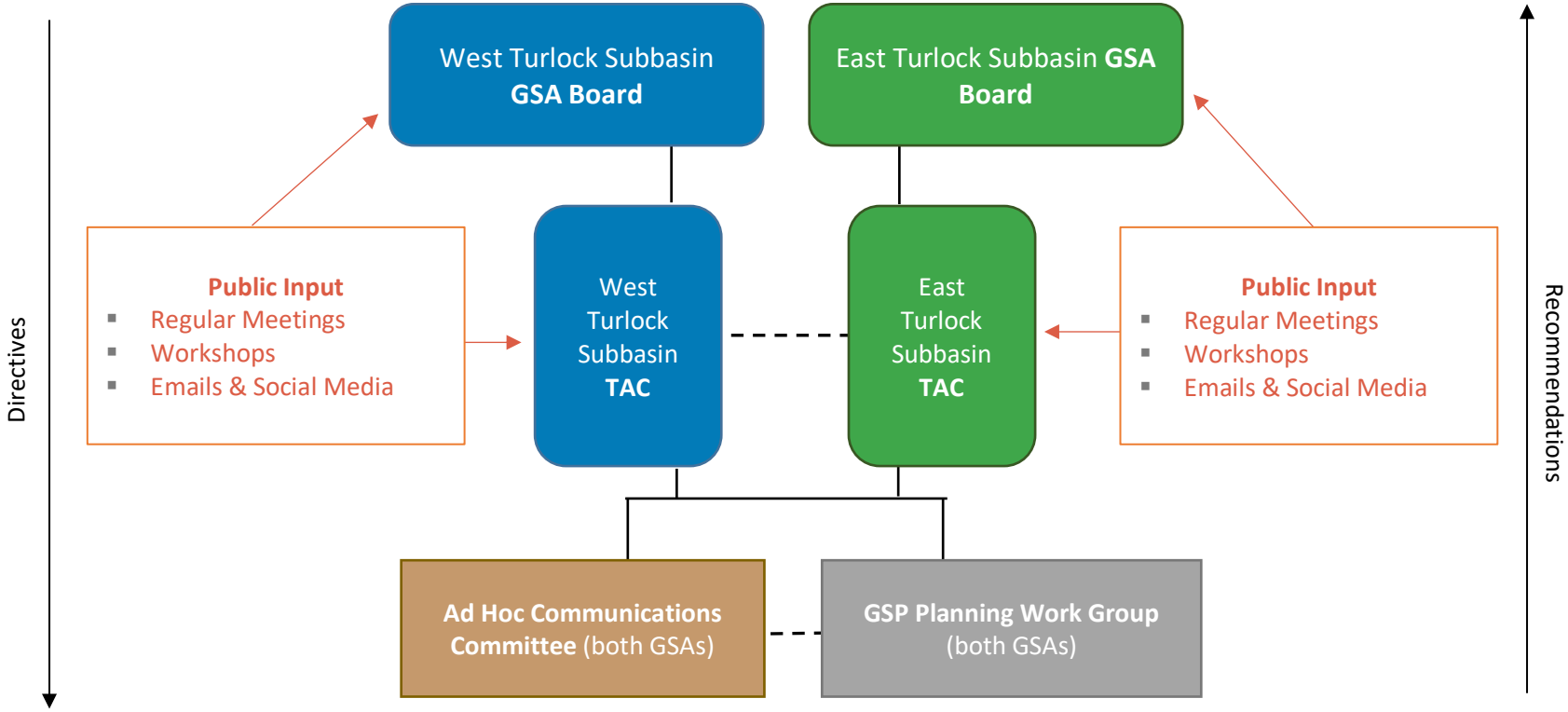
Communication Resource Maintenance

Communication resource materials will need development and periodic updates. The Resource Maintenance Schedule (Figure 2) provides details regarding responsible parties and indicates resources shall be updated by GSAs regularly pursuant to the proposed schedule or as needed. Likewise, Subbasin GSAs may seek to coordinate certain resources (see Appendix II).

Figure 2: Resources Maintenance Schedule

Resource / Maintenance Activity	Activity Priority	Responsible Party for Maintenance	Frequency of Update	Resource location
Identify Available Resources	Initial	GSAs (specify staff as available)	Initial assessment	Variable
Website Content	Tier 1	Ad Hoc Communications Team	Monthly and as needed	Turlockgroundwater.org
Calendar of GSA meetings (Board and Technical Advisory Committee)	Tier 1	Ad Hoc Communications Team	Quarterly and as needed	Website Calendar Page
Interested Parties List/ Listserves	Tier 1	GSAs and Ad Hoc Comms. Team	Quarterly and after meetings/ Public Workshops	Turlock Irrigation District Staff
Resources/Materials (e.g. FAQ handouts, Flyers, brochures, Presentations)	Tier 2	GSAs and Ad Hoc Comms. Team	In advance of Public Workshops, and as needed	Website Resources Page
Social media accounts	Tier 2	Ad Hoc Comms. Team	In advance of Public Meetings, and as needed	Twitter FaceBook YouTube
Media contacts	Tier 2	GSA (specify staff as available)	Bi-annually	
Revised inventory items for ongoing communication with Targeted audiences (e.g. Latino community roundtables, farm bureau, etc.)	Tier 3	GSA (specify staff as available)	As needed	
Stakeholder Engagement Tracking Tool/Database (see Appendix I)	Tier 3	Ad Hoc Comms. Team	As needed	Turlock Irrigation District Staff

Appendix I: Governance Model



Appendix II: Targeted Communication Strategy

A. **Introduction**: The purpose of this strategy is to identify and engage stakeholders that are not currently active in SGMA activities or are more difficult to engage.

B. **Goal**: The goal is to go to these groups where they regularly meet and ensure they understand the SGMA process, how it will or will not impact them, understand how they can engage in SGMA activities and feel comfortable engaging in *essentia*l and *required* engagement strategies.

C. **Guiding principle**: The GSAs acknowledge that for some groups, community leaders must go to their local stakeholders, build trust, and present information in a way that is culturally acceptable and understandable.

D. **Process:** See table.

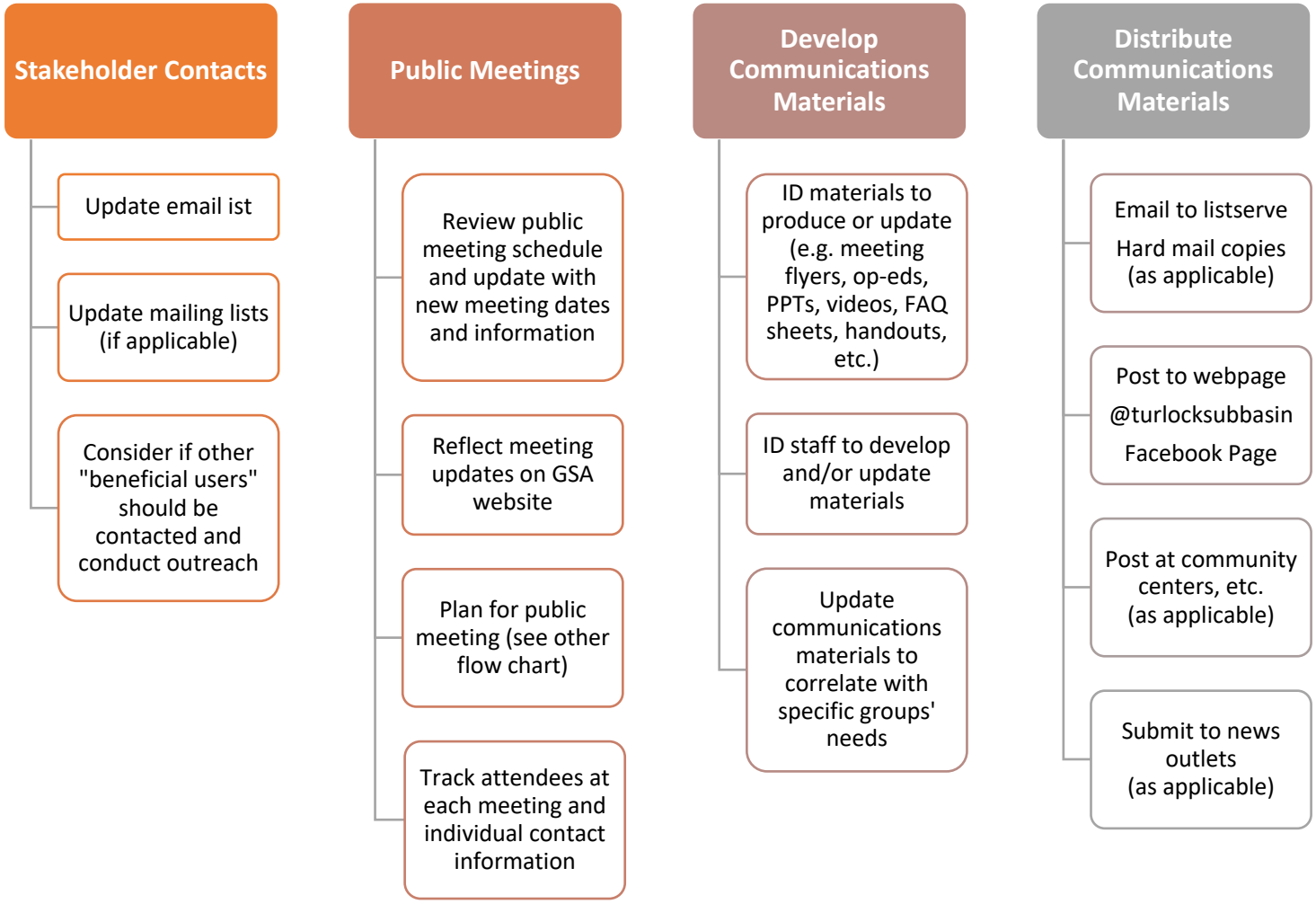
Item	Task	Recommendations	Person(s) Responsible	Next Steps
1.	Identify stakeholder groups to engage. These will be people who are designated "beneficial users" who are not currently involved or participating in SGMA or GSA related discussions.	• Latino Community Roundtables • School Districts • Private pumpers	Herb Smart, Walt Ward, others	Pull initial contact lists from TGBA Operations Committee
2.	Identify who at the GSAs are responsible to develop communications with different stakeholders	Identify single staff for coordination of activities. As feasible, identify additional individuals with pre-existing relationships as Point Contact with specific groups.	Herb Smart, Kevin Kauffman, others	Present at GSA meetings
3.	Identify ongoing meetings, or other opportunities to coordinate and communicate with different stakeholders (i.e. pre-existing meetings that these groups already attend)	Develop a list of meetings to attend and give presentations about the GSAs and SGMA. For example, meetings of the Latino Communities Roundtable, local Farm Bureaus, or school boards, etc.	Ad hoc Comms. Team	Develop list
4.	Identify cadre of staff to develop presentation and other communication	Cadre to include: 1. Technical expert 2. Communications	Ad hoc Comms. Team	

Item	Task	Recommendations	Person(s) Responsible	Next Steps
	materials. This may include development of short informational videos.	expert to identify how to adapt materials to be relevant to specific audiences.		
5.	Update outreach materials to correlate with specific Groups. For example, provide materials that groups will understand and relate to.	Use standing communication materials about SGMA and GSAs formation, and revise/tailor to address different stakeholder groups' needs/questions. Utilize images, work with members of that community or group in developing materials and assessing issues of interest.	Ad hoc Comms. Team	See recommendations column
6.	Create list of meetings/outreach opportunities, and track meetings attended and the meeting/outreach opportunity contact	Tracking table or list should include: • Name of group's meeting or event (e.g. Farm Bureau or school board) • Date of meeting • Presenters from GSA(s) • Which presentation or information shared • Who was the group contact that you worked with to setup/ coordinate the presentation or outreach participation?	Ad hoc Comms. Team	See recommendations column

Item	Task	Recommendations	Person(s) Responsible	Next Steps
7.	Confirm schedule for regular interaction and updates to these groups	Utilizing Tracking Table confirm frequency of interactions, plan on multiple meetings with groups	Ad hoc Comms. Team	See recommendations column
8.	Identify when groups trust the GSAs' engagement process and understand issues to participate in Public Workshops and standard engagement strategies.	The goal is to transition these groups into the public workshops. This may take less time with some groups than others. Likewise, due to cultural differences ongoing targeted outreach may be required.		

Remainder of this page intentionally left blank.

Turlock Subbasin GSP Outreach & Engagement Process Overview



Appendix III: Recommendations for Developing and Implementing Communication Strategies

Workshop Logistics Planning Example

A. **Schedule Workshop:** with 21-30 days advanced notice; all parties agree on a suitable date and time for workshop(s). Consider timing of workshops based on target audiences. Alternatively consider hosting identical workshops one in the morning and one in the evening to target multiple audiences.

B. **Venue:** select the venue with at least 30 days in advance, giving time to complete contracts (if not free). Utilize Member agency locations throughout Subbasin. The following locations have proven successful: Ceres Community Center and Denair Community Center. Other location resources include:

Venue	Location	Capacity	Point of Contact
Denair Community Center	3850 N. Gratton Road, Denair (209)634-4986	Up to 300	Denair Municipal (David O.)
Ceres Community Center	2701 Fourth Street Ceres, CA 95307 (209)538-5629	Up to 200	Ceres City (Recreation Department or Loretta Webb),
Cortez Hall	12802 Cortez Ave, Turlock, CA 95380	Up to 75	Dennis Yatsuya
CC Wright Hall ("Turlock War Memorial")	247 E. Canal Drive Turlock, CA 95380 (209) 883-8300	*Currently under renovation	
South Modesto/Municipal Advisory Council			
Various Stanislaus County Agricultural Meeting Rooms	3800 Cornucopia Way, Modesto, CA 95358	*Smaller attendance options	

C. **Refreshments** (optional)**:** 7-14 days prior to the meeting, determine what food will be necessary. Depending on the length of the meeting and timing (i.e. a six-hour workshop

from 10am-4pm would require lunch, evening meetings should include snacks or dinner) determine if simple refreshments, lunch, or dinner are required. Consider arranging for delivery or pick-up prior to the meeting.

D. **Materials:** develop materials 7-14 days prior to the meeting. Determine if translation services are required.
E. **Translators:** may include Spanish or Hmong speakers. Translation may include translation of materials and/or in-person translation. If the meeting will require in-person translators, identify these persons 30 days in advance.

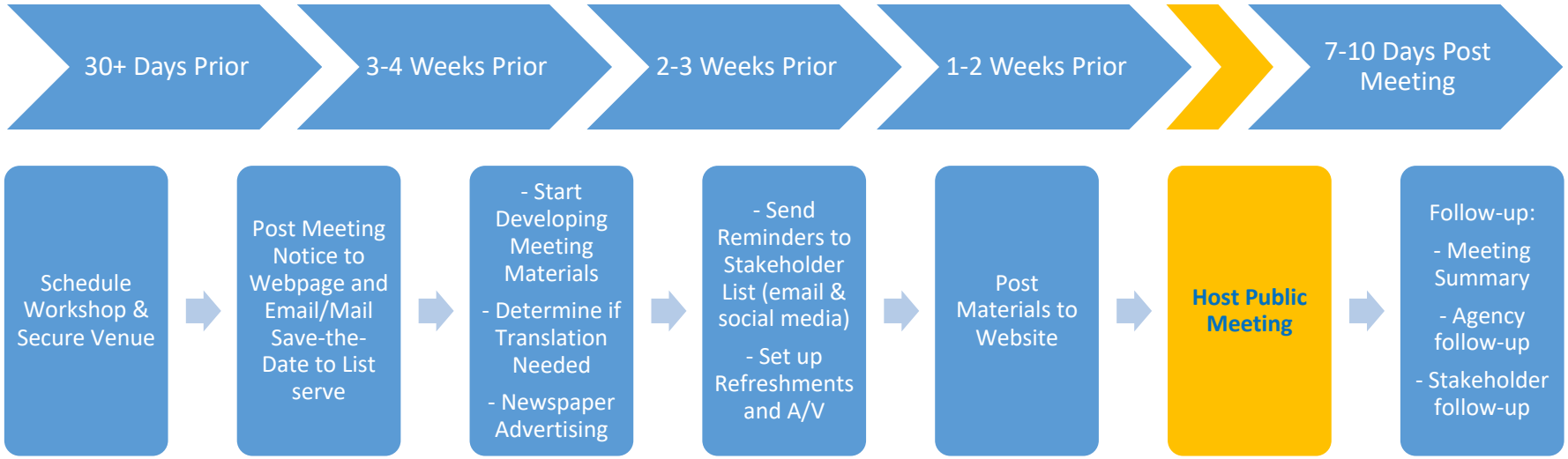
Workshop Outreach Strategies Example

A. **Newspaper advertising:** with 14-21 days advance notice and clear messaging approved by GSA.
B. **Stakeholder Interested Parties list dissemination:** GSA and member agencies send information to customers via standard outreach protocols (posting in buildings, Board meetings, websites, newsletters, customer flyers, etc.)
C. **E-mail notice** to existing interested parties list.
    1. Also promote to specific stakeholder groups:
        i. Latino Community Roundtable
        ii. Latino Emergency Council
        iii. Farm Bureau
D. **Social media:** Utilize existing or created Facebook or Twitter accounts.
E. **GSA website:** Post materials and update homepage with call to action.

Workshop Follow-up Example

A. **Meeting Summary:** within 7-10 business days, develop a meeting summary highlighting action items, presentation content, stakeholder questions, and any discussion held. Include list of attendees for documentation.
B. **Agency Follow-up:** within 7 business days, contact agency staff to debrief on workshop. Identify pros and cons of the meeting, lessons learned, and any improvements to make. Discuss roles, responsibilities, and deadlines for action items. Identify and obtain GSA approval on key messages for stakeholder follow-up.
C. **Stakeholder Follow-up:** at the meeting or within 7 days, distribute a workshop evaluation for feedback on communication practices, content, and improvements to make. Create a summary of the evaluation responses.

Example Public Workshop Planning Process



Outreach Transition to Activities Performed by the Communications Committee

This Communications Plan guides the GSAs in managing stakeholder outreach and engagement. The Communications Plan indicates outreach activities will primarily be performed by the Communications Committee. The recommended process is as follows:

A. Develop a work plan and timeline that includes the following elements:
    1. Inventory current SGMA outreach and engagement activities conducted by the GSAs and Member Agencies. For example:
        i. Calendar of GSA meetings (Board and TAC)
        ii. Scheduled events (Public workshops and targeted audience meetings)
        iii. Website(s)
        iv. Listserves
        v. Social media accounts
        vi. Media contacts
B. Identify which resources will be housed and maintained by each GSA and/or Member Agencies.
C. Identify which resources will be managed as an in-kind contribution by the GSAs or GSA Member Agency.
    1. Identify how shared centralized resources will be managed (e.g., joint website, workshop agendas, presentations, handouts, and other).
        i. In-kind contributions
        ii. Cost-share
        iii. Identify a point of contact to manage shared resources (e.g. GSA staff, third party consultant paid through, Member Agency).
    2. Confirm process for document control and sign off by GSAs.
        i. Confirm process for sharing updated resources (i.e. once resources are updated how they are shared/disseminated).
D. Identify activities that will be transitioned to GSAs.
    1. Confirm activities that GSA will need to take over and/or its Agencies will continue as part of standard business operations.
E. GSA confirm schedule for transition on resources that are not shared.
    1. Identify when the GSA website will be active.
    2. Confirm updates to Interested Parties List.
    3. Establish email listserv (constant connect or similar).
    4. Confirm GSA staffing for outreach activities (new staff, agreed member in-kind contributions, etc.)
    5. Time GSA updates to stakeholders occur before shut-down of existing sites or removal of groundwater information (if applicable).
F. Develop communication (email update, flyer, etc.) to stakeholders of transition.

Task	Recommendations	Entity Responsible
Identify engagement tools and process for stakeholder engagement (e.g. websites)		Communications Committee and GSA Member Agencies
Identify which function will be taken over by which GSA (e.g. website maintenance)		Communications Committee and GSA Member Agencies
Identify and confirm GSA timeline for taking over the function. For example, when will they establish a website, and when should newsletters go out, etc.	Inform stakeholders of transition (for example, posting on website of transition and providing links to new website.	Communications Committee and GSA Member Agencies
Follow-up with transition for those who missed the messages (30-60 day period)		Communications Committee and GSA Member Agencies
Identify content for the website		Communications Committee and GSA Member Agencies
Contract with web designer/site host		GSA
Pick a date to make the website public		GSA
Identify ways to publicize the website	See *essential strategies* for complementary steps	Communications Committee and GSA Member Agencies
Identify staff to maintain website		GSA
Develop schedule to post updates, refresh website content		Communications Committee and GSA Member Agencies
Develop distribution lists		Communications Committee and GSA Member Agencies
Share the distribution lists		Communications Committee and GSA Member Agencies
Identify ways for people to join the listserv		Communications Committee and GSA Member Agencies
Identify who will manage the listserv		GSA

Task	Recommendations	Entity Responsible
Develop schedule to send communications and updates out via the listserv		Communications Committee and GSA Member Agencies
Assess what content goes out via listserv, and who will create those messages		Communications Committee and GSA Member Agencies

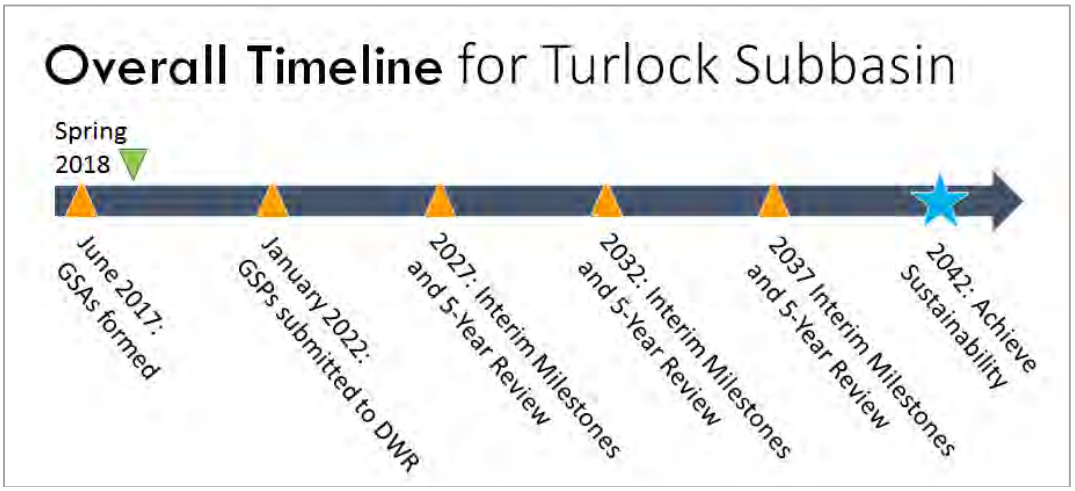
Website Design and Management Considerations

A. Design Recommendations: To prevent confusion and inefficient coordination, the GSAs need to determine whether to have a joint website for shared meetings and events and Subbasin activities (i.e. GSP development) or to have individual websites with a direct/obvious link to the other GSA website regarding specific individual activities. The **goal is to have a clear way to consistently share/announce joint meetings in a way that prevents stakeholder confusion about meetings and GSP planning.**

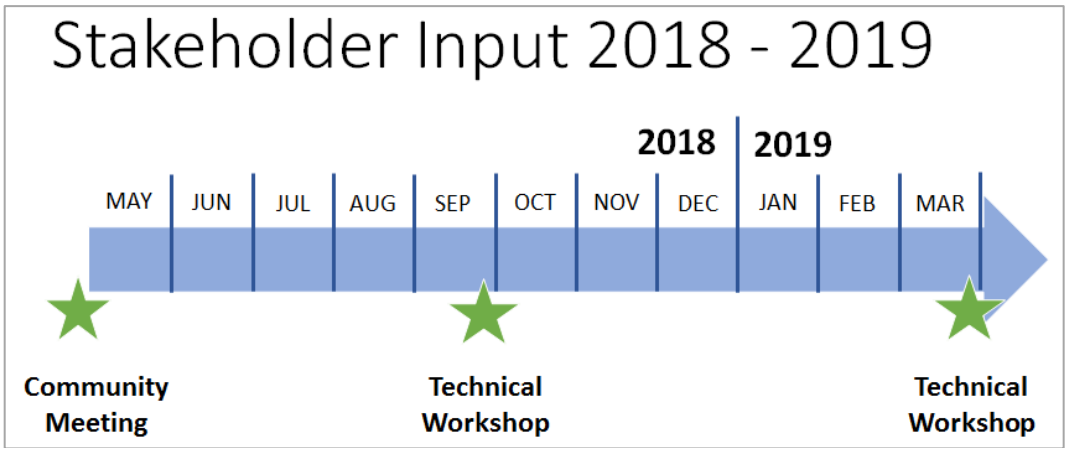
a. The website www.turlockgroundwater.org is now active and represents both GSAs. The website will house GSA, TAC and other public meeting announcements, calendars, schedules, formation documents, and specific/individual GSA updates, messages and resources.

Appendix IV: Work Plan for GSP Development

An overview of Turlock Subbasin activities is provided in the following graphic:



Stakeholder Input is demonstrated on the following graphic:



Public meetings will be announced on the Turlock Subbasin website, via social media accounts, and print materials as described in Appendices I and II. More detailed meetings schedules are provided in the Subbasin Work Plan and public meeting calendar, available at https://turlockgroundwater.org/meetings/. The below calendar is a listing of **Public Workshops and Technical Workshops** only through May 2019. Information on GSA, TAC and Adjacent Subbasin Coordination meetings are online.

Date and Time	Meeting Name	Address	Major Topics	Point of Contact
April 18, 2018 6:00 – 8:00 pm	Public Workshop #1	Ceres Community Center 2701 4th St, Ceres, CA 95307	• Official "launch" of Communications Committee • Review GSP Milestones/Action Plan • Provide opportunity for GSAs and stakeholders to determine level of stakeholder engagement desired and establish feasibility of the timeline incorporated in the GSP Action Plan	Stephanie Lucero, CCP
June 20, 2018 3:00 – 5:00 pm	Public Workshop #2	Turlock Irrigation District, Room 203 333 E. Canal Dr. Turlock	• Training for targeted communication and engagement that is detailed within the current basin-wide Communication Plan.	Stephanie Lucero, CCP
August 23, 2018 2:00 – 4:00 pm	Technical Workshop #1	Denair Community Center 3850 N. Gratton Road, Denair	• This meeting will update the GSAs and the public on GSP development activities, including Plan Area and Basin Setting	Phyllis Stanin, TODD Engineering
December 13, 2018 2:00 – 4:00 pm	Technical Workshop #2	Ceres Community Center 2701 4th Street, Ceres	• This meeting will update the GSAs and the public on GSP development activities, including hydrogeologic and water budget modeling	Phyllis Stanin, TODD Engineering
March 12, 2019 4:00 – 6:00 pm	Public Workshop #3	Denair Community Center 3850 N. Gratton Road, Denair	• Updates on GSP content development, including basin setting and hydrogeologic modeling	Meagan Wylie, CCP

Appendix E-2
Stakeholder Gap Analysis

Stakeholder Gap Analysis Memo

As described in Chapter 3 of the Turlock Subbasin Groundwater Sustainability Plan (GSP), an ad hoc committee was assembled to develop a Communications Plan for GSP development. This plan laid the foundation for outreach and engagement with Turlock Subbasin stakeholders (individual stakeholders, organizations, and other interested parties) in groundwater management activities that achieve broad, meaningful, and enduring public involvement.

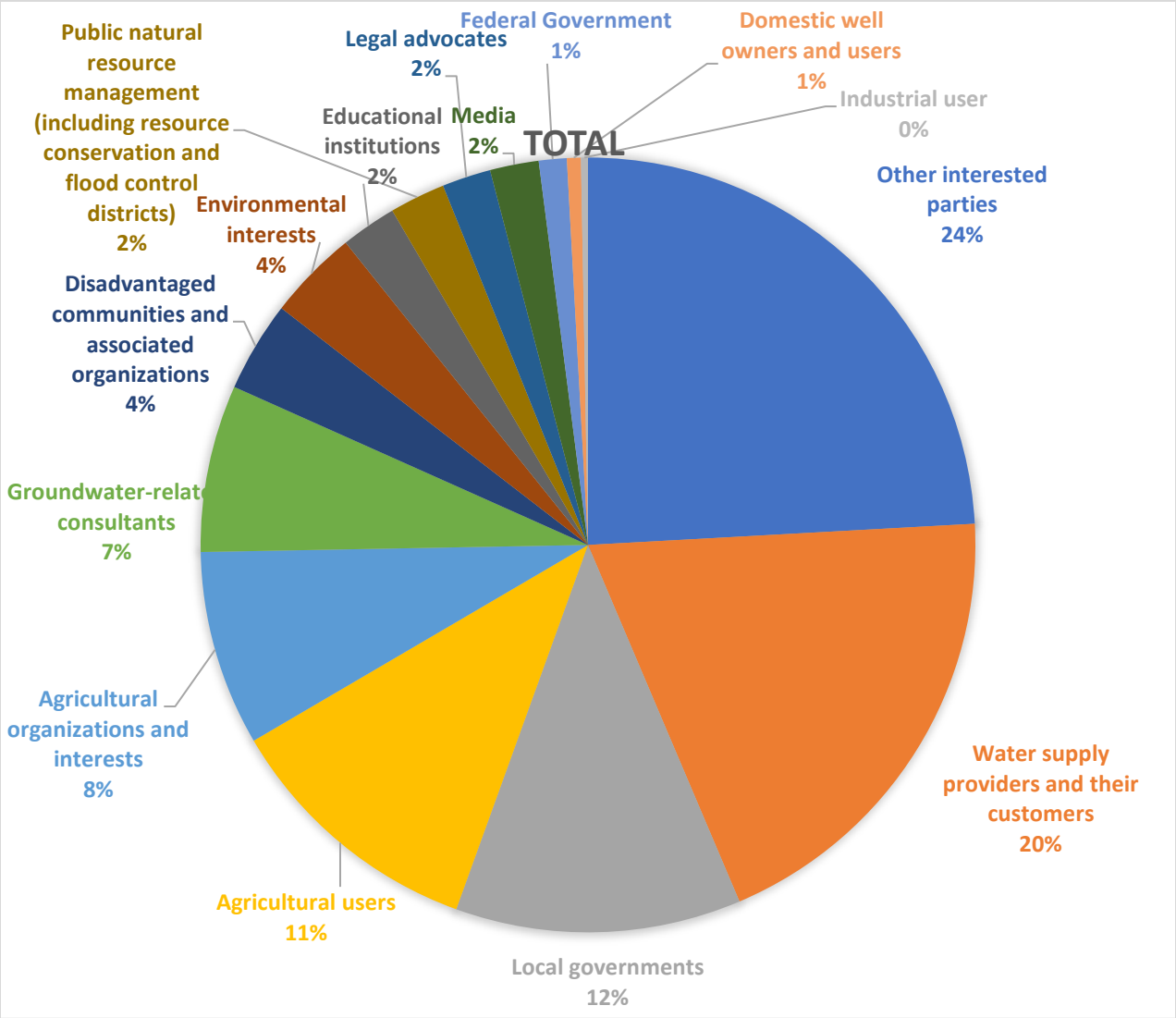
The Turlock Subbasin's two Groundwater Sustainability Agencies (GSAs) began maintaining an interested parties list in 2017 during GSP development. Stakeholders in the list were classified by their assumed water user type. The list has been updated to include interested parties who have requested to be added through various stakeholder engagement forums. Some of these forums included meetings held by the GSAs and/or their member agencies, Technical Advisory Committee meetings, Community Workshops, Virtual "Office Hours," and other events or presentations. Interested public members were also added to the list by signing up via the Turlock Groundwater website at turlockgroundwater.org/get-involved. As of December 2021, the Interested Parties List had 344 unique subscribers.

To ensure the GSP considers the interests of beneficial uses and users in the Subbasin, the April 2019 Communications Plan listed in Appendix E-1 categorized stakeholders by water user type. To conduct the Stakeholder Gap Analysis, individuals were organized into the following categories:

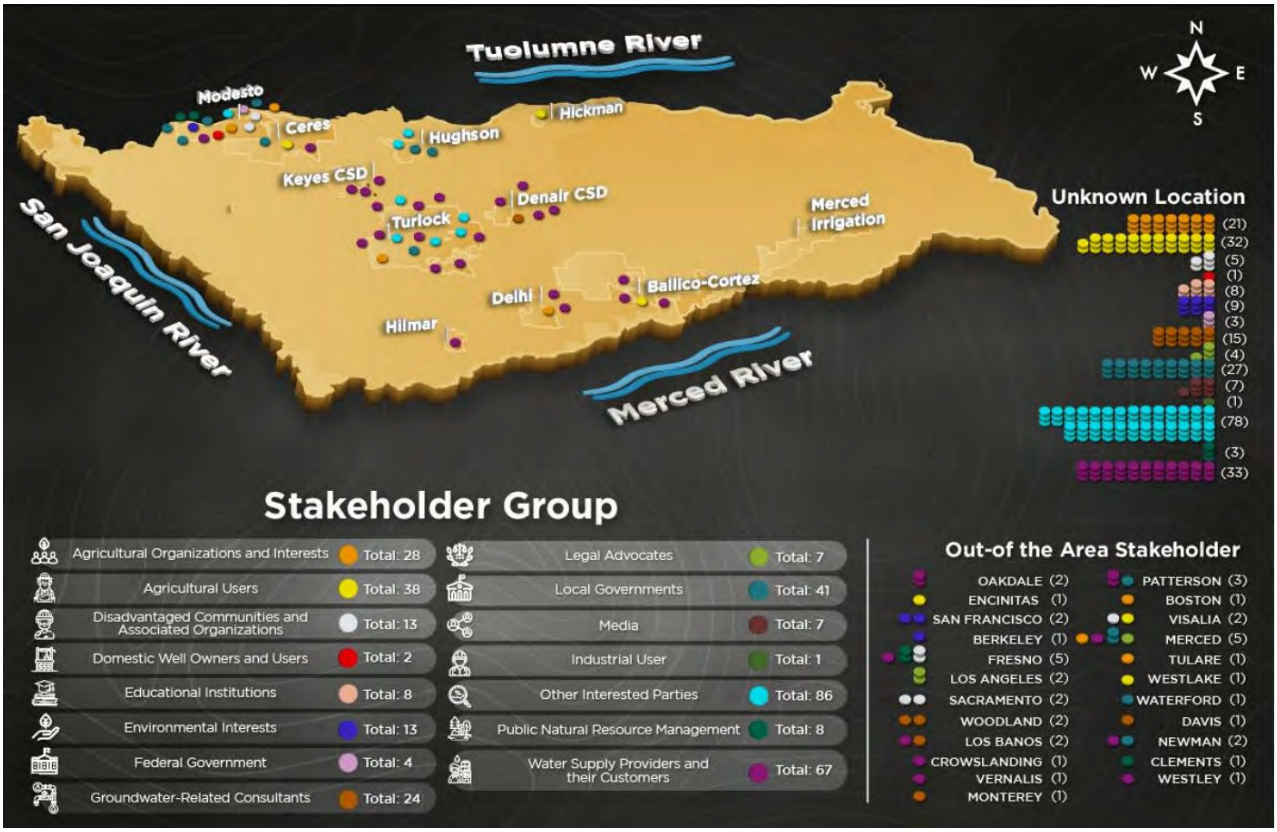
Agricultural organizations and interests
Agricultural users
Disadvantaged communities and associated organizations
Domestic well users
Educational institutions
Environmental interests
Federal government
Groundwater-related consultants
Legal advocates
Local governments
Media
Industrial user
Other interested parties
Private rural domestic well pumpers
Public natural resource management (including resource conservation and flood control districts)
Surface water users
Tribal interests
Water supply providers and their customers
State Agency

Three hundred seven (307) stakeholders were assigned a primary stakeholder category only and thirty-seven (37) stakeholders were assigned both a primary and a secondary category, for a combined total of 344 stakeholders. The result of this analysis is the development of a stakeholder map which illustrates the assumed or self-identified location of the stakeholders within and outside of the region, an analysis of potential gaps, and recommendations for future stakeholder engagement in the region.

The pie chart below provides a visual representation of the breakdown of the type of stakeholder groups that make up the Interested Parties List. Other Interested Parties were stakeholders that did not identify in any of the categories listed above. The three largest stakeholder groups represented on this list were Other Interested Parties (83 individuals), Water Supply Providers and their Customers, (67 individuals), and Local Governments (41 individuals). The three least represented stakeholder groups were the Industrial Users (1 individual), domestic well owners and users (2 individuals), and the federal government (4 individuals).



The map below illustrates an informal and cursory distribution of stakeholders who provided mailing addresses within and outside the Subbasin and the stakeholder group types represented in the Interested Parties List. The Interested Parties list is the best available documentation of stakeholders interested in Turlock Subbasin GSP development; however, the list is not exhaustive or perfect and will be modified throughout GSP implementation. The list is not intended to be fully representative of the Turlock Subbasin water users. As previously mentioned, there are 344 individuals on the list who receive updates and information about GSP development and implementation. Twenty-six (26) of the individuals on the list provided mailing addresses outside of the area and are illustrated on the map key on the bottom-right of the graphic. The individuals on the right of the graphic represent individuals that provided contact information, but their location is unknown.



The map illustrates the number of stakeholders divided into categories and placed on the map based on the general location of the address provided within the Interested Parties List. Multiple stakeholders with addresses outside the Turlock Subbasin boundary were added to the Interested Parties List; these stakeholders were not depicted on the map but are an essential component of the overall outreach and stakeholder engagement process. There were also many stakeholders that did not provide a mailing address, zip code, or phone number to decipher where they were located and their location is unknown.

The analysis demonstrates that the mailing addresses of most stakeholders are located within or in the proximity of urban areas within the Turlock Subbasin. Most stakeholder mailing addresses are in disadvantaged, severely disadvantaged, and economically distressed areas. Upon overlaying the map above and the Active Public Supply Wells map on Figure 2-10 of the GSP (Section 2.3.2.3), it was determined that most stakeholders' mailing addresses were primarily situated within proximity of Active Public Supply Wells (Figure 2-10 of the GSP) and Dry Wells, as identified by Stanislaus County, Dry Wells Program (Figure 2-12 of the GSP).

According to Chapter 2 Plan Area of the GSP, as of 2015 approximately 70 percent of the Subbasin is defined as irrigated agriculture (about 245,000 acres). About 13 percent of the basin is classified as urban (approximately 44,000 acres), including the cities and urban communities of Turlock, Hilmar, Delhi, Keyes, Hughson, Denair, Hickman, South Modesto and Ceres. The remaining 17 percent of the Subbasin (about 59,000 acres) consists of non-irrigated agriculture, undeveloped land, and surface water**.** Most of the undeveloped land is in the eastern portion of the Turlock Subbasin. As determined through data analysis and illustrated on the map, stakeholders on the Interested Parties List have mailing addresses in the West Turlock Subbasin GSA. This is predominantly because the majority of the population in the Subbasin lies within West Turlock Subbasin GSA's jurisdiction, including at least some owners of irrigated properties in the East Turlock Subbasin GSA. However, it also appears that residents in the East Turlock Subbasin GSA may not have responded as much to invitations during public meetings and on the Turlock Groundwater website to sign up for the Interested Parties List.

RECOMMENDED NEXT STEPS

Further outreach should be conducted in Riverdale Park, Rouse, and Hickman communities which are currently underrepresented on the Interested Parties List. Although these communities were part of the stakeholder engagement process, members from these communities are not subscribed to the Interested Parties List. An emphasis should be made to engage industrial users and domestic well owners and users. Combined these three groups make up six stakeholders or two percent of the entire list.

As stated in Chapter 3 Notice and Communications of the GSP, a 2019 American Community Survey indicates that an estimated 8,051 (4.6 percent) of Stanislaus County households and 9,758 (12.2 percent) of Merced County households are limited English speaking households who speak primarily Spanish in their homes (GSP Section 3.5). The Turlock Subbasin GSAs will continue to provide translated and easy to read collateral material about GSP implementation and will continue to offer GSP workshops and meetings in Spanish when possible.

The Domestic Well Mitigation Program discussed in the GSP (Section 8.4.3) will include an education and outreach program developed in a public and transparent manner. The Domestic Well Mitigation Program will include workshops targeted at domestic well owners and users. In addition, a domestic well registration program will be assessed and considered during GSP implementation.

A series of additional stakeholder surveys, community workshops, and targeted social media advertising may also help to increase the number of participants from these areas. Community meetings and targeted advertising would allow the GSA to identify additional interested parties and illustrate the GSA's commitment to capturing feedback within all communities of the Subbasin. These additional recommendations are consistent with and fall under the ongoing outreach implementation component of the GSP (GSP Section 9.1.3).

The East Turlock Subbasin GSA will need to continue and increase its specific efforts to encourage and acquire new stakeholders within its GSA boundary. The ETS GSA has developed outreach materials regarding the GSP, including a Frequently Asked Questions Sheet and a Technical Fact Sheet and has been using these materials to reach out to constituents in Eastside Water District, Ballico-Cortez Water District and Stanislaus and Merced Counties to make them aware of GSP efforts, findings and management strategies, and to encourage participation in the development of the management action frameworks needed to achieve sustainable groundwater management. Additional public workshops are planned for this purpose in early 2022 in Stanislaus County, Merced County, and in conjunction with Eastside Water District, Ballico-Cortez Water District and Merced Irrigation District.

Appendix E-3
NAHC response regarding Sacred Lands File

E

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

NATIVE AMERICAN HERITAGE COMMISSION

August 31, 2021

Herb S. Smart
Turlock Irrigation District

Via Email to: hssmart@TID.org

Re: East and West Turlock Sub-basin Ground Water Sustainability Agencies, Stanislaus and Merced Counties

Dear Mr. Smart:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
August 30, 2021

Calaveras Band of Mi-Wuk Indians
Gloria Grimes, Chairperson
P.O. Box 899 Mi-Wuk
West Point ,CA 95255 Miwok
Calaverasband.MiwukIndians@gmail.com
(209) 419-5675

California Valley Miwok Tribe
14807 Avenida Central Miwok
La Grange ,CA 95329
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
P.O. Box 1159 Miwok - Me-wuk
Jamestown ,CA 95327
lmathiesen@crtribal.com
(209) 984-9066
(209) 984-9269

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232 Ohlone / Costanoan
Castro Valley ,CA 94546
marellano@muwekma.org
(408) 205-9714

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme A. Valdez, Chairperson
P.O. Box 580986 Miwok
Elk Grove ,CA 95758-001
valdezcome@comcast.net
(916) 429-8047 Voice/Fax
(916) 396-1173 Cell

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 Ohlone/Costanoan
Linden ,CA 95236 Northern Valley Yokuts
canutes@verizon.net Bay Miwok
(209) 887-3415

Southern Sierra Miwuk Nation
William Leonard, Chairperson
P.O. Box 186 Miwok
Mariposa ,CA 95338 Pauite
(209) 628-8603 Office Northern Valley Yokut

Tamien Nation
Quirina Luna Geary, Chairperson
P.O. Box 8053 Ohlone/Costanoan
San Jose ,CA 95155
qgeary@tamien.org
(707) 295-4011

Tamien Nation
Johnathan Wasaka Costilla, THPO
P.O. Box 866 Ohlone/Costanoan
Clearlake Oaks ,CA 95423
thpo@tamien.org
(925) 336-5359

Native American Heritage Commission
Native American Contacts List
August 30, 2021

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland ,CA 94603
cvltribe@gmail.com
(510) 575-8408

Ohlone/Costanoan

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas ,CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville ,CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271
(559) 781-4610 Fax

Yokuts

Tuolumne Band of Me-Wuk Indians
Andrea Reich, Chairperson
P.O. Box 699
Tuolumne ,CA 95379
andrea@mewuk.com
(209) 928-5300 Office
(209) 928-1677 Fax

Me-Wuk - Miwok

Wilton Rancheria
Jesus G. Tarango Jr., Chairperson
9728 Kent Street
Elk Grove ,CA 95624
jtarango@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

Miwok

Wilton Rancheria
Steven Hutchason, THPO
9728 Kent Street
Elk Grove ,CA 95624
shutchason@wiltonrancheria-nsn.gov
(916) 683-6000 Ext. 2006
(916) 683-6015 Fax

Miwok

Native American Heritage Commission
Native American Contacts List
August 30, 2021

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt ,CA 95632
vlopez@amahmutsun.org
(916) 743-5833

Ohlone/Costanoan
North Valley Yokuts

North Fork Rancheria of Mono Indians
Elaine Bethel Fink, Chairperson
P.O .Box 929
North Fork ,CA 93643
efink@nfr-nsn.gov
(559) 877-5531
(559) 877-2467 Fax

Mono

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
P.O. Box 1159
Jamestown ,CA 95327
lmathiesen@crtribal.com
(209) 984-9066
(209) 984-9269

Miwok - Me-wuk

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden ,CA 95236
canutes@verizon.net
(209) 887-3415

Ohlone/Costanoan
Northern Valley Yokuts
Bay Miwok

Dumna Wo-Wah Tribal Goverment
Robert Ledger Sr., Chairperson
2191 West Pico Ave.
Fresno ,CA 93705
ledgerrobert@ymail.com
(559) 540-6346

Dumna/Foothill Yokuts
Mono

Picayune Rancheria of Chukchansi Indians
Claudia Gonzales, Chairwoman
P.O. Box 2226
Oakhurst ,CA 93644
cgonzales@chukchansitribe.net
(559) 412-5590

Chukchansi / Yokut

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232
Castro Valley ,CA 94546
marellano@muwekma.org
(408) 205-9714

Ohlone / Costanoan

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
P.O. Box 8
Lemoore ,CA 93245
(559) 924-1278
(559) 924-3583 Fax

Tache
Tachi
Yokut

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme A. Valdez, Chairperson
P.O. Box 580986
Elk Grove ,CA 95758-001
valdezcome@comcast.net
(916) 429-8047 Voice/Fax
(916) 396-1173 Cell

Miwok

Southern Sierra Miwuk Nation
William Leonard, Chairperson
P.O. Box 186
Mariposa ,CA 95338
(209) 628-8603 Office

Miwok
Pauite
Northern Valley Yokut

Native American Heritage Commission
Native American Contacts List
August 30, 2021

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 Yokuts
Porterville ,CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271
(559) 781-4610 Fax

Tuolumne Band of Me-Wuk Indians
Andrea Reich, Chairperson
P.O. Box 699 Me-Wuk - Miwok
Tuolumne ,CA 95379
andrea@mewuk.com
(209) 928-5300 Office
(209) 928-1677 Fax

Appendix E-4
Tribal Contact Report

TRIBAL CONTACT REPORT

TURLOCK GROUNDWATER

Prepared by GLOBAL URBAN STRATEGIES, INC.

October, 2021

The first source of contact was via email to the addresses from the list of Tribes in Merced and Stanislaus Counties, as provided by the Native American Heritage Commission. Routine phone calls were established to provide the Tribes with information on the Turlock Groundwater Sustainability Plan.

CONTACTS 22

The list of contact persons was expanded during the calls. In most cases, the second point of contact needs to be copied in the communications. The list mentioned includes the chairperson/chairwoman, vice chairwoman, Environmental Protection Agency Director, and Tribal Historic Preservation Officers (THPO).

PHONE CALLS 71

During the past three weeks, seventy-one phone calls have been made. In some instances, communication has been established with a person directly. Other times, a voicemail message was left with contact information and reason for the call.

EMAIL COMMUNICATION 19

A list of nineteen email addresses was compiled from the contact information provided by the Native American Heritage Commission of Tribes in Merced and Stanislaus Counties, to be used as the first point of contact.

CONFIRMED CORRESPONDENCE 4

The contact information provided, by the Native American Heritage Commission of Tribes in Merced and Stanislaus Counties, was confirmed for correspondence for four tribes.

TRIBES 22

There are nineteen tribes whose comments are important for the Turlock Groundwater Sustainability plan. Several of the mentioned tribes were repeated contacts that they were removed from the list provided by Native American Heritage Commission of Tribes in Merced and Stanislaus Counties.

TENTATIVE 2

One of the contacts, Leeland McGee, does not wish to be informed of the plan until it has been completed. Chairperson, Valentin Lopez, does not wish to be informed unless the plan comes within the boundaries of his territory. He requested additional information and was provided the web link to Turlock Groundwater page, https://turlockgroundwater.org/, to see if he is interested.

Appendix E-5
Tribal Contact Call Log

TRIBAL CONTACT CALL LOG

Tribe	Title	Name	Date of Inquiry	Contact Number / Email Address	Address	Spoke With	Left Voicemail	Message/ Time 09/16/2021	Message/ Time 09/17/2021	Message/ Time 09/20/2021	Message/ Time 09/21/2021	Message/ Time 09/29/2021	Message/ Time 10/05/2021	Send Correspondence	Number of Phone Calls
Amah Mutsun Tribe Bond	Chairperson	Valentin Lopez	09/17/2021	916-743-5833 vlopez@ amahmutsun.org	P.O. Box 5272 Galt, CA 95632	NO	YES	No answer left a voicemail with name and call back number. 11:37am	-	Got a hold of Valentin Lopez, asked if this ran into the Santa Clara and San Bernardino area? That is where they are, can be reached today after 3:30pm- 12:35pm --> Called back but he did not answer, left a voicemail with call back information. 3:346pm	-	-	Spoke with Valentin Lopez, he is only interested if this project runs through his territory. If it runs through his territory then we can send information. I will send out the link for the website to his personal email vjltustincenter@aol.com 2:50pm	Only interested in correspondendce if plan goes into his land.	3
Chicken Ranch Rancheria of Me-Wok Indians	Chairperson	Lloyd Mathiesen	09/17/2021	209-984-9066 lmathiesen@ crtribal.com	P.O. Box 1159 Jamestown, CA 95327	Bridgette	YES	Calls did not go through; first # 209.984.9066 is disconnected	I was able to get a hold of the receptionist, Bridgette, Lloyd Mathiesen was out. She was able to confirm Lloyd Mathiesen is the Chairperson, contact information remains the same, address, phone number, and email. We can send correspondence via email and mail.	N/A	N/A	-	-	Yes, Info we have is current-we can send correspondence.	3
				209-984-9269				Second # 209.984.9269-line rings but then continuous beeping noise. Could not leave voicemail with contact info.	N/A	N/A	N/A	-	-	-	-

TRIBAL CONTACT CALL LOG

Tribe	Title	Name	Date of Inquiry	Contact Number / Email Address	Address	Spoke With	Left Voicemail	Message/ Time 09/16/2021	Message/ Time 09/17/2021	Message/ Time 09/20/2021	Message/ Time 09/21/2021	Message/ Time 09/29/2021	Message/ Time 10/05/2021	Send Correspondence	Number of Phone Calls
Dumna Wo-Wah Tribal Government	Chairperson	Robert Ledger Sr.	09/17/2021	559-540-6346 ledgerrobert@gmail.com	2191 West Pico Ave. Fresno, VA 93705	Robert Ledger	NO	All information is current. Requested we send information to his email; let him he would receive correspondence via email and mail. 12:13pm	N/A	N/A	N/A	-	-	N/A	1
Muwekma Ohlone Indian Tribe of the SF Bay Area	Vice Chairwoman	Monica Arellano	09/17/2021	(408) 205-9714 marellano@muwekma.org	20885 Redwood Road, Suite 232 Castro Valley, CA 94546	NO	NO	No answer, call went straight to voicemail. Voicemail was for Monica Arellano, could not leave message mailbox was full.408.205.9714 12:30pm	09.17.2021- Voicemail is full, she is the vice chairwoman -phone number is good. 408.205.9714 12:38pm	09.20.21- Voicemail is full, could not leave message. 12:50pm	-	-	Call went straight to voicemail, voicemail is full could not leave message. 3:00pm	N/A	4
Nashville Enterprise Miwok-Maidu-Nishinam Tribe	Chairperson	Cosme A. Valdez	09/17/2021	(916) 429-8047 Voice/Fax valdezcome@comcast.net	P.O. Box 580986 Elk Grove, CA 95758-001	NO	YES	No answer left a voicemail with name and call back number for both numbers 916.429.8047 and 916.396.1173. 12:36pm	09.17.21- No answer left a voicemail with a summary for the call with call back info.1:10pm	09.20.21- Answered call but they hung up. 916.4298047 12:52pm	-	-	No answer, left a voicemail with call back information- 3:04pm	N/A	-
				(916) 396-1173 Cell									No answer, left a voicemail with call back information- 3:04pm		5
North Fork Rancheria of Mono Indians	Chairperson	Elaine Bethel Fink	09/17/2021	(559) 877-5531 efink@nfr-nsn.gov	P.O .Box 929 North Fork, CA 93643	NO	YES	Dialed number twice but the call did not go through. Could not leave voicemail. 12:46pm	09.17.21- Call did not go through. 1:25pm	09.20.21- Call did not go through. 12:55pm	-	-	Call did not go through. 3:08pm	N/A	-
				(559) 877-2467 Fax											4

TRIBAL CONTACT CALL LOG

Tribe	Title	Name	Date of Inquiry	Contact Number / Email Address	Address	Spoke With	Left Voicemail	Message/ Time 09/16/2021	Message/ Time 09/17/2021	Message/ Time 09/20/2021	Message/ Time 09/21/2021	Message/ Time 09/29/2021	Message/ Time 10/05/2021	Send Correspondence	Number of Phone Calls
North Valley Yokuts Tribe	Chairperson	Katherine Erolina Perez	09/17/2021	(209) 887-3415 canutes@ verizon.net	P.O. Box 717 Linden, CA 95236	NO	YES	No answer left a voicemail with name and call back number.209.887.3415 12:52pm	09.17.21- No answer left a voicemail with a summary for the call with call back info. 1:13pm	09.20.21- No answer left a voicemail. 12:59pm	-	-	No answer, left a voicemail with call back information- 3:11pm	N/A	4
Picayune Rancheria of Chukchansi Indians	Chairwoman	Claudia Gonzales	09/17/2021	(559) 412-5590 cgonzales@ chukchansitribe.net	P.O. Box 2226 Oakhurst, CA 93644	YES Erik & Sarah	YES	Receptionist (Erik) directed me to person in charge of Water Issues but went to voicemail. Voicemail box was for, Marita Silvas, If I understood correctly. Left a voicemail with call back number. 559.412.5590 12:58pm	09.17.21-Could not direct my call to Claudia but Receptionist Rachel directed me to Sarah (Admin). Provided her with the script information. Confirmed the information we have on file is correct. Claudia is the chairperson. We can send correspondence but asked to copy the Environmental Protection Agency Director-Heather Airey- hairey@chukchansi-nsn.gov 1:47pm	-	-	-	-	Yes CC: Environmental Protection Agency Director-Heather Airey- hairey@chukchansi-nsn.gov	3
	Environmental Protection Agency Director	Heather Airey	-	hairey@chukchansi-nsn.gov	-	-	-	-	-	-	-	-	-	-	-
Santa Rosa Rancheria Tachi Yokut Tribe	Chairperson	Leo Sisco	09/17/2021	(559) 924-1278 N/A	P.O. Box 8 Lemoore, CA 93245	Receptionist	YES	No answer left a voicemail with name and call back number. 559.924.1278 1:18pm	-	09.17.21- Receptionist said she could not direct me to Leo Sisco directly but directed my call to the travel advisor, no answer left a voicemail with summary of call and contact info. 1:32pm.	-	-	Spoke with Leeland McGee he is the tribal administrator, provided email new (Lmcgee@tachi-yokut-nsn.gov). 3:28pm	We can send information once the plan is finished. Send correspondence to address on file and new email provided only.	3
	Tribal Administrator	Leeland McGee	-	(559) 924-3583 Fax Lmcgee@tachi-yokut-nsn.gov	-	-	-	-	-	-	-	-	-	-	-

TRIBAL CONTACT CALL LOG

Tribe	Title	Name	Date of Inquiry	Contact Number / Email Address	Address	Spoke With	Left Voicemail	Message/ Time 09/16/2021	Message/ Time 09/17/2021	Message/ Time 09/20/2021	Message/ Time 09/21/2021	Message/ Time 09/29/2021	Message/ Time 10/05/2021	Send Correspondence	Number of Phone Calls
Southern Sierra Miwuk Nation	Chairperson	William Leonard	09/17/2021	(209) 628-8603 Office	P.O. Box 186, Mariposa, CA 95338	NO	YES	No answer left a voicemail with call back information. 209.628.8603 1:21pm	09.17.21- No answer left a voicemail with a summary for the call with call back info. 12:57pm	09.20.21- No answer left a voicemail. 1:03pm	-	-	Call did not go through. Machine generated recording said phone number had been changed, disconnected, or no longer in service.- called twice. 3:36pm	-	4
Tule River Indian Tribe	Chairperson	Neil Peyron	09/17/2021	(559) 781-4271 neil.peyron@tulerivertribe-nsn.gov	P.O. Box 589 Porterville, CA 93258	Receptionist	YES	Receptionist said Neil was on vacation directed me to his voicemail, left call back info. 559.781.4271. 1:25pm	09.17.2121-Call did not go through, long beeping noise. 2:05pm	-	09.20.21- Receptionist directed my call but no response. Left a voicemail 1:13pm	-	Receptionist directed my call to Neil Peyron but went to voicemail, left a voicemail with call back info. 3:39pm	N/A	4
				(559) 781-4610 Fax											
Tuolumne Band of Me-Wuk Indians	Chairperson	Andrea Reich	09/17/2021	(209) 928-5300 Office andrea@mewuk.com	P.O. Box 699 Tuolumne, CA 95379	Receptionist	YES	No answer, transferred to Andrea's voicemail. Left voicemail with call back info. 209.928.5300 ext. 35101 1:30pm	09.17.2021- No answer left a voicemail with a summary for the call with call back info. 3:25pm	09.20.21- Receptionist said I just missed her; she went on lunch. Directed me to her voicemail and I left a message 1:20pm	-	-	-	N/A	3
				(209) 928-1677 Fax											
Calaveras Band of Mi-Wuk Indians	Chairperson	Gloria Grimes	09/17/2021	(209) 419-5675 Calaverasband.MiwukIndians@gmail.com	P.O. Box 899 West Point, CA 95255	NO	YES	Voicemail for Gloria Grimes, left call back information. 209.419.5675. 1:54pm	09.17.2021- No answer left a voicemail with a summary for the call with call back info. 12:20pm	09.17.2021- No answer left a voicemail with a summary for the call with call back info. 12:20pm	-	-	Call went straight to voicemail, left brief message with call back info. 3:41pm	N/A	4
California Valley Miwok Tribe	Chairperson	Silvia Burley	09/17/2021	(209) 293-4179 Office l.ewilson@yahoo.com	14807 Avenida Central, La Grange, CA 95329	Tiger Paulk- Economic Development Consultant	YES	No answer left a voicemail with call back info. 209.931.4567 2:00pm	No answer left a voicemail with a summary for the call with call back info. 12:29pm	09.20.21- No answer left a voicemail. 1:51pm	N/A	Tiger Paulk returned phone call. He provided information address, email, chairperson. We CAN send correspondence to this address and email. 3:30pm	-	Yes, Info we have is current	-
				(209) 931-4333 Fax											4

TRIBAL CONTACT CALL LOG

Tribe	Title	Name	Date of Inquiry	Contact Number / Email Address	Address	Spoke With	Left Voicemail	Message/ Time 09/16/2021	Message/ Time 09/17/2021	Message/ Time 09/20/2021	Message/ Time 09/21/2021	Message/ Time 09/29/2021	Message/ Time 10/05/2021	Send Correspondence	Number of Phone Calls
California Valley Miwok Tribe AKA Sheep Rancheria of Me-Wuk Indians of Ca	Chairperson	N/A	09/17/2021	(209) 293-4179 Office l.ewilson@ yahoo.com	P.O. Box 395 West Point, CA 95327	NO	YES	No answer left a voicemail with call back info. 209.293.4179 2:07pm	09.17.21- No answer left a voicemail with a summary for the call with call back info. 1:54pm	09.20.21- No answer left voicemail. 2:42pm	N/A	-	No answer left voicemail with brief message and contact info. 3:44pm	N/A	4
Tamien Nation	Chairperson	Quirina Luna Geary	09/17/2021	(707) 295-4011 qgeary@ tamien.org	P.O. Box 8053 San Jose, CA 95155	NO	YES	Left a voicemail for Quirina with Call back info. 707.295.No answer left voicemail. 2:47pm4011 2:11pm	-	09.21.21- Number is not recognized,	N/A	-	Left a voicemailwith brief message and call back info. 3:46pm.	N/A	3
Tamien Nation	THPO	Johnathan Wasaka Costilla	09/17/2021	(925) 336-5359 thpo@tamien.org	P.O. Box 886 Clearlake Oaks, CA 95423	Johnathan	N/A	Spoke with Johnathan he oversees monitoring of the site but gave me contact information for Quirina she is the Chairwoman. 707.295.4011 (San Jose) 2:18pm	-	-	-	-	-	Chairperson is Quirina, last time I spoke with Johnathan he directed me to her.	1
The Confederated Villages of Lisjan	Chairperson	Corina Gould	09/17/2021	(510) 575-8408 cvltribe@ gmail.com	10926 Edes Avenue, Oakland, CA 94603	NO	YES	No answer left a voicemail with call back info. 510.575.8408 3:08pm	No answer left a voicemail with a summary for the call with call back info. 2:52pm	09.20.21- No answer, voicemail was also full. 2:53pm	09.21.2021- No answer left a voicemail. 12:05pm	-	No Answer left voicemail with brief message and contact info. 4:33pm.	N/A	5
Wilton Rancheria	Chairperson	Jesus G Tarango Jr.	09/17/2021	(916) 683-6000 Office jtarango@ wiltonrancheria-nsn.gov	9728 Kent Street Elk Grove, CA 95624	Brandy	YES	Spoke with Brandy, will give a message to Lou Griffin he is the director of the cultural department. He will give me a call back. 916.683.6000 3:17pm.	09.17.2021- Did not call today since I spoke with Brandy and she was going to pass along the message, will call on Monday if I don't hear back.	09.20.21- No answer left voicemail 2:59pm	09.21.21- Called to ask for Lou Griffin, left voicemail with call back information. 11:46am	-	No answer left voicemail with brief message and contact info. 4:39pm.	N/A	3
				(916) 683-6015 Fax											

TRIBAL CONTACT CALL LOG

Tribe	Title	Name	Date of Inquiry	Contact Number / Email Address	Address	Spoke With	Left Voicemail	Message/ Time 09/16/2021	Message/ Time 09/17/2021	Message/ Time 09/20/2021	Message/ Time 09/21/2021	Message/ Time 09/29/2021	Message/ Time 10/05/2021	Send Correspondence	Number of Phone Calls
Wilton Rancheria	THPO	Steven Hutchason	09/17/2021	(916) 683-6000 Ext. 2006 shutchason@wiltonrancheria-nsn.gov	9728 Kent Street Elk Grove, CA 95624	Brandy	YES	No answer left a voicemail with call back info. 916.683.6000 ext. 2006 3:28pm é	Did not call today since I spoke with Brandy and she was going to pass along the message, will call on Monday if I don't hear back. This phone number is for Steven Hutchason he is the THPO- call #916.683.6000	-	-	-	-	Need to get a hold of Lou Griffin for this Tribe, same as above.	1
				(916) 683-6015 Fax											
Wuksache Indian Tribe/ Eshom Valley Band	Chairperson	Kenneth Woodrow	09/17/2021	(831) 443-9702 kwood8934@aol.com	1179 Rock Haven Ct. Salinas, CA 93906	NO	YES	No answer left a voicemail with call back info. 831.443.9702 3:21pm	09.17.2021- No answer left a voicemail with a summary for the call with call back info. 3:09pm	09.20.21- No answer left a voicemail. 3:05pm	09.21.21- Called but line went straight to voicemail, could not leave message. 11:40am	-	Called but line went straight to voicemail, could not leave message. 4:44pm.	N/A	5
															71

Appendix E-6
Template Letter to review the GSP

Subject: Invitation to Review the Turlock Groundwater Sustainability Plan

Dear [Name of Tribal Contact],

This letter is to let you and the [Name of Tribe] know that the Groundwater Sustainability Agencies (GSAs) of the East and West Turlock Groundwater Subbasins are preparing a Groundwater Sustainability Plan (GSP).

The plan is required by Sustainable Groundwater Management Act of 2014 (SGMA). SGMA requires public agencies with water supply, water management, and/or land use responsibilities within a groundwater basin to sustainably manage and regulate their groundwater. These agencies have worked together to form the East and West Turlock GSAs and are working to develop a coordinated plan to locally manage groundwater according to SGMA.

The draft GSP is being released chapter by chapter. Several are already available for download and comment. The GSAs are also hosting a series public meetings to review the plan contents and answer questions. The link below will take you to a website that explains what SGMA is, where the East and West Turlock Groundwater Subbasins are, and the local agencies that are involved in the planning: https://turlockgroundwater.org/. The website will also include links to download the chapters of the GSP and a calendar of upcoming public meetings to discuss the plan.

I would be happy to arrange a briefing for the Tribe.

I would also be happy to get you or one of your designees signed up on the regular mailing list for routine emails and notices for meetings, etc. Just let me know the contact information with email and I will make sure that person is added.

Please let me know if you have any questions or need assistance with any part of the planning process.

Appendix E-7
List of Meetings Spreadsheet

Turlock Subbasin GSP Development Public Engagement Efforts					
Links to meeting materials for respective meetings can be found on online at turlockgroundwater.org					
DATE	**EVENT**	**DESCRIPTION**	**LOCATION**	**TIME**	**TOPICS**
12/18/16	Milestone	WTS GSA Formerly Established via Joint Powers Agreement	n/a	n/a	
01/09/17	Milestone	turlockgroundwater.org Website operational	n/a	n/a	
02/02/17	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, public comment, election of officers, GSA staffing, technical advisory committee, amend Exhibit E of the JPA forming the WTS GSA, budget, bylaws, public hearing regarding GSA election, coordination with ETS GSA, comments from the Board
03/02/17	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Consent calendar, staff updates, public comment, public hearing (presentation and public comment on WTS GSA proposed election to be a GSA), action items (approving the WTS GSA's election to be a GSA, establishment of technical advisory committee and appointment of TAC members, legal counsel, report on a "roadmap" to meet SGMA deadlines, comments from the Board
03/02/17	Milestone	Formal Submission of WTS GSA Status to DWR	n/a	n/a	
03/14/17	Milestone	Subbasin Twitter account operational	n/a	n/a	
03/14/17	Milestone	Subbasin Facebook page operational	n/a	n/a	
03/30/17	Meeting	ETS GSA Meeting	Denair Community Center	10:00 AM	Staff updates, public comment, public hearing - GSA formation, GSA staffing, technical advisory committee, bylaws, comments from the board
03/31/17	Milestone	ETS GSA Formerly Established via Joint Powers Agreement	n/a	n/a	
03/31/17	Milestone	Formal Submission of ETS GSA Status to DWR	n/a	n/a	
04/27/17	Meeting	WTS TAC Meeting	Turlock Irrigation District	2:00 PM	Brown Act review, TAC meeting calendar and committee structure, update on GSA formation, conflict of interest code, by-laws for WTS GSA, ethics policy, coordination MOU with ETS, roadmap project/GSP development, public outreach efforts, next meeting agenda
04/27/17	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Treasury report, GSA staffing, conflict of interest code update, TAC, public comment, comments from the board, minutes from previous meeting
05/15/17	Meeting	WTS TAC Special Meeting	Turlock Irrigation District	9:00 AM	Presentation by CCP and coordination for developing agreements, next meeting agenda
05/25/17	Meeting	WTS TAC Meeting	Turlock Irrigation District	2:00 PM	Roadmap project, public outreach efforts, coordination MOU with ETS, WTS GSA website development, ethics policy, draft PSP for GSPs and projects, TAC email group, next meeting date
05/31/17	Workshop	Subbasin Workshop (Hosted By the Turlock Groundwater Basin Association	Denair	10:00 AM & 6:00 PM	Turlock Subbasin GSA formation update, Stakeholder engagement and stakeholder preferences
06/01/17	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, action items (adoption of bylaws, conflict of interest code, ethics policy, adoption of meeting dates, clarifying TAC members' representation and roles in TGBA meetings, draft PSP for GSPs and projects), reports (Turlock Groundwater Subbasin Management public workshops, presentation by Todd Groundwater), comments from the Board
06/22/17	Meeting	WTS TAC Meeting	Turlock Irrigation District	2:00 PM	GSA Board follow-up items
06/29/17	Meeting	ETS GSA Meeting	Cortez Hall	3:00 PM	Administrative matters, GSA staffing, report on GSP roadmap progress, TGBA public outreach and workshops, clarifying TAC members' representation and roles in TGBA meetings, comments from the public and the Board

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
07/27/17	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Roadmap wrap-up / draft work plan, cost share discussion / grant matching funds, PSP application kick-off, future agenda, approval of previous meeting minutes, public participation
07/27/17	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	administrative matters, report on GSP roadmap process, legal counsel report, TAC report, previous meeting minutes, comments from the public and Board
08/24/17	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	MOA, WTS GSA conflicts of interest code - designated positions, WTS GSA budget, GSP, facilitation support services (FSS) application, Don Pedro relicensing comments, future meeting agenda, approval of previous meeting minutes, public participation
09/07/17	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates (TAC activities), Consent calendar, authorizing letters of support or opposition on matters related to groundwater sustainability, application for DWR facilitation support services, authorization of ad hoc subcommittee, application for Proposition 1 Grant Fund, comments from the Board
09/28/17	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Brown Act discussion regarding email communication, budget update, Ad-Hoc Committee / MOA / MOU update, Roadmap document and discussion, GSP, FSS application, communication committee & domain name, CASGEM program, approval of last meeting minutes, public participation
09/28/17	Meeting	ETS GSA Meeting	Turlock Irrigation District	4:00 PM	Administrative matters, legal counsel report, TAC report, minutes from previous meeting, comments from Board and public
10/26/17	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Budget, communications ad hoc committee, letters of support, groundwater regulation compliance, RFP to retain a consultant to prepare a GSP, SGMA related updates, approval of previous meeting minutes, public participation
11/16/17	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	MOA, GSP funding, GSP invoice payment process, notice to DWR, Proposal review and presentation process (Ad Hoc vs. Closed Session), proposal review grading process, GSA liability insurance, GSP ad hoc committee, letters of support, SGMA-related updates, budget, approval of minutes for previous meeting, public participation
12/04/17	Meeting	Joint TAC Special Meeting	Turlock Irrigation District	2:00 PM	Groundwater regulation compliance workshop, public participation
12/07/17	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Review of proposal for the preparation of a GSP for the East and West Turlock Subbasins, public participation
12/14/17	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	GSP consultant proposal update, consultant contract for GSP, MOA with the ETS GSA, adoption of revised budget, intent to develop GSP notice to DWR, reports, comments from the board
12/14/17	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Amend the ETS GSA Joint Powers Authority agreement and 2017-2018 budget, legal counsel report, TAC report, other business, comments from Board and public
12/18/17	Meeting	Joint TAC Special Meeting	Turlock City Hall	2:00 PM	Interview with Todd Groundwater concerning their proposal for preparation of a GSP for the Turlock Subbasin, recommendation on proposal from Todd Groundwater to prepare a GSP for the subbasin, SGMA related updates, approval of minutes from last three joint TAC meetings, public participation
01/01/18	Milestone	GSP Development Commences	n/a	n/a	
01/11/18	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	GSP consultant contract, consolidation of legal counsel, comments from the Board

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
01/25/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, legal counsel report, TAC report, other business, minutes from previous meeting, comments from Board and public
01/25/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	FERC comment letter, GSP, audit services, SGMA-related updates, budget, approval of previous meeting minutes, public participation
02/22/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Dr. Horatio Ferriz presentation on Groundwater Modeling, Todd Groundwater liaison, Turlock subbasin GSP, Public outreach update, audit services, Stevinson WD withdrawal and financial obligations, SGMA-related updates, budget, approval of minutes, public participation
03/01/18	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Sustainable groundwater planning grant funding recommendation status, current and pending public outreach efforts, budget update, interbasin coordination update, joint TAC update, engagement letter with auditor - KSJG, Stevinson Water District withdrawal from JPA, video recording of WTS GSA board meetings, ad-hoc communications committee, presentation by DWR, comments from the board
03/22/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, inter-basin coordination efforts, legal counsel report, TAC report, other business, minutes from previous meetings, comments from Board and public
03/22/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Turlock Groundwater Basin GSA workshop, GSP planning process, SGMA decision making process, inter-basin coordination meeting between the Turlock Subbasin and Merced Subbasin, LCJA letter of support, SGMA related updates, approval of minutes, budget, public participation
04/18/18	Workshop	Community Workshop 1: The GSP Process	Ceres Community Center	6:00 PM	Turlock Groundwater Governance; GSP Development Process; GSP Poster Session
04/18/18	Meeting	WTS GSA Special Meeting	Ceres Community Center	6:00 PM	See "Community Workshop 1: The GSP Process"
04/18/18	Meeting	ETS GSA Special Meeting	Ceres Community Center	6:00 PM	See "Community Workshop 1: The GSP Process"
04/18/18	Meeting	Joint TAC Special Meeting	Ceres Community Center	6:00 PM	See "Community Workshop 1: The GSP Process"
04/23/18	Meeting	Coordination Meeting - Merced Subbasin	Turlock Irrigation District	8:00 AM	Interbasin goals and objectives, GSP timelines/schedules, historical conditions of stream aquifer along the subbasin boundaries, current and future conditions of interbasin, groundwater dependent ecosystems, modeling needs to support interbasin coordination, data needs for further analysis, communication and outreach
04/26/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, public workshop update, legal counsel report, TAC report, minutes from previous meeting, comments from Board and public
04/26/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Facilitation support services assistance update, CEQA comment letters from WTS and ETS GSA TACs, FY 2018-19 budget discussion, GSA status update, Merced subbasin coordination, SGMA related updates, approval of past meeting minutes, public participation
05/24/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, legal counsel report, Stanislaus County groundwater ordinance - look back provision, TAC report, minutes from previous meeting, comments from Board and public

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
05/24/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	CEQA comment letters from WTS and ETS GSA TACs, amendment to JPA to reflect the basin boundary modifications by DWR and reassigning associate member obligations to member agencies, FY 2018-19 budget discussion, USGS monitoring wells and coordination with Merced county, GSP status update, SGMA related updates, approval of previous meeting minutes, public participation
06/07/18	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	New appointments to the Board, sustainable groundwater planning grant award, current and pending public outreach efforts, budget update, interbasin coordination update, joint TAC update, appointment of a Vice Chair, updates to JPA Exhibit D, adoption of the 2018-2019 budget, policy for commenting on CEQA documents or other processes, drug-free workplace policy, DWR grant award contract, Todd Groundwater consultant agreement, review of the GSP project schedule
06/07/18	Milestone	WTS begins video recording meetings	n/a	n/a	
06/19/18	Meeting	Coordination Meeting - Merced Subbasin	Turlock Irrigation District	1:30 PM	Status of GSP process, summary of C2VSim model, statement of cooperation or other coordination agreement, key data sets along the subbasin boundary, education and outreach
06/20/18	Workshop	Community Workshop 2: Targeted Stakeholders	Turlock Irrigation District	3:00 PM	Upcoming Subbasin and Adjacent Subbasin Activities; Stakeholder Outreach and Engagement Strategies
06/28/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP administrative action, legal counsel report, TAC report, previous meeting minutes, comments from Board and public
06/28/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Statement of cooperation agreement between Turlock and Merced GSAs, GSP status update, SGMA related updates, budget, approval of minutes, public participation
07/12/18	Meeting	Coordination Meeting - Delta-Mendota Subbasin	Patterson City Council Chambers	1:00 PM	interbasin coordination goals and objectives, GSP timelines/schedules, technical coordination - SJR boundary, groundwater dependent ecosystems, data needs for further analysis, communication and outreach
07/26/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP proposed well monitoring program action, consider joining other adjacent subbasin GSAs in letter to SWRCB against implementation of Bay-Delta plan final Substitute Environmental Document, legal counsel report, TAC report, previous meeting minutes, comment from the Board and public
07/26/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	SWRCB's Bay-Delta Substitute Environmental Document (SED), SGMA related updates, budget, approval of minutes, public participation
07/26/18	Meeting	Joint TAC Special Meeting	Turlock Irrigation District	4:00 PM	Comment letter related to State Water Resources Control Board's Bay-Delta Plan Phase 1 Substitute Environmental Document (SED), public participation
08/23/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP proposed well monitoring program action, legal counsel report, TAC report, comment from Board and public
08/23/18	Meeting	Joint TAC meeting	Denair Community Center	2:00 PM	Technical Workshop No. 1 (see below), budget, SGMA related updates, approval of minutes, public participation
08/23/18	Workshop	Technical Workshop No. 1	Denair Community Center	2:00 PM	Turlock Subbasin Basin Setting: Plan Area, HCM and groundwater conditions
09/06/18	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, adoption of meeting dates for 2019, DWR grant award agreement, comments from the Board

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
09/27/18	Meeting	Joint TAC meeting	Turlock Irrigation District	2:00 PM	Groundwater recharge assessment tool discussion, GSP administrative draft review, subbasin outreach tools, proposed change to statement of cooperation between Turlock and Merced Subbasin GSAs, November joint TAC meeting, DWR general grant application for technical support services, SGMA related updates, budget, approval of minutes, public participation
10/11/18	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP proposed well monitoring program action, legal counsel report, TAC report, comment from Board and public
10/25/18	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	DWR general application for Technical support services, MOI between Turlock and Merced subbasin GSAs, nutrient management requirements, GRAT, subbasin outreach tools follow-up discussion, SGMA related updates, budget, approval of minutes, public participation
12/13/18	Meeting	Joint TAC Meeting	Ceres Community Center	2:00 PM	MOI between Turlock and Merced Subbasin GSAs, DWR general application for technical support services, subbasin outreach tools, SGMA related updates, GSP technical workshop No. 2 (see below), budget, approval of minutes, public participation
12/13/18	Workshop	Technical Workshop No. 2	Ceres Community Center	2:45 PM	Turlock Subbasin Hydrogeologic Model and Basin Setting; Next Steps for Sustainability Indicators and Undesirable Results
12/13/18	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, MOI with the Merced Subbasin GSAs, update on the Turlock Subbasin GSP
01/24/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSA funds account, MOI between Merced and Turlock subbasin GSAs, GSP well monitoring program, legal counsel report, TAC report, comments from Board and public
01/24/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Cash flow requirements for GSP / Todd Groundwater, subbasin logo package, DWR general application for technical support services, GSP and 2019 schedule update, recording of TAC meetings and public workshops, election of TAC officers, nutrient management requirements - CV salts, SGMA related updates, budget, approval of minutes, public participation
02/07/19	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, election of officers, appointment of TAC officers, revising the 2018-2019 budget for GSP operating requirements
02/28/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, TAC report, comment from Board and public
03/12/19	Workshop	Community Workshop 3: GSP Basin Setting	Denair Community Center	4:00 PM	SGMA Recap; Turlock Subbasin Hydrogeologic Model and Basin Setting; Next Steps for GSP Content Development; Update on Adjacent Basin Activities; Outreach
03/28/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, TAC report, comment from Board and public
03/28/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Subbasin logo, CV salts Turlock management zone pilot study steering committee update, SGMA related updates, budget, approval of minutes, public participation
04/25/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	FY 19-20 budget adoption for the WTS GSA, CV salts Turlock management zone pilot study steering committee, SGMA related updates, budget, approval of minutes, public participation
05/02/19	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, adoption of the 2019-20 budget, Turlock subbasin logo, comments from the Board.
05/23/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, TAC report, comment from Board and public
05/23/19	Workshop	Technical Workshop No. 3	Turlock Irrigation District	2:00 PM	Water Budget Modeling + Water Budget Analysis

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
06/27/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	FY 19-20 budget analysis, SGMA grant application, Technical Support Services grant application for monitoring wells
07/11/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, TAC report, comment from Board and public
07/18/19	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates (TAC activities), draft Proposal Solicitation Package for GSP planning Grant
07/25/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Budget, Sustainable Groundwater Management Planning Grant Application Update, SGMA-related updates
08/22/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, TAC report, comment from Board and public
08/22/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Budget, Groundwater Leadership Institute, Communications and Collateral Update, Round 3 SGMA grant application, Stanislaus and Tuolumne River groundwater basin association GSA letter of support
09/26/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, Round 3 DWR sustainable groundwater planning grant program, Eastside Water District request to support Water smart Grant Application to BOR, TAC report, comment from Board and public
09/26/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Budget, Round 3 Grant application update and discussion, SMGA-related updates
09/26/19	Meeting	WTS GSA Special Meeting	Turlock Irrigation District	6:00 PM	Staff updates, Application for Round 3 SGMA grant, Revised budget, Groundwater Leadership Institute
10/24/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, Round 3 DWR sustainable groundwater planning grant program, TAC report, comments from Board and public.
10/24/19	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Budget, Delta Mendota GSP letter of support, Merced GSP letter of support, Stanislaus Regional Water Authority IRWM letter of support, Round 3 grant application update, TAC meeting schedule, WTS GSA Board Secretary, SGMA-related updates
11/07/19	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, Adoption of Meeting Dates for 2020, Appointment of Board Secretary, Letter of Support, Comments from Board and public
12/12/19	Workshop	Technical Workshop No. 4	Ceres Community Center	2:00 PM	Model Calibration and Water Budgets
12/19/19	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP well monitoring program, legal counsel report, Round 3 DWR Grant Program, TAC Report, Comments from Board and public
01/23/20	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, GSP updates, Legal Counsel Report, Proposition 218 and member contributions, Set landowner workshop for Spring to develop project list for GSP, TAC report, Review of Government Code Section 1090 re: potential conflict of interests issues, comments from Board and public
01/23/20	Meeting	Joint TAC Meeting	Turlock Irrigation District	2:00 PM	Budget, Funding GSA administrative and GSP development costs, Timeline and process for GSP review and adoption, SGMA-related updates
02/06/20	Meeting	WTS GSA Meeting	Turlock Irrigation District	6:00 PM	Staff updates, Update on GSP, comments from the Board and public
02/15/20	Milestone	turlockgroundwater.org Website redesign complete			Redesigned website launched included comprehensive branding with logo, calendar, resources page, accompanying social media handles, and similar

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
02/27/20	Meeting	ETS GSA Meeting	Cortez Hall	10:00 AM	Administrative matters, Oral presentation from Todd Groundwater, GSP updates, Legal Counsel Report, Prop 218 and Member contributions, TAC report, comments from Board and public
02/27/20	Workshop	Technical Workshop No. 5	Denair Community Center	2:00 PM	Sustainable Management Criteria
03/17/20	Milestone	Executive Order N-29-20 Effective	n/a	n/a	Allows local and state legislative bodies to hold meetings via teleconference and to make meetings accessible electronically due to Covid-19 Pandemic
03/26/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Budget Amendment for Prop 68 Grant, Draft Sustainability Goal, Undesirable Results for Lowering of Groundwater Levels and Reduction of Groundwater Storage
04/23/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, GSP updates, Legal Counsel Report, Prop 218 and Member Contributions, TAC report
04/23/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Budget Recommendation for Prop 68 Grant Cash Flow, Prop 68 Grant Requirements, GSP Schedule and Release of Draft Chapters, Consideration of Seawater Intrusion Sustainability Indicator, CVSALTS, SGMA-related Updates
05/20/20	Meeting	Adjacent Subbasin Coordination	Teleconference	9:00 AM	Status of GSPs for Turlock and Modesto, Summary of C2VSIM model along Tuolumne River Boundary, Status and Update of Draft Groundwater Budgets, Future cooperation between the two subbasins, additional coordination items
05/28/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, GSP updates, Legal Counsel Report, TAC Report, Comments from Board and Public
05/28/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Prop 68 Grant Update - Round 3, Sustainable Management Criteria, Consideration of Seawater Intrusion Sustainability Indicator, June + July Special GSA TAC meetings, SGMA-related Updates
05/28/20	Meeting	WTS GSA Special Meeting	Teleconference	5:00 PM	Adoption of 2020-2021 Budget, Competitive Bidding and Procurement Policy, Approval of contracting to Develop a Groundwater Recharge Assessment Tool, Comments from the Board and Public
06/11/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Consideration of the Seawater Intrusion Sustainability Indicator, Sustainable Management Criteria
06/25/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 Update, GSP Updates, Legal Counsel Report, TAC Report, Comments from Board and public
06/25/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Prop 68 Grant Update, Groundwater Dependent Ecosystems (GDE), Sustainable Management Criteria, SGMA Related Updates
07/08/20	Workshop	Community Workshop 4: Water Budget & Groundwater Model	Teleconference	11:00 AM & 5:00 PM	Water Budget and Groundwater Model
07/09/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Summary of July 8 Community Workshop, Projected Water Budgets, Sustainable Management Criteria
07/23/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 Update, GSP Updates, Legal Counsel Report, TAC Report, Comments from Board and public
07/23/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Prop 68 Grant Programmatic EIR Project Approach, Undesirable Results and Land Subsidence Memos, Monitoring Networks, August + September Special GSA TAC meetings, SGMA Related Updates
08/13/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Final Historical Water Budgets, Update on Projected Water Budgets and Sustainable Yield Analysis
08/13/20	Meeting	WTS GSA Meeting	Teleconference	5:00 PM	Staff updates, TAC Interim Leadership, Todd Groundwater Agreement Amendment, Comments from the Board

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
08/27/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Presentation from Todd Groundwater, Prop 218 Update, Legal Counsel Report, TAC Report
08/27/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Update on GSP Budget and Schedule, SGMA-related Updates
09/10/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Round 3 Grant Update, Adverse impacts to wells and Potential for Undesirable Results, SGMA-related Updates
09/16/20	Workshop	Community Workshop 5: Sustainability	Teleconference	11:00 AM & 5:30 PM	Groundwater Sustainability, Prop 218 Update, Stakeholder Survey, Next Steps
09/18/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Groundwater Recharge Assessment Tool (GRAT), GRAT Demonstration, Turlock GRAT, Schedule and Timeline
09/24/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, GSP updates, Legal Counsel Report, TAC Report, Comments from Board and Public
09/24/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, CA Statewide Groundwater Elevation Monitoring (CASGEM), GRAT Ad-hoc Committee, Continued Discussion of Sustainable Groundwater Management Criteria, Preliminary List of Management Actions, SGMA and other Water Related Updates
10/22/20	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 Update, GSP Updates, Legal Counsel Report, TAC Report, Comments from Board and public
10/22/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, November + December GSA TAC Meetings - Holiday Schedules, Merced Subbasin GSP, Status of Projected Water Budget Analysis and Preliminary List of Project and Management Actions, SGMA-Related Updates
11/05/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Groundwater Dependent Ecosystem - Evaluation Update, SGMA Related Updates
11/05/20	Meeting	WTS GSA Meeting	Teleconference	5:00 PM	Staff updates, GRAT Agreements, GDE Analysis, Adoption of Regular Meeting Dates for 2021
11/10/20	Meeting	ETS GSA Special Meeting	Teleconference	1:00 PM	Prop 218 Process, Discuss parcel evaluation, review and discuss financial data and analysis, public relations and rate study
11/13/20	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:30 PM	Open and casual "virtual office hour" with GSA members and Public
11/19/20	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Budget, Baseline for Future Projected Water Budget, SGMA Related Updates
12/09/20	Meeting	ETS GSA Special Meeting	Teleconference	5:30 PM	Prop 218 Workshop - Proposed Per Acre Fee, Administrative Matters, GSP Updates, Legal Counsel Report, TAC Report, Comments from Board and Public
12/17/20	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Nutrient Management Zone & CVSALTS update, Baseline Scenario, SGMA-related Updates
12/18/20	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:30 PM	Open and casual "virtual office hour" with GSA members and Public
01/14/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, GSP development: SMCs and depletion of interconnected surface water, SGMA related updates
01/28/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 update, Action to authorize the Board Chairman to sign the nondisclosure agreement for GRAT data, GSP updates, Legal Counsel Report, TAC Report, Action to search for General Manager for ETS GSA JPA + Eastside Water District, Comments for Board and Public
01/28/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Statement of Economic Interests Form 700, Stakeholder Survey Update, SMC - Proposed Framework for Chronic Lowering of Water Levels, SGMA Related Updates
01/29/21	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:30 PM	Open and casual "virtual office hour" with GSA members and Public

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
02/04/21	Meeting	WTS GSA Meeting	Teleconference	5:00 PM	Staff updates, Election of Board Officers, Appointment of TAC Officers, Forms 700s, License Agreement for GRAT, GSP update: Baseline Modeling Scenario, Well Access Agreement, Comments from Board and Public
02/11/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Budget, Ad Hoc Committee, Monitoring Well Network, Project Schedule, SGMA Related Updates
02/26/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 update, Groundwater Monitoring Program Updates, GSP updates: Projects and GRAT tool, Legal Counsel Report, TAC Report, Comments from Board and Public
03/04/21	Meeting	WTS GSA Special Meeting	Teleconference	5:00 PM	Closed session: Conference with Legal Counsel, Report out of closed session, Comments from Board and Public
03/11/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	FSS Funding in order to seek available state outreach funding, SMC: Land Subsidence, SGMA related Updates
03/11/21	Meeting	ETS GSA Special Meeting	Teleconference	3:30 PM	Discussion of Comments Pertaining to the Basin Setting Section of the Draft GSP, Discussion of GSP SMC
03/18/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	SMC: Minimum Thresholds and Monitoring Strategies for Land Subsidence Sustainability Indicator, Project Schedule, SGMA related updates
03/23/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	1:30 PM	Discuss Basin Setting Section of Draft GSP, Discuss GSP Sustainable Management Criteria
03/25/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 update, Groundwater Monitoring Program Updates, GSP updates, Legal Counsel Report, TAC Report, Comments from Board and Public, Closed Session: Conference with Legal Counsel - Anticipated Litigation
03/25/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Climate Change Scenario, SGMA related updates
03/26/21	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:30 PM	Open and casual "virtual office hour" with GSA members and Public
04/01/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	3:00 PM	Prop 218 Process Budget and Per-Acre Fee Discussion, Actions Recommended to the JPA Board of Directors, Continued Discussion of ETSGSA TAC Comments of GSP Chapters and other related matters
04/08/21	Meeting	ETS GSA Special Meeting	Teleconference	10:00 AM	Prop 218 Recommendations to the ETS GSA Board
04/08/21	Meeting	WTS GSA Special Meeting	Teleconference	5:00 PM	Staff updates, Application for DWR Facilitation Support Services, Motion to Adjourn Closed Session, Report out of Closed Session, Comments from Board and Public
04/15/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	1:00 PM	Closed session: Conference with Legal Counsel - Potential Litigation, Comments from Public
04/22/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 Update, Groundwater Monitoring Program Updates, GSP Updates, Legal Counsel Report, TAC Report, Comments from Board, Closed Session: Legal Counsel
04/22/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Decision on Minimum Thresholds for Surface Water Interaction and Chronic Lowering of Water Levels, SGMA related updates
04/29/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Budget Recommendation, Public Review Process, SGMA related Updates
04/30/21	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:30 PM	Open and casual "virtual office hour" with GSA members and Public
05/10/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	11:00 AM	Continuation of Discussion and Possible Action of ETS GSA TAC Comments on GSP Chapters 1, 2, and 4 and other related matters
05/13/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Undesirable Results: Reduction of Groundwater In Storage, Sustainable Yield Modeling, Projects and Management Actions, SGMA related updates
05/13/21	Meeting	WTS GSA Meeting	Teleconference	5:00 PM	Staff updates, Adoption of the 2021-22 Budget, Comments from Board and Public
05/24/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	4:30 PM	Groundwater Model Use, Turlock Lake Leakage Study

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
05/27/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Prop 218 Update, Merced County Groundwater Mining and Export Ordinance, Groundwater Monitoring Program Updates, GSP Updates, Legal Counsel Report, TAC Report, Comments for Board and Public
05/27/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Undesirable Results and Minimum Thresholds - Water Quality, Approach for Monitoring Network, Projects and Management Actions, SGMA related Updates
06/03/21	Meeting	WTS GSA Meeting	Teleconference	5:00 PM	Staff updates, Groundwater Well Permitting Proposed Changes, Approval of Easement Template and Authorization to Execute Easements for Well Monitoring, Comments from Board and Public
06/10/21	Meeting	ETS GSA Special Meeting	Teleconference	10:00 AM	Landowner Public Hearing Prop 218, Administrative Matters
06/10/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Undesirable Results & Minimum Thresholds: Interconnected Surface Water; Water Quality, Measurable Objectives: Chronic Lowering of Groundwater Levels, Change of Groundwater in Storage, Interconnected Surface Water Interaction and Land Subsidence, SGMA Related Updates
06/24/21	Meeting	ETS GSA Meeting	Cortez Hall + Teleconference	10:00 AM	Prop 218 Update, Prop 68 Funded Wells
06/24/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, SMC: Water Quality, Schedule, Project and Management Actions, SGMA related updates
07/01/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	2:00 PM	Well Monitoring Network, Project Management Actions
07/08/21	Meeting	ETS GSA Special Meeting	Teleconference	2:00 PM	Closed Session Conference with Legal Counsel - Potential Litigation, Other GSP Matters
07/08/21	Meeting	Joint WTS and ETS GSA Special Meeting	Teleconference	5:00 PM	WTS GSA Election of Officers, Turlock Subbasin Monitoring Well Installations - Phase 1, GSP Review of Chapters 1, 2, and 4, Comments from Board and Public
07/22/21	Meeting	ETS GSA Meeting	Cortez Hall + Teleconference	10:00 AM	Administrative matters, Legal Counsel report, comments from the Board
07/22/21	Meeting	Joint TAC Meeting	Teleconference	4:00 PM	GSP Draft Plan Ch. 6: SMCs, Other GSP Matters
07/29/21	Presentation	Regional Flood Management Plan Meeting	Teleconference	2:00 PM	Update presentation on GSP Planning for the Turlock Subbasin
08/10/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	4:00 PM	GSP Draft Chapter 6 review and action, other GSP matters
08/12/21	Meeting	ETS GSA Special Meeting	Teleconference	10:00 AM	Landowner Public Hearing Prop 218, Counting of Prop 18 Protest Votes, Adoption of Resolution 2021-01, Administrative Fee Exemption Policy
08/12/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	SMC Chapter, Revised Draft Sustainablity Goal, SGMA Related Updates
08/19/21	Meeting	ETS GSA Special Meeting	Teleconference	11:00 AM	Closed session: Conference with Legal Counsel - Potential Litigation, Comments from Public
08/23/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	11:00 AM	Elect New ETS GSA TAC Chairperson, GSP Management Actions, Other GSP Matters
08/26/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative matters, Groundwater Monitoring Program Updates, GSP Updates, Legal Counsel Report, Comment from Board and Public, Closed Session: Conference with Legal Counsel
08/26/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget, Projects and Management Actions, SGMA Related Updates
08/30/21	Meeting	Joint WTS and ETS GSA Special Meeting	Teleconference	5:00 PM	Encroachment Permit for Monitoring Wells, GSP Chapter 5 Review - Water Budgets, Comments from Board and Public, Closed Session: WTS GSA
08/31/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	1:00 PM	GSP Chapter Review, Other GSP Matters, Public Comment
09/02/21	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:00 PM	Open and casual "virtual office hour" with GSA members and Public: Introduce GSP Chapters 1, 2, 4
09/13/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	11:00 AM	GSP Chater Review, Letter of Support for TID Ceres Regulating Reservoir Project, Other GSP Matters, Public Comment

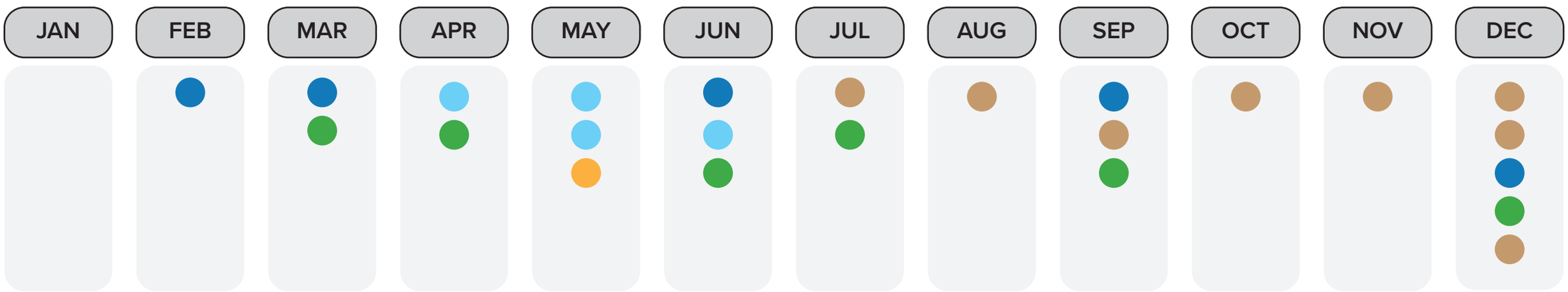
DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
09/16/21	Lunch Hour	Groundwater Lunch Hour Conversation	Teleconference	12:00 PM	Open and casual "virtual office hour" with GSA members and Public: Overview of GSP Ch 5: Water Budgets
09/16/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Project Modeling Scenario Results, Management Actions and Implementation Actions, SGMA Related Updates, Public Comment
09/23/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget Update, Ad Hoc Committee on PEIR, Demand Management Modeling Results, Management Actions and Implementation Actions, Sustainable Management Criteria, Interim Milestones and Monitoring Network, SGMA Related Updates, Public Comment
09/27/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	11:00 AM	GSP Chapter Review, GSP Budget, Other GSP Matters, Public Comment
09/30/21	Meeting	ETS GSA Meeting	Teleconference	10:00 AM	Administrative Matters, Turlock Subbasin Proposed Water Accounting Framework, Groundwater Monitoring Program Updates, GSP Updates, Legal Counsel Report, Comments from the Board, Closed Session with Legal Counsel
10/04/21	Meeting	Joint TAC Special Meeting	Teleconference	3:00 PM	Recogniztion of Continued Local Emergency re: COVID-19, Demand Management Modeling Results, SGMA Related Updates, Public Comment
10/11/21	Meeting	ETS GSA TAC Meeting	Teleconference	11:00 AM	GSP Chapter Review, Other GSP Matters, Public Comment
10/19/21	Meeting	Joint WTS and ETS GSA Special Meeting	Teleconference	5:00 PM	Recogniztion of Continued Local Emergency re: COVID-19, GSP Chapters 6 and 7 Review and Authorization for Release to Public, Comments from the Boards, Closed Session with Legal Counsel, Public Comment
10/25/21	Meeting	ETS GSA TAC Meeting	Teleconference	11:00 AM	GSP Chapter Review, Other GSP Matters, Public Comment
10/28/21	Meeting	ETS GSA Meeting	Cortez Hall + Teleconference	10:00 AM	Administrative Matters, Turlock Subbasin Proposed Water Accounting Framework, Groundwater Monitoring Program Updates, GSP Updates, Legal Counsel Report, Comments from the Board, Closed Session with Legal Counsel
10/28/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Budget Update, Projects, Mangement Actions, and Implementation Actions, SGMA Related Updates, Public Comment
10/28/21	Office Hours	Groundwater Office Hours Workshop	Teleconference	6:00 PM	Open and casual "virtual office hour" with GSA members and Public: Overview of GSP Chs 6 and 7 SMCs and Monitoring Network
11/04/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	GSP Plan Manager, Projects, Management Actions and Implementation Actions, SGMA Related Updates, Public Comment
11/08/21	Meeting	ETS GSA TAC Meeting	Teleconference	11:00 AM	GSP Chapter Review, Other GSP Matters, Public Comment
11/15/21	Meeting	ETS GSA TAC Special Meeting	Teleconference	9:00 AM	Budget Overview, Annual Report Budget Update, Public Comment
11/15/21	Meeting	Joint WTS and ETS GSA Special Meeting	Teleconference	5:00 PM	Staff updates, Consent Calendar - WTS GSA, Consent Calendar - ETS GSA, First Amendement to MOU between GSAs, GSP Chapter 8 Projects and Management Actions, GSP Chapter 9 Implementation and Support Activities, GSP Chapter 3 Communication and Outreach, Public Hearing Date to Consider Adoption of GSP, Comments from Boards and Public
11/18/21	Office Hours	Groundwater Office Hours Workshop	Teleconference	12:00 PM	Open and casual "virtual office hour" with GSA members and Public: Overview of GSP Chs 8 and 9
11/18/21	Meeting	Joint TAC Special Meeting	Teleconference	2:00 PM	Programmatic Environmental Impact Report, Annual Report, SGMA Related Updates, Public Comment
11/22/21	Meeting	ETS GSA TAC Meeting	Teleconference	11:00 AM	GSP Chater Review, Other GSP Matters, Closed Session with Legal Counsel, Public Comment
12/01/21	Meeting	Delhi Community Meeting	Sarah Clegg Conference Room, 16091 Locust Street, Delhi	6:00 PM	Welcome, What is a GSP?, What the GSP means for you and your community, facilitated Q&A sesssion, ways to stay informed

DATE	EVENT	DESCRIPTION	LOCATION	TIME	TOPICS
12/02/21	Meeting	ETS GSA Meeting	Cortez Hall + Teleconference	10:00 AM	River Monitoring Wells Project, Turlock Subbasin Proposed Water Accounting Framework, Groundwater Monitoring Program Updates, Landowner Request for Change of Parcel Designation from Irrigated Land to Non-Irrigated Land, GSP Updates, Legal Counsel Report, Comments from Board and Public
12/06/21	Meeting	ETS GSA TAC Meeting	Teleconference	11:00 AM	GSP Chapter Review, GSP Matters, Closed Session with Legal Counsel, Public Comment
12/09/21	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Implementation and Support Activities, Accounting Mechanism for Water Supplies Within the Subbasin, Administrative and Technical Edits, Response to Comments Process, SGMA Related Updates, Public Comment
12/15/21	Meeting	Joint WTS and ETS GSA Special Meeting	Teleconference	5:00 PM	Staff updates, Consent Calendar - WTS GSA, Consent Calendar - ETS GSA, Implementation and Support Activities, Accounting Mechanism for Water Supplies Within the Subbasin, Response to Comments Process, Comments from Boards and Public
12/20/21	Meeting	ETS GSA TAC Meeting	Teleconference	11:00 AM	GSP Chapter Review, Other GSP Matters, Public Comment
01/04/22	Meeting	Joint TAC Meeting	Teleconference	2:00 PM	Administrative and Technical Edits to GSP, Responses to Comments
01/06/22	Meeting	Joint WTS and ETS GSA Special Meeting *GSP Public Hearing	Teleconference	5:00 PM	GSP Public Hearing and GSP Adoption

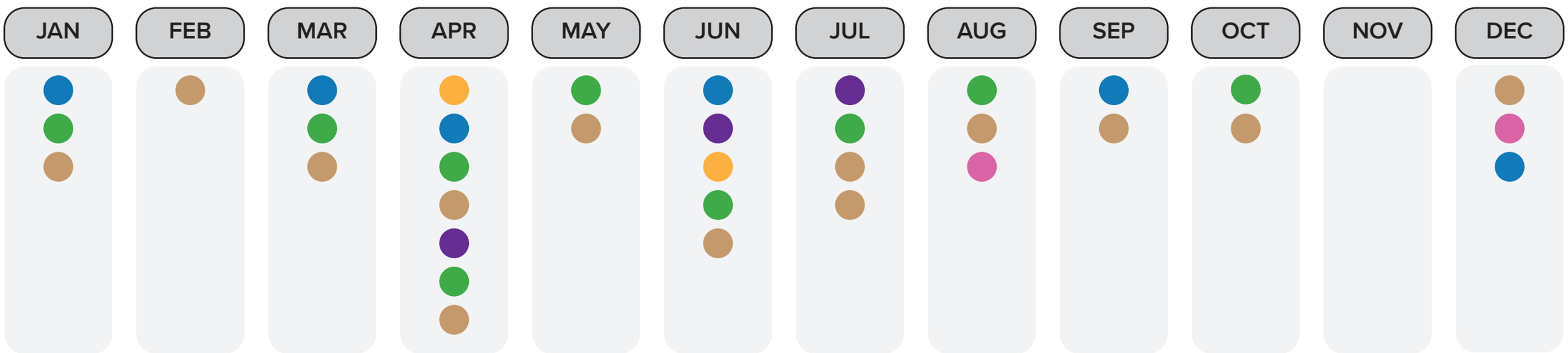
KEY

- 52 ETS GSA Meetings
- 25 WTS GSA Meetings
- 18 ETS TAC Meetings
- 4 WTS TAC Meetings
- 9 Groundwater Office Hours
- 69 Joint TAC Meetings
- 7 Community Workshops
- 5 GSP Technical Workshops
- 4 Subbasin Coordination Mtgs
- 6 Joint ETS + WTS GSA Mtgs

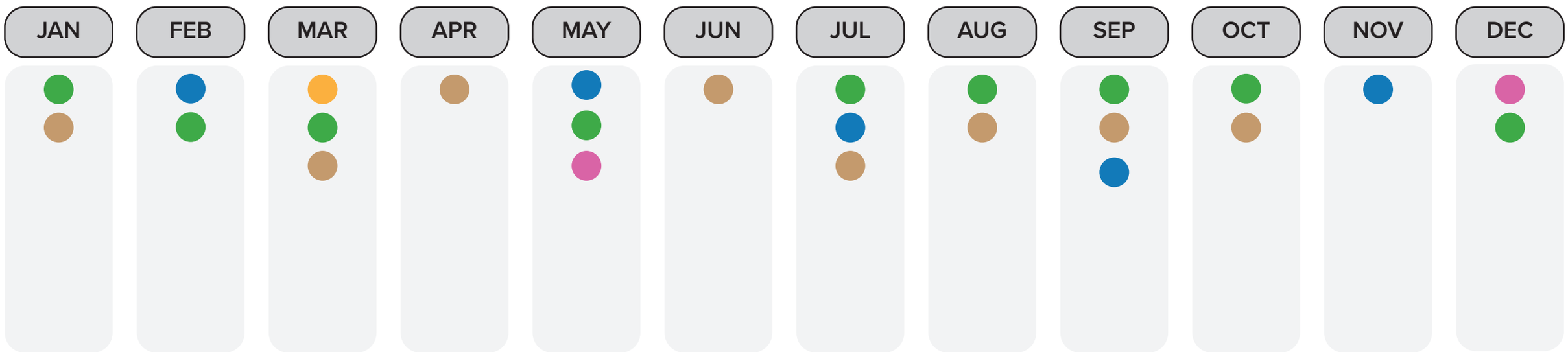
GSA FORMATION & COORDINATION 2017



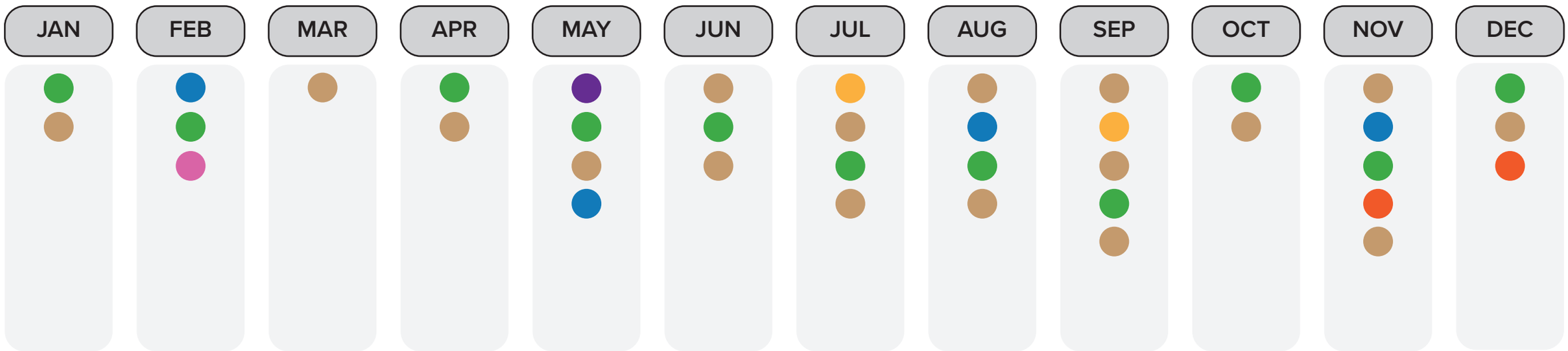
GSP PREPARATION 2018



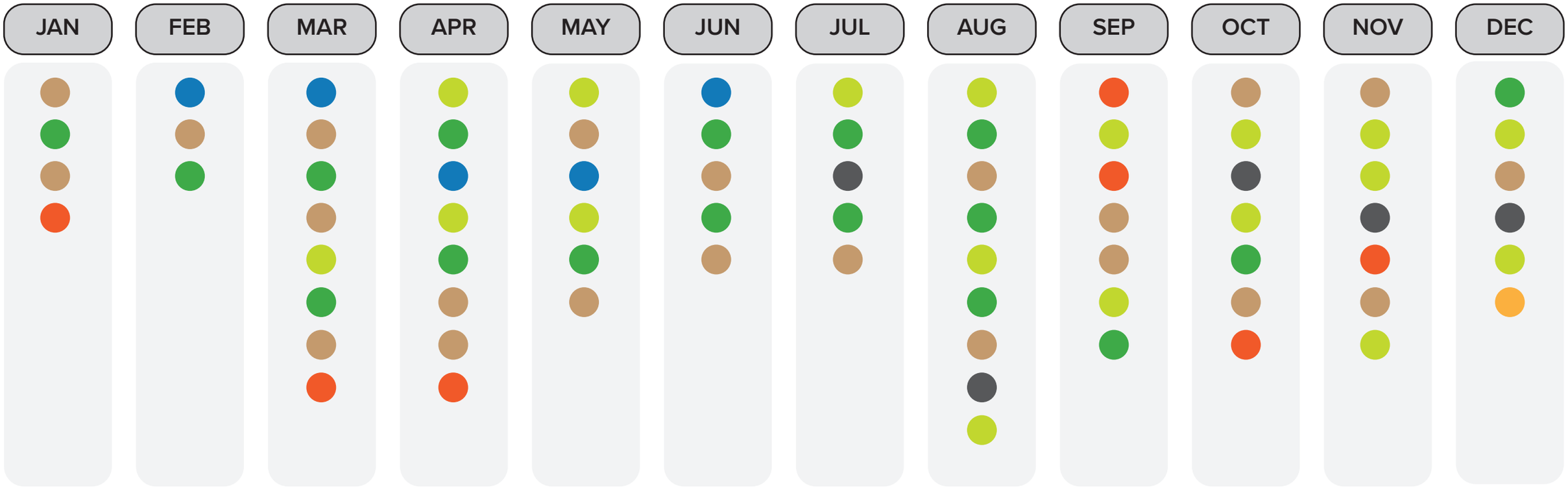
GSP PREPARATION
2019



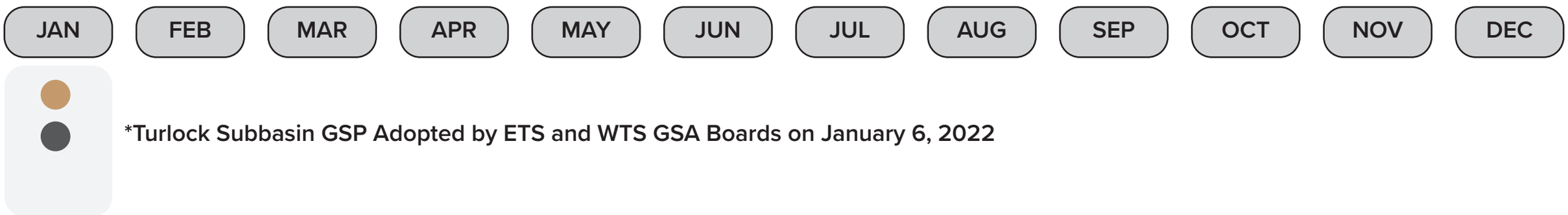
GSP PREPARATION
2020



GSP PREPARATION
2021



GSP PREPARATION
2022



*Turlock Subbasin GSP Adopted by ETS and WTS GSA Boards on January 6, 2022

Appendix E-8
Summary of Delhi Community Meeting of Dec. 1, 2021

Turlock Subbasin Groundwater Sustainability Plan

Delhi Community Meeting
MEETING SUMMARY

Wednesday December 1, 2021, 6:00 – 7:30 PM
Sarah Clegg Room
Delhi Unified School District Building
16091 Locust Street, Delhi, CA

Meeting Goals:

- Share information about the Draft Groundwater Sustainability Plan (GSP) with the community of Delhi and provide pathways for them to stay informed about adoption and implementation.
    - Clarify what the GSP pertains to and what it does not.
- Hear from the community about their concerns.
- Answer community questions.

Meeting Summary:

1. Welcome, Introductions, Setting Expectations

The Sarah Clegg Room of the Delhi Unified School District building was opened at 5:30. Members of the public were invited to sign in, create a name tag, pick up printed materials, select a headset for simultaneous Spanish translation, and take refreshments.

The meeting started at 6:15. Aracely Gonzalez of the Leadership Counsel for Justice and Accountability welcomed the members of the public and thanked them for coming. Marisa Perez-Reyes of Stantec shared a brief overview of the meeting goals and invited the GSA representatives, members of the public, and the supporting staff to make self-introductions.

2. What is a Groundwater Sustainability Plan?

Herb Smart, Turlock Irrigation District, shared a verbal presentation on the Sustainable Groundwater Management Act, the formation of the Ground Water Sustainability Agencies (GSAs), and the development of the Groundwater Sustainability Plan (GSP).

3. Audience Check-In

Marisa solicited questions about Herb's presentation from the audience and invited participants to share their expectations for the meeting, or questions they would like to hear addressed.

Blanca Lozano shared that she and Hayde Sanchez are on the Delhi Municipal Advisory Council (MAC). Blanca shared that rural areas rely on their own domestic wells and expressed her belief that they should connect to the Delhi County Water District, so that they will not lack for access to water if their wells run dry or if they lose their homes. She shared that when she visits domestic well users and shares her perspective on connecting to the Water District, people ask why they should pay for the water service connection when they already have water. Blanca noted that this perspective does not consider the future. Blanca also shared her belief that domestic water users should use less water, particularly on lawn maintenance. She shared that many residents have told her that they are charged too much for their water use.

Leandro Maldonado shared that the Water District has sent letters to domestic well owners, offering to build connections to provide services. Aracely added that she and Blanca have canvassed the community and many people have received misinformation, leading them to believe that connecting to the Water District will cause their water rates to increase. She noted that many rural residents also buy drinking water because they don't trust their individual wells. The issue seems to be the misinformation that is impacting them financially, and they can't even use their groundwater.

To Aracely's point, Leandro shared that the Department of Water Resources (DWR) is paying for the connections and that the average bill for households is $40/month (about $500 per year).

Aracely asked the GSAs what they will do to monitor agricultural wells, through GSP implementation. She cited concerns related to the growing dairy and almond industry nearby. Lacey McBride replied that her presentation will speak to that question.

Lorena Alvarez asked a clarifying question about SGMA's purpose.

Hayde Sanchez shared an anecdote about the poor quality of tap water further south in the valley (it appears black when it comes out and smells bad) and expressed concern for the quality of water at schools. She asked whether individual homes could be outfitted with machine filtration.

A participant noted that they believed there should be different regulations and/or management actions for domestic users and agricultural users.

4. What the GSP Means for You and Your Community

Lacey McBride, Merced County, gave a presentation on the contents of the GSP, focusing on Sustainable Management Criteria (SMC), Measurable Objectives, Monitoring Networks, and Projects and Management Actions, particularly the Domestic Well Mitigation Program.

During the presentation, one of the participants asked whether drawing a well drawing sand was an indicator that it was going dry; Lacey replied that it is an indicator that the pump is near the bottom of the well.

Aracely asked whether there is a well monitor near the dairy farms. Lacey replied with information about the distribution of the monitoring network and how well monitors pick up information about adjacent pumpers.

Aracely asked the GSA if they could monitor for additional drinking water contaminants. Lacey clarified that the GSA is monitoring additional contaminants and if they reach a level of concern, they will be added to the SMC for degraded water quality.

Aracely asked for details on how the GSA determines whether an undesirable result has been triggered (i.e., how many wells go dry before they take action?) The GSA representatives shared that their goal is not to manage to the minimum, even though SGMA will allow that. The GSAs acknowledge that it is very hard to increase the groundwater level once it drops, so they want to avoid managing to the minimum.

Leandro Maldonado shared information about the Delhi County Water District.

Parry Klassen shared information about the Valley Water Collaborative and the resources available to rural domestic well users from his organization, including but not limited to interim emergency water, long term drinking water solutions and water quality testing for multiple drinking water contaminants.

5. Facilitated Question and Answer Session

One participant shared concerns about how there was supposed to be new housing built, but the limited water resources is driving unaffordability. The participant asked if the region wanted more houses or enough water.

Aracely shared her concern over the apparent necessity of the steadily increasing the strength of fertilizer, which leads to contaminated wells.

Blanca voiced that her community wants Delhi to grow. Aracely asked whether the GSAs can require land be repurposed from agriculture to housing? Lacey replied that they can change land use if water use will be reduced as a result of that repurposing. Herb mentioned the state Department of Conservation's $50 million Multibenefit Land Repurposing program that will to allow landowners to voluntarily put previously irrigated agricultural lands to work in new ways and ease the transition to sustainable groundwater management and water scarcity overall. Herb contrasted the difference between this program and temporary land fallowing programs that could be implemented in the Turlock Subbasin through the GSP.

6. **Closing Thoughts, Adjourn**

The participants shared that the Delhi community uses two Facebook pages, "We Are Delhi" and "Delhi Strong," and the GSAs should distribute information about the GSP there.

The GSA representatives thanked the community members for attending and provided follow-up information for how to stay connected.

The meeting was adjourned.

Printed Materials Available at the Meeting:

- Meeting Agenda [English and Spanish available]
- "What the GSP Means for You and Your Community" presentation slides
- Informational slides from Parry Klassen's presentation of the Valley Water Collaborative
- 2020 Delhi Consumer Confidence Report (Delhi County Water District)
- Letter to Property Owners Regarding Potential Connection to Water District (Delhi County Water District) [English and Spanish available]
- Dry Well Resources Flyer (Turlock Groundwater) [English and Spanish available]
- Bill Insert (Turlock Groundwater) [English and Spanish available]
- GSP Fact Sheet (Turlock Groundwater [English and Spanish available]
- https://turlockgroundwater.org/resources

Participants:

Members of the Public	Representatives of the GSAs	Supporting Staff
Joe Castilla	Herb Smart, Turlock Irrigation District	Parry Klassen, Valley Water Collaborative
Lorena Alvarez	Lacey McBride, Merced County	Leandro Maldonado, Delhi County Water District
Blanca Lozano	Debbie Montalbano, Turlock Irrigation District	Aracely Gonzalez, Leadership Counsel for Justice and Accountability
Hayde Sanchez		Marisa Perez-Reyes, Stantec
		Fernando Lopez, Lingustica Interpreting and Translation

Appendix E-9
Public Notices announcing Jan. 6, 2022, GSP Public Hearing

McClatchy

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
82023	192118	Print Legal Ad - IPL0054035		$197.58	1	48 L

Attention: Jesse Schwend

Formation Environmental
9741 Fairwood Street
Littleton, CO 80125

NOTICE OF PUBLIC HEARING OF THE EAST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY TO CONSIDER ADOPTION OF THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

Notice is hereby given that, pursuant to Water Code section 10728.4 and Government Code section 6066, the East Turlock Subbasin Groundwater Sustainability Agency shall hold a public hearing via remote teleconference on the Zoom platform at 5:00 p.m. on Thursday, January 6, 2022 to consider adoption of the Turlock Subbasin Groundwater Sustainability Plan (GSP). The GSP was developed pursuant to the Sustainable Groundwater Management Act (California Water Code, section 10720 et seq.) for the Turlock Subbasin (Groundwater Subbasin Number: 5-22.03) and provides information regarding the subbasin geology; hydrology and water supplies; the formation of Groundwater Sustainability Agencies; establishment of sustainable management criteria and monitoring networks; and programs and projects to be developed and implemented to achieve groundwater sustainability by the year 2042. Comments received prior to and during the public hearing will be considered by the East Turlock Subbasin Groundwater Sustainability Agency prior to adoption of the proposed GSP. A copy of the proposed GSP and information on how to submit comments can be found online at www.turlockgroundwater.org (under the "GSP" tab). The teleconference meeting details can be found online at: www.turlockgroundwater.org and will be available on the meeting agenda (once posted).
IPL0054035
Dec 23,30 2021

Declaration of Publication
2015.5 C.C.P.

STATE OF CALIFORNIA)
) ss.
County of Merced)

I am a citizen of the United States; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Merced Sun Star, a newspaper of general circulation, printed and published in the city of Merced, County of Merced, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Merced, State of California, under the date of July 14, 1964 Case Number 33224 that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

No. of Insertions: 2

Beginning Issue of: 12/23/2021

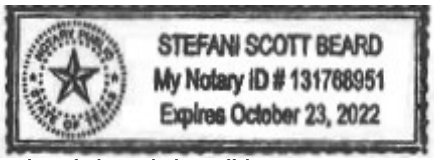
Ending Issue of: 12/30/2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Dallas, Texas on:

Date: 29th, day of December, 2021

Stefani Beard

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!

McClatchy

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
82023	192122	Print Legal Ad - IPL0054036		$425.06	1	48 L

Attention: Jesse Schwend

Formation Environmental
9741 Fairwood Street
Littleton, CO 80125

NOTICE OF PUBLIC HEARING OF THE EAST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY TO CONSIDER ADOPTION OF THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

Notice is hereby given that, pursuant to Water Code section 10728.4 and Government Code section 6066, the East Turlock Subbasin Groundwater Sustainability Agency shall hold a public hearing via remote teleconference on the Zoom platform at 5:00 p.m. on Thursday, January 6, 2022 to consider adoption of the Turlock Subbasin Groundwater Sustainability Plan (GSP). The GSP was developed pursuant to the Sustainable Groundwater Management Act (California Water Code, section 10720 et seq.) for the Turlock Subbasin (Groundwater Subbasin Number: 5-22.03) and provides information regarding the subbasin geology; hydrology and water supplies; the formation of Groundwater Sustainability Agencies; establishment of sustainable management criteria and monitoring networks; and programs and projects to be developed and implemented to achieve groundwater sustainability by the year 2042. Comments received prior to and during the public hearing will be considered by the East Turlock Subbasin Groundwater Sustainability Agency prior to adoption of the proposed GSP. A copy of the proposed GSP and information on how to submit comments can be found online at www.turlockgroundwater.org (under the "GSP" tab). The teleconference meeting details can be found online at: www.turlockgroundwater.org and will be available on the meeting agenda (once posted).
IPL0054036
Dec 23,30 2021

Declaration of Publication
C.C.P. S2015.5

STATE OF CALIFORNIA)
) ss.
County of Stanislaus)

I am a citizen of the United States; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Modesto Bee, a newspaper of general circulation, printed and published in the city of Modesto, County of Stanislaus, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Stanislaus, State of California, under the date of February 25, 1951 Action No. 46453 that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

No. of Insertions: 2

Beginning Issue of: 12/23/2021

Ending Issue of: 12/30/2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Dallas, Texas on:

Date: 29th, day of December, 2021

Stefani Beard

Notary Public in and for the state of Texas, residing in Dallas County

STEFANI SCOTT BEARD
My Notary ID # 131768951
Expires October 23, 2022

Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!

McClatchy

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
16803	186288	Print Legal Ad - IPL0052612	Attn: Jennifer M. Land	$204.42	1	50 L

Attention: Jennifer M. Land

TURLOCK IRRIGATION DISTRICT
PO BOX 949
TURLOCK, CA 95381

NOTICE OF PUBLIC HEARING OF THE WEST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY TO CONSIDER ADOPTION OF THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

Notice is hereby given that, pursuant to Water Code section 10728.4 and Government Code section 6066, the West Turlock Subbasin Groundwater Sustainability Agency shall hold a public hearing via remote teleconference on the Zoom platform at 5:00 p.m. on Thursday, January 6, 2022 to consider adoption of the Turlock Subbasin Groundwater Sustainability Plan (GSP). The GSP was developed pursuant to the Sustainable Groundwater Management Act (California Water Code, section 10720 et seq.) for the Turlock Subbasin (Groundwater Subbasin Number: 5-22.03) and provides information regarding the subbasin geology; hydrology and water supplies; the formation of Groundwater Sustainability Agencies; establishment of sustainable management criteria and monitoring networks; and programs and projects to be developed and implemented to achieve groundwater sustainability by the year 2042. Comments received prior to and during the public hearing will be considered by the West Turlock Subbasin Groundwater Sustainability Agency prior to adoption of the proposed GSP. A copy of the proposed GSP and information on how to submit comments can be found online at: www.turlockgroundwater.org (under the "GSP" tab). The teleconference meeting details can be found online at: www.turlockgroundwater.org and will be available on the meeting agenda (once posted).
IPL0052612
Dec 22,29 2021

Declaration of Publication 2015.5 C.C.P.

STATE OF CALIFORNIA)
) ss.
County of Merced)

I am a citizen of the United States; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Merced Sun Star, a newspaper of general circulation, printed and published in the city of Merced, County of Merced, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Merced, State of California, under the date of July 14, 1964 Case Number 33224 that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

No. of Insertions: 2

Beginning Issue of: 12/22/2021

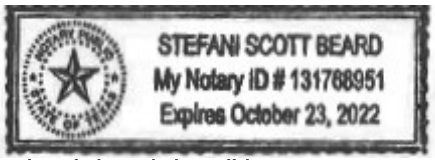
Ending Issue of: 12/29/2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Dallas, Texas on:

Date: 29th, day of December, 2021

Stefani Beard

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!

McClatchy

Beaufort Gazette
Belleville News-Democrat
Bellingham Herald
Bradenton Herald
Centre Daily Times
Charlotte Observer
Columbus Ledger-Enquirer
Fresno Bee
The Herald - Rock Hill
Herald Sun - Durham
Idaho Statesman
Island Packet
Kansas City Star
Lexington Herald-Leader
Merced Sun-Star
Miami Herald
el Nuevo Herald - Miami
Modesto Bee
Raleigh News & Observer
The Olympian
Sacramento Bee
Fort Worth Star-Telegram
The State - Columbia
Sun Herald - Biloxi
Sun News - Myrtle Beach
The News Tribune Tacoma
The Telegraph - Macon
San Luis Obispo Tribune
Tri-City Herald
Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
16803	187774	Print Legal Ad - IPL0052666	ATTN: Jennifer M. Land	$442.72	1	50 L

Attention: Jennifer M. Land

TURLOCK IRRIGATION DISTRICT
PO BOX 949
TURLOCK, CA 95381

NOTICE OF PUBLIC HEARING OF THE WEST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY TO CONSIDER ADOPTION OF THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

Notice is hereby given that, pursuant to Water Code section 10728.4 and Government Code section 6066, the West Turlock Subbasin Groundwater Sustainability Agency shall hold a public hearing via remote teleconference on the Zoom platform at 5:00 p.m. on Thursday, January 6, 2022 to consider adoption of the Turlock Subbasin Groundwater Sustainability Plan (GSP). The GSP was developed pursuant to the Sustainable Groundwater Management Act (California Water Code, section 10720 et seq.) for the Turlock Subbasin (Groundwater Subbasin Number: 5-22.03) and provides information regarding the subbasin geology; hydrology and water supplies; the formation of Groundwater Sustainability Agencies; establishment of sustainable management criteria and monitoring networks; and programs and projects to be developed and implemented to achieve groundwater sustainability by the year 2042. Comments received prior to and during the public hearing will be considered by the West Turlock Subbasin Groundwater Sustainability Agency prior to adoption of the proposed GSP. A copy of the proposed GSP and information on how to submit comments can be found online at: www.turlockgroundwater.org (under the "GSP" tab). The teleconference meeting details can be found online at: www.turlockgroundwater.org and will be available on the meeting agenda (once posted).
IPL0052666
Dec 22,29 2021

Declaration of Publication C.C.P. S2015.5

STATE OF CALIFORNIA)
) ss.
County of Stanislaus)

I am a citizen of the United States; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Modesto Bee, a newspaper of general circulation, printed and published in the city of Modesto, County of Stanislaus, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Stanislaus, State of California, under the date of February 25, 1951 Action No. 46453 that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

No. of Insertions: 2

Beginning Issue of: 12/22/2021

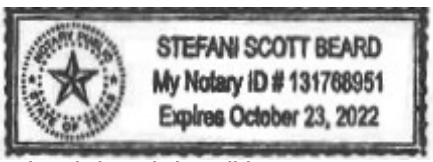
Ending Issue of: 12/29/2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Dallas, Texas on:

Date: 29th, day of December, 2021

Stefani Beard

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
Legal document please do not destroy!

Affidavit of Publication

PUBLIC NOTICE

STATE OF CALIFORNIA,
County of Stanislaus

SARAH SHORMAN

Of the said County, being duly sworn, deposes and says:

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of twenty-one years, and not a party to or interested in the above entitled matter. I am the principal clerk of THE TURLOCK DAILY JOURNAL, 121 South Center Street, 2nd Floor, Turlock, California, a newspaper of general circulation, published in Turlock, California in the City of Turlock, County of Stanislaus, and which newspaper has been adjudged a newspaper of general circulation, by the Superior Court of the County of Stanislaus, State of California. That the

notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper

DECEMBER 22, 29, 2021

I certify (or declare) under penalty of perjury that the foregoing is true and correct, this 29th of DECEMBER 2021.

Sarah Shorman

Principal Clerk of the Printer

PUBLIC NOTICE

NOTICE OF PUBLIC HEARING OF THE WEST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY TO CONSIDER ADOPTION OF THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

Notice is hereby given that, pursuant to Water Code section 10728.4 and Government Code section 6066, the West Turlock Subbasin Groundwater Sustainability Agency shall hold a public hearing via remote teleconference on the Zoom platform at 5:00 p.m. on Thursday, January 6, 2022 to consider adoption of the Turlock Subbasin Groundwater Sustainability Plan (GSP). The GSP was developed pursuant to the Sustainable Groundwater Management Act (California Water Code, section 10720 et seq.) for the Turlock Subbasin (Groundwater Subbasin Number: 5-22.03) and provides information regarding the subbasin geology; hydrology and water supplies; the formation of Groundwater Sustainability Agencies; establishment of sustainable management criteria and monitoring networks; and programs and projects to be developed and implemented to achieve groundwater sustainability by the year 2042. Comments received prior to and during the public hearing will be considered by the West Turlock Subbasin Groundwater Sustainability Agency prior to adoption of the proposed GSP. A copy of the proposed GSP and information on how to submit comments can be found online at: www.turlockgroundwater.org (under the "GSP" tab).

The teleconference meeting details can be found online at: www.turlockgroundwater.org and will be available on the meeting agenda (once posted).

To be published on: December 22, 2021 and December 29, 2021

TJ#12-118

Appendix E-10
Email Distribution Report

Email Distribution Report | through Jan. 6, 2022

Email Subject Line	Send Date	Total Recipients	Successful Deliveries	Unique Opens	Open Rate	Total Opens	Unique Clicks	Click Rate	Total Clicks
Notice | Jan. 24 TAC Meeting	1/22/2019 11:02	228	221	88	39.82%	276	41	18.55%	70
Notice | Feb. 7 West Turlock Subbasin GSA Meeting	2/2/2019 10:58	227	221	94	42.53%	236	47	21.27%	727
Notice | Feb. 28 TAC Meeting	2/22/2019 16:24	233	229	87	37.99%	172	39	17.03%	84
Notice | Feb. 28 East Turlock Subbasin GSA Meeting	2/26/2019 11:29	233	229	89	38.86%	153	40	17.47%	66
Join us March 12 for GSP Community Workshop No. 3 in Denair	3/1/2019 10:57	235	231	90	38.96%	206	22	9.52%	34
Agenda for next week's GSP Community Workshop in Denair	3/4/2019 10:21	237	233	87	37.34%	268	16	6.87%	29
Notice | March 28 TAC Meeting	3/22/2019 14:14	235	234	97	41.45%	211	40	17.09%	55
Notice | March 28 East Turlock Subbasin GSA Meeting	3/25/2019 9:47	234	234	82	35.04%	153	39	16.67%	59
Turlock Subbasin SGMA Newsletter | March 27, 2019	3/27/2019 10:43	234	234	76	32.48%	202	26	11.11%	58
Notice | April 25 East Turlock Subbasin GSA Meeting	4/22/2019 14:28	235	234	85	36.32%	218	30	12.82%	55
Notice | April 25 TAC Meeting	4/23/2019 5:30	235	234	83	35.47%	141	31	13.25%	50
Cancellation Notice| No April 25 East Turlock Subbasin GSA Meeting	4/24/2019 8:51	235	234	72	30.77%	115	19	8.12%	28
Notice | May 2 West Turlock Subbasin GSA Meeting	4/29/2019 11:04	236	235	79	33.62%	150	31	13.19%	250
East Turlock Subbasin GSA Board Meeting |Â May 23, 2019	5/17/2019 13:11	238	236	77	32.63%	146	28	11.86%	41
West Turlock Subbasin TAC Meeting | May 23, 2019	5/17/2019 13:50	237	236	81	34.32%	178	42	17.80%	86
Notice | July 18 West Turlock Subbasin GSA Special Meeting	7/15/2019 16:24	243	243	97	39.92%	239	45	18.52%	237
West Turlock Subbasin TAC Meeting | July 25, 2019	7/19/2019 15:02	244	244	86	35.25%	168	35	14.34%	51
Turlock Subbasin TAC Meeting | Aug. 22, 2019	8/19/2019 15:08	248	247	95	38.46%	217	52	21.05%	85
Turlock Subbasin TAC Meeting | Sept. 26, 2019	9/20/2019 16:01	249	247	91	36.84%	176	40	16.19%	73
Notice | Sept. 26 West Turlock Subbasin GSA Special Meeting	9/23/2019 16:42	247	246	87	35.37%	163	32	13.01%	464
East Turlock Subbasin GSA Board Meeting | Sept. 26, 2019	9/24/2019 14:56	247	245	76	31.02%	151	30	12.24%	58
Turlock Subbasin TAC Meeting | Oct. 24, 2019	10/21/2019 9:13	246	244	94	38.52%	231	38	15.57%	64
News from the Turlock Subbasin | September 2019	10/22/2019 6:30	245	245	77	31.43%	330	17	6.94%	27
Notice | Nov. 7 West Turlock Subbasin GSA Meeting	11/4/2019 9:18	247	247	89	36.03%	166	43	17.41%	1460
News from the Turlock Subbasin | November 2019	11/25/2019 10:18	251	250	94	37.60%	178	13	5.20%	22
Turlock Subbasin Technical Workshop No. 4 this Thursday	12/9/2019 8:57	254	254	91	35.83%	187	36	14.17%	59
Groundwater meetings set for Thursday	1/22/2020 11:57	256	256	101	39.45%	229	38	14.84%	88
Notice | Feb. 6 West Turlock Subbasin GSA Meeting	2/3/2020 8:34	256	252	103	40.87%	221	50	19.84%	95
New SGMA video released moments ago!	2/7/2020 10:01	259	254	93	36.61%	700	37	14.57%	156
ðŸ'§Â GSP Workshop set for Thursday in Denair at 2 p.m.	2/24/2020 16:04	267	262	89	33.97%	261	27	10.31%	50
Important News from Turlock Groundwater	3/20/2020 14:20	278	273	121	44.32%	343	26	9.52%	58
TAC meeting today at 2 pm via Zoom conference call	3/26/2020 10:43	278	273	104	38.10%	331	39	14.29%	88
Turlock Subbasin Stakeholder Newsletter | April 2, 2020	4/2/2020 16:24	279	274	98	35.77%	202	12	4.38%	27
Participate in Thursday's groundwater meetings	4/20/2020 10:40	281	275	94	34.18%	274	29	10.55%	59
Stakeholder reminder: TACs meeting today at 2 pm	4/23/2020 10:59	281	275	82	29.82%	177	34	12.36%	52
Turlock Subbasin Stakeholder Newsletter | May 18, 2020	5/18/2020 16:03	283	278	94	33.81%	233	13	4.68%	35
Notice: Next Thursday's TAC meeting	5/22/2020 9:28	284	281	87	30.96%	190	26	9.25%	38
Participate in (all three!Â ðŸ˜®) groundwater meetings Thursday	5/27/2020 14:24	284	281	94	33.45%	339	31	11.03%	84
Tomorrow's special meeting of the Turlock Subbasin TACs	6/10/2020 9:59	286	284	104	36.62%	261	44	15.49%	109

Email Subject Line	Send Date	Total Recipients	Successful Deliveries	Unique Opens	Open Rate	Total Opens	Unique Clicks	Click Rate	Total Clicks
ðŸ™‹Â Just how do I comment before/during today's TACs meeting?	6/11/2020 8:59	286	282	83	29.43%	174	16	5.67%	38
Reminder | today's 2 pm meeting of the Turlock Subbasin TACs	6/25/2020 12:02	286	282	92	32.62%	264	35	12.41%	94
âœ‹Â Got questions? Want to learn? Join us at July 8 Workshops!Â ðŸ™‹	7/2/2020 10:10	291	287	77	26.83%	428	16	5.57%	78
Register for tomorrow's Virtual Community WorkshopsÂ ðŸ‘	7/7/2020 10:08	294	290	91	31.38%	186	24	8.28%	30
There's still time!Â ðŸ˜²Â Community Workshops at 11 am and 5 pm today	7/8/2020 8:29	294	290	89	30.69%	166	32	11.03%	63
Special meeting of the Turlock Subbasin TACs tomorrow	7/8/2020 13:16	296	292	93	31.85%	191	36	12.33%	65
ðŸ‘¥Â Following up with you re: this week's meetingsÂ ðŸ’¬	7/10/2020 16:20	295	294	87	29.59%	226	15	5.10%	36
ðŸ’¦Â One Thursday, Two Groundwater MeetingsÂ ðŸ˜¯	7/20/2020 14:57	296	294	98	33.33%	218	29	9.86%	64
ðŸ’¬Â Surveys, news and video wrap up busy July	7/24/2020 16:30	294	293	96	32.76%	257	17	5.80%	26
Looking for a few good well ownersÂ ðŸŒ€	7/31/2020 14:19	296	294	101	34.35%	427	17	5.78%	40
ðŸÂ of Groundwater Meetings this Thursday!	8/11/2020 10:35	295	294	96	32.65%	205	18	6.12%	43
Reminder: â›²Â Groundwater meetings today at 2 and 5 p.m.	8/13/2020 9:57	295	293	80	27.30%	190	25	8.53%	49
ðŸš©Â Flagging this important TAC meeting Thursday	8/24/2020 11:10	295	294	100	34.01%	268	25	8.50%	52
â˜ŽÂ East Turlock Subbasin GSA Board to meet Thursday morning	8/25/2020 8:57	296	296	85	28.72%	218	23	7.77%	48
ðŸ’-Â Groundwater meetings at 10 am and 2 pm today	8/27/2020 9:17	296	295	83	28.14%	175	29	9.83%	81
Join us next week at our Sept. 16 Virtual Community Workshops!Â ðŸ™‹	9/9/2020 13:59	301	299	66	22.07%	152	14	4.68%	29
Register for Wednesday's Virtual Community Workshops!Â ðŸ™‹	9/14/2020 16:07	302	301	76	25.25%	208	19	6.31%	39
ðŸ”ŒÂ Still time to register for today's Virtual Community Workshops!	9/16/2020 7:00	304	304	75	24.67%	195	16	5.26%	34
Yesterday's Virtual Community WorkshopsÂ ðŸ‘	9/17/2020 13:02	304	304	75	24.67%	200	17	5.59%	37
We've got a video series you should seeÂ ðŸ˜ƒ	10/5/2020 15:09	307	307	93	30.29%	190	14	4.56%	229
Projected water budgets ðŸ“ˆ , projects and fundingÂ ðŸ’µ to be discussed Thursday	10/21/2020 14:29	310	309	107	34.63%	357	31	10.03%	98
â”What are Groundwater Dependent Ecosystems? Do we have them here? Learn more Thursdayâ”	11/4/2020 8:57	312	312	86	27.56%	243	13	4.17%	31
ðŸ•Join us for a lunch convo Nov. 11Â ðŸ”	11/4/2020 14:30	312	312	79	25.32%	192	9	2.88%	11
Corrected Date |Â ðŸ•Join us for a lunch convo Nov. 13Â ðŸ”	11/5/2020 12:44	312	312	75	24.04%	159	2	0.64%	7
Friday the 13th need not be eerieÂ ðŸ™€	11/10/2020 11:04	312	312	76	24.36%	151	3	0.96%	4
Join us for lunch this FridayÂ ðŸ²Â (and groundwater conversations)	11/12/2020 9:21	312	312	68	21.79%	232	14	4.49%	29
Baseline Water Budget Scenario to be discussed tomorrowÂ ðŸ’»	11/18/2020 12:33	313	313	86	27.48%	309	20	6.39%	42
Thursday TACs followed by Friday snacks!Â ðŸ”	12/14/2020 14:03	316	315	83	26.35%	217	9	2.86%	21
ðŸ”ŒÂ Join us Friday for our second Groundwater Lunch Hour	12/15/2020 13:27	315	298	60	20.13%	238	7	2.35%	22
Friday's Groundwater Lunch Hour coming soonÂ ðŸš°	12/16/2020 10:45	316	316	64	20.25%	150	5	1.58%	11
Baseline ScenarioÂ ðŸ“ˆ to be discussed today at 2 p.m. TACs meeting	12/17/2020 8:18	316	316	78	24.68%	313	19	6.01%	60
Join us anytime from 12:30 to 1:30 today for groundwater conversationsÂ ðŸ˜€	12/18/2020 9:52	317	317	58	18.30%	130	3	0.95%	6

Email Subject Line	Send Date	Total Recipients	Successful Deliveries	Unique Opens	Open Rate	Total Opens	Unique Clicks	Click Rate	Total Clicks
Resolve to be involved in groundwater 2021. Join us ThursdayÂ ðŸ’¬	1/12/2021 14:30	318	318	89	27.99%	208	10	3.14%	25
Join us Jan. 29 for our next Groundwater Lunch Hour	1/19/2021 14:25	320	320	85	26.56%	205	7	2.19%	7
ðŸ“°Â Turlock Subbasin Newsletter | Jan. 25, 2021	1/25/2021 11:47	320	320	92	28.75%	197	16	5.00%	44
Today's the day to talk groundwater at lunch!	1/29/2021 11:10	320	320	72	22.50%	133	8	2.50%	12
West Turlock Subbasin GSA Board meet Thursday nightÂ ðŸ•Ÿ	2/2/2021 9:09	319	319	82	25.71%	208	18	5.64%	35
Join us at 2 pm today for a special meeting of the TAC	2/11/2021 8:37	319	319	81	25.39%	168	15	4.70%	50
ðŸ†•Â Joint fact sheet released and other resources available	2/16/2021 10:10	322	321	84	26.17%	188	28	8.72%	53
Join us in a couple hours for the 10 a.m. meeting of the East Turlock Subbasin GSA	2/25/2021 8:26	324	322	76	23.60%	198	17	5.28%	38
Light agenda for Thursday night's WTS GSA Board meetingÂ ðŸ•Ÿ	3/3/2021 10:03	325	325	82	25.23%	208	18	5.54%	39
â˜Â Loaded agendas for Thursday meetings	3/10/2021 15:13	325	325	96	29.54%	189	23	7.08%	58
Wanna lunch? ðŸ±Â Ask questions? Provide comments? We got you.	3/16/2021 10:30	328	328	86	26.22%	189	10	3.05%	17
â“Didn't we just email about this last ðŸ™Â week?	3/17/2021 11:50	328	327	88	26.91%	204	10	3.06%	20
ðŸ’§Â Apply for this free Groundwater and Leadership Opportunity	3/24/2021 10:28	328	328	98	29.88%	294	32	9.76%	85
Reminder to join us at 2 p.m. todayÂ ðŸ’¬	3/25/2021 13:11	329	329	71	21.58%	148	13	3.95%	50
Jump on the line to talk groundwater today at 12:30 p.m.	3/26/2021 9:24	329	329	80	24.32%	155	5	1.52%	9
We would love to see you at tomorrow's ETS TAC meeting	3/31/2021 12:24	329	329	88	26.75%	212	16	4.86%	49
Turlock Subbasin Newsletter | April 5, 2021	4/5/2021 12:10	329	328	86	26.22%	202	16	4.88%	38
Two GSA board meetings on the docket tomorrowÂ ðŸ‘‚	4/7/2021 10:45	329	329	82	24.92%	198	19	5.78%	55
ðŸ”œðŸ•’Â Only a few more days to apply to the Water Leadership Institute	4/14/2021 15:36	333	331	84	25.38%	175	13	3.93%	23
Join us at today's East Turlock Subbasin GSA Technical Committee meeting	4/15/2021 8:15	332	330	72	21.82%	174	15	4.55%	22
We've got a lot to share with you this week!Â ðŸ†•	4/19/2021 12:08	331	330	88	26.67%	181	21	6.36%	58
Two days, two meetings, two opportunities for you!Â ðŸ™‹	4/28/2021 12:51	333	330	89	26.97%	183	24	7.27%	47
Join us at Monday's East Turlock Subbasin GSA Technical Committee meeting	5/7/2021 15:53	332	329	91	27.66%	210	16	4.86%	30
ðŸ˜€Â We have a pair of meetings tomorrow for you!	5/12/2021 9:37	331	330	80	24.24%	188	18	5.45%	41
Join us for two East Turlock Subbasin meetings next week	5/21/2021 15:31	331	330	85	25.76%	200	18	5.45%	48
You want groundwater meetings this week? You got em!Â Â ðŸ’-	5/24/2021 13:28	331	331	82	24.77%	192	12	3.63%	34
West Turlock Subbasin GSA Board meets tomorrow at 5 p.m.	6/2/2021 9:17	331	330	89	26.97%	206	17	5.15%	26
ðŸ‘€Â Special meeting of the TACs today at 2 p.m.	6/10/2021 8:50	334	331	87	26.28%	137	13	3.93%	29
3 GSP draft chapters may be released Thursday night for public commentÂ ðŸ“	7/6/2021 9:58	338	336	103	30.65%	201	17	5.06%	36
Tonight's 5 p.m. Joint GSA Boards meeting a significant one for the GSPÂ Â ðŸ“‹	7/8/2021 9:28	339	337	89	26.41%	183	14	4.15%	24
Groundwater Sustainability Plan Chapters 1, 2 and 4 available for commentÂ ðŸ˜€	7/12/2021 11:14	338	336	88	26.19%	244	21	6.25%	34
You can't manage what you can't measureÂ ðŸ“Š	7/19/2021 14:25	338	336	120	35.71%	241	15	4.46%	61
Two East Turlock Subbasin GSA-related meetings this week, starting tomorrow	8/9/2021 14:29	346	344	97	28.20%	207	17	4.94%	44

Email Subject Line	Send Date	Total Recipients	Successful Deliveries	Unique Opens	Open Rate	Total Opens	Unique Clicks	Click Rate	Total Clicks
Two groundwater meetings today! 10 a.m. and 2 p.m.Â ðŸ˜Ž	8/12/2021 9:21	346	344	95	27.62%	193	23	6.69%	74
Join us Sept. 2 to talk Draft GSP ChaptersÂ ðŸ“£	8/18/2021 9:54	350	348	83	23.85%	199	18	5.17%	48
This week's meetings, a new video ðŸ“º and more!	8/23/2021 14:48	352	350	93	26.57%	184	22	6.29%	83
Draft GSP Chapter 5 (Water Budgets) likely to be released Monday nightÂ ðŸ“‹	8/27/2021 13:06	358	356	95	26.69%	240	10	2.81%	26
Tonight's meeting likely to feature release of Draft GSP Chapter 5 (Water Budgets)Â ðŸ“š	8/30/2021 9:06	360	358	104	29.05%	209	18	5.03%	29
Groundwater Sustainability Plan Chapter 5 (Water Budgets) available for commentÂ ðŸ˜Ž	8/31/2021 11:39	359	358	112	31.28%	275	22	6.15%	45
Talk GSP Water Budgets with us next Thursday 9/16! ðŸ’¬	9/10/2021 10:32	358	357	93	26.05%	232	10	2.80%	19
Chat with us about GSP Water Budgets on Thursday!Â ðŸ˜Ž	9/13/2021 8:24	359	358	93	25.98%	154	9	2.51%	19
Two Important Groundwater Meetings Tomorrow (noon and 2 p.m.) ðŸ“†	9/15/2021 8:58	362	361	98	27.15%	173	12	3.32%	20
There's no such thing as a free lunch!!!!?Â ðŸ”	9/16/2021 9:15	362	360	92	25.56%	164	12	3.33%	31
ðŸ˜® So much going on! Starting with today's 2 p.m. meeting! ðŸ•–	9/23/2021 10:46	364	363	92	25.34%	166	21	5.79%	47
â—Advisory | Special Meeting of the TACs Monday at 3 p.m.Â ðŸ•’	10/1/2021 16:10	368	367	126	34.33%	215	18	4.90%	28
ðŸ“‚Â Turlock Subbasin Newsletter for Monday, Oct. 4	10/4/2021 9:56	367	367	111	30.25%	224	21	5.72%	36
Heads up | Contractor helping us update our Interested Parties ListÂ ðŸ“‹	10/6/2021 9:23	368	368	106	28.80%	201	2	0.54%	18
ðŸ‘‰ Special meeting of the East Turlock Subbasin TAC on Monday	10/8/2021 14:57	370	368	133	36.14%	244	22	5.98%	56
ðŸ“šÂ Join us at tomorrow night's Special Meeting of the two GSAs	10/18/2021 11:01	369	368	106	28.80%	212	20	5.43%	35
ðŸ™‹Â Comment on how we are defining sustainability before Nov. 19Â ðŸ’-	10/20/2021 13:48	369	368	102	27.72%	195	12	3.26%	44
ðŸŽŽÂ Do you like meetings? Well, how 'bout these meetings?!Â ðŸ	10/26/2021 11:29	371	370	94	25.41%	174	11	2.97%	28
â˜• Be our guest and put our meetings to the testÂ ðŸ”±	10/28/2021 10:02	371	370	93	25.14%	188	12	3.24%	30
ðŸ”œ The (virtual) office doors open tonight at 6 p.m.Â ðŸšª	10/28/2021 15:30	370	369	107	29.00%	159	5	1.36%	23
Special TACs meeting via Zoom tomorrow at 2 p.m.Â ðŸ˜€	11/3/2021 11:20	372	372	98	26.34%	178	19	5.11%	73
ðŸ‘‰ Turlock Subbasin Newsletter | Nov. 8, 2021 ðŸ‘‡	11/8/2021 12:53	373	373	101	27.08%	182	10	2.68%	23
Our 9th Virtual Office Hours set for Nov. 18 at noonÂ ðŸ•	11/9/2021 11:19	373	372	100	26.88%	183	5	1.34%	19
âœ” Check out the Turlock Groundwater Nov. 12, 2021 Newsletter	11/12/2021 12:19	374	374	105	28.07%	178	13	3.48%	21
Three is the magic numberÂ 3ï¸âƒ£ tonight! Join us tonight!	11/15/2021 9:51	374	374	130	34.76%	215	12	3.21%	29
Public Hearing Date set for Jan. 6, 2022 to adopt GSP ðŸ™‹	11/16/2021 13:58	374	374	116	31.02%	311	18	4.81%	49
TACs talk annual report and environmental review tomorrow at 2!Â ðŸ’¬	11/17/2021 11:05	375	375	108	28.80%	207	10	2.67%	29
Missed yesterday's meeting? We've got video for youÂ ðŸ“¼	11/19/2021 10:31	375	375	111	29.60%	186	14	3.73%	32
Time is running out to comment on the Turlock Subbasin GSPÂ ðŸ•ž	12/3/2021 9:26	374	374	117	31.28%	237	11	2.94%	24
Meeting tomorrow at 2 p.m.; GSP comments requested by next week	12/8/2021 13:40	376	376	136	36.17%	234	19	5.05%	55
When the sweetest groundwater dreams will never do...we got you ðŸ˜‰	12/10/2021 10:30	376	376	131	34.84%	220	13	3.46%	30
Only three more days remain to comment on the GSPÂ ðŸ’¬	12/13/2021 10:37	375	374	138	36.90%	258	14	3.74%	26
Joint GSAs meet virtually tomorrow at 5 p.m.Â ðŸš©	12/14/2021 13:52	376	375	127	33.87%	217	9	2.40%	30

Email Subject Line	Send Date	Total Recipients	Successful Deliveries	Unique Opens	Open Rate	Total Opens	Unique Clicks	Click Rate	Total Clicks
ðŸ’¬ Learn about comment response process tonight at 5 p.m. GSAs meeting	12/15/2021 10:33	374	374	126	33.69%	227	12	3.21%	32
What pairs best with those baked ðŸª treats? Answer may surprise you!	12/21/2021 9:05	376	376	142	37.77%	279	16	4.26%	41
Join us Tuesday for an important TACs meeting as we finalize GSP â˜Ž	12/30/2021 10:46	377	376	149	39.63%	320	22	5.85%	51
Tomorrow is the BIG day for GSP adoption ðŸ˜¯	1/5/2022 11:02	377	375	153	40.80%	328	20	5.33%	44
ðŸš© GSP Public Hearing and possible GSP adoption tonight at 5 p.m. â°	1/6/2022 12:53	380	378	131	34.66%	296	20	5.29%	57
			44,133 successful delivieries						

Appendix E-11
Examples of Turlock Subbasin Informational Materials

ABOUT THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCIES

TURLOCK GROUNDWATER

TURLOCK SUBBASIN FACTS

The Subbasin provides water to cities, counties, water agencies, landowners and more.

The area of the Subbasin is 347,000 acres with 72% being irrigated crops, 15% is non-irrigated area, and 7% is urban development.

The Subbasin is primarily supplied by the Tuolumne River. The Merced River provides a smaller portion as well.

Deep percolation of irrigation water plays a major role in maintaining groundwater levels.

The Sustainable Groundwater Management Act (SGMA) enables local agencies to manage groundwater locally so long as specific actions are taken and timelines met. SGMA required local agencies to form Groundwater Sustainability Agencies (GSAs) covering the entire Turlock Subbasin before July 2017. GSAs are required to develop and implement a Groundwater Sustainability Plan (GSP) or plans to achieve sustainability and prevent undesirable results. Under SGMA, failure to comply with any of these requirements may lead to State intervention. Should this happen, the State Water Resources Control Board (SWRCB) may require reporting, may charge fees and could create interim management plans until such time that local agencies are able to take over.

The Turlock Subbasin's local agencies eligible to form GSAs entered into lengthy discussions after SGMA became enacted into law in 2014. As a result, two GSAs formed within the Subbasin: the West Turlock Subbasin Groundwater Sustainability Agency (West Turlock Subbasin GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (East Turlock Subbasin GSA). The boundary separating the two GSAs is generally the Turlock Irrigation District's eastern irrigation service area boundary. Both GSAs held public hearings and took official action electing to be the GSA for their respective areas. The GSAs submitted the necessary documentation to the Department of Water Resources (DWR) prior to the July 2017 deadline.

The West Turlock Subbasin GSA (consisting of 12 public agencies) and the East Turlock Subbasin GSA (five agencies) are jointly developing a single GSP to manage groundwater sustainably through at least 2042. The GSP is due to DWR before January 31, 2022.

ABOUT THE TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCIES

TURLOCK GROUNDWATER

1 FORM GSAs

Local agencies to form GSAs by 6/30/17, or State may intervene

2 DEVELOP GSPs

Turlock Subbasin GSAs submit GSP(s) by 1/31/22, or State may intervene

3 GET RESULTS

No undesirable results, meet goals, or State may intervene

GET INVOLVED!

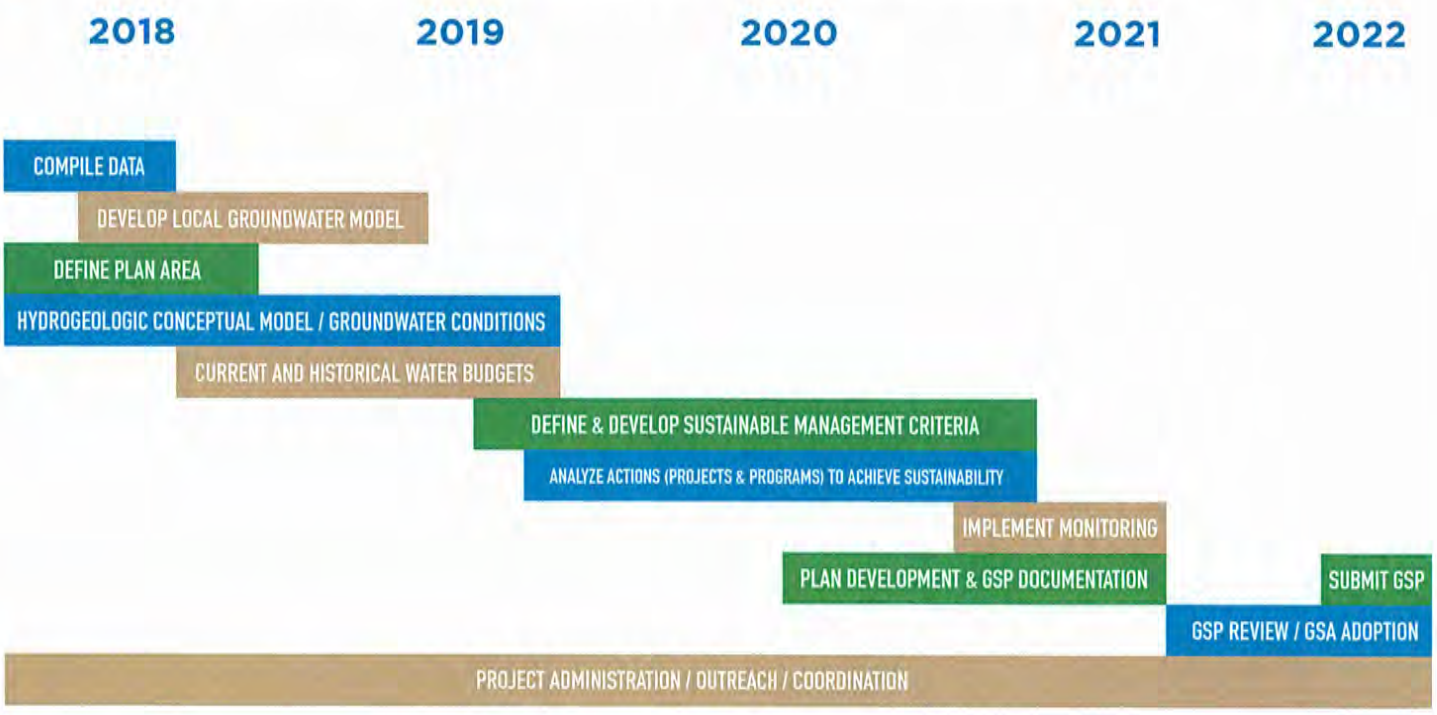
Learn when meetings are and get in touch online – **turlockgroundwater.org**

GSA ROLES

The current task of the GSAs at current is the development of a Groundwater Sustainability Plan (GSP) to achieve sustainability by 2042. Although GSP approval is a key milestone toward SGMA compliance, GSAs have an ongoing responsibility to manage local groundwater resources to achieve sustainability. Upon GSP completion, GSAs must submit annual progress reports to DWR and update the GSP every five years.

GSAs are provided tools and authorities through SGMA to develop and implement GSPs. For example, GSAs can require registration of wells, require reporting, assess fees to fund SGMA efforts, measure and manage extractions, and develop programs and facilities for groundwater recharge. All of which are intended to help manage groundwater and comply with SGMA.

The Turlock Subbasin must be covered by a DWR-approved GSP by January 31, 2022. The Turlock GSAs are planning to adopt a single GSP covering the entire Turlock Subbasin. GSPs require a significant amount of information and analysis to determine the best approach for achieving sustainability and avoiding undesirable results. GSPs also require significant education and outreach. To keep informed and get involved in the process, visit turlockgroundwater.org.



PROP 1 WATER BOND 2014

Funding for this project has been provided in full or in part from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and through an agreement with the State Department of Water Resources.

ACERCA DE LA SUBCUENCA TURLOCK

AGENCIAS DE SOSTENIBILIDAD DE AGUAS SUBTERRÁNEAS

TURLOCK GROUNDWATER

DATOS DE LA SUBCUENCA TURLOCK

La Subcuenca proporciona agua a ciudades, condados, agencias de agua, a propietarios de tierras y más.

El área de la Subcuenca es de 347,000 acres, con 72% de cultivos de riego, 15% de área sin riego y 7% de desarrollo urbano.

La subcuenca es abastecida principalmente por el río Tuolumne. El río Merced también proporciona una porción más pequeña.

La filtración profunda del agua de riego juega un papel importante en el mantenimiento de los niveles de agua subterránea.

La Ley de Gestión Sostenible de las Aguas Subterráneas (SGMA, por sus siglas en inglés) permite a las agencias locales gestionar las aguas subterráneas localmente, siempre que se tomen medidas específicas y se cumplan los plazos. SGMA exigió a las agencias locales que crearan Agencias de Sostenibilidad de Aguas Subterráneas (GSA) que atendieran toda la Subcuenca de Turlock antes de julio del 2017. Se requiere que las GSA desarrollen e implementen un Plan de Sostenibilidad de Aguas Subterráneas (GSP) o planes para lograr la sostenibilidad y evitar resultados indeseables. Conforme a la SGMA, el incumplimiento de cualquiera de estos requisitos puede conducir a la intervención del Estado. Si esto sucede, la Junta Estatal de Control de Recursos Hídricos (SWRCB) puede solicitar informes, cobrar tarifas y podría crear planes de gestión provisional hasta que las agencias locales puedan hacerse cargo.

Las agencias locales de la Subcuenca Turlock elegibles para ser GSA entraron en largas discusiones después de que la SGMA se convirtiera en ley en el 2014. Como resultado, se formaron dos GSA dentro de la subcuenca: la Agencia de Sostenibilidad de Aguas Subterráneas West Turlock (West Turlock Subbasin GSA) y la Agencia de Sostenibilidad de Aguas Subterráneas East Turlock (East Turlock Subbasin GSA). El límite que separa a las dos GSA es el límite del área de servicio de riego oriental del Distrito de Riego de Turlock. Ambas GSA celebraron audiencias públicas y tomaron medidas oficiales para ser la GSA para sus respectivas áreas. Las GSA presentaron la documentación necesaria al Departamento de Recursos Hídricos (DWR) antes de la fecha límite de julio de 2017.

La GSA West Turlock Subbasin (consta de 12 agencias públicas) y GSA East Turlock Subbasin (cinco agencias) están desarrollando conjuntamente un único GSP para gestionar el agua subterránea de manera sostenible para el 2042. El GSP se debe entregar a DWR antes del 31 de enero del 2022.

ACERCA DE LA SUBCUENCA TURLOCK
AGENCIAS DE SOSTENIBILIDAD DE AGUAS SUBTERRÁNEAS

TURLOCK GROUNDWATER

1 CREAR GSAs

Las agencias locales deben formar una GSA antes del 6/30/17, o el Estado podría intervenir

2 DESARROLLA GSPs

Las GSA de la Subcuenca Turlock deben enviar los GSP antes del 1/31/22, o el Estado podría intervenir

3 RESULTADOS

Sin resultados indeseables, o se cumplen los objetivos, o el Estado puede intervenir

¡SE PARTE!

Entérate de las reuniones y ponte en contacto en línea – **turlockgroundwater.org**

FUNCIONES GSA

La tarea actual de las GSA es el desarrollo de un Plan de Sostenibilidad de las Aguas Subterráneas (GSP) para lograr la sostenibilidad en 2042. Aunque la aprobación del GSP es importante para el cumplimiento con la SGMA, las GSA tienen la responsabilidad constante de administrar los recursos de aguas subterráneas locales para lograr la sostenibilidad. Al finalizar el GSP, las GSA deben presentar informes anuales a DWR y actualizar el GSP cada cinco años.

Las GSA reciben herramientas y autorizaciones a través de la SGMA para desarrollar e implementar el GSP. Por ejemplo, las GSA pueden exigir el registro de pozos, exigir informes, evaluar las tarifas para financiar los esfuerzos de la SGMA, medir y administrar extracciones, y desarrollar programas e instalaciones para la recarga de aguas subterráneas. Los cuales está destinadas a ayudar a administrar las aguas subterráneas y cumplir con la SGMA.

La Subcuenca Turlock debe estar cubierta por una GSP aprobada por DWR antes del 31 de enero de 2022. Las GSAs de Turlock planean adoptar un único GSP que cubra toda la subcuenca Turlock. Las GSP requieren una cantidad significativa de información y análisis para determinar el mejor enfoque, lograr la sostenibilidad y evitar resultados no deseados. Las GSP también requieren educación y alcance significativo. Para mantenerse informado e involucrarse en el proceso, ingrese a turlockgroundwater.org.

PROP 1 WATER BOND 2014

La financiación para este proyecto se ha proporcionado en total o parcialmente la Ley de mejora de la calidad, el suministro y la infraestructura del agua de 2014 y mediante un acuerdo con el Departamento de Recursos Hídricos del Estado.

TURLOCK GROUNDWATER

TURLOCKGROUNDWATER.ORG

SOME WATER COMES FROM UNDERGROUND

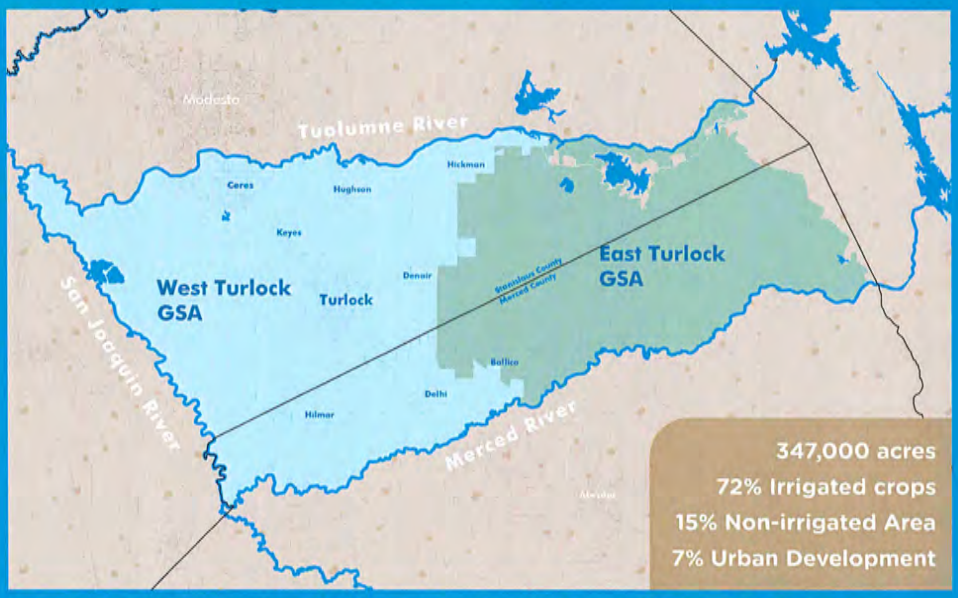
The aquifers beneath us supply water to cities, counties, water districts, farmers, and more.

In 2014, California passed the **Sustainable Groundwater Management Act (SGMA)** in order to keep groundwater supply sustainable for the future.

THE TURLOCK SUBBASIN

SGMA allowed for the formation of locally governed **Groundwater Sustainability Agencies (GSAs)**. Turlock Subbasin GSAs are tasked with reaching groundwater sustainability by **2042**.

These GSAs are responsible for defining what sustainability means in our region and ensuring that our groundwater is available to serve our needs for generations to come.



A simplified view of SGMA compliance in the Turlock Subbasin

Local agencies to form GSAs by 6/30/17 or State may intervene	GSAs submit GSP(s) by 1/31/22 or State may intervene	No "undesirable results," meet goals, or State may intervene
1 FORM GSAs ✓	2 DEVELOP GSPs	3 GET RESULTS

WE NEED YOUR INPUT

SGMA gives GSAs the tools and authority to develop and implement Groundwater Sustainability Plans (GSPs) to achieve sustainability. For example, GSAs can require registration and reporting of wells, assess fees to fund SGMA efforts, measure and manage extractions, and develop programs and facilities for groundwater recharge. **In order to best implement these programs and projects, we need input from our community.**

GET INVOLVED!

Learn when and where meetings are held and get in touch online – turlockgroundwater.org

Funding for this project has been provided in full or in part from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and through an agreement with the State Department of Water Resources.

TURLOCK GROUNDWATER

TURLOCKGROUNDWATER.ORG

PARTE DEL AGUA PROVIENE DEL SUBSUELO

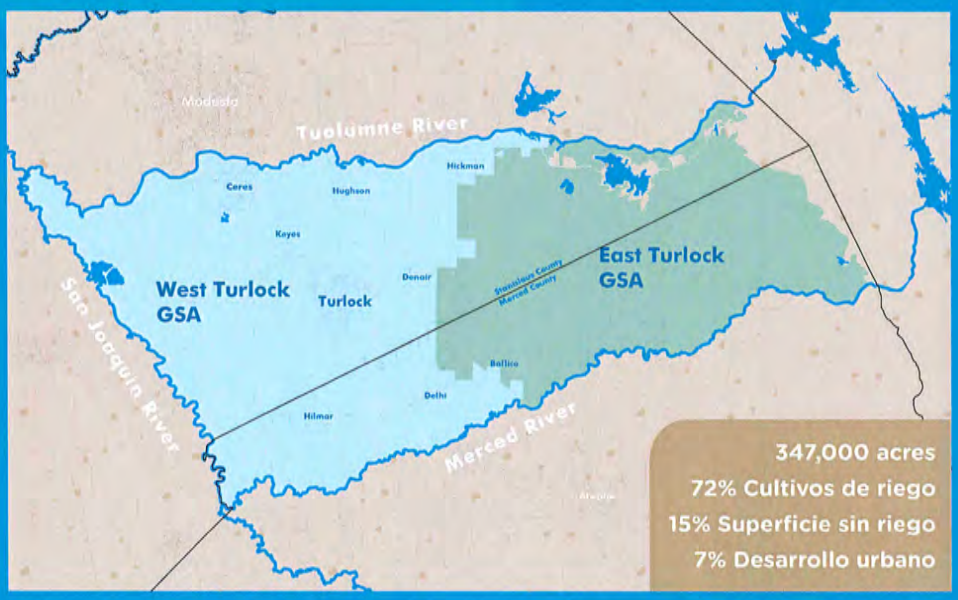
Los acuíferos debajo de nosotros suministran agua a las ciudades, condados, distritos de agua, granjeros, y más.

En 2014, California aprobó la Ley de **Gestión Sostenible de Aguas Subterráneas (SGMA)** con el fin de mantener el suministro de agua subterránea sostenible para el futuro.

LA SUBCUENCA TURLOCK

SGMA permitió la formación de **Agencias de Sostenibilidad de Aguas Subterráneas (GSA** por sus siglas en inglés) gobernadas localmente. Las GSA de la subcuenca de Turlock tienen la tarea de alcanzar la sostenibilidad de las aguas subterráneas para 2042.

Estas GSA son responsables de definir lo que significa la sostenibilidad en nuestra región y garantizar que nuestras aguas subterráneas estén disponibles para satisfacer nuestras necesidades para las generaciones venideras.



Una visión simplificada del cumplimiento del SGMA en la subcuenca de Turlock.

1 CREAR GSAs

Las agencias locales deben formar una GSA antes del 6/30/17, o el Estado podría intervenir

2 DESARROLLA GSPs

Las GSA de la Subcuenca Turlock deben enviar los GSP antes del 1/31/22, o el Estado podría intervenir

3 RESULTADOS

Sin resultados indeseables, o se cumplen los objetivos, o el Estado puede intervenir

¡SE PARTE!

Aprenda cuándo y dónde se celebran las reuniones y póngase en contacto en línea — turlockgroundwater.org

NECESITAMOS SU APORTACIÓN

SGMA otorga a las GSA las herramientas y la autoridad para desarrollar e implementar Planes de Sostenibilidad de las Aguas Subterráneas (GSP por sus singlas en inglés) para lograr la sostenibilidad. Por ejemplo, las GSA pueden exigir el registro y la notificación de los pozos, evaluar las tasas para financiar los esfuerzos del SGMA, medir y gestionar las extracciones, y desarrollar programas e instalaciones para la recarga de aguas subterráneas. **Para implementar mejor estos programas y proyectos, necesitamos la aportación de nuestra comunidad.**

El financiamiento para este proyecto se ha proporcionado total o parcialmente a partir de la Ley de Mejoramiento de la Calidad, el Abastecimiento y la Infraestructura del Agua de 2014 y a través de un acuerdo con el Departamento de Recursos Hídricos del Estado.

ABOUT THE MODESTO & TURLOCK SUBBASINS

WHAT IS A SUBBASIN?

A groundwater basin is an underground reserve of water which may take the form of a single aquifer or a series of aquifers that has reasonably well-defined boundaries. A subbasin is a groundwater basin that is divided into smaller units - like the Modesto and Turlock Subbasins.

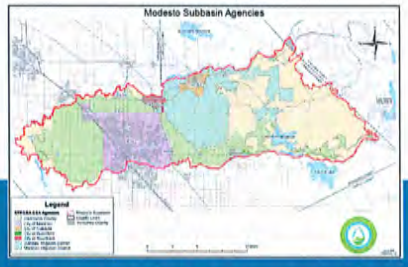
MODESTO SUBBASIN

The Modesto Subbasin is approximately 247,000 acres located in Stanislaus County (with a small portion in Tuolumne County). It is part of the San Joaquin Valley Groundwater Basin (DWR* Basin 5-22.02). Three out of the four cities in the Modesto Subbasin - Oakdale, Riverbank and Waterford - rely solely on groundwater for their water resources. Groundwater is used conjunctively with surface water supplies to grow food, support dairies, and maintain the long-term vitality of our region's agricultural economy.

TURLOCK SUBBASIN

The Turlock Subbasin is approximately 347,000 acres and is part of the San Joaquin Valley Groundwater Basin (DWR Basin 5-22.03). The Subbasin is primarily supplied by the Tuolumne River, with a small portion also coming from the Merced River. The main source of groundwater recharge is from the import of surface water for irrigation. Currently, urban and domestic water uses rely entirely on groundwater for supply.

*DWR - Department of Water Resources



MODESTO SUBBASIN - HIGH PRIORITY

While not in a condition of critical overdraft, the Modesto Subbasin is categorized as a high priority basin by DWR based on the following scoring:

- Number of public supply wells: Approx. 190 or 0.5 per square mile (score 4 out of 5)
- Number of production wells: Approx. 4,000 or 10.5 per square mile (score 4 out of 5)
- Irrigated acreage: Approx. 119,000 acres or about 310 acres per square mile, covering approximately 48% of the Subbasin (score 4 out of 5)
- Groundwater use: Approx. 216,500 acre-feet (AF) or about 0.9 AF per acre (score 5 out of 5)
- Declining groundwater levels over long term

TURLOCK SUBBASIN - HIGH PRIORITY

While not in a condition of critical overdraft, the Turlock Subbasin is categorized as a high priority basin by DWR based on the following scoring:

- Number of public supply wells: Approx. 180 or 0.3 per square mile (score 3 out of 5)
- Number of production wells: Approx. 6,600 or 12 per square mile (score 4 out of 5)
- Irrigated acreage: Approx. 221,600 acres or about 410 acres per square mile, covering approximately 48% of the Subbasin (score 5 out of 5)
- Groundwater use: Approx. 475,500 AF or about 1.4 AF per acre (score 5 out of 5)
- Declining groundwater levels over long term

WHAT'S SGMA AND GSPs?

In September 2014, Governor Jerry Brown signed the Sustainable Groundwater Management Act (SGMA). SGMA sets the framework for statewide sustainable groundwater management by local agencies. SGMA requires, among other things, the formation of GSAs and the preparation of Groundwater Sustainability Plans (GSP). Groundwater basins subject to SGMA must achieve sustainability within 20 years of implementing their GSP.

STRGBA GSA

The Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Agency (STRGBA GSA) was formed to coordinate groundwater management activities and develop a GSP for the Modesto Subbasin. The seven participating members of the GSA are:

- City of Modesto
- City of Oakdale
- City of Riverbank
- City of Waterford
- Modesto Irrigation District
- Oakdale Irrigation District
- Stanislaus County

EAST AND WEST TURLOCK SUBBASIN GSAs

The Turlock Subbasin is made up of the the East Turlock GSA consisting of five public agencies and the West Turlock GSA consisting of 12 public agencies.

East Turlock GSA - Ballico-Cortez Water District, Eastside Water District, Merced County, Merced Irrigation District and Stanislaus County.

West Turlock GSA - City of Ceres, City of Hughson, City of Modesto, City of Turlock, City of Waterford, Delhi County Water District, Denair Community Services District, Hilmar County Water District, Keyes Community Services District, Merced County, Stanislaus County and Turlock Irrigation District.

TIMELINE FOR ACHEIVING SUSTAINABILITY IN THE MODESTO AND TURLOCK SUBBASINS

WHAT IS SUSTAINABILITY?

Sustainability refers to the management and use of groundwater in a manner that can be sustained during the 50-year GSP planning and implementation process without causing undesirable results.

STANISLAUS AND TUOLUMNE RIVERS GROUNDWATER BASIN ASSOCIATION • GROUNDWATER SUSTAINABILITY AGENCY •

strgba.org
@STRGBA_GSA
@strgba.gsa
STRGBA GSA

TURLOCK GROUNDWATER

turlockgroundwater.org
@TurlockSubbasin
@TurlockGroundwater
Turlock Groundwater

Appendix E-12
Turlock Groundwater Logo and Branding

Logo Cheatsheet

Horizontal

TURLOCK™
GROUNDWATER

Vertical

TURLOCK™
GROUNDWATER

Symbol Only

™

Color Background

TURLOCK™
GROUNDWATER

Fonts: Proxima Nova - Bold | Proxima Nova - Semi- Bold

Color Palette:

C 76 | M 7 | Y 100 | K 1
R 61 | G 168 | B 48
#3da830

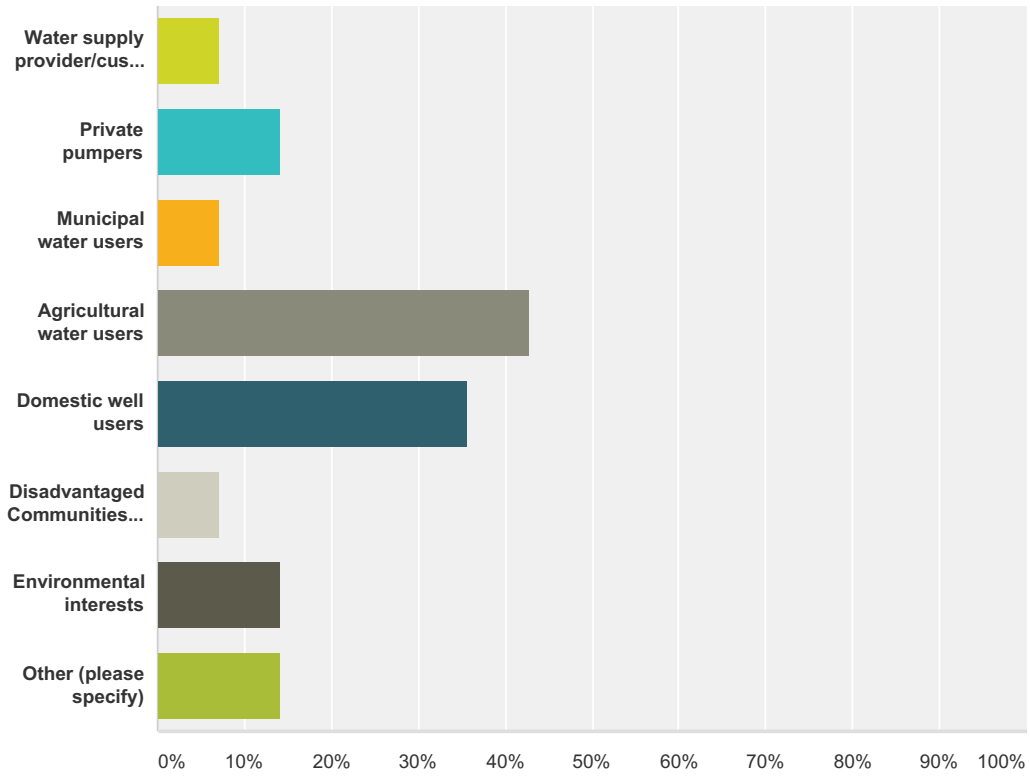
C 23 | M 40 | Y 64 | K 1
R 196 | G 153 | B 107
#c4996b

C 86 | M 45 | Y 5 | K 0
R 0 | G 122 | B 182
#007ab8

Appendix E-13
Turlock Subbasin Stakeholder Survey Results

Q1 Please tell us which best describes you and/or your organization/agency (please check all that apply).

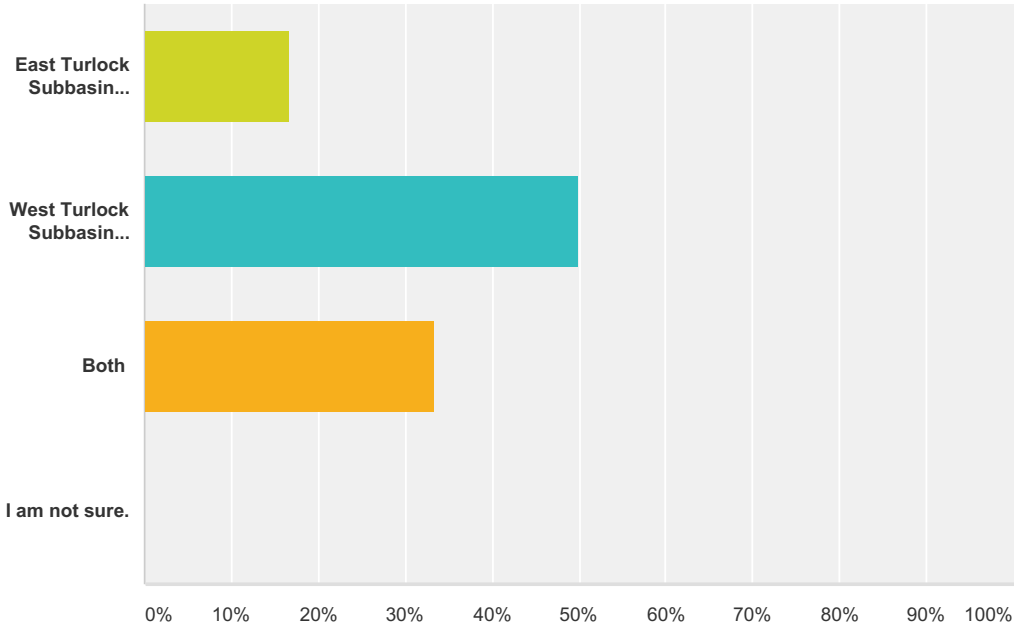
Answered: 14 Skipped: 0



Answer Choices	Responses	
Water supply provider/customers	7.14%	1
Private pumpers	14.29%	2
Municipal water users	7.14%	1
Agricultural water users	42.86%	6
Domestic well users	35.71%	5
Disadvantaged Communities (DACs)	7.14%	1
Environmental interests	14.29%	2
Other (please specify)	14.29%	2
Total Respondents: 14		

Q2 Where are your interests in the Turlock Basin:

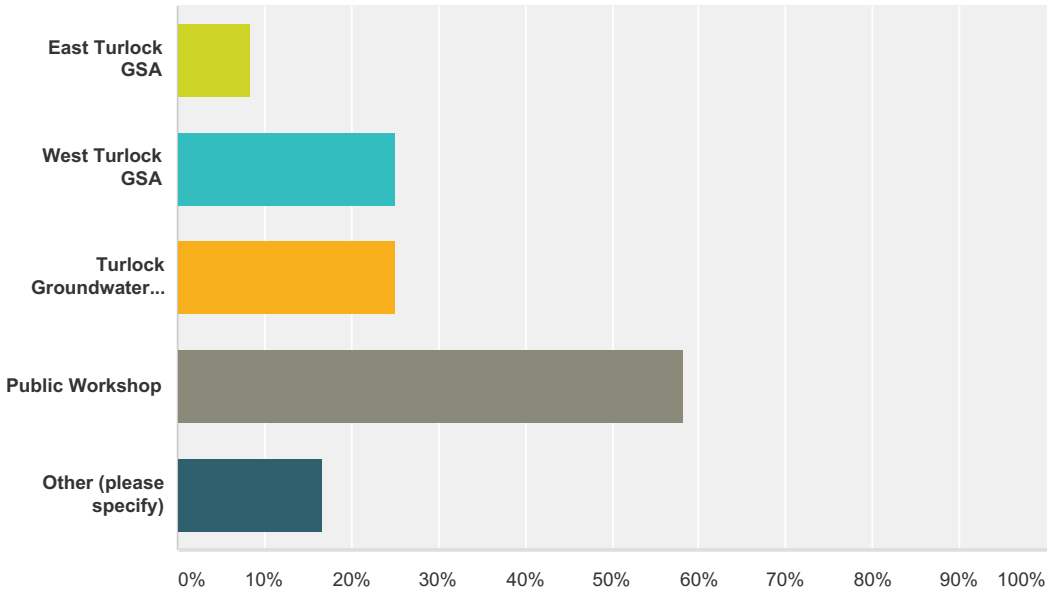
Answered: 12 Skipped: 2



Answer Choices	Responses	
East Turlock Subbasin Groundwater Sustainability Agency (East Turlock GSA)	**16.67%**	2
West Turlock Subbasin Groundwater Sustainability Agency (West Turlock GSA)	**50.00%**	6
Both	**33.33%**	4
I am not sure.	**0.00%**	0
Total		**12**

Q3 How do you typically get information about the Sustainable Groundwater Management (SGMA) and Groundwater Sustainability Agency (GSA) work?

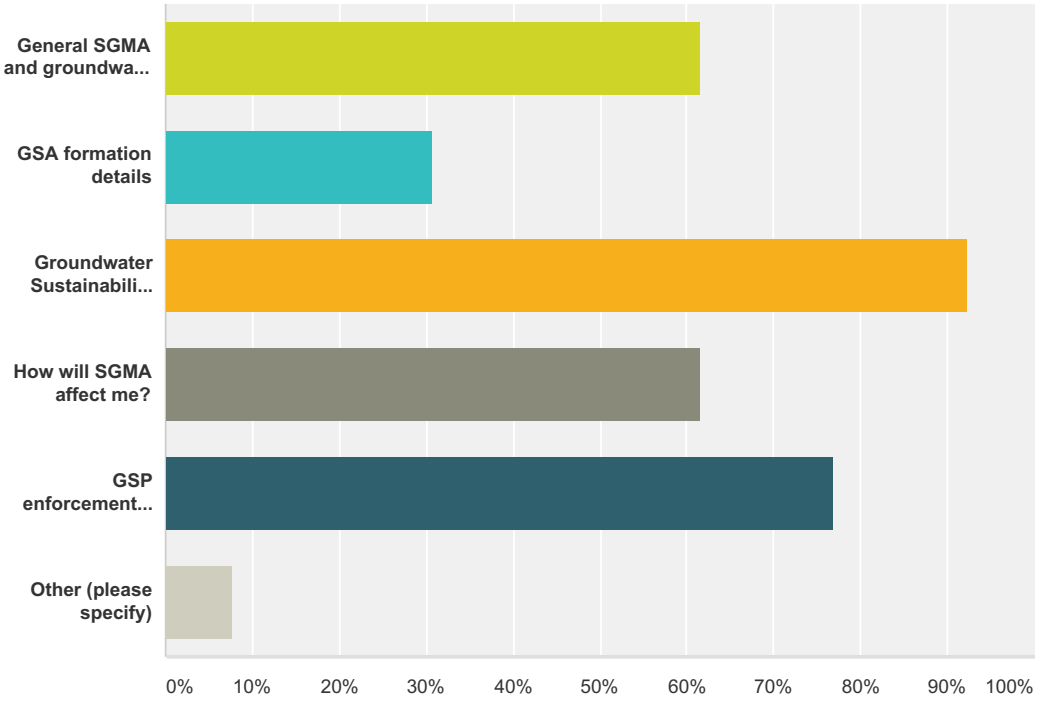
Answered: 12 Skipped: 2



Answer Choices	Responses	
East Turlock GSA	8.33%	1
West Turlock GSA	25.00%	3
Turlock Groundwater Basin Association	25.00%	3
Public Workshop	58.33%	7
Other (please specify)	16.67%	2
Total Respondents: 12		

Q4 What types of information are most important to you?

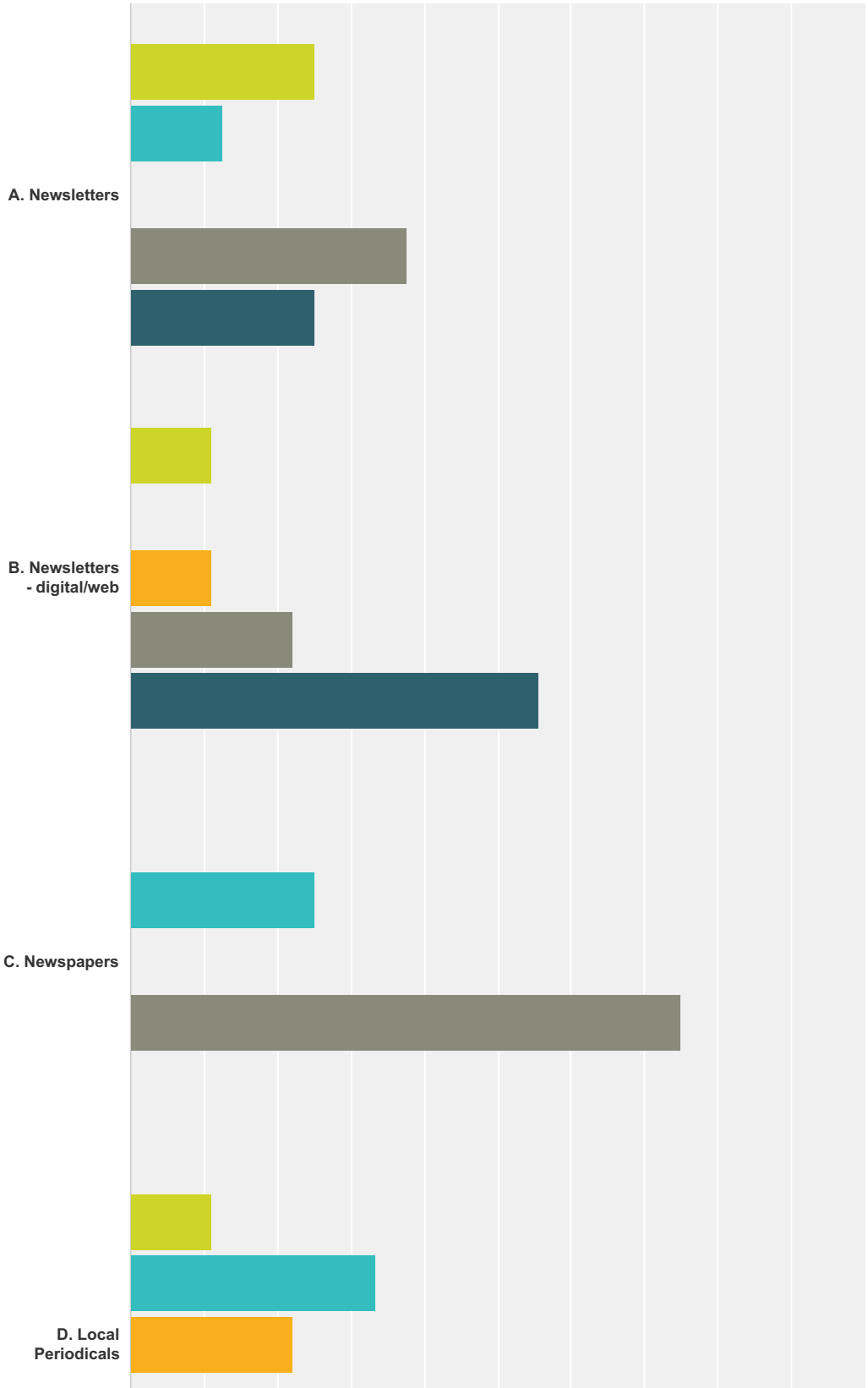
Answered: 13 Skipped: 1

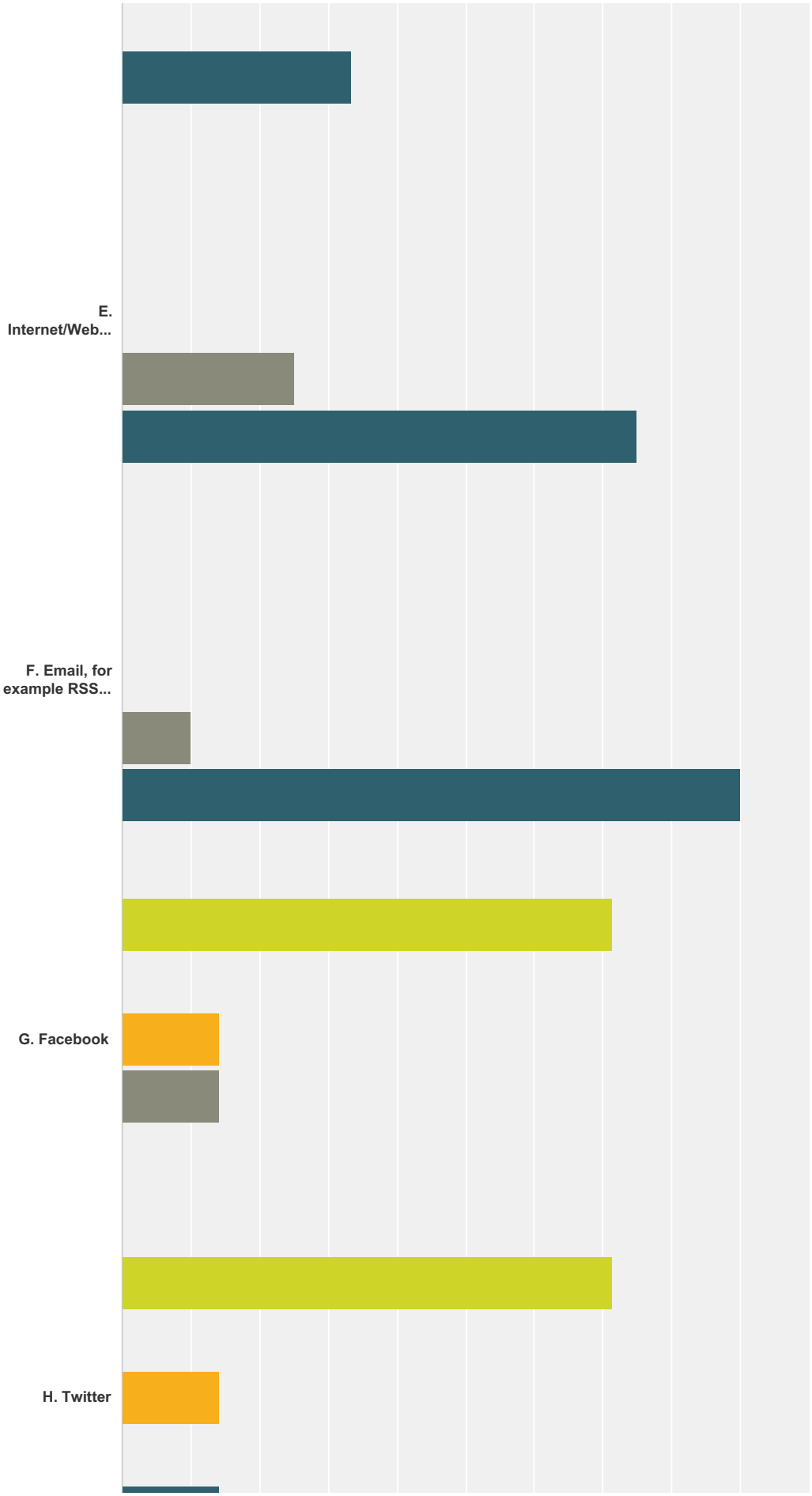


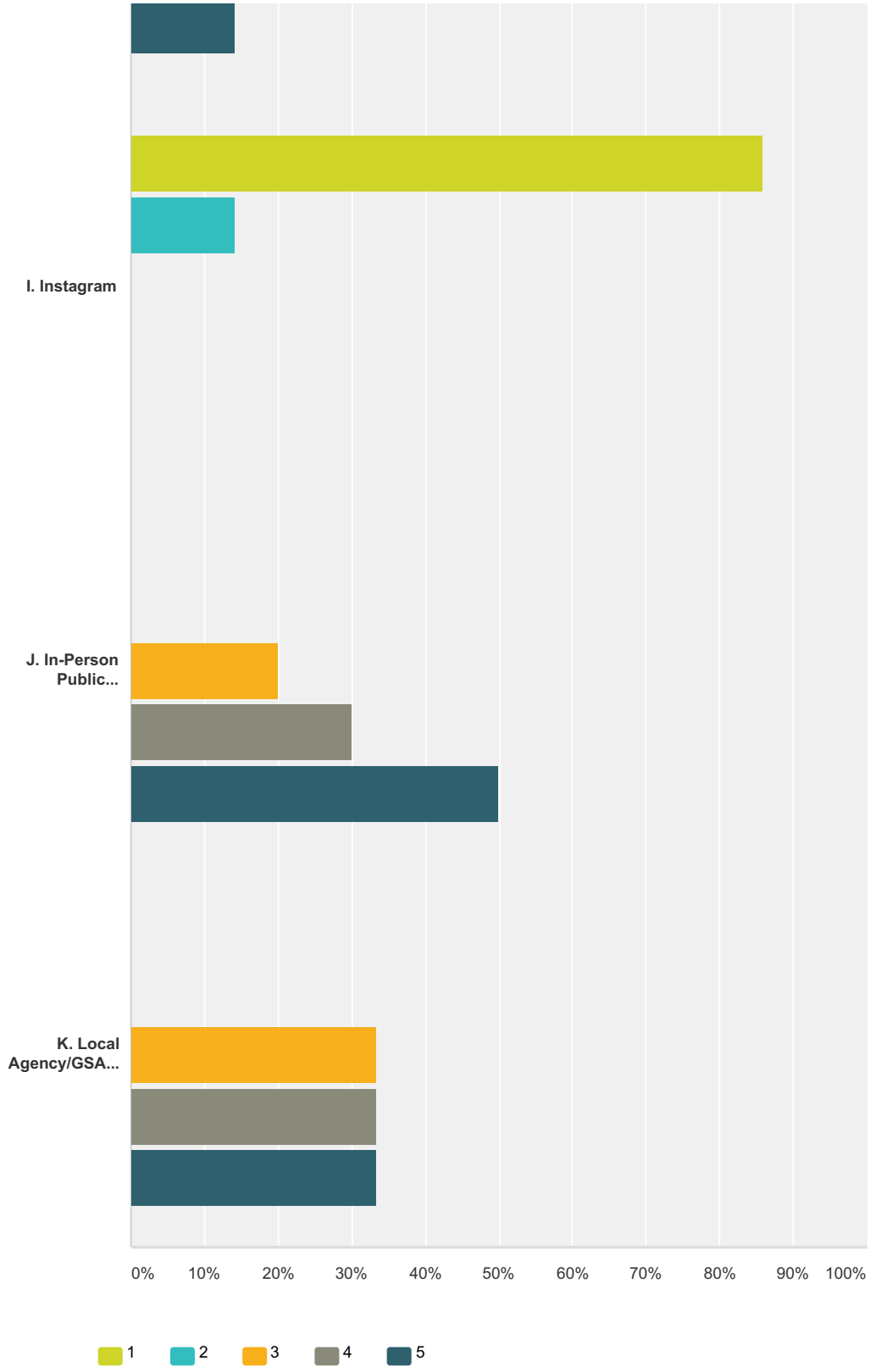
Answer Choices	Responses	
General SGMA and groundwater management updates	**61.54%**	8
GSA formation details	**30.77%**	4
Groundwater Sustainability Plan (GSP) development updates.	**92.31%**	12
How will SGMA affect me?	**61.54%**	8
GSP enforcement updates.	**76.92%**	10
Other (please specify)	**7.69%**	1
Total Respondents: 13		

Q5 Please rate methods for receiving information, rate 1 least convenient to 5 most convenient.

Answered: 12 Skipped: 2




E. Internet/Web...
F. Email, for example RSS...
G. Facebook
H. Twitter



	1	2	3	4	5	Total
A. Newsletters	**25.00%** 2	**12.50%** 1	**0.00%** 0	**37.50%** 3	**25.00%** 2	8
B. Newsletters - digital/web	**11.11%** 1	**0.00%** 0	**11.11%** 1	**22.22%** 2	**55.56%** 5	9

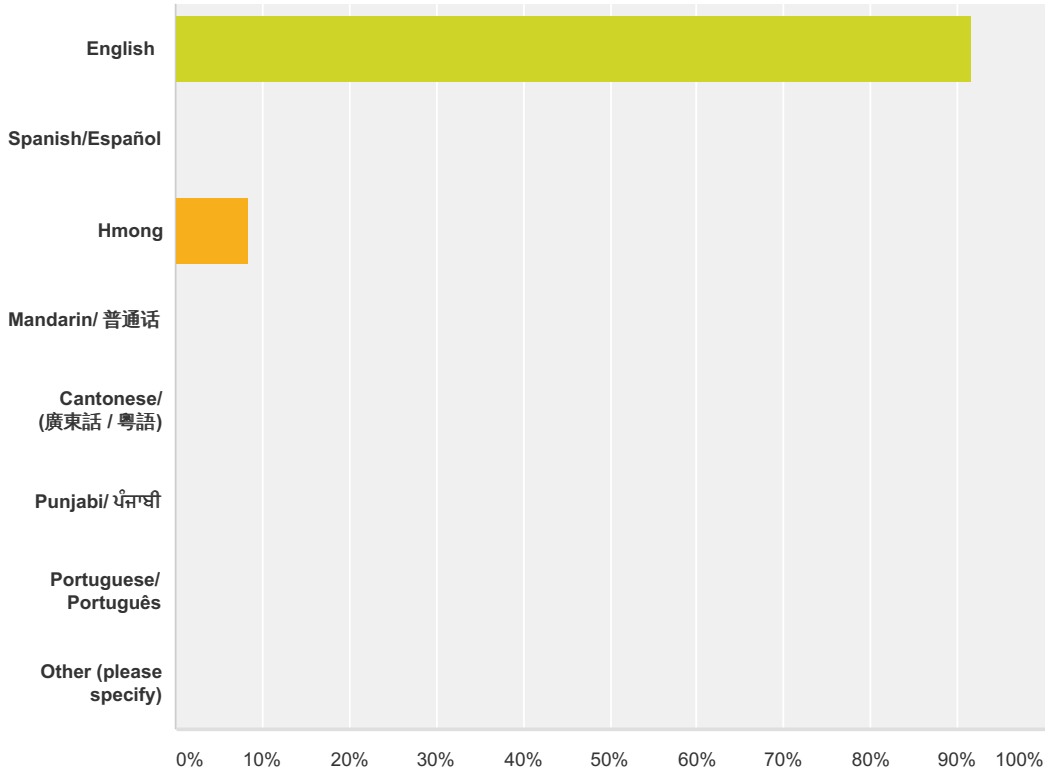
C. Newspapers	**0.00%** 0	**25.00%** 1	**0.00%** 0	**75.00%** 3	**0.00%** 0	4
D. Local Periodicals	**11.11%** 1	**33.33%** 3	**22.22%** 2	**0.00%** 0	**33.33%** 3	9
E. Internet/Webpages	**0.00%** 0	**0.00%** 0	**0.00%** 0	**25.00%** 2	**75.00%** 6	8
F. Email, for example RSS feeds	**0.00%** 0	**0.00%** 0	**0.00%** 0	**10.00%** 1	**90.00%** 9	10
G. Facebook	**71.43%** 5	**0.00%** 0	**14.29%** 1	**14.29%** 1	**0.00%** 0	7
H. Twitter	**71.43%** 5	**0.00%** 0	**14.29%** 1	**0.00%** 0	**14.29%** 1	7
I. Instagram	**85.71%** 6	**14.29%** 1	**0.00%** 0	**0.00%** 0	**0.00%** 0	7
J. In-Person Public workshops	**0.00%** 0	**0.00%** 0	**20.00%** 2	**30.00%** 3	**50.00%** 5	10
K. Local Agency/GSA board meetings	**0.00%** 0	**0.00%** 0	**33.33%** 3	**33.33%** 3	**33.33%** 3	9

Q6 For those sources of information that are most convenient, please tell us where you go. For example, which newspapers, website, periodicals, etc.

Answered: 4 Skipped: 10

Q7 Please specify your preferred language for materials or and announcements.

Answered: 12 Skipped: 2



Answer Choices	Responses	
English	91.67%	11
Spanish/Español	0.00%	0
Hmong	8.33%	1
Mandarin/ 普通话	0.00%	0
Cantonese/ (廣東話 / 粵語)	0.00%	0
Punjabi/ ਪੰਜਾਬੀ	0.00%	0
Portuguese/ Português	0.00%	0
Other (please specify)	0.00%	0
Total		**12**

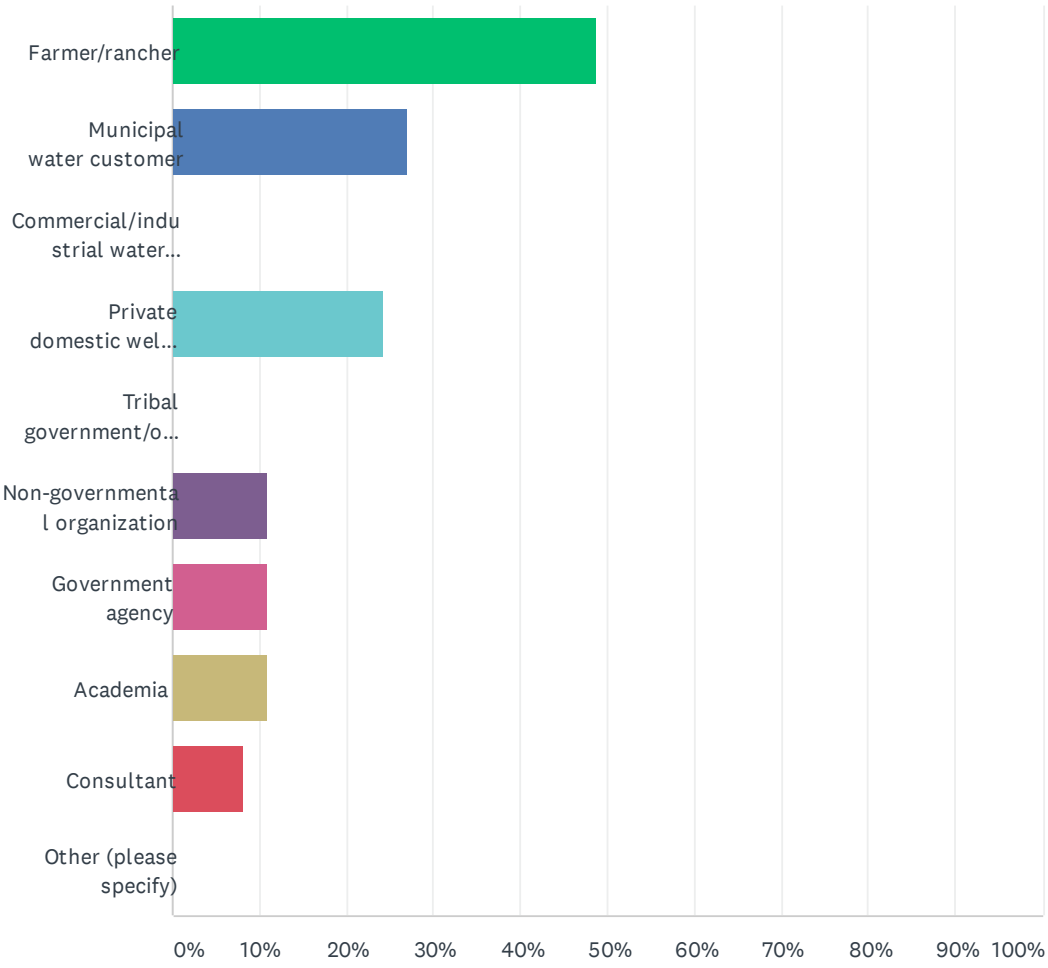
Q8 If you want to be included in our email or newsletter listserv, please tell us the best way to keep you informed.

Answered: 11 Skipped: 3

Answer Choices	Responses	
Email:	100.00%	11
Mailing Address:	27.27%	3

Q1 Which category(ies) below best describe you as a groundwater stakeholder in Turlock Subbasin? (Select all that apply)

Answered: 37 Skipped: 0



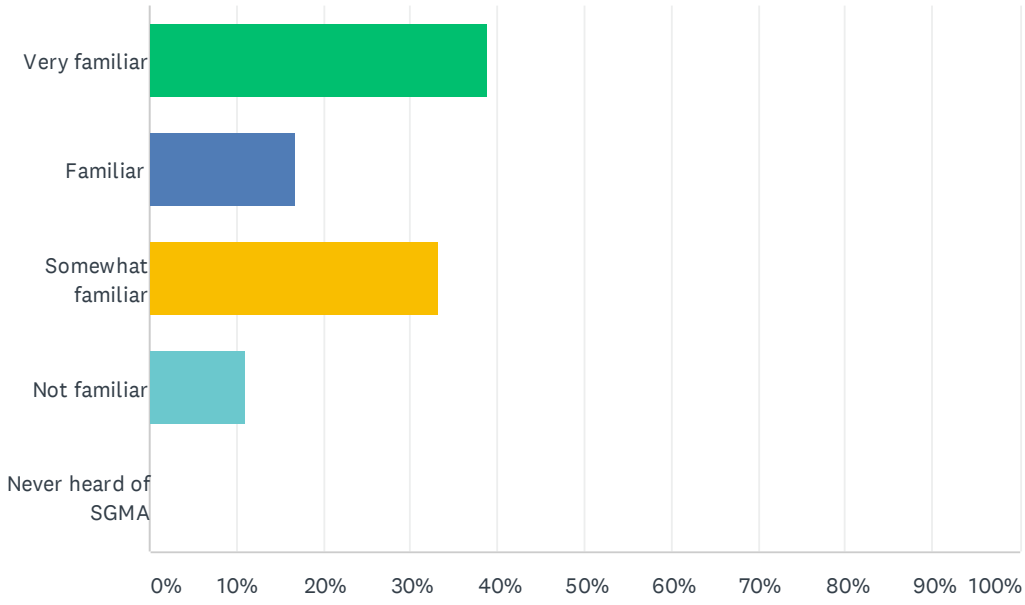
Turlock Subbasin Stakeholder Assessment Survey (Encuesta de evaluación de las partes interesadas de la subcuenca de Turlock)

ANSWER CHOICES	RESPONSES	
Farmer/rancher	48.65%	18
Municipal water customer	27.03%	10
Commercial/industrial water user	0.00%	0
Private domestic well user	24.32%	9
Tribal government/organization	0.00%	0
Non-governmental organization	10.81%	4
Government agency	10.81%	4
Academia	10.81%	4
Consultant	8.11%	3
Other (please specify)	0.00%	0
Total Respondents: 37		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q2 How would you rate your level of understanding of the Sustainable Groundwater Management Act (SGMA)?

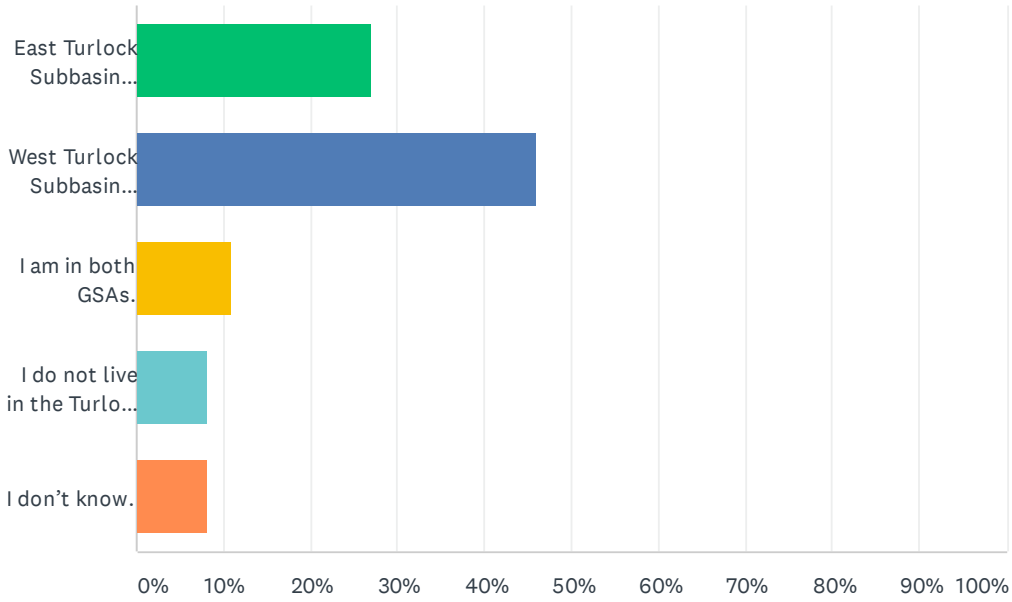
Answered: 36 Skipped: 1



ANSWER CHOICES	RESPONSES	
Very familiar	38.89%	14
Familiar	16.67%	6
Somewhat familiar	33.33%	12
Not familiar	11.11%	4
Never heard of SGMA	0.00%	0
TOTAL		36

Q3 In which Turlock Subbasin Groundwater Sustainability Agency (GSA) do you own, lease, rent, live or work? Click here for a map of the Turlock Subbasin.

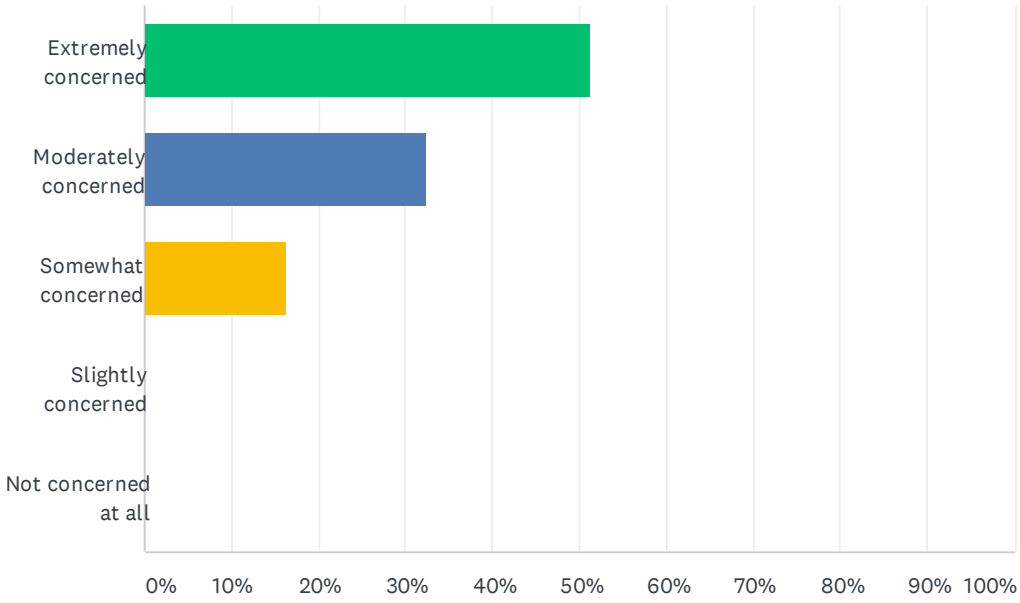
Answered: 37 Skipped: 0



ANSWER CHOICES	RESPONSES	
East Turlock Subbasin Groundwater Sustainability Agency	27.03%	10
West Turlock Subbasin Groundwater Sustainability Agency	45.95%	17
I am in both GSAs.	10.81%	4
I do not live in the Turlock Subbasin	8.11%	3
I don't know.	8.11%	3
TOTAL		37

Q4 How would you rate your level of concern over the region's groundwater supply?

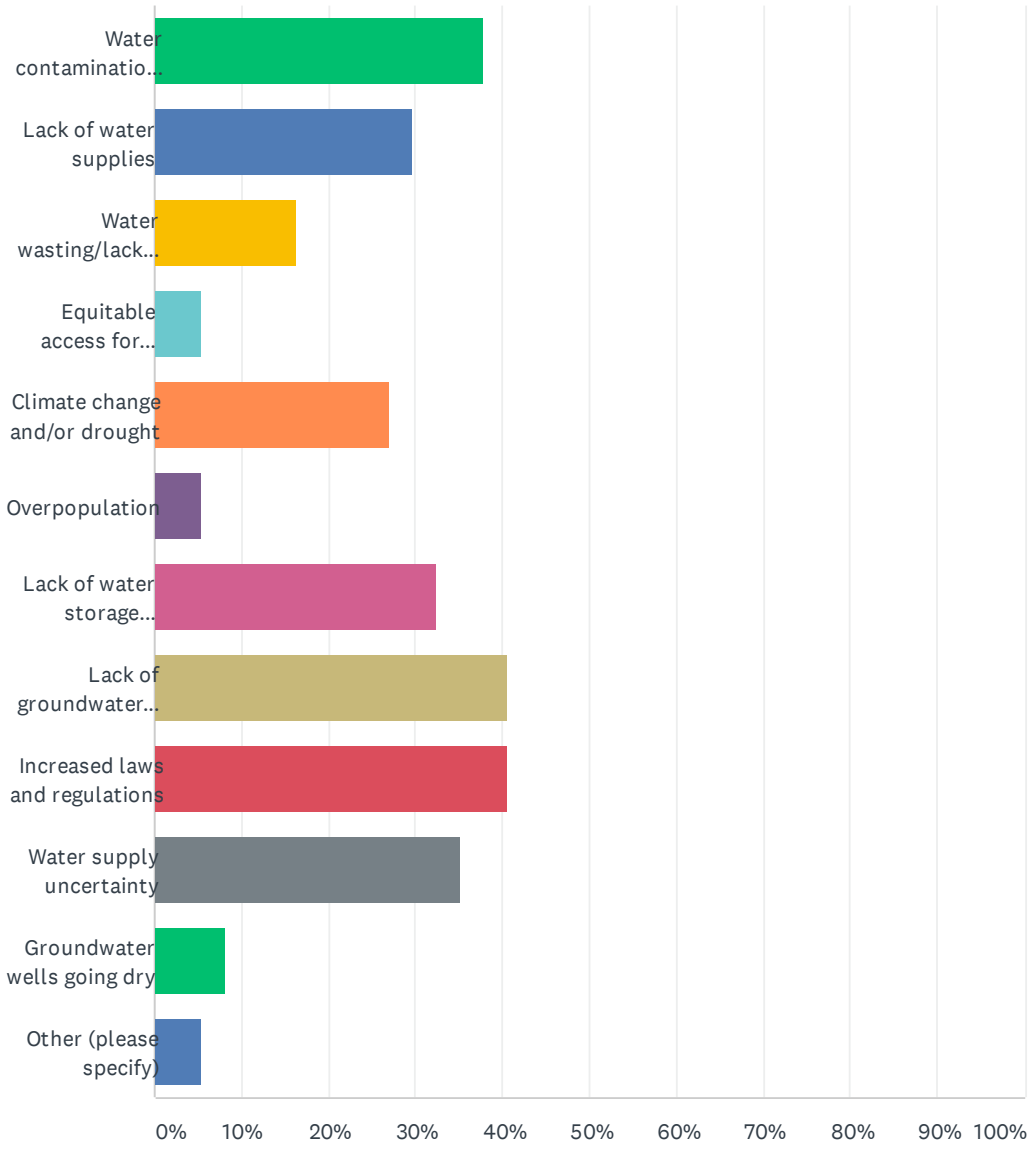
Answered: 37 Skipped: 0



ANSWER CHOICES	RESPONSES	
Extremely concerned	51.35%	19
Moderately concerned	32.43%	12
Somewhat concerned	16.22%	6
Slightly concerned	0.00%	0
Not concerned at all	0.00%	0
TOTAL		37

Q5 Please identify what you think the top three water supply challenges are facing the Turlock Subbasin. (Select up to three options from this list)

Answered: 37 Skipped: 0

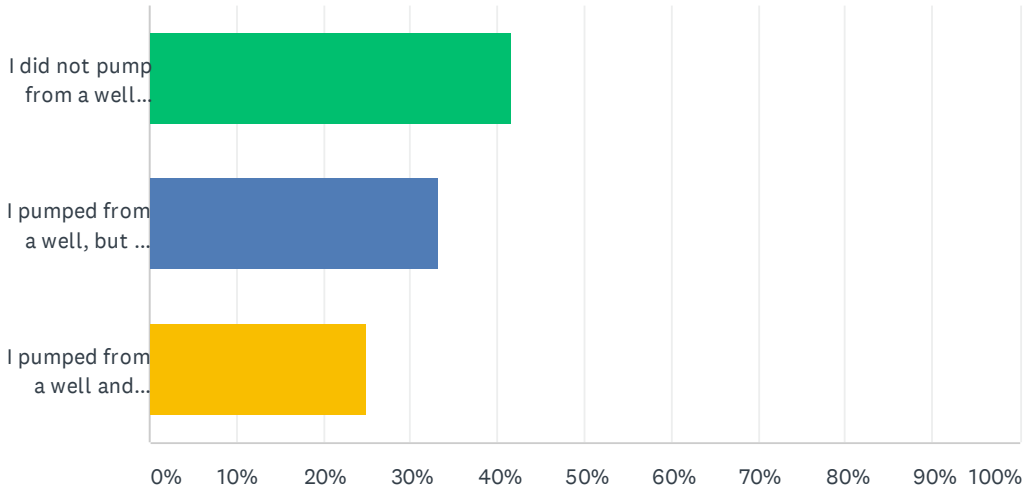


ANSWER CHOICES	RESPONSES	
Water contamination, pollution	37.84%	14
Lack of water supplies	29.73%	11
Water wasting/lack of water conservation	16.22%	6
Equitable access for low-income residents	5.41%	2
Climate change and/or drought	27.03%	10
Overpopulation	5.41%	2
Lack of water storage projects	32.43%	12
Lack of groundwater recharge projects	40.54%	15
Increased laws and regulations	40.54%	15
Water supply uncertainty	35.14%	13
Groundwater wells going dry	8.11%	3
Other (please specify)	5.41%	2
Total Respondents: 37		

#	OTHER (PLEASE SPECIFY)	DATE
1	KEEP aera water here in our valley were GOD put it for our farms. it's not for LA	8/3/2020 7:50 PM
2	Goverment agency taking water away	7/27/2020 7:17 PM

Q6 Did you experience well problems or well operation issues during the drought of 2012-2016?

Answered: 36 Skipped: 1

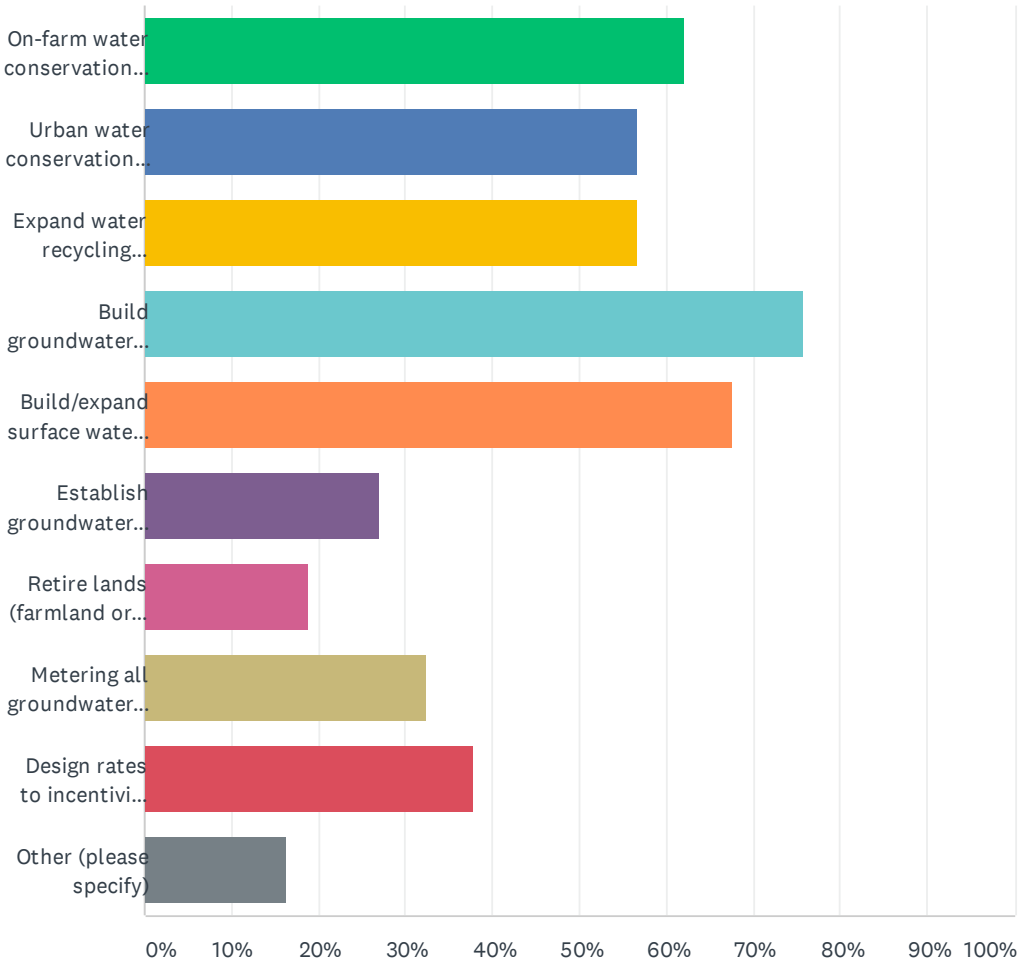


ANSWER CHOICES	RESPONSES	
I did not pump from a well during the drought.	41.67%	15
I pumped from a well, but did not experience operational issues or well problems.	33.33%	12
I pumped from a well and experienced operational issues or well problems. (briefly describe below)	25.00%	9
TOTAL		36

#	I PUMPED FROM A WELL AND EXPERIENCED OPERATIONAL ISSUES OR WELL PROBLEMS. (BRIEFLY DESCRIBE BELOW)	DATE
1	had lower pipe in house/ livestock weir	12/9/2020 1:49 PM
2	My domestic Well went dry, and it took about a year and a half before I could get a driller to install a new one which cost about $12,000 all said and done. The good news is that about three weeks ago we checked the water levels and they were about 10 feet higher than during the drought, which would have allowed my old well to have worked again.	10/13/2020 10:40 AM
3	One well went dry	8/25/2020 10:16 AM
4	Experienced a production drop in one of six wells in a hilly area toward the end of the drought.	8/17/2020 10:26 AM
5	had to drop my home well down 20 ft	8/3/2020 7:50 PM
6	Had to lower 2 pumps and dig two new wells	7/27/2020 7:17 PM
7	One well had to be lowered	7/26/2020 10:13 AM
8	I think you need to ask who put in wells during this period. And was it because of the drought. And how surface water was managed or not managed. Wells are not cheap. When a well is developed, reworked, or replaced there is a lot to be discovered about why.	7/24/2020 8:49 PM
9	I did not pump	7/7/2020 7:40 PM

Q7 Which of these items should be considered to reach groundwater sustainability? (Select all that apply)

Answered: 37 Skipped: 0

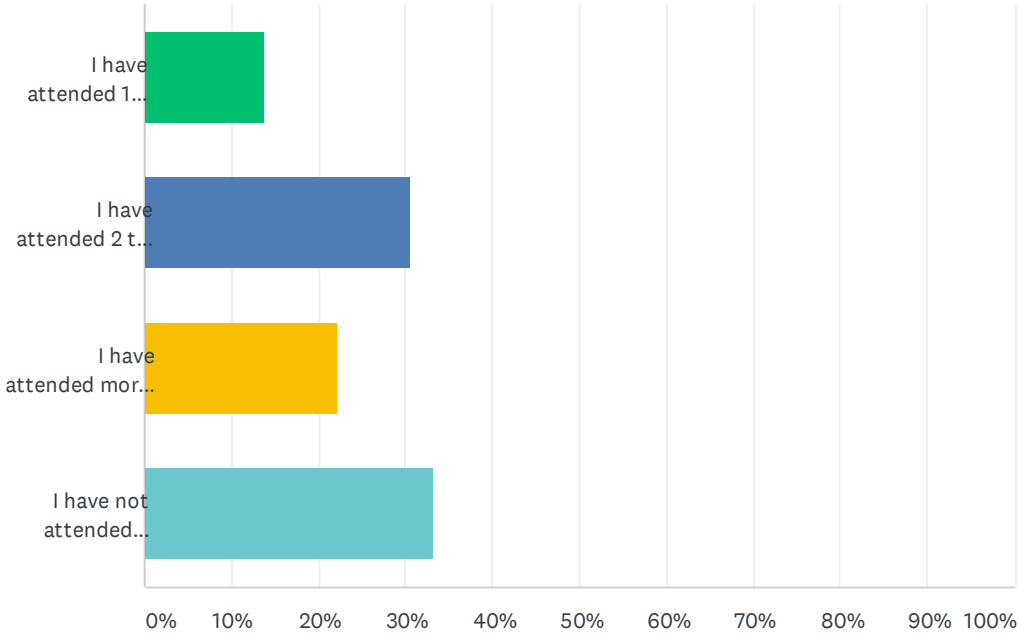


ANSWER CHOICES	RESPONSES	
On-farm water conservation programs	62.16%	23
Urban water conservation programs	56.76%	21
Expand water recycling programs	56.76%	21
Build groundwater recharge projects	75.68%	28
Build/expand surface water storage projects	67.57%	25
Establish groundwater exchange markets	27.03%	10
Retire lands (farmland or other lands)	18.92%	7
Metering all groundwater wells	32.43%	12
Design rates to incentivize less pumping and discourage increased pumping	37.84%	14
Other (please specify)	16.22%	6
Total Respondents: 37		

#	OTHER (PLEASE SPECIFY)	DATE
1	more dams, most practical and simple solution, if we can get past the environmental overreachers	12/9/2020 1:49 PM
2	City and County Requirements shall prohibit detention basins that discharge to Canals and Rivers. The GRAT tool should be used to help prioritize which lands are retired (repurposed) for recharge if possible, and also factoring in Flood Protection if possible, and other multibenefits such as ripirian restoration if possible (these type of projects may obtain potential grant funding). Expand the Turlockgroundwater website to include a link to resources like the program from NRCS for example that provides funding for building ponds to hold tail water here in Stanislaus County, if we add various links to resouces that can be implemented now we could add more value to the website. Understanding Flood Flows is important and more should be done to make sure we leveage the data and understand our options to most efficiently leverage this water.	10/13/2020 10:40 AM
3	land and wells need more flood irrigation. to much conservation and selling of our water will dry wells and aquafres	8/3/2020 7:50 PM
4	More dams	7/27/2020 7:17 PM
5	develop surface water for urban use	7/25/2020 10:39 AM
6	Follow the money. Water is cheap for some and very very expensive for others.	7/24/2020 8:49 PM

Q8 How many Turlock Subbasin meetings or workshops have you attended, either virtually or physically, since the passage of SGMA in 2014? (these meetings include West Turlock Subbasin GSA Board meetings, East Turlock Subbasin GSA Board meetings, Technical Advisory Committee meetings and related technical or community workshops)

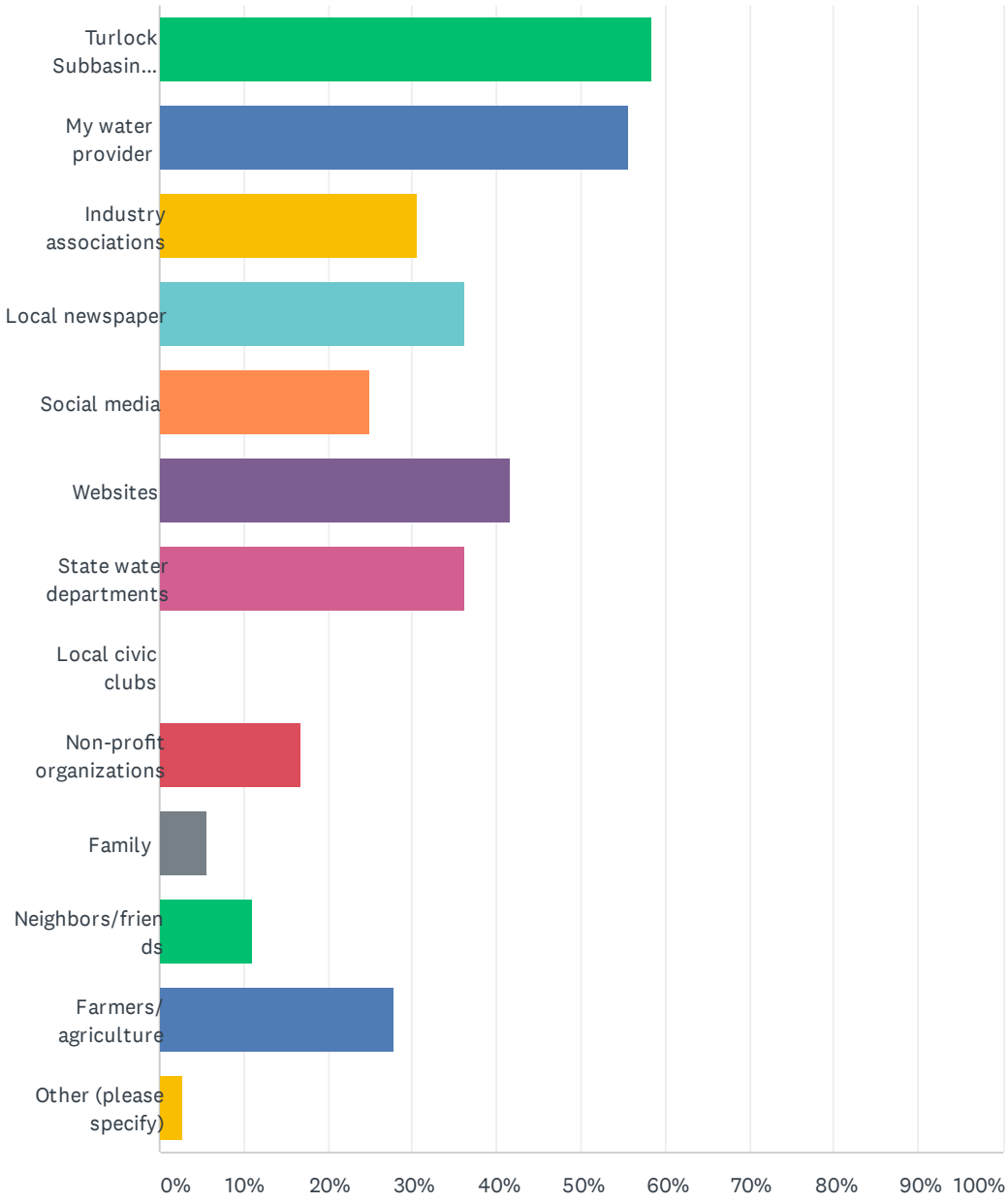
Answered: 36 Skipped: 1



ANSWER CHOICES	RESPONSES	
I have attended 1 meeting.	13.89%	5
I have attended 2 to 5 meetings.	30.56%	11
I have attended more than 5 meetings.	22.22%	8
I have not attended meetings.	33.33%	12
TOTAL		36

Q9 Which of these sources do you currently receive information about water supply or water issues? (Select all that apply)

Answered: 36 Skipped: 1

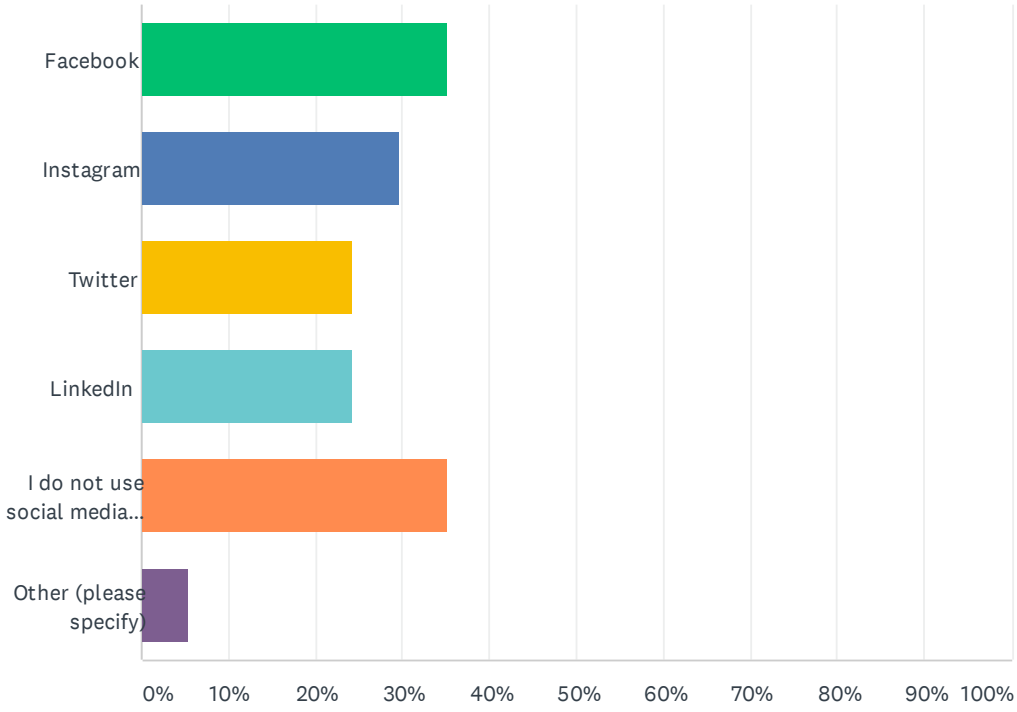


ANSWER CHOICES	RESPONSES	
Turlock Subbasin SGMA-related meetings (GSA Board meetings, Technical Advisory Committee meetings and related technical or community workshops)	58.33%	21
My water provider	55.56%	20
Industry associations	30.56%	11
Local newspaper	36.11%	13
Social media	25.00%	9
Websites	41.67%	15
State water departments	36.11%	13
Local civic clubs	0.00%	0
Non-profit organizations	16.67%	6
Family	5.56%	2
Neighbors/friends	11.11%	4
Farmers/ agriculture	27.78%	10
Other (please specify)	2.78%	1
Total Respondents: 36		

#	OTHER (PLEASE SPECIFY)	DATE
1	no one	12/9/2020 1:49 PM

Q10 Which social media platforms do you use? (Select all that apply)

Answered: 37 Skipped: 0



ANSWER CHOICES	RESPONSES	
Facebook	35.14%	13
Instagram	29.73%	11
Twitter	24.32%	9
LinkedIn	24.32%	9
I do not use social media regularly	35.14%	13
Other (please specify)	5.41%	2
Total Respondents: 37		

#	OTHER (PLEASE SPECIFY)	DATE
1	e mail if that counts	12/9/2020 1:49 PM
2	none	8/3/2020 7:50 PM

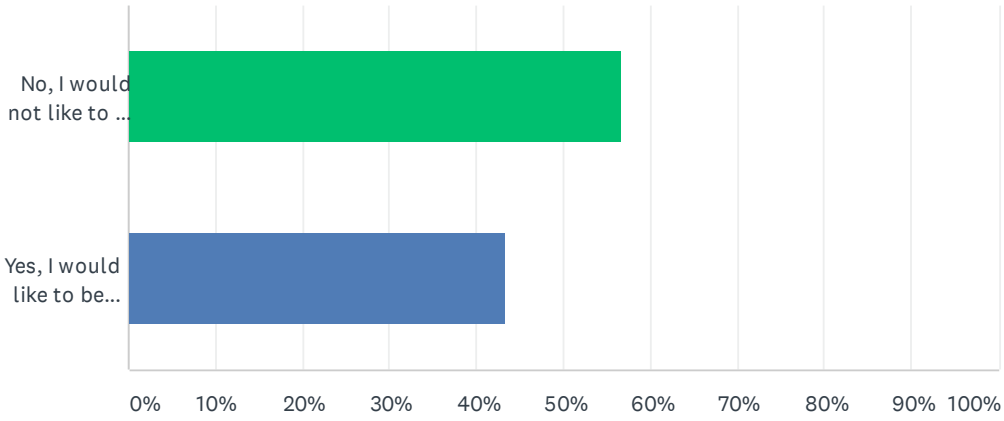
Q11 What other groups or individuals should we reach out to or listen to for stakeholder input?

Answered: 19 Skipped: 18

#	RESPONSES	DATE
1	Land owners	4/15/2021 5:56 PM
2	none	2/14/2021 4:35 PM
3	farmers	2/2/2021 7:23 PM
4	Farmers	1/28/2021 3:03 PM
5	Calif Cattlemen's Assn	12/9/2020 1:49 PM
6	Mayors and City Council Members are not at meetings	11/2/2020 9:39 AM
7	Hetch Hetchy, NCRS, County Well Ordinance WAC and TAC members, active community groups within our regeion, Manufacturers Council of the Central Valley	10/13/2020 10:40 AM
8	Anyone that lives in the area and is connected to the watersheds feeding out GWB. I'm in the know and don't know about this survey. Needs to be much more publicized.	9/21/2020 2:34 PM
9	Those who live in the surrounding areas of interest.	8/28/2020 11:32 AM
10	farmers	8/3/2020 7:50 PM
11	Not sure	8/2/2020 9:17 AM
12	Service clubs - you already work with Farm Bureau	7/31/2020 6:34 PM
13	water coalition	7/27/2020 7:17 PM
14	Rural well owners	7/24/2020 8:49 PM
15	Aggressively reach out to farmers.	7/24/2020 6:46 PM
16	educators	7/19/2020 5:07 PM
17	farmers	7/11/2020 7:57 AM
18	University faculty	7/10/2020 4:36 PM
19	Communities' residents	7/10/2020 4:35 PM

Q12 Would you be willing to participate in a follow up survey to learn more about your concerns and thoughts?

Answered: 37 Skipped: 0



ANSWER CHOICES	RESPONSES	
No, I would not like to be contacted to participate in a follow-up survey.	56.76%	21
Yes, I would like to be contacted to participate in a follow-up survey. Here is email and/or phone info.	43.24%	16
TOTAL		37

#	YES, I WOULD LIKE TO BE CONTACTED TO PARTICIPATE IN A FOLLOW-UP SURVEY. HERE IS EMAIL AND/OR PHONE INFO.	DATE
1	phynendn@hotmail.com	4/15/2021 5:56 PM
2	feathersfurflowers@comcast.net	2/14/2021 4:35 PM
3	GOVERT@FIRE2WIRE.COM	2/2/2021 7:23 PM
4	sanjoseranch1@gmail.com	12/9/2020 1:49 PM
5	franksemail34@gmail.com	11/28/2020 4:40 PM
6	Ryhollister@sbcglobal.net	9/21/2020 2:34 PM
7	stromhilmar@aol.com	8/13/2020 6:05 AM
8	mcederlind@gmail.com	8/2/2020 9:17 AM
9	theorvii@gmail.com	7/31/2020 6:34 PM
10	vicyam@aol.com	7/27/2020 7:17 PM
11	bhmuller@gmail.com	7/25/2020 10:39 AM
12	roosevelt84@gmail.com	7/24/2020 8:49 PM
13	jerry6157@yahoo.com	7/24/2020 6:50 PM
14	govert@fire2wire.com	7/11/2020 7:57 AM
15	npinhey@gmail.com	7/10/2020 4:36 PM
16	KauffmanKevin@comcast.net	7/7/2020 7:40 PM

Q13 Please share with us any other SGMA-related thoughts you feel would be helpful to us as we develop the Turlock Subbasin Groundwater Sustainability Plan.

Answered: 16 Skipped: 21

#	RESPONSES	DATE
1	Unirrigated lands should not be assessed any fees at all. We are not using water in any way and the costs should not be passed to us.	2/14/2021 4:35 PM
2	Equitable costs and a pathway for further development.	1/28/2021 3:03 PM
3	I would like to know where this water is going to come from ? B how's the water going to get here C how long is going to take to get here , in years ?	12/9/2020 1:49 PM
4	Cowell Water Users are a group of farmers in Snelling with water rights from 1800s taking water from the Merced River. We have the ability to recharge groundwater through our 7 diversions on the Merced River	11/28/2020 4:40 PM
5	We need to talk more about specific programs + projects, what will trigger them, and how they will be paid for.	11/2/2020 9:39 AM
6	Recharge projects will be the most beneficial to the subbasin as a whole. Make sure the benefits of those recharge projects are credited broadly to landowners across the respective GSAs and not narrowly to the landowners immediately near recharge projects.	8/17/2020 10:26 AM
7	I do not feel most stakeholders understand the impact sgma will have. More marketing to get word out.	8/13/2020 6:05 AM
8	put the dam water on the ground	8/3/2020 7:50 PM
9	It's coming soon and the Stanford Vina decision potentially affecting the SED and unimpaired flows may have a greater SGMA effect than we know.	7/31/2020 6:34 PM
10	Be able to buy surface water from a neighbor to reduce groundwater pumping	7/27/2020 7:17 PM
11	I sat in on a TAC meeting where a vote was delayed due to lack of a quorum. I don't know if that is a persistent problem. But, could a proxy system be instituted to help move the process along?	7/25/2020 10:39 AM
12	How does one basin fairly represent two GSA's with significant differences in resources? (Surface water west vs none east)	7/24/2020 8:49 PM
13	decentivize groundwater use on non-organic orchards or incentivize organic orchards near urban development	7/19/2020 5:07 PM
14	more surface storage	7/11/2020 7:57 AM
15	Please define all acronyms used in all publications and presentations to help us neophyte readers better understand. Use footnotes or add a glossary link. Thanks.	7/10/2020 4:35 PM
16	Thank you!	7/8/2020 3:34 PM

Appendix E-14
Water Leadership Institute promotional flyers

Water Leadership Institute

"I learned something unexpected from the Leadership Institute. I learned about myself. I learned about the water. I learned about my other board members. I learned that there is help out there. It made me aware of where I want my community to go."

—

Martha Madera,
Biola Community Services

Apply for this free online training that starts on April 21, 2021, to learn about your local water resources and develop leadership skills.

Water is essential to the well-being of people, communities, agriculture and our environment. Across California, regions like yours that depend on groundwater supplies are developing plans to manage groundwater more sustainably. It's important that communities work together and are engaged in these efforts to manage both water quality and water quantity.

The Institute aims to develop the capacity of local leaders to take an active, cooperative approach to decision-making on water issues.

Who should apply?

Residents of rural and/or small communities in Stanislaus and Merced counties, domestic well owners, current or prospective water board members from small community water systems who depend on groundwater, YOU!

Participants will meet virtually for one weekly 90-minute session for 15 weeks beginning April 21. Gift certificates for meals and a small stipend will be provided for each session.

Topics covered include:

- Community history and vision
- Local water management
- Water laws and water board management
- Leadership styles
- Strategic planning
- Communications and storytelling

How to apply:

Please fill out an application at https://bit.ly/3rx5dkq or scan the code with your phone.

Questions?

If you have any questions, please contact:

Ana Lucia Garcia Briones
agarciabriones@edf.org
(415) 559-6615

EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

RCAC www.rcac.org

TURLOCK GROUNDWATER

Instituto de Liderazgo del Agua

"Aprendí algo inesperado en el Instituto de Liderazgo. Aprendí sobre mi misma. Aprendí sobre el agua. Aprendí sobre mis colegas miembros de los consejos de agua. Aprendí que existe ayuda para asuntos de agua. Me hizo consciente de dónde quiero que mi comunidad vaya."

—

Martha Madera,
Biola Community Services

Aplíque a este curso gratuito que comienza el 21 de abril 2021 para aprender sobre sus recursos de agua locales y desarrollo de habilidades de liderazgo.

El agua es esencial para el bienestar de las personas, comunidades, agricultura y nuestro medio ambiente. En California, las regiones como la suya que dependen de agua subterránea están formando planes para manejar esta agua de manera sustentable. Es importante que miembros de las comunidades trabajen juntos y participen en esfuerzos conjuntos para el mejor manejo de la calidad y cantidad de agua.

¿Quién debería aplicar?

Habitantes de pequeñas comunidades rurales en los condados de Stanislaus y Merced; dueños de pozos domésticos; futuros o actuales miembros de las Juntas de Agua de sistemas de agua comunitarios que dependan de agua subterránea, USTED!

Los participantes del curso se reunirán 90 minutos de manera virtual una vez por semana durante 15 semanas a partir del 21 de Abril 2021. A cada participante se le proporcionará un certificado de comida o un pequeño subsidio por cada reunión que atienda.

Contenido del curso incluye:

- Historia de su comunidad y su visión al futuro
- Asuntos sobre el manejo local de agua superficial y agua subterránea
- Legislación del agua y manejo de las Juntas de Agua
- Tipos de liderazgo y cuál es mi tipo
- Planeación estratégica
- Comunicación y narrativa

¿Le interesa aplicar?

Por favor llene la aplicación en línea https://bit.ly/3rx5dkq o escanee el código con su celular.

¿Tiene alguna pregunta?

Si tiene preguntas favor de comunicarse con:

Ana Lucía Garcia Briones
agarciabriones@edf.org
(415) 559 6615

EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

RCAC www.rcac.org

TURLOCK GROUNDWATER

Appendix E-15
Turlock Subbasin GSP Public Comment Summary

TURLOCK GROUNDWATER

Turlock Subbasin Groundwater Sustainability Plan

Public Comment Summary

January 2022

FINAL

Prepared for:
The East and West Turlock Subbasin Groundwater Sustainability Agencies
Prepared by:
Stantec Consulting Services, Inc. and
Global Urban Strategies

This page left blank intentionally.

Table of Contents

LIST OF TABLES

ABBREVIATIONS

Ad-Hoc	Ad-Hoc Planning Committee
DWR	California Department of Water Resources
ETS	East Turlock Subbasin
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
Matrix	Comment and Comment Response Matrix
MCR	Multiple Comment Response
SGMA	Sustainable Groundwater Management Act of 2014
Subbasin	Turlock Subbasin
Summary	Public Comment Summary

TAC	Technical Advisory Committee
WTS	West Turlock Subbasin

ATTACHMENTS

Attachment A – Notice to Cities and Counties

Attachment B – Comment Letters Received on Draft Groundwater Sustainability Plan

Attachment C – Turlock Groundwater Sustainability Plan Comments and Comment Response Matrix

This page left blank intentionally.

1.0 INTRODUCTION

This Public Comment Summary (Summary) describes the process and tools used by the East Turlock Subbasin (ETS) and West Turlock Subbasin (WTS) Groundwater Sustainability Agencies (GSAs) to solicit, review, and respond to public and stakeholder comments on the Draft Turlock Subbasin Groundwater Sustainability Plan (GSP) and notify cities, counties, and Tribes within the plan area of the GSAs' intent to adopt the GSP. These public review and notification processes were developed pursuant to the Sustainable Groundwater Management Act of 2014 (SGMA) and the California Department of Water Resources' (DWR) Groundwater Sustainability Plan Emergency Regulations, developed in May 2016.

California Code of Regulations (CCR) Title 23 Section (§) 355.4 provides the basis for DWR's determination of a GSP's compliance with SGMA and whether a GSP is likely to achieve the sustainability goal for the basin. As part of this criteria, DWR will consider:

> *(10) Whether the Agency has adequately responded to comments that raise credible technical or policy issues with the Plan. (§ 355.4(b)(10))*

This document reviews the GSAs' actions to notify the public and other interested parties of the availability of the Draft GSP and the GSAs' approach to soliciting, reviewing, and responding to technical and policy comments submitted by the public and other interested parties.

1.1 DOCUMENT FORMAT

This Summary is comprised of the following four sections:

- Section 1 – Introduction: Section 1 provides an overview of the purpose and structure of the document, as well as the evaluation criteria for addressing comments on the GSP.
- Section 2 – Commenting Process: Section 2 describes the public comment process for the Draft GSP and the method by which the GSAs notified cities and counties within the plan area of the proposed plan. The notification letters are included as **Attachment A** to this Summary.
- Section 3 – Submitted Comments: Section 3 provides an overview of comment letters received on the Draft GSP during the public comment period. The comment letters in their entirety are included as **Attachment B** to this Summary.
- Section 4 – Comment Management and Review: Section 4 describes how the GSAs reviewed and responded to comment letters received during the public comment period, including the processes for identifying and categorizing individual comments and responding to comments that raised credible technical and policy issues. This section also describes the tool used to manage the comments and comment responses. A copy of the final tool is provided as **Attachment C** to this Summary.

2.0 COMMENTING PROCESS

The GSAs solicited public comments from individuals, agencies, and organizations representing beneficial uses and users of groundwater described in Water Code § 10723.2 as well as any other interested members of the public. This section describes the Draft GSP notification and public comment process. In addition, it describes the method by which the GSA notified cities and counties of their intention to adopt the GSP, pursuant to California Water Code § 10728.4.

2.1 NOTICE TO CITIES AND COUNTIES

SGMA (as chaptered in California Water Code § 10728.4) requires that:

> *A groundwater sustainability agency may adopt or amend a groundwater sustainability plan after a public hearing, held at least 90 days after providing notice to a city or county within the area of the proposed plan or amendment. The groundwater sustainability agency shall review and consider comments from any city or county that receives notice pursuant to this section and shall consult with a city or county that requests consultation within 30 days of receipt of the notice. Nothing in this section is intended to preclude an agency and a city or county from otherwise consulting or commenting regarding the adoption or amendment of a plan.*

Pursuant to these regulations, the GSAs notified cities and counties within the GSP area of its intention to adopt the GSP at least 90 days before adoption of the Final GSP. This notification included a letter sent to the Counties of Stanislaus and Merced and the Cities of Turlock, Modesto, Hughson, Ceres, and Waterford on September 10, 2021. As a courtesy, the GSAs also provided notice to the following groundwater-related agencies on September 28 and 29, 2021:

Ballico-Cortez Water District
Delhi County Water District
Eastside Water District
Hilmar County Water District
Merced Irrigation District
Turlock Irrigation District
Ballico Community Services District
Denair Community Services District
Keyes Community Services District
Monterey Tract Community Services District
Riverdale Park Tract Community Services District
Stanislaus and Tuolumne Rivers Groundwater Basin Association
Merced Subbasin GSP c/o Merced Irrigation District
Delta-Mendota Subbasin GSP c/o San Luis & Delta-Mendota Water Authority
LAFCo of Merced County
Ceres Public Library
Delhi Educational Park Community Library
Denair Public Library
Hilmar Public Library
Hughson Public Library
Keyes Public Library
Merced County Library
Stanislaus County Library
Turlock Public Library
Delhi Municipal Advisory Council
Denair Municipal Advisory Council
Hickman Municipal Advisory Council
Hilmar Municipal Advisory Council
Keyes Municipal Advisory Council
Snelling Municipal Advisory Council
South Modesto Municipal Advisory Council
Stanislaus Local Agency Formation Commission

The notices to cities, counties, and agencies are provided in **Attachment A**.

In addition to the notices, ETS and WTS GSA member agencies distributed information about the GSP to their customers and constituents.

2.1.1 Tribal Outreach Summary

The GSAs contacted the California Native American Heritage Commission (NAHC) to locate any Tribes that might exist within the Subbasin's boundaries. The NAHC indicated that no Tribes are present within the Subbasin's boundaries and provided a list of Tribes in the surrounding areas. GSA consultants contacted the Tribes on this list to inform them of the GSP development effort and to invite comments on the Draft GSP.

Amah Mutsun Tribal Band*
Calaveras Band of Mi-Wuk Indians
California Valley Miwok Tribe*
Chicken Ranch Rancheria of Me-Wuk Indians*
The Confederated Villages of Lisjan
Dumna Wo-Wah Tribal Government
Muwekma Ohlone Indian Tribe of the SF Bay Area
Nashville Enterprise Miwok-Maidu-Nishinam Tribe
North Fork Rancheria of Mono Indians
North Valley Yokuts Tribe
Picayune Rancheria of Chukchansi Indians*
Santa Rosa Rancheria Tachi Yokut Tribe*
Southern Sierra Miwuk Nation
Tule River Indian Tribe
Tuolumne Band of Me-Wuk Indians
Sheep Rancheria of Me-Wuk Indians of CA
Tamien Nation
Wilton Rancheria
Wuksache Indian Tribe/Eshom Valley Band

*Tribes denoted with an asterisk requested follow-up information on GSP development.

The GSAs did not receive requests for consultation, though several Tribes in the extended area (denoted with an asterisk) requested follow-up information. The GSAs will continue to engage interested Tribes through GSP implementation.

2.2 DRAFT GSP RELEASE AND PUBLIC COMMENT PERIOD

The Joint GSA Board authorized the release of the Draft GSP in stages, by chapter. The chapter release schedule is detailed in **Table 1**.

Table 1. Chapter Release Schedule

Draft GSP Chapter	Chapter Release Date	Comments Requested By
Chapter 1: Administrative Information	July 8, 2021	September 1, 2021
Chapter 2: Plan Area	July 8, 2021	September 1, 2021
Chapter 4: Basin Setting	July 8, 2021	September 1, 2021
Chapter 3: Notice and Communication	November 15, 2021	December 15, 2021
Chapter 5: Water Budgets	August 30, 2021	September 30, 2021
Chapter 6: Sustainable Management Criteria	October 19, 2021	November 19, 2021
Chapter 7: Monitoring Networks	October 19, 2021	November 19, 2021
Chapter 8: Projects and Management Actions	November 15, 2021	December 15, 2021
Chapter 9: Implementation Support Activities	November 15, 2021	December 15, 2021

The GSA notified interested parties and members of the public of the Draft GSP chapter releases and public comment periods through posting on the Turlock Groundwater website and through emails sent through the interested parties list.

Each chapter of the Draft GSP was available for public review on the Turlock Groundwater website for a minimum of 30 days. Although the GSAs provided "comments requested by" dates for the earlier chapter releases, they accepted public comments on all sections of the GSP through December 15, 2021. Comments received after that date were noted and considered, even if such comments did not result in substantive changes to the GSP.

Members of the public were provided three methods to submit comment on the Draft GSP:

1. Using the www.turlockgroundwater.org webform.
2. Via electronic mail to turlockgroundwater@gmail.com.
3. Via USPS mail to Turlock Subbasin GSP Comments c/o Turlock Irrigation District, PO Box 949 Turlock, CA 95381-0949.

2.3 PUBLIC AND STAKEHOLDER INPUT ON DRAFT GSP CHAPTERS

The GSAs solicited input on the Draft GSP from stakeholders and members of the public through public meetings of the ETS and WTS Technical Advisory Committees (TACs) and Boards as well as through virtual "Groundwater Office Hours." The WTS and ETS TACs are composed of twelve and five member agencies, respectively, which represent beneficial users of groundwater in the basin. The GSA TACs were supported by an Ad-Hoc Planning Committee, composed of members of the GSAs, which supported GSP review and development and prepared materials for TAC and Board meetings. The Ad-Hoc and the TACs were actively involved in developing and providing input on the Draft GSP and worked to advise the two GSA Boards. Members of the public had the opportunity to provide comments on Draft GSP chapters during public GSA Board meetings and TAC meetings.

The GSAs held multiple virtual Groundwater Office Hours during GSP development, four of which covered the draft chapter contents and comment solicitation (September 2, September 16, October 28, and November 18, 2021). These Office Hours included presentations on the latest Draft GSP chapters and included time for questions and answers with members of the public. The Office Hours were noticed via multiple emails to the GSAs' Interested Parties Database, though posts on social media, and updates to the Turlock Groundwater website calendar.

The GSAs also hosted an in-person meeting in Delhi in collaboration with the Leadership Counsel for Justice & Accountability on December 1, 2021. The event engaged members of the Spanish-speaking community of Delhi on the topic of their water-related concerns and the material in the GSP. The meeting was conducted with simultaneous Spanish interpretation. The Leadership Counsel for Justice & Accountability conducted targeted outreach for the event.

Members of the public also had the ability to participate in several workshops prior to the release of the Draft GSP. For information about these events, visit: https://turlockgroundwater.org/workshops

3.0 SUBMITTED COMMENTS

The GSAs received 14 comment letters on the Draft GSP during the public comment period. Two letters were submitted by individual contributors. Twelve letters were submitted from organizations representing beneficial uses and/or users of groundwater in the region, including federal agencies, local water agencies, trade organizations, agricultural users, and non-governmental organizations representing environmental and domestic users of groundwater. **Table 2,** shown below, provides the list of comments that were received on the Draft GSP, organized chronologically in the order they were received. Copies of the comment letters are provided in **Attachment B** to this Summary.

Table 2. Submitted Comments

Commenter or Agency Name	Commenter Type	Date Comment was Received
Leadership Counsel for Justice & Accountability	Non-Governmental Organization	8/26/2021, 11/19/2021, and 12/15/2021
Eastside Water District	Water Agency	9/20/2021
National Marine Fisheries Service	Federal Agency	9/29/2021
Restore Hetch Hetchy	Non-Governmental Organization	9/30/2021
Tuolumne River Conservancy	Non-Governmental Organization	10/20/2021 and 12/13/2021
Milt Trieweiler	Individual Commenter	12/11/2021
California Poultry Federation	Trade Organization	12/13/2021
Coalition letter from Clean Water Action, Union of Concerned Scientists, Audubon California, Local Government Commission, and The Nature Conservancy	Non-Governmental Organizations	12/15/2021
Rhett Calkins	Individual Commenter	12/15/2021
Coalition letter from Tuolumne River Trust and California Sportfishing Protection Alliance	Non-Governmental Organizations	12/15/2021
South Valley Farms	Agricultural User	Postmarked 12/16/2021

4.0 COMMENT REVIEW AND RESPONSE

This section describes the process and tools the GSAs used to review and respond to comments on the Draft GSP. Following the close of the public comment period on December 15, 2021, the GSAs reviewed each comment letter to identify individual comments on the Draft GSP. To organize and manage the review of issue-specific comments, staff created a database, or matrix, that allowed for an organized approach to responding to comments. This comment management approach is described below.

4.1 COMMENT MANAGEMENT

This subsection describes the process the GSAs used to categorize each of the comment letters received on the Draft GSP and identify issue-specific comments for review and response. Of the 14 letters received, a total of 110 issue-specific comments applicable to the Draft GSP were identified. Each comment was entered into the database referred to as the Turlock GSP Comment and Comment Response Matrix (Matrix). Staff from both GSAs then used the Matrix to identify potential changes to the GSP and develop comment responses. **Table 3** describes the types of information included in the Matrix. A copy of the completed Matrix is provided in **Attachment C** to this Summary.

Table 3. Turlock Subbasin Groundwater Sustainability Plan Comment and Comment Response Matrix Columns

Matrix Column	Column Description
Author	Name of agency or organization that signed or submitted the comment letter.
Location in GSP	The location in the Draft GSP the comment refers to, if cited.
Comment	Copies of the comment text directly from the comment letter.
Response/Recommended Action	Response or recommended action to address the comment.

Key:
GSP = Groundwater Sustainability Plan

Note that the Leadership Counsel for Justice & Accountability submitted three comment letters. The contents of the first two letters are included and elaborated upon in their third and final letter. To ensure consistency of response, the Matrix only includes comments and responses from the third letter.

4.2 REVIEW AND RESPONSE

This subsection describes the approach and process GSAs and consultant staff used to review, respond to, and address comments received on the Draft GSP and approval of amendments to

the Draft GSP. This review and response process included preparation of draft multiple comment responses, multiple meetings of the Ad-Hoc Committee, a joint meeting of the ETS and WTS TACs, and two joint meetings of the ETS and WTS Boards. These meetings are described in the following subsections.

4.2.1 Comment Response Development

After the comments were sorted into the Matrix, GSA staff and consultants prepared unique draft responses to the public comments. This process was facilitated through meetings of the Ad-Hoc Planning Committee.

4.2.2 Comment Response Workshops

On December 15, 2021, the ETS and WTS GSA Boards met jointly in a publicly noticed session to receive a presentation on the public comment letters received to-date, which included 13 of the 14 letters. GSA staff and consultants shared an overview of the types of comments received, introduced the comment response management process, and informed the Boards of how the GSP would be updated. The Joint Board meeting included a period for comments from the Boards and members of the public. No comments were received.

On January 4, 2022, the ETS and WTS TACs met jointly in a publicly noticed meeting to review and approve the comment responses and changes to the GSP. Edits fell into the following major topic areas:

- Environmental benefits to projects
- Water quality monitoring network details
- Monitoring network improvement clarifications, specifically related to the budget

Public comments fell into the following major topics areas:

- Impacts of groundwater levels/ quality/ monitoring on domestic wells
- Interconnected surface water and streamflow habitat/ depletions/ mapping
- Groundwater dependent ecosystems analysis
- Sustainable management criteria- water levels, quality, interconnected surface waters
- Land use policies/ future development (overdraft)
- Climate change analysis
- Disadvantaged communities, drinking water, human right to water, and outreach
- Projects/ Management Actions and funding considerations

Both TACs unanimously voted to accept the proposed comment responses and edits to the GSP. The TACs recommended to the Joint Board to adopt the Final GSP at its January 6, 2022 meeting.

4.2.3 Public Hearing

On January 6, 2022, the Joint GSA Board held a publicly noticed public hearing for adoption of the GSP. **Table 4** provides a summary of comments provided during the public comment period of the hearing. The table provides the commenter's name and affiliation as well as the comment provided. This meeting was recorded and posted to the Turlock Groundwater website. Members of the public will be able to further comment and provide feedback on the GSP during DWR's established comment period under California Water Code § 10733.4. The GSAs will continue to track written comments provided to DWR.

Table 4. Public Comments Received during the Public Hearing to Adopt

Commenter Name and Affiliation	Comment Provided
Rhett Calkins, Public Member	Rhett Calkins noted that it has recently come to the public's attention water basin accounting structure discussions are underway between the East and West GSAs. According to a document included in the 11/15 special meeting agenda packet, the East and West GSAs have been in conversations about groundwater accounting for several months. Rhett noted that this is the first public indication that such collaboration is underway. He noted that much is at stake for the public; specifically, the State's Bay Delta Water Plan may reduce surface water use by as much as 40%. He noted that this may also affect the implementation of the Stanislaus Regional Water Surface Supply Project. Rhett requests documentation of discussions about water basin accounting as well as any draft documents that have been developed on draft structures be made accessible to the public on the website in a "working documents" section that is easy for the public to locate.
Nataly Escobedo Garcia, Leadership Counsel for Justice and Accountability	Nataly Escobedo Garcia shared that Leadership Council are encouraged that Chapter 2 has been amended to identify disadvantaged communities, community water systems, and private well communities, but noted that the GSP does not discuss past or current drinking water issues in the subbasin. Additionally, the GSP does not analyze all drinking water contaminants and does not provide an explanation for why these contaminants are omitted from the analysis. Secondly, Leadership Counsel finds the description of the water budget and the supporting data and assumptions provided in Chapter 5 to be incomplete. It is unclear if or how water demands from rural, domestic water users or small community water systems are included in the budgets presented. Third, while the sustainability goals include several admirable goals, there is a gap when it comes to safe drinking water for existing residents. Fourth, Chapter 6 should identify manganese and TCP as existing contaminants of concern. Lastly, the GSAs must consider the interests of all beneficial users, including domestic well owners and disadvantaged communities and avoid disparate impacts on protected groups. The GSP must also concretely outline how each objective and the overall sustainability goal will be achieved. The projects and management actions set forth in the GSP do not adequately account for drinking water users or protected groups and do not demonstrate how the sustainability goals will be achieved. Nataly Escobedo Garcia referred the GSAs to the Leadership Counsel's public comment letter for recommendations on how the GSP can be amended according to these comments.

TURLOCK GROUNDWATER

www.turlockgroundwater.org

Attachment A – Notice to Cities and Counties

TURLOCK GROUNDWATER

September 28, 2021

Keyes Community Services District
Attn: Ernie Garza, General Manager
PO Box 699
Keyes, CA 95328

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Delhi County Water District
Attn: Leandro Maldonado, General Manager
PO Box 639
Delhi, CA 95315

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Hilmar County Water District
Attn: Curtis Jorritsma, District Manager
8319 Lander Avenue
Hilmar, CA 95324

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Eastside Water District
Attn: Sarah Woolf, General Manager
731 E. Yosemite Avenue, Suite B #147
Merced, CA 95340

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Ballico-Cortez Water District
Attn: Dirk Ulrich, Chairman of the Board
12714 Cortez Avenue
Turlock, CA 95380

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Merced Irrigation District
Attn: Hicham ElTal, Deputy General Manager
744 W. 20th Street
Merced, CA 95340

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Turlock Irrigation District
Attn: Tou B. Her, AGM Water Resources Administration
PO Box 949
Turlock, CA 95381

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Stanislaus and Tuolumne Rivers Groundwater Basin Association
Groundwater Sustainability Agency
1231 11th Street
Modesto, CA 95354

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Merced Subbasin GSP
c/o Merced Irrigation District
Attn: Hicham ElTal, Deputy General Manager
744 W. 20th Street
Merced, CA 95340

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

September 29, 2021

Delta-Mendota Subbasin GSP
c/o San Luis & Delta-Mendota Water Authority
Attn: John Brodie, Water Resources Program Manager
PO Box 2157
Los Banos, CA 93635

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Turlock Public Library
550 N. Minaret Avenue
Turlock, CA 95380

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Ceres Public Library
2250 Magnolia Street
Ceres, CA 95307

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Denair Public Library
PO Box 190
Denair, CA 95316

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Hughson Public Library
PO Box 1025
Hughson, CA 95326

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Keyes Public Library
1500 I Street
Modesto, CA 95354

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Delhi Educational Park Community Library
16881 W. Schendel Avenue
Delhi, CA 95315

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Hilmar Public Library
20041 Falke Street
Hilmar, CA 95324

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Merced County Library
2100 O Street
Merced, CA 95340

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Stanislaus County Library
1500 I Street
Modesto, CA 95354

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Ballico Community Services District
PO Box 255
Ballico, CA 95303

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Denair Community Services District
Attn: David Odom, General Manager
PO Box 217
Denair, CA 95316

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Monterey Tract Community Services District
PO Box 1301
Ceres, CA 95307

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Riverdale Park Tract Community Services District
PO Box 580343
Modesto, CA 95354

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Delhi Municipal Advisory Council
9799 Stephens Street
Delhi, CA 95315

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Hilmar Municipal Advisory Council
PO Box 460
Hilmar, CA 95324

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Snelling Municipal Advisory Council
PO Box 160
Snelling, CA 95369

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Denair Municipal Advisory Council
PO Box 952
Denair, CA 95316

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Hickman Municipal Advisory Council
PO Box 92
Hickman, CA 95323

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

Keyes Municipal Advisory Council
PO Box 1112
Keyes, CA 95328

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 28, 2021

South Modesto Municipal Advisory Council
PO Box 1622
Ceres, CA 95307

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 29, 2021

Stanislaus Local Agency Formation Commission
1010 10th Street, Floor 3
Modesto, CA 95354

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 29, 2021

LAFCo of Merced County
2222 M Street
Merced, CA 95340

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Pursuant to California Water Code § 10728.4, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and the East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) provided notice on behalf of their members regarding their intention to adopt a Groundwater Sustainability Plan (GSP) no earlier than 90 days from the date of the notice. The notice was mailed to the following cities and counties within the area of the proposed GSP:

City of Ceres
City of Hughson
City of Modesto
City of Turlock
City of Waterford for Hickman
Merced County
Stanislaus County

A copy of this notice is attached for your reference. No action is required on behalf of your agency.

If you would like more information regarding the development of the GSP, please visit turlockgroundwater.org/GSP.

TURLOCK GROUNDWATER

September 10, 2021

County of Stanislaus
Environmental Resources Department
Attn: Walt Ward, Water Resources Manager
3800 Cornucopia Way, Suite C
Modesto, CA 95358

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear County of Stanislaus:

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

TURLOCK GROUNDWATER

September 10, 2021

County of Merced
Division of Environmental Health
Attn: Vicki Jones, Environmental Health Division Director
260 E. 15th Street
Merced, CA 95341

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear County of Merced:

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

TURLOCK GROUNDWATER

September 10, 2021

City of Turlock
Municipal Services Department
Attn: Dan Madden, Interim Municipal Services Director
156 S. Broadway, Suite 270
Turlock, CA 95380

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear City of Turlock:

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

TURLOCK GROUNDWATER

September 10, 2021

City of Modesto
Utility Planning & Projects Department
Attn: William Wong, Director of Utilities
1010 10th Street, Suite 3300
Modesto, CA 95354

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear City of Modesto:

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

TURLOCK GROUNDWATER

September 10, 2021

City of Hughson
Community Development Department
Attn: Rachel Wyse, Community Development Director
PO Box 9
Hughson, CA 95326

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear City of Hughson:

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

TURLOCK GROUNDWATER

September 10, 2021

City of Ceres
Public Works Department
Attn: Jeremy Damas, Public Works Director
2220 Magnolia Street
Ceres, CA 95307

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear City of Ceres:

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

TURLOCK GROUNDWATER

September 10, 2021

City of Waterford
Attn: Mike Pitcock, City Manager
101 E. Street
Waterford, CA 95386

NOTICE OF INTENT TO ADOPT A GROUNDWATER SUSTAINABILITY PLAN (GSP)

TURLOCK SUBBASIN

Dear City of Waterford (for Hickman):

The Sustainable Groundwater Management Act (SGMA) requires each groundwater sustainability agency (GSA) that intends to adopt a Groundwater Sustainability Plan (GSP) to provide notice of such adoption to any city or county within the area of the proposed GSP (California Water Code §10728.4.) Pursuant to this requirement, the West Turlock Subbasin Groundwater Sustainability Agency (WTS GSA) and East Turlock Subbasin Groundwater Sustainability Agency (ETS GSA) hereby provide notice on behalf of their members that the GSAs intend to adopt a GSP no earlier than 90 days from the date of this notice.

The GSAs shall review and consider comments from any city or county that receives notice pursuant to California Water Code §10728.4 and consult with a city or county that requests consultation within 30 days of receipt of this notice. If you would like more information regarding the development of the GSP, please contact Michael Cooke for the West Turlock GSA or Sarah Woolf for the East Turlock GSA using the contact information below. The draft GSP chapters out for public review can be accessed at turlockgroundwater.org/GSP.

Sincerely,

Michael Cooke
West Turlock GSA
Chair, Technical Advisory Committee
209-883-8364
micooke@tid.org

Sarah Woolf
East Turlock GSA
Chair, Technical Advisory Committee
559-341-0174
sarahwoolf@me.com

Attachment B – Comment Letters Received on Draft Groundwater Sustainability Plan

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

The Turlock Subbasin
333 E. Canal Drive
PO Box 949
Turlock, CA 95381-0949

August 26th, 2021

Re: Comments on Turlock Subbasin GSP Chapters 1, 2 and 4

Dear West Turlock GSA and East Turlock GSA board members and Turlock Subbasin Technical Advisory Committee members,

Our organization works alongside low-income communities of color in the San Joaquin Valley and the Eastern Coachella Valley to advocate for local, regional and state government entities to address their communities' needs for the basic elements that make up a safe and healthy community, including clean, safe, reliable and affordable drinking water, affordable housing, effective and safe transportation, efficient and affordable energy, green spaces, clean air, and more. We have worked with residents from the community of Delhi for seven years on issues ranging from land use, parks and recreation development, and access to safe and reliable water sources. We are supporting Delhi residents' engagement in the Sustainable Groundwater Management Act (SGMA) implementation process because they are dependent on groundwater for their drinking water supplies, and often have already experienced groundwater quality and supply issues. Residents in Delhi have experienced groundwater contamination from surrounding dairies and have had issues with residential wells drying up. Historically, communities we work with have not been included in decision-making about their previous water resources, and their needs have not been at the forefront of such decisions. In 2012, California recognized the Human Right to Drinking Water as a statewide goal. Now, because of SGMA's requirements for a transparent and inclusive process, groundwater management under the new law has the opportunity to include disadvantaged communities in decision-making and create groundwater management plans that understand their unique vulnerabilities and are sensitive to their drinking water needs.

We have evaluated Draft Chapters 1, 2 and 4 according to our Human Right to Water Scorecard,[1] which is founded on existing law, as well as our understanding of water conditions in the

[1] Leadership Counsel and others, Human Right to Water Scorecard, February 10th, 2020, found at https://leadershipcounsel.org/wp-content/uploads/2020/05/HR2W-Letter-Scorecard.pdf .

subbasin and in Delhi, and we have included our comments on these Draft Chapters below. We would welcome the opportunity to speak further with GSA staff, TAC members and board members about our concerns and recommendations.

1. **The Draft Chapters do not adequately discuss groundwater quality impacts on drinking water users within the subbasin.**

We are encouraged to see that Draft Chapter 2 of the GSP identifies, describes and provides maps of DACs, community water systems and private well communities. However, in discussing groundwater quality issues within the subbasin, the Draft Chapters do not include information on past and current drinking water issues within these communities. Additionally, the Draft Chapters do not analyze all drinking water contaminants in the subbasin, and do not provide an explanation why certain contaminants are omitted from the analysis.

Chapter 4 discusses the locations of high concentrations of contaminants, but does not address where homes have experienced drinking water contamination. (4-37) Information about affected homes and communities is key to ensuring that the GSP is accurately evaluating groundwater impacts on all beneficial users of groundwater, and addressing those impacts. Without this information, the GSA has not adequately considered impacts to all beneficial users in the subbasin. We recommend that the GSA fill this data gap with specific information regarding all past and current drinking water quality exceedances experienced by domestic well users, small community water systems, state small water systems and disadvantaged communities within the subbasin, according to the best available information.

Chapter 4 discusses the presence and concentrations of nitrates, TDS, arsenic, manganese, uranium, sulfate, boron, 123-TCP, PCE and DBCP. Chapter 4 does not explain why the GSAs chose to evaluate those contaminants and exclude others from its analysis. In order to ensure that the GSAs are considering impacts to drinking water users, the GSAs must also evaluate the presence of other harmful contaminants proven to damage human health, such as hexavalent chromium and PFOs/PFAs. We recommend that Chapter 4 include an analysis of all contaminants proven to be harmful to human health. This list would include all primary and secondary drinking water contaminants, as well as hexavalent chromium and PFOs/PFAs.

2. **The Draft Chapters must include complete information about how GSAs will ensure sustainable groundwater use despite local land use agencies' policies regarding "right to farm" and continued development.**

The Draft Chapters identify many relevant local policies that could impact groundwater and addresses the impact of each policy on sustainable groundwater management. Many of these policies align with the goals of sustainable groundwater use, but in regards to several of these

policies the GSA fails to adequately discuss how it will ensure that the policy does not contribute to continued overdraft in the subbasin.

Several policies referenced in Chapter 2 are particularly likely to cause a substantial increase in groundwater pumping or, at best, continued overdraft. These include Stanislaus County's "Right-to-Farm Ordinance" and "Farmland Mitigation Ordinance." (2-29) While farming provides jobs and other benefits to the region, a guarantee for continued farming on all land that is currently zoned as farmland will hinder the GSA's ability to reach sustainability. More explanation is needed regarding how the GSA will ensure sustainability despite this large water burden.

Furthermore, Chapter 2 states that must explain how the GSAs will coordinate with Stanislaus and Merced County's planning divisions to ensure that new developments comply with the subbasin's sustainable yield. Chapter 2 states that "[a]ll of the agencies with land use planning responsibilities and authorities are also member agencies of one or both GSAs in the Turlock Subbasin" and "[t]his overlap, combined with a past history of numerous agencies working together, ensure a high level of coordination between land use planning and the GSP process." (2-43) To ensure that this coordination occurs, however, GSAs and land use planning agencies will need clear processes by which permitting decisions are evaluated for compliance with groundwater sustainability goals set in the GSP.[2] For example, well permitting could be done by the GSAs instead of the County governments, and permits for new developments could come before the GSAs as part of the land use authority's approval processes. Chapter 2 should give this level of detail to adequately explain how these processes will be coordinated.

~ ~ ~ ~ ~

Thank you for the opportunity to comment on these Draft Chapters. We welcome the opportunity to speak further about our comments.

Sincerely,

Amanda Monaco
Water Policy Coordinator
Leadership Counsel for Justice and Accountability

[2] Our comments encourage scrutiny on permitting for new market-rate developments, not water for existing communities or affordable housing. *Existing* communities that lack adequate drinking water resources should be connected immediately to safe, affordable and reliable drinking water, and affordable housing development should be prioritized.

HERUM \ CRABTREE \ SUNTAG
ATTORNEYS

Jeanne M. Zolezzi
jzolezzi@herumcrabtree.com

VIA EMAIL

September 20, 2021

Turlock Subbasin GSP Comments
c/o Turlock Irrigation District
Post Office Box 949
Turlock, CA 95381-0949
turlockgroundwater@gmail.com

Re: Comments of the Eastside Water District on TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN (GSP) *CHAPTER 5 WATER BUDGETS DRAFT*

Ladies and Gentlemen:

These comments are submitted on behalf of the Eastside Water District on Draft Chapter 5 Water Budgets of the Turlock Subbasin Groundwater Sustainability Plan (GSP).

As stated in the Chapter, Water budgets were developed to provide a quantitative account of water entering (inflows) and leaving (outflows) the Turlock Subbasin. For this reason, it is curious that the chapter insists on developing water budgets for each of the two GSAs within the basin without providing support for the underlying assumptions that go into those individual budget developments.

COMMENTS

The following are examples of unsubstantiated conclusions reached in the Draft chapter:

1. Tables 5-4 and 5-5 attempt to develop Average Annual Water Budgets – Land Surface System for the East Turlock GSA and the West Turlock GSA. In doing so, it includes, without support, agricultural percolation of surface water entirely within the West Turlock GSA budget.

2. Tables 5-4 and 5-5 make assumptions about "Native Percolation" to each GSA without defining the term.

3. Similarly, Tables 5-8 and 5-9 allocate "Canal & Reservoir Recharge" and "Deep Percolation" to the GSAs without discussion.

Section 5.1.4.1 states: "The goal of the water budget analysis is to characterize the water supply and demand, while summarizing the accounting of water demand and supply components and their changes within each GSA, and the Subbasin as a whole". If these conclusions are intended simply to

define the geographical occurrence of these items, and not allocate ownership or entitlement, then that should be clarified.
Section 5.1.4.1 also states:

> The nature of river and stream system in the Turlock Subbasin is complex for several reasons, including: (i) the level of historical monitoring and measurement has been limited, (ii) surface water courses traverse through the Subbasin, and accounting of seepage losses to each GSA may be challenging at best, (iii) the delivery canals convey water through one GSA to deliver to another GSA, with incidental deliveries along the way, which also makes it challenging to allocate seepage losses to each GSA, (iv) the local streams and irrigation canals are not expressly identified and simulated in the model. Therefore, development of stream budgets by each GSA is not feasible.

Despite these statements, the Draft Chapter actually does develop stream budgets by GSA.

4. Figures 5-11 through 5-14 purport to show net extraction and recharge for each GSA, and states:

> Based on this analysis, while the groundwater system has been experiencing a condition of net recharge on the west side, the groundwater conditions on the east side have experienced an increasing net depletion during the historical period. This condition is primarily due to increasing groundwater use which has resulted in declining groundwater levels as reported at many wells throughout the East side.

The conclusion of "net recharge" on the west side depends entirely upon the classification and allocation of "Native Percolation", "Canal & Reservoir Recharge" and "Deep Percolation. Until these terms are defined, and a legal determination of entitlement is made, the Draft Chapter cannot and should not arbitrarily allocate them based solely upon physical inclusion within the politically drawn boundaries of a GSA.

5. Section 5.3 states:

> To achieve sustainable conditions and meet the criteria for sustainability indicators listed above, Group 2 municipal users would need to reduce groundwater demand by twelve (12) percent, and Group 2 agricultural users would need to reduce groundwater use by forty (40) percent. This reduction in groundwater usage results in a sustainable yield of approximately 310,700 acre-feet per year for the Subbasin.

These estimates have no place in the Draft Chapter. First, there is no support for imposing a 40% decrease on agricultural users while at the same time capping groundwater reductions imposed upon municipal users of 12% when their priority to use of the groundwater under the law has not yet been determined. Further, the chapter does not discuss the requirement that California achieve a twenty-percent reduction in per person urban water use by the end of 2020 (also known as "20 x 2020″), which became law in 2009.

In the next paragraph, however, Section 5.3 states:

> This methodology of reducing subbasin wide groundwater pumping to estimate sustainable yield is developed solely for the purpose of estimating the Turlock Subbasin's sustainable

> yield. It is not intended to prescribe or describe how a water budget balance would be achieved in the Turlock Subbasin during GSP implementation to avoid Undesirable Results.

If this is the case, then this particular methodology for reducing subbasin wide groundwater pumping should simply not be used as it is prejudicial at this time.

CONCLUSION

SGMA requires that the GSP: Develop an understanding of how historical conditions concerning hydrology, water demand, and surface water supply availability or reliability have impacted the ability to operate the basin within the sustainable yield (§10733.6(b)(3)).

The Draft Chapter need only include information, Tables and Graphs depicting the groundwater budget for the Basin. Yet, it goes further than that, and attempts to allocate water sources to the separate GSAs participating in plan development. It does so without legal analysis of who is entitled to water sources or components. As confirmed in the Best Management Practices for the Sustainable Management of Groundwater, Groundwater Budget:

> Management Areas: Although the **GSP Regulations only require quantification of water budget components for the basin**, each GSA may choose to further subdivide and report the water budget by one or more management areas to help facilitate GSP implementation, and to help demonstrate GSP substantial compliance to the Department under §355.2 of the GSP Regulations (Department Review of Adopted Plan). If management areas are developed, additional information and graphics will be needed to define the names, locations, and distribution of management areas within the basin. Graphical representations of the physical setting and characteristics of the basin will be largely provided under HCM requirements in §354.14 of the GSP Regulations.

In other words, subdividing and reporting a water budget between GSAs as done in the Draft Chapter is warranted only when the basin has been divided into management areas, which has not been done here.

The Chapter should either be changed to exclude discussion of the division between the East Turlock Subbasin GSA and the West Turlock Subbasin GSA, or a disclaimer should be included that the numbers included in the Water Budget chapter are preliminary, based solely upon physical political boundaries, and are not intended to constitute an allocation between the GSAs.

HERUM CRABTREE SUNTAG

JEANNE M. ZOLEZZI
Attorney-at-Law

cc: Ms. Sarah Woolf
Ballico-Cortez Water District
Lacey McBride, Merced County
Lauren Layne, Esq.
Mr. Walt Ward, Stanislaus County
Hicham M. Eltal, Merced Irrigation District

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, California 95814-4700

September 29, 2021

Michael Cooke, Tech Advisory Committee - Chair
West Turlock Subbasin GSA
P.O. Box 949
Turlock, California 95381

Kevin Kauffman, Water Consultant
East Turlock Subbasin GSA
731 East Yosemite Avenue, Suite B #318
Merced, California 95340

Electronic transmittal only

Re: NOAA's National Marine Fisheries Service Comments on the Developing Groundwater Sustainability Plan for the Turlock Subbasin

Dear Mr. Cooke and Mr. Kauffman:

NOAA's National Marine Fisheries Service (NMFS) is the federal agency responsible for managing, conserving, and protecting living marine resources in inland, coastal, and offshore waters of the United States. We derive our mandates from numerous statutes, including the Federal Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The purpose of the ESA is to conserve threatened and endangered species and their ecosystems.

The California Department of Water Resources (DWR) has designated the Turlock subbasin a "high" priority for groundwater management, necessitating the development of a Groundwater Sustainability Plan (GSP) by January 2022, as required under California's Sustainable Groundwater Management Act of 2014 (SGMA). Several waterways that overlie portions of the Turlock subbasin support federally threatened California Central Valley (CCV) steelhead (*Oncorhynchus mykiss*). In addition, the Turlock subbasin is designated as Essential Fish Habitat (EFH) for Pacific Coast Chinook salmon, including CV fall-run Chinook salmon (*O. tshawytscha*), which are managed under the MSA. This letter transmits NMFS' comments concerning GSP development in the Turlock subbasin.

Surface water and groundwater are hydrologically linked in the Turlock subbasin, and this linkage is critically important in creating seasonal habitat for steelhead and salmon. Where the groundwater aquifer supplements streamflow, the influx of cold, clean water is critically important for maintaining temperature and flow volume. Pumping water from these aquifer-stream complexes has the potential to affect salmon and steelhead habitat by lowering groundwater levels and interrupting the hyporheic flow between the aquifer and stream. NMFS

is concerned that groundwater extraction in the Turlock subbasin is currently impacting Chinook salmon and steelhead instream habitat, and submits the following comments to assist the GSA in adequately addressing those impacts.

Comments

Groundwater Dependent Ecosystem (GDE) identification and impact analysis: Using Valley Oak rooting depth to inform impacts resulting from streamflow depletion, as many GSAs are attempting to do, is inappropriate and not supported by science. Streamflow depletion impacts ESA-listed salmonids by degrading aquatic habitat. Analyzing whether groundwater levels support Valley Oak trees (*i.e.*, occur within some depth threshold below ground surface) has no informative value with regard to how streamflow depletion may impact identified beneficial uses of surface water[1] and how those impacts affect the aquatic habitat needs of all steelhead and salmon life stages. If information to inform potential impacts to surface water beneficial uses is currently unavailable, we recommend the GSA develop a future study that investigates the relationship between groundwater levels, streamflow depletion rates, and significant and unreasonable impacts to beneficial uses of surface water, especially as those beneficial uses pertain to ESA-listed salmonids and their critical habitat, including EFH.

Avoiding Undesirable Results: We recommend the GSA adequately address the following requirement for minimum thresholds as spelled out in the SGMA regulations:

> "The relationship between the minimum thresholds for each sustainability indicator, including an explanation of how the Agency has determined that basin conditions at each minimum threshold will avoid undesirable results for each of the sustainability indicators." (CCR 23 §354.28(b)(2))

According to DWR (2021), "it is up to GSAs to define in their GSPs the specific significant and unreasonable effects that would constitute undesirable results and to define the groundwater conditions that would produce those results in their basins." The GSA should qualitatively describe what conditions within the subbasin would constitute an undesirable result with regard to streamflow depletion, ensuring that the description accounts for impacts to instream habitat that support ESA-listed salmon and steelhead.

Using Groundwater Elevations as a Proxy for Streamflow Depletion: If the GSA intends to propose groundwater elevations as a minimum threshold for streamflow depletion , the GSA should provide an explanation, with supporting evidence, for why groundwater levels are a reasonable proxy for interconnected surface water depletion, as well as why those levels are sufficient to avoid streamflow depletion that significantly impacts surface water beneficial uses.

Basing Sustainable Management Criteria on Historical Drought Conditions: Proposing groundwater elevations from the 2011-2016 period as streamflow depletion minimum thresholds and measurable objectives is very likely inappropriate for avoiding significant impacts to ESA-

[1] Identified beneficial uses for waterways overlying the subbasin include spawning and early development, migration, and cold-water habitat (Central Valley Basin Plan; copy found at https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf.

listed salmonids and their habitat. Basic hydraulic principles dictate that groundwater flow is proportional to the difference between groundwater elevations at different locations along a flow path. Using this basic principle, groundwater flow to a stream or, conversely, seepage from a stream to the underlying aquifer is proportional to the difference between water elevation in the stream and groundwater elevations at locations away from the stream. Minimum thresholds and measurable objectives consistent with groundwater elevations seen during California's recent historic drought would likely create historically high streamflow depletion rates, resulting in instream conditions that negatively affect ESA-listed salmonids and their critical habitat. If a lack of data prevents the development of appropriate sustainable management criteria, the GSA should design and implement studies that better inform appropriate minimum thresholds and measurable objectives for streamflow depletion. In that circumstance, we again suggest the GSA follow guidance by the California Department of Fish and Wildlife (2019) that recommends conservative sustainability management criteria be established to ensure groundwater dependent ecosystem protection.

NMFS recommendation for future Projects and Management Actions: We suspect that groundwater recharge projects are likely to be an important action implemented as part of the effort to achieve groundwater sustainability in the Turlock subbasin. NMFS encourages the GSA to consider implementing recharge projects that facilitate floodplain inundation, offering multiple benefits including downstream flood attenuation, groundwater recharge, and ecosystem restoration. Managed floodplain inundation can recharge floodplain aquifers, which in turn slowly release stored water back to the stream during summer months. These projects also reconnect the stream channel with floodplain habitat, which can benefit juvenile salmon and steelhead by creating off-channel habitat characterized by slow water velocities, ample cover in the form of submerged vegetation, and high food availability. As an added bonus, these types of multi-benefit projects likely have more diverse grant funding streams that can lower their cost as compared to traditional off-channel recharge projects. NMFS stands ready to work with any GSA interested in designing and implementing floodplain recharge projects.

Please direct questions regarding this letter to Amanda Cranford, of my staff, at Amanda.Cranford@noaa.gov or (916) 930-3706.

Sincerely,

A. Catherine Marcinkevage

Cathy Marcinkevage
Assistant Regional Administrator
California Central Valley Office

References

California Department of Fish and Wildlife. 2019. Fish & Wildlife Groundwater Planning Considerations. California Department of Fish and Wildlife, Groundwater Program. June 2019. 28 pp. Available at: https://cawaterlibrary.net/document/fish-wildlife-groundwater-planning-considerations/

California Department of Water Resources. 2021. Letter from Craig Altare (DWR) to Taylor Blakslee (Cuyama Basin GSA), re. Cuyama Valley - 2020 Groundwater Sustainability Plan. Available at: https://sgma.water.ca.gov/portal/gsp/assessments/32

Cc: To the File ARN 151422-WCR2021-SA00121

Electronic copy only:

Angela Murvine, California Department of Fish and Wildlife Statewide SGMA Coordinator, Angela.Murvine@wildlife.ca.gov

Bridget Gibbons, California Department of Fish and Wildlife Central Valley SGMA Biologist, Bridget.Gibbons@wildlife.ca.gov

Craig Altare, California Department of Water Resources, Supervising Engineering Geologist, Craig.Altare@water.ca.gov

Amanda Peisch-Derby, Turlock subbasin SGMA Point of Contact, California Department of Water Resources, Amanda.Peisch@water.ca.gov

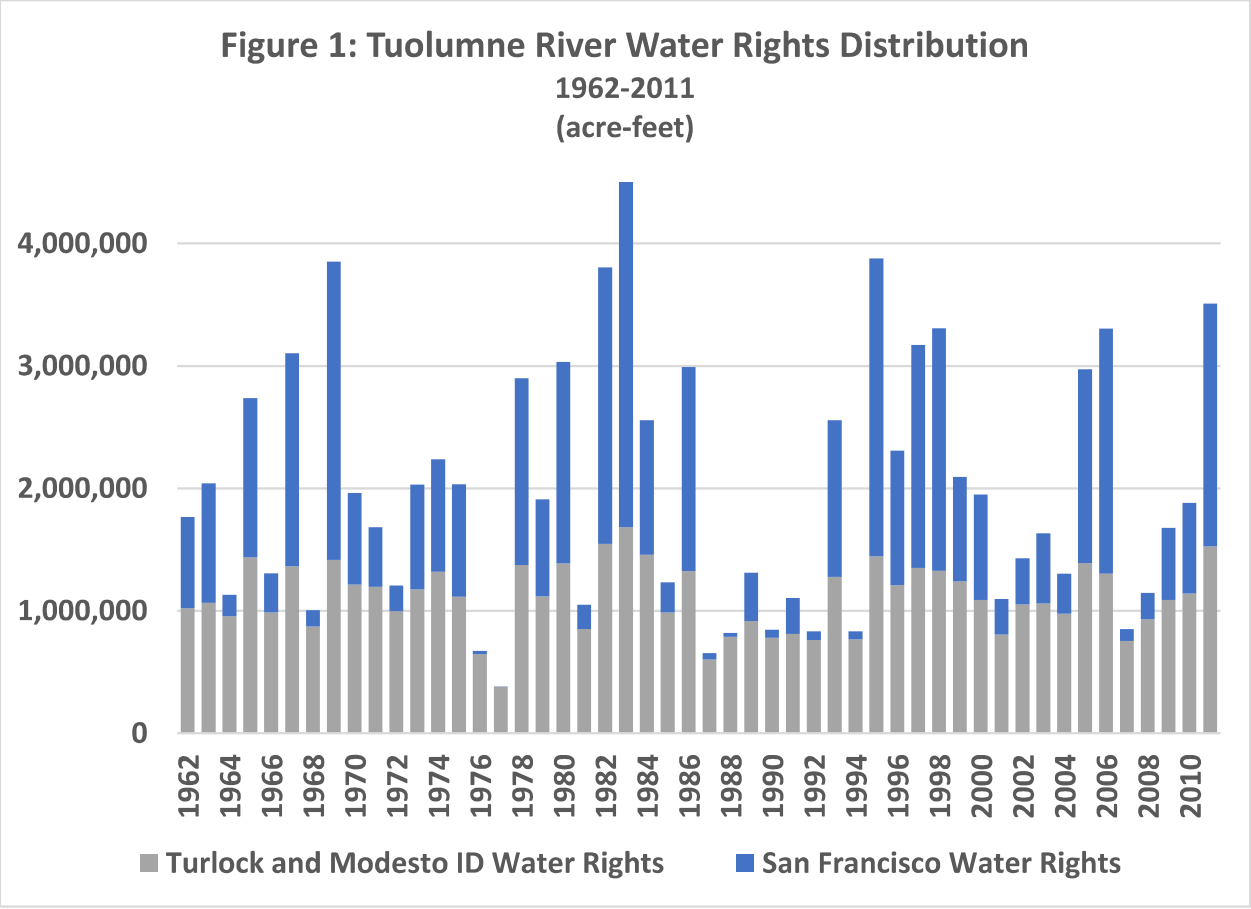
Turlock GSA Comment Portal, turlockgroundwater@gmail.com

Comments of Restore Hetch Hetchy on the

TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY PLAN (GSP)
CHAPTER 5 - WATER BUDGETS (DRAFT)
September 30, 2021

Restore Hetch Hetchy has followed the process of GSP development in the Turlock Subbasin, reviewing publicly available documents and viewing (and occasionally participating in) online meetings. Work to date on the GSP appears to be comprehensive, accurate and reasonably detailed. The GSP seems likely to be sufficient to meet the requirements set forth in the Sustainable Groundwater Management Act.

The GSP may, however, be missing a significant opportunity by, in draft chapters made available to date, failing to even mention the possibility of cooperative conjunctive use agreements with the San Francisco Public Utilities Commission.



The SFPUC has rights to, on average, almost 800,000 acre-feet of the Tuolumne River's flow (see Figure 1). It conveys less than 1/3 of this supply to the Bay Area, but stores whatever it can in surface reservoirs to maintain sufficient supply for extended dry periods to meet customer needs. While the SFPUC system is comparatively reliable, it is constantly seeking improvements to meet future needs. Note the SFPUC has not only the water but also the financial resources to invest in wet-year groundwater recharge in the Turlock Subbasin.

Importantly, such investment could provide substantial benefits within the Turlock Subbasin, not only refilling depleted aquifers but also providing additional supplies to local communities, cities and farms – within both Turlock Irrigation District and the Eastside Water District.

The future is uncertain. Flow requirements below La Grange are uncertain. Overall hydrology is uncertain. What is certain, however, is that there will be wet years and dry years. Planning ahead to recharge aquifers when SFPUC surface supplies are plentiful has enormous potential that does not appear to be under consideration in the GSP.

The historic, often political and sometimes cultural, friction over water between California's rural regions and large cities is well known. It has been overcome, however, in many areas of the State and can be overcome in the Tuolumne River watershed as well. A well designed conjunctive use program would provide significant benefits to the Turlock region and its farmers for generations to come.

As mentioned above, the Turlock Subbasin GSP may well be on way to meeting the legal requirements of SGMA. It is less clear, however, that the programs and projects in the GSP will identify the degree of possible water supply benefits to local communities and farms that are readily available (chapter 8 may provide more clarity when it is available).

It's possible, of course, for Turlock Subbasin parties to work on cooperative mutually beneficial conjunctive use with San Francisco after the GSP is submitted. Any reasonably complete analysis of SGMA compliance, however, should include this enormous opportunity.

Submitted by

Spreck Rosekrans
Executive Director, Restore Hetch Hetchy
spreck@hetchhetchy.org
510-393-4593

Herb S. Smart

From: Squarespace <form-submission@squarespace.info>
Sent: Wednesday, October 20, 2021 8:57 PM
To: Herb S. Smart
Subject: Form Submission - GSP Comment

Sent via form submission from *The Turlock Subbasin*

Name: Allison and Dave Boucher

Your Organization (If applicable): Tuolumne River Conservancy

Email: feathersfurflowers@gmail.com

Message: We are concerned that the monitoring wells for the Tuolumne River seepage are not adequately placed to measure the impacts of pumping ground water upstream between Waterford and Peaslee Creek. In the last several years hundreds of acres of orchards have replaced pasture. If these orchards are using agricultural wells, they are likely negatively impacting the Tuolumne River. Monitoring wells should be placed between Waterford and Peaslee creek along the Tuolumne River to monitor the draw from the Tuolumne River.

Turlock Subbasin Groundwater Sustainability Agencies

Sent via email to turlockgroundwater@gmail.com

November 19th, 2021

Re: Recommendations to Ensure that Turlock Subbasin Draft GSP Chapters 5, 6 and 7 Protect Vulnerable Drinking Water Users

Dear West Turlock and East Turlock GSA Board Members,

Our organization works alongside low income communities of color in the San Joaquin Valley and the Eastern Coachella Valley to advocate for local, regional and state government entities to address their communities' needs for the basic elements that make up a safe and healthy community, including clean, safe, reliable and affordable drinking water, affordable housing, effective and safe transportation, efficient and affordable energy, green spaces, clean air, and more. We have been engaged in the Sustainable Groundwater Management Act (SGMA) implementation process because many of the communities with whom we work are dependent on groundwater for their drinking water supplies, and often have already experienced groundwater quality and supply issues. In the Turlock Subbasin, we work closely with residents in the community of Delhi, who are vulnerable to impacts to their domestic wells and community water supply wells.

Historically, communities we work with have been excluded from decision-making about their water resources, and their needs have not been at the forefront of such decisions. In 2012, California recognized the Human Right to Drinking Water as a statewide goal. Now, because of SGMA's requirements for a transparent and inclusive process, groundwater management under the new law has the opportunity to include disadvantaged communities in decision-making and create groundwater management plans that understand their unique vulnerabilities and are sensitive to their drinking water needs.

We appreciate the opportunities we have had to participate in conversations about GSP development at GSA board and Technical Advisory Committee meetings, and we appreciate

GSA staff and consultants' openness to discussing issues we raise during these meetings. We also appreciate the GSA's openness to collaboration and feedback on outreach to Delhi residents, and are looking forward to the upcoming community discussion about the Draft GSP in Delhi.

We appreciate the opportunity to provide input on Draft Chapters 5, 6 and 7 of the Turlock Subbasin GSP. After analyzing Draft Chapters 5, 6 and 7 more closely, we conclude that the draft Chapters will allow significant and unreasonable drinking water impacts to occur in the subbasin, particularly in disadvantaged communities. Below, we outline specific issues in the draft chapters, and recommend specific changes to be made to ensure that drinking water is protected.

A. The Description of the Water Budget in Draft Chapter 5 Is Incomplete And Does Not Include Rural Water Use.

After evaluating the data and analysis presented regarding the water budget, we find that description in Draft Chapter 5 of the water budget and supporting data and assumptions is incomplete. Additionally, it is unclear if or how water demands from rural domestic water users and small community water systems are included in the water budgets presented for the Subbasin. Therefore, the draft chapter does not allow for adequate public review and comment of key components related to drinking water beneficial users, and the Department of Water Resources will not be able to evaluate "[w]hether the Agency has adequately responded to comments that raise credible technical or policy issues with the Plan," as required under 23-CCR §355.5(b)(10).

First, the draft chapter lacks information on the assumptions and data sources used to develop water budget estimates for the Subbasin, thus making a detailed review of individual water budget components impossible at this time. Per 23-CCR §354.2(f)(2), "groundwater and surface water models used for a Plan shall include publicly available supporting documentation." Section 5.1.2 notes that "water budgets were developed utilizing the C2VSimTM, a fully integrated surface and groundwater flow model covering the entire Central Valley." The chapter states that "[d]evelopment of the [C2VSimTM] model was informed by the study and analysis of hydrogeologic conditions, agricultural and urban water supplies, and an evaluation of regional water quality conditions. Additional detail on the data used to develop the C2VSimTM, which represents the best available data known at this time, is included in Appendix X." However, Appendix X has not been made available on the GSAs' website[1] as of 12 November 2021. The GSAs should therefore upload the C2VSimTM Model Development Technical Memo appendix to their website to allow for adequate public review and comment of the model and associated datasets and assumptions used to develop the water budgets for the Subbasin.

[1] https://turlockgroundwater.org/gsp#GSPsections

Second, the draft chapter includes no information regarding the quantification of urban water demands within the water budget. It is unclear if domestic and small community water system demands are included in the estimate of urban pumping. 23 CCR §354.18(a) requires water demands by each public water system and domestic users to be presented in a transparent, tabular format, and requires the public to be able to review the included assumptions and estimates. Section 5.1.4 notes how groundwater production by "municipal and private domestic wells for urban/residential water supply" is a "primary component of the groundwater system." However, the water budget tables and figures only include estimates of "urban pumping" and do not explicitly quantify groundwater demands from rural communities or domestic well users. Table 5-1 notes that historical urban demands were estimated from "historical records," yet no supporting references or citations are provided. Section 5.1.4.3 further notes that "development of the projected water demands is based on the population growth trends reported in the 2015 urban water management plans (UWMPs)," yet these assumptions are not detailed in the draft chapter. UWMPs are limited to retail suppliers serving 3,000 or more service connections or 3,000 acre-feet per year, and demand assessments and projections are, as a rule, limited to that which is met through sales from the urban water supplier. Thus, these demand projections would not be expected to include estimates of groundwater demands from rural domestic well users or the many smaller community water systems within the Subbasin. The draft chapter should further detail the data and assumptions used to develop estimates of urban and rural groundwater pumping in the Subbasin and should, to the extent possible, quantify groundwater demands from individual cities, small community water systems, and domestic well users and clearly report this information in the water budget tables and figures.

Recommendations Regarding the Water Budget:

1. Upload the C2VSimTM Model Development Technical Memo appendix to their website to allow for adequate public review and comment of the model and associated datasets and assumptions used to develop the water budgets for the Subbasin.
2. Further detail the data and assumptions used to develop estimates of urban and rural groundwater pumping in the Subbasin and should, to the extent possible, quantify groundwater demands from individual cities, small community water systems, and domestic well users and clearly report this information in the water budget tables and figures.

B. Sustainability Goal Does Not Include Drinking Water Protection

The Sustainability Goal does not show a clear commitment to protecting drinking water users, and must be changed to show that it has considered the needs of all beneficial users including vulnerable drinking water users.

The Sustainability Goal includes several admirable goals to manage groundwater sustainably in the Turlock subbasin. However, to show a clear commitment to protecting drinking water, we recommend including an explicit mention of drinking water protection in the GSP's Sustainability Goal. As currently written, the Sustainability Goal references other specific uses and users of groundwater such as "the agricultural economy" and "population growth." Safe, affordable and reliable drinking water is essential for populations to continue inhabiting the region, and an economy cannot exist without families who have drinking water in their homes. Furthermore, it should be a goal of the Turlock Subbasin GSAs to protect this most basic human right - running water. We therefore strongly recommend including drinking water protection in the subbasin's Sustainability Goal.

C. Sustainable Management Criteria for Chronic Lowering of Water Levels Must Be Revised To Protect The Human Right to Drinking Water

The sustainable management criteria for groundwater levels must be made after considering the interests of all beneficial user groups, including disadvantaged communities reliant on domestic wells and community water systems,[2] and must be based on an analysis of what are "significant" and "unreasonable" impacts.[3] These policy decisions must also avoid disparate impacts on protected groups pursuant to state and federal law.[4] As discussed below, the sustainable management criteria for chronic lowering of water levels in Draft Chapter 6 do not meet these requirements. Below, we include recommendations to ensure that significant and unreasonable impacts to vulnerable drinking water users (domestic well users and disadvantaged communities) do not occur.

i. Undesirable Results Must Be Revised To Protect Drinking Water Wells

Draft Chapter 6 defines the undesirable results for chronic lowering of water levels as "significant and unreasonable groundwater level declines such that water supply wells are adversely impacted during multi-year droughts in a manner that cannot be readily managed or

---

[2] Water Code § 10723.2.

[3] Water Code § 10721(x); 23 CCR 354.28(b); *see also* Cal. Dep't Water Res., *Draft Best Management Practices for the Sustainable Management of Groundwater* 6 (Nov. 2017) ["GSAs must consider and document the conditions at which each of the six sustainability indicators become significant and unreasonable in their basin, including the reasons for justifying each particular threshold selected."]; *id.* 8 ["The GSP must include an analysis and written interpretation of the information, data, and rationale used to set the minimum threshold."].

[4] Gov. Code § 11135; Gov. Code § 65008; Government Code §§ 12955, subd. (l).

mitigated. An undesirable result for each principal aquifer will occur when at least 33% of representative monitoring wells exceeds the MT for that Principal Aquifer in three (3) consecutive Fall semiannual monitoring events." The GSAs state that "setting the MTs at the low water levels of 2015 will prevent significant future groundwater level declines that could lead to undesirable results."[5] However, this statement is incorrect. This definition of an undesirable result is not adequately protective of drinking water users, as it will allow for water level declines below historic drought levels across significant areas of the Subbasin (in up to 33% of the representative monitoring wells) for an extended period of time (more than 3 years) before the GSAs are required to take action. The deleterious effects of this approach will be felt by drinking water users before the GSA would need to take action and could be even more severe and widespread than was experienced during the 2013-2016 drought period. Undesirable results must be defined as the points at which "significant and unreasonable" impacts occur. Widespread decline of water levels below historic drought levels for an extended period of time is significant and unreasonable. Thus, this undesirable results definition does not comply with the requirements of SGMA, and is not adequately projective of drinking water users. The GSAs should instead set a definition for undesirable results for water levels that is protective of drinking water users, and requires the GSA to take action well before widespread adverse effects take place.

While the GSAs provide a high level assessment that additional domestic well failures could happen in the future,[6] this analysis does not fully show the "[p]otential effects on the beneficial uses and users of groundwater"[7] using the best available data. The GSP should provide a more rigorous assessment of the potential domestic well failures, and present the results of this impact analysis in a clear and transparent manner, illustrating for example, 1) where the likely impacted wells are located, 2) what communities are most affected (including DACs), 3) an estimate of the size of the population that relies on these domestic wells, or 4) if the creation a new or expanded community water system could address some or all of the population affected by the loss of domestic wells.

Additionally, because the undesirable results would allow for conditions to become worse than during the 2013-2016 drought, the GSP should include a detailed and proactive plan to mitigate these effects on drinking water users before drinking water users lose access to their water supply or the supply or quality is affected by reduced water quality. This plan should include an identified funding source, and not assume that state or federal grant funds will be available to address such issues in the future.

---

[5] Draft Turlock GSP Chapter 6, sec. 6.3.2.1.

[6] Draft Turlock GSP Chapter 6, sec. 2.3.2.4.

[7] 23 CCR § 354.26.

ii. The Minimum Thresholds for Water Levels

Draft Chapter 6 defines minimum thresholds for chronic decline of water levels as "the low groundwater elevation observed in Fall 2015 at each representative monitoring site in each Principal Aquifer."[8]

SGMA requires GSAs to analyze both the significance and reasonableness of proposed minimum thresholds,[9] and minimum thresholds must have the purpose of avoiding "significant and unreasonable" impacts on beneficial users.[10] The GSA's determination of what is "significant and unreasonable" must consider the impacts on all types of beneficial users, including disadvantaged communities.[11]

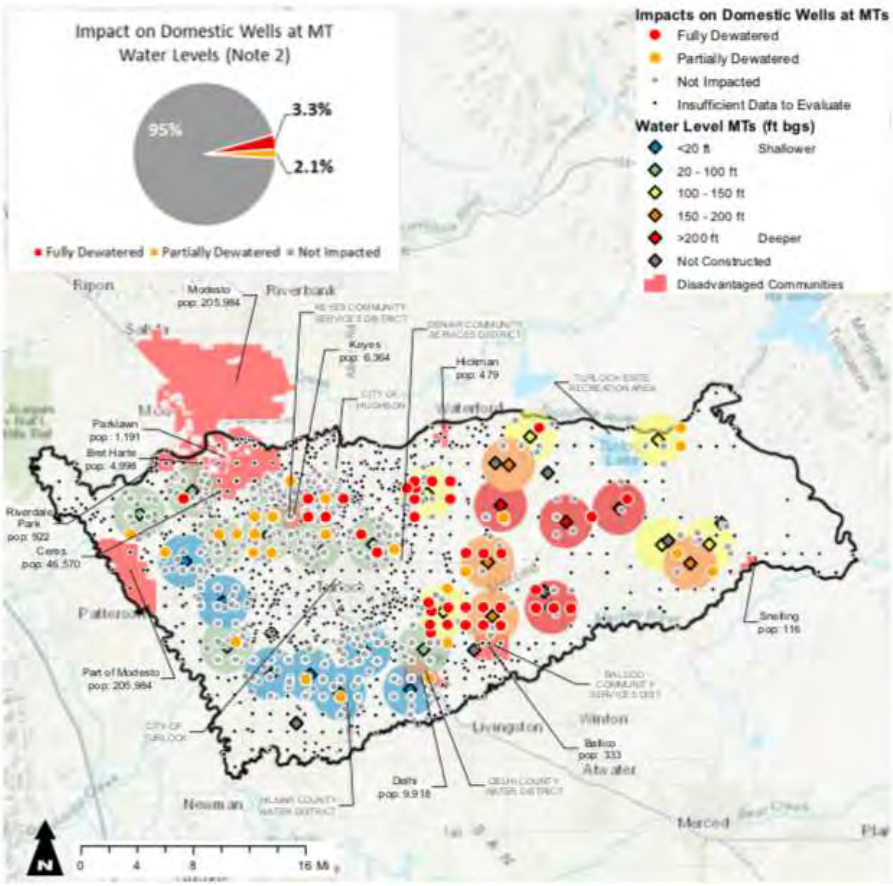
Based on the analysis on page 4 of the attached Focused Technical Review, dewatering of domestic wells may occur if water levels reach the minimum thresholds. If water levels reach the proposed minimum thresholds, approximately 3% of domestic wells within a 1.5-mile radius of RMWs (approximately 61) would be expected to be fully dewatered and an additional 2% of domestic wells within a 1.5-mile radius of RMWs (approximately 38) would be expected to be partially dewatered. Given that the undesirable results for chronic lowering of water levels allows for water levels in significant portions of the Subbasin to continue to drop below minimum thresholds, additional domestic well users would be vulnerable to impacts. Further, more than half of domestic wells are located outside of the area analyzed by the Focused Technical Review, and may also be impacted by declining water levels.

[8] Draft Turlock Subbasin GSP Chapter 6, p. 6-14.
[9] Water Code § 10721(x); 23 CCR 354.26(a). (b), 354.28(b); see also Cal. Dep't Water Res., Draft Best Management Practices for the Sustainable Management of Groundwater 6, 8 (Nov. 2017).

[10] 23 CCR § 354.26.

[11] Water Code § 10723.2.

Figure 3 - Impact on Domestic Wells at MT Water Levels
West and East Turlock Subbasin GSA



Therefore the GSP should present a thorough, robust, and transparent analysis, supported by maps, that identifies: 1) which domestic wells are likely to be impacted at the minimum thresholds, 2) which domestic wells are likely to be impacted as water levels are allowed to drop below minimum thresholds before the undesirable results definition is met, 3) the location of the likely impacted wells with respect to DACs and other communities and systems dependent on groundwater, and 4) an estimate of the total population likely to be affected. This assessment should include multiple scenarios in which 33% or more RWMs exceed their minimum thresholds for three years, to appropriately represent conditions that may occur under the GSAs' definition of undesirable results. This analysis would allow the GSAs not only to evaluate the potential impacts, but to proactively plan for mitigation of domestic well impacts, rather than responding only under emergency conditions, as was done during the 2013-2016 drought.

The Focused Technical Review attached to this letter (See Focused Technical Review, page 3) also highlights potential changes to groundwater flow gradients which are likely to result from groundwater elevations reaching minimum thresholds, and could cause undesirable results in adjacent basins. Therefore, the GSP should include a transparent analysis of the groundwater

flow gradients expected to be present when the Subbasin reaches sustainability at measurable objectives and if groundwater levels are allowed to reach minimum thresholds.

Finally, the GSAs must ensure that the sustainable management criteria do not cause a disparate impact on protected classes under civil rights law or make housing unavailable in contravention of state and federal fair housing laws. We provide more detail on this point in the recommendations below.

Recommendations Regarding Groundwater Levels Sustainable Management Criteria:

At a minimum, groundwater levels sustainable management criteria must add the following elements:

1. Set a definition for undesirable results for water levels that is protective of drinking water users, and requires the GSA to take action well before widespread adverse effects take place.
2. Present a thorough, robust, and transparent analysis, supported by maps, that identifies: 1) which domestic wells are likely to be impacted at the minimum thresholds, 2) which domestic wells are likely to be impacted as water levels are allowed to drop below minimum thresholds before the undesirable results definition is met, 3) the location of the likely impacted wells with respect to DACs and other communities and systems dependent on groundwater, and 4) an estimate of the total population likely to be affected. This assessment should include multiple scenarios in which 33% or more RWMs exceed their minimum thresholds for three years, to appropriately represent conditions that may occur under the GSAs' definition of undesirable results. This analysis would allow the GSAs not only to evaluate the potential impacts, but to proactively plan for mitigation of domestic well impacts, rather than responding only under emergency conditions, as was done during the 2013-2016 drought.
3. Include a transparent analysis of the groundwater flow gradients expected to be present when the Subbasin reaches sustainability at measurable objectives and if groundwater levels are allowed to reach minimum thresholds.
4. Avoid disparate impact:[12] Ensure that the measurable objectives and minimum thresholds for groundwater levels are established in such a way that prevents a disproportionately negative ("disparate") impact from occurring on communities of color in the GSP area. For example, the GSP should ensure that the same minimum threshold methodology across the GSP area will not lead to disproportionately more wells going dry for residents of color than for white residents.

[12] Gov. Code § 11135; Gov. Code § 65008; Government Code §§ 12955, subd. (l).

D. Sustainable Management Criteria for Degraded Water Quality Must Be Revised To Avoid Significant and Unreasonable Impacts to Drinking Water Users

i. The GSAs Must Add Manganese and DBCP to Their Contaminants of Concern

Draft Chapter 6 identifies nitrate, arsenic, uranium, total dissolved solids, 123-TCP and PCE as the GSAs' contaminants of concern. We commend the GSAs' analysis of existing contaminants and their inclusion of this list of contaminants. However, the GSP must also include manganese and DCBP.

Draft Chapter 6 identifies that manganese and DBCP have historically impacted groundwater quality conditions near population centers within the Subbasin, but it does not define SMCs for these contaminants. Specifically, Section 4.3.5.3.4 notes that "elevated [manganese] concentrations near or exceeding the secondary MCL were detected in in some wells near Hughson and the Tuolumne River," and that a public supply well in the "City of Ceres exceeded the MCL for manganese" that ultimately prevented it from being put into service. Additionally, Section 4.3.5.10. notes that "elevated concentrations of DBCP (more than 50 percent of or exceeding the MCL) are prevalent in the vicinity of Denair and Hughson," and that "several wells near and west of Ceres have had recent concentrations of DBCP that are greater than 50-percent or exceed the MCL." While manganese is not typically considered a health risk, it does impact drinkability of water from a color and taste standpoint, and thus can result in significant cost to treat water for drinking water purposes (similar to TDS). DBCP is a soil fumigant and nematicide, and can have significant health effects. Because manganese and DBCP are present near or above MCLs and because they present a clear risk to use of groundwater for drinking water purposes, the GSAs should include these constituents in its monitoring program and establish measurable objectives and minimum thresholds for these constituents.

ii. The Undesirable Results Definition Must Be Clarified And Must Ensure Drinking Water Protection For All Drinking Water Users

Draft Chapter 6 defines undesirable results for degradation of water quality as "significant and unreasonable adverse impacts to groundwater quality caused by GSA projects, management actions, or management of water levels or extractions such that beneficial uses are affected and well owners experience an increase in operational costs. The undesirable result will occur if a new (first-time) exceedance of an MT is observed in a potable water supply well in the representative monitoring network that results in a well owners increase on operational costs and is caused by GSA management activities as listed above."[13] Several elements of this undesirable results definition will lead to unreasonable and significant impacts to drinking water users, and show a lack of consideration of all beneficial users, particularly domestic well users and disadvantaged communities.

[13] Draft Turlock Subbasin GSP Chapter 6, p. 6-35.

First, the undesirable results definition only considers a "first-time" exceedance to be unreasonable or significant. However, increased drinking water contamination is harmful to human health. GSAs must evaluate the reasonableness or significance of impacts based on their real-world impact. For example, homes that have 123-TCP contamination and are not connected to a water system may still use their tap water to bathe. As 123-TCP levels increase, the household will experience an increased risk of cancer and dangerous health impacts. Additionally, as levels of harmful contaminants increase, homes and water system operators must increase treatment of contaminants, leading to increased cost burdens. The GSA must consider these impacts and factor in increased levels of existing contamination into the definition of undesirable results.

Second, the undesirable results definition only counts exceedances in wells "in the representative monitoring network." This definition allows widespread increases in contamination to occur throughout the subbasin, as long as they do not occur in the wells in the representative monitoring wells. While the representative monitoring network wells provide a sampling of water quality throughout the subbasin, they do not reflect the actual real-world impact of changing pumping patterns, management actions and projects on groundwater users in the subbasin. If the SGMA monitoring network for degraded water quality does not include domestic wells or wells from small community water systems, this should be clearly stated, and an action plan should be developed to add these sites to the monitoring network such that there is sufficient coverage to evaluate potential water quality impacts to all drinking water beneficial users within the Subbasin.

Third, as written, the undesirable results definition for water quality only accounts for impacts that result in an increase to a well-owner's operational costs. This definition notably excludes the impairment or total loss of access to safe drinking water supplies as a "significant and unreasonable impact" of degraded water quality, which is especially relevant to domestic well users who do not have access to alternative potable water supplies within the subbasin. This definition also does not take into account severe health impacts to those who lose reliable access to safe drinking water. The undesirable results definition for degraded water quality thus does not adequately address significant and unreasonable impacts to drinking water beneficial users of the subbasin. The undesirable impacts definition for degraded water quality therefore must be changed to include impairment or total loss of access to safe drinking water supplies.

Lastly, the GSP should include a more detailed explanation of the protocols and methodologies the GSAs will use to determine whether or not a "GSA management activity" is causing any future observed MT exceedances in water quality and to evaluate how implementation of projects and management actions will not result in further water quality impairments, particularly those that affect drinking beneficial water users, to the Subbasin.

iii. The Minimum Thresholds for Degraded Water Quality Are Not Sufficiently Protective and Will Lead to Significant and Unreasonable Impacts When Viewed in Light of the Undesirable Results Definition.

Draft Chapter 6 defines the minimum thresholds for degraded water quality as "a new (first-time) exceedance of a drinking water quality standard (primary or secondary MCL) in a potable supply well in the representative monitoring network for any of the Subbasin constituents of concern."[14]

The same concerns as cited above regarding only considering "first-time" exceedances, and only considering impacts to wells in the representative monitoring network, apply here. These restrictions on the definition of minimum thresholds does not allow the GSAs to consider actual impacts to drinking water users - and particularly disadvantaged communities - in the subbasin.

Section 6.3.2.2 notes that "MTs for chronic lowering of water levels are supportive of the MTs developed for degraded water quality. By arresting water level declines…potential increases in [COCs] associated with depth (such as TDS) can be avoided. By managing to a previous groundwater level surface (Fall 2015), the MTs will not significantly alter historical hydraulic gradients and will not accelerate the rate of migration of any groundwater contaminants." However, as mentioned above, the draft GSP notes that during the 2014-2017 drought water quality impacts were already being observed in public supply wells throughout the Subbasin. Furthermore, as described above, the draft GSP allows for a sustained exceedance in water level MTs for up to three (3) consecutive years before a UR is triggered, which could further exacerbate groundwater quality issues known to occur when water levels decline below Fall 2015 elevations. Therefore, the draft GSP fails to note that undesirable results for chronic lowering of water levels could allow for further water quality impairments within public water supply wells (including those used by small community water systems) and thus are not sufficiently protective of "significant and unreasonable impacts" to drinking water beneficial users of the Subbasin.

Recommendations Regarding Groundwater Quality Sustainable Management Criteria:

At a minimum, groundwater quality sustainable management criteria must be changed to include the following elements:

1. Because manganese and DBCP are present near or above MCLs and because they present a clear risk to use of groundwater for drinking water purposes, the GSAs should include these constituents in its monitoring program and establish MOs and MTs for these constituents.
2. Include increased levels of existing contamination and impairment or total loss of access to safe drinking water supplies in the definition of undesirable results.

[14] Draft Turlock GSP Chapter 6, p. 6-36.

3. If the SGMA monitoring network for degraded water quality does not include domestic wells or wells from small community water systems, this should be clearly stated, and an action plan should be developed to add these sites to the monitoring network such that there is sufficient coverage to evaluate potential water quality impacts to all drinking water beneficial users within the Subbasin.
4. Include a more detailed explanation of the protocols and methodologies the GSAs will use to determine whether or not a "GSA management activity" is causing any future observed MT exceedances in water quality and to evaluate how implementation of projects and management actions will not result in further water quality impairments, particularly those that affect drinking beneficial water users, to the Subbasin.
5. Ensure that the GSP triggers a violation of a minimum threshold after one test shows that there has been an increase in contamination since January 1st, 2015. Once the minimum threshold is reached, the GSAs must start the evaluation of whether groundwater management activities or groundwater pumping have caused the increase, or whether the increase was caused by other factors such as natural fluctuation, testing inaccuracy, or activities outside the purview of the GSAs. If the increase was caused by groundwater management activities or groundwater pumping, the GSAs must immediately stop increasing the contamination and remediate.
6. Strive to remediate existing drinking water contamination: Ensure that the GSAs will strive to remediate drinking water contaminants that exceeded the MCL before 2015 wherever feasible, through projects, management actions and policies.
7. Include an analysis of how drinking water wells (municipal wells, community water system wells, and domestic wells) are likely to be be affected by the undesirable results,[15] measurable objectives and minimum thresholds.[16]
8. Incorporate new drinking water data into sustainable management criteria:[17] Ensure that the GSP includes a description of how data gaps and uncertainties of its drinking water well impact assessment will be addressed and serve to reassess the sustainable management criteria, projects and management actions in accordance with new data.
9. Avoid disparate impact:[18] Ensure that the minimum thresholds for groundwater quality are established in such a way that prevents a disproportionately negative impact on communities of color in the GSP area. For example, the GSP should ensure that the same minimum threshold methodology across the GSP area will not lead to disproportionately more wells going dry for residents of color than for white residents.

[15] 23 CCR § 354.26(c)

[16] 23 CCR § 354.28(b)(4)

[17] 23 CCR § 354.38(e)(3)

[18] Gov. Code § 11135; Gov. Code § 65008; Government Code §§ 12955, subd. (l).

E. The Monitoring Network Will Not Catch and Prevent Significant and Unreasonable Impacts To Drinking Water Supply or Quality

GSAs must monitor impacts to groundwater for drinking water beneficial users,[19] including disadvantaged communities on domestic wells,[20] and must avoid disparate impacts on protected groups pursuant to state law.[21]

a. Groundwater Levels Representative Monitoring Wells Must Be Included Near Communities and Domestic Wells

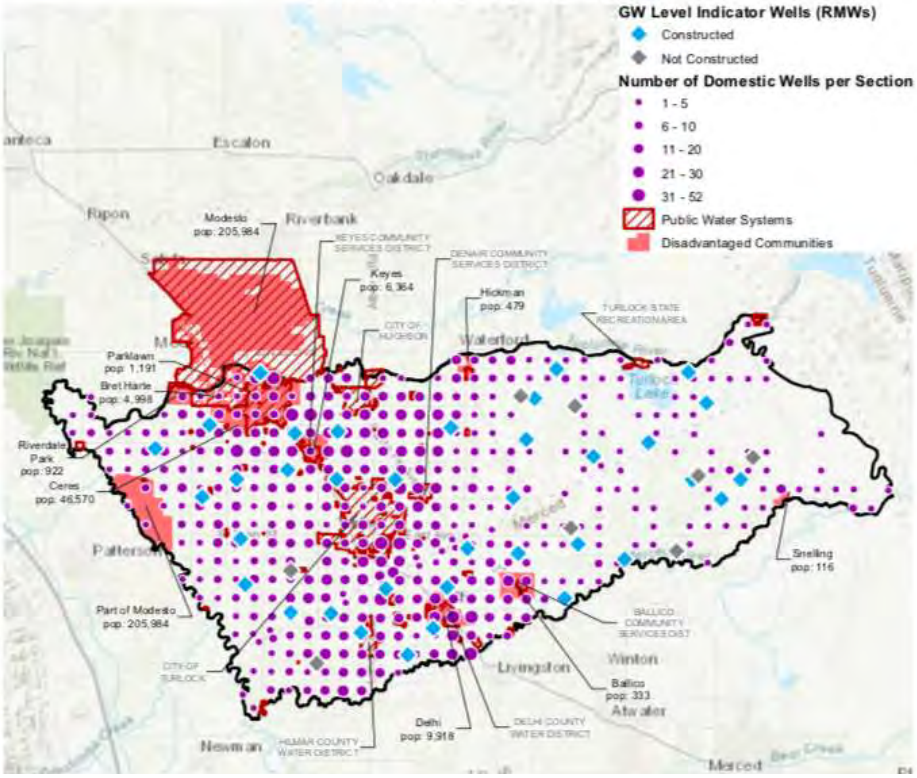
As shown in Figure 1 of the attached Focused Technical Analysis, there are notable gaps in coverage of the water level network in several areas with a substantial number of domestic well users and small public water systems. Of the approximately 4,300 identified domestic wells in the Subbasin, approximately 2,500, or 57%, are located more than 1.5 miles from a water level RMW. In particular, domestic well users and small public water systems located 1) along the northern portion of the Subbasin, including the communities of Hughson, Ceres, Hickman, Bret Harte, Parklawn, and southern Modesto (most of which are DACs), 2) along the southern Subbasin boundary, including those surrounding Ballico, Delhi, and Snelling, and 3) a significant portion of domestic well users surrounding the City of Turlock.

[19] 23 CCR § 354.34

[20] Water Code § 10723.2.

[21] Gov. Code § 11135; Gov. Code § 65008; Government Code §§ 12955, subd. (l).

Figure 1 - Representative Monitoring Network for Groundwater Levels Relative to Domestic Wells, DACs, and Public Water Systems
West and East Turlock Subbasin GSA



The GSAs must make decisions about the monitoring network in a way that considers the interests of all beneficial users.[22] These significant gaps in monitoring near vulnerable communities do not show a consideration of the interests of all beneficial users. Therefore, we strongly recommend that additional water level RMWs be established proximate to these communities and domestic wells, in order to be protective of drinking water beneficial users across the Subbasin.

Recommendations Regarding the Groundwater Levels Monitoring Network:

At a minimum, an adequate groundwater levels monitoring network must include the following elements:

1. Ensure accurate detection of impacts on drinking water users and DACs:[23] Ensure that the groundwater level monitoring network includes representative monitoring wells in or near DACs, and placed in a way that detects impacts to the vast majority of drinking water users in the GSP area. If new monitoring wells are required, ensure that the GSP

[22] 23 CCR § 354.34(b)(2)

[23] 23 CCR § 354.34(b)(2) and (f)(3)

contains a concrete plan to fund and construct new representative monitoring wells within the first year of GSP implementation to ensure that vulnerable communities' drinking water resources are monitored. The plan to improve the monitoring network should include testing of domestic wells in the interim as wells are constructed.

2. Clearly show representative monitoring well locations in relation to DACs:[24] Ensure that the representative monitoring wells (RMWs) for groundwater levels are presented on maps and in tables that identify which set of minimum thresholds and measurable objectives will be applied to which RMWs, and that these maps clearly identify the locations of DACs, small water systems and other sensitive users.
3. Identify and address other drinking water data gaps:[25] Ensure that the GSP clearly identifies any other gaps in data regarding impacts to drinking water users, and that the GSP contains a clear plan to fill data gaps regarding impacts to drinking water users. The GSP explains how it will fill some monitoring data gaps, but does not ensure that these gaps will capture impacts on all drinking water users, particularly disadvantaged communities.

a. Groundwater Quality Monitoring System Must Be Improved

SGMA regulations require that GSPs create a groundwater quality monitoring network that will "collect sufficient spatial and temporal data from each applicable principal aquifer to determine groundwater quality trends for water quality indicators, as determined by the Agency, to address known water quality issues."[26] We also reviewed the monitoring network for detection of drinking water impacts. We found that the monitoring network must address the following issues.

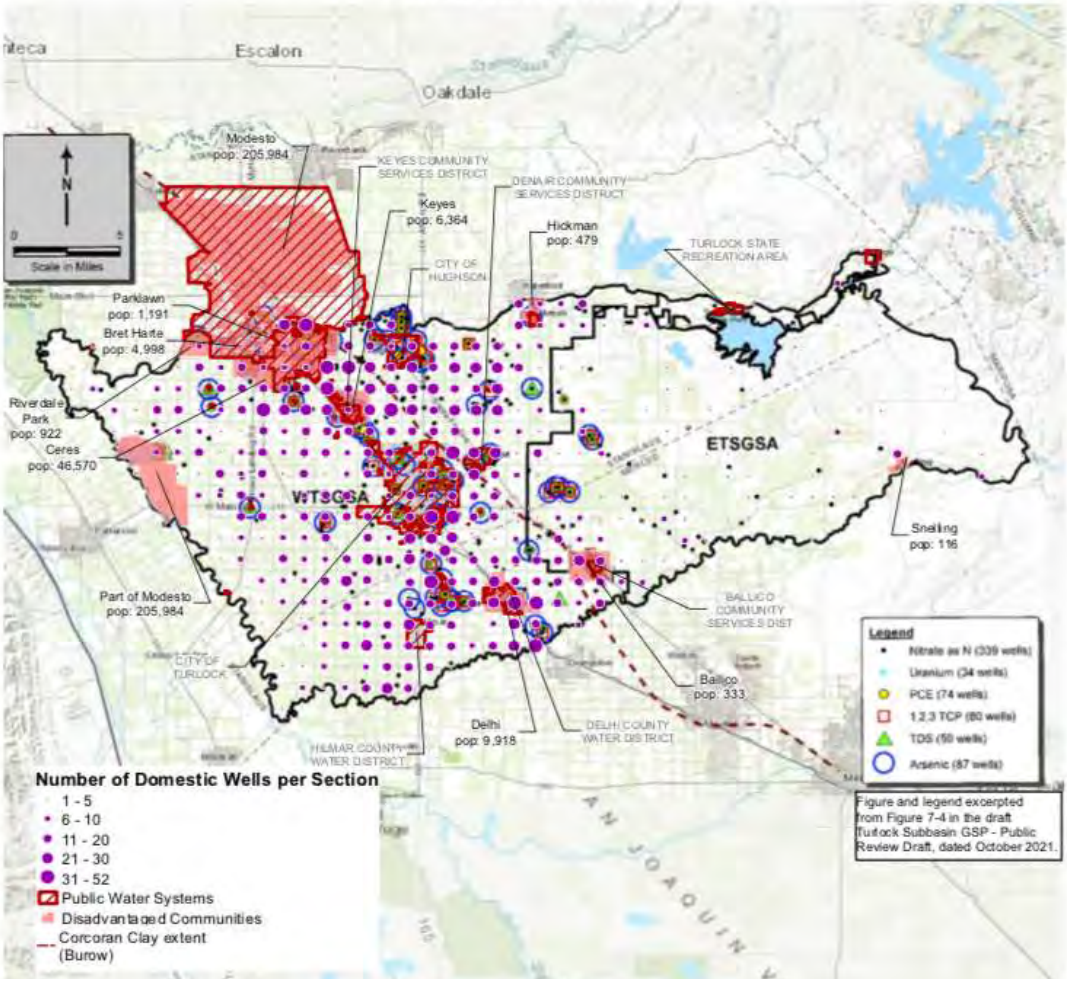
First, as shown in Figure 4 in the attached Focused Technical Analysis, many areas with high concentrations of domestic wells and disadvantaged communities in the subbasin. The GSAs must look at these data gaps and establish a clear plan for adding monitoring sites to detect these most vulnerable drinking water users.

[24] 23 CCR § 354.34(b)(2) and (f)(3)

[25] 23 CCR § 354.38(e)(3)

[26] 23 CCR § 354.34(c)(4)

Figure 4 - Monitoring Network for Groundwater Quality Relative to Domestic Wells, DACs, and Public Water Systems
West and Turlock Subbasin GSA



Second, the GSAs' plans for monitoring water quality is likely to be inconsistent and prevent the GSAs from progressively monitoring impacts and progress towards plan goals. The GSAs have not specifically defined a SGMA monitoring network for degraded water quality and will rely entirely on existing water quality monitoring programs in place throughout the Subbasin (including GAMA, Geotracker, CV-SALTS, and the Nitrate Control Program). The draft GSP also notes that "the monitoring network will vary from year-to-year based on regulatory requirements from each water quality program." Therefore, the GSAs will not be able to independently control the availability, frequency, and quality of water quality monitoring data used to evaluate SGMA compliance within the Subbasin. This monitoring system is not likely to meet the requirements to "develop a monitoring network capable of collecting sufficient data to demonstrate short-term, seasonal, and long-term trends in groundwater conditions… to demonstrate progress toward achieving measurable objectives described in the Plan, [or] to

monitor impacts to the beneficial uses or users of groundwater."[27] We recommend that the GSP explicitly define a set of SGMA monitoring wells that will be included in the SGMA monitoring network for degraded water quality to ensure these wells will be consistently monitored and will fully comply with requirements for SGMA monitoring networks as outlined in the GSP regulations.

Third, Draft Chapter 7 does not include a list of monitoring sites or pertinent information about these sites (e.g., well type/owner, well construction details, Principal Aquifer designations, etc.). 23 CCR § 352.4(c) requires these details to be disclosed for each monitoring site. However, the draft chapter only includes the general location of wells in Figure 7-4. Neither the public nor DWR are able to accurately evaluate the effectiveness of the monitoring network without more detail about monitoring sites. The GSA must include these details for each monitoring site. In addition, the draft GSP does not identify what principal aquifer each water quality RMW is located in. The water quality monitoring network should provide adequate coverage of all principal aquifers, and this information should be readily available in the GSP.

Fourth, it is unclear which of the representative monitoring wells will be evaluated for exceedances of minimum thresholds or undesirable results. As mentioned above, the undesirable results and minimum thresholds definitions for degraded water quality are specifically tied to "potable water supply wells" in the representative GSP monitoring network. It is unclear from the information presented in the draft GSP which public supply wells will be monitored or if the water quality monitoring network includes domestic wells or wells within small public water systems. The GSP should clearly provide a list of monitoring sites included in the SGMA monitoring network for degraded water quality and include relevant information about each well (locations, well types/owners, well construction details, screening intervals, etc.) to meet GSP requirements for data and reporting standards as outlined in 23 CCR §352.4(c). The GSP should specify which monitoring sites are being used to monitor for compliance with groundwater quality minimum thresholds and undesirable results.

Fifth, the monitoring network must show that the GSA has considered all beneficial users including domestic well users and small water systems. However, domestic wells are typically not covered by the state's existing water quality regulatory programs and thus may not be adequately covered by the water quality monitoring program presented in Draft Chapter 7. If the monitoring network for degraded water quality does not include domestic wells or wells from small community water systems, this should be clearly stated, and an action plan should be developed to add these sites to the monitoring network such that there is sufficient coverage to evaluate potential water quality impacts to all drinking water beneficial users within the Subbasin.

Lastly, to adequately protect drinking water, the groundwater quality monitoring network should test for all primary drinking water contaminants, PFOs and PFOAs and chrome-6, other known

[27] 23-CCR §354.34

secondary drinking water contaminants, and contaminants like uranium which are known to increase due to groundwater management practices. If the network detects increases in any of these contaminants, they should be elevated to the level of Contaminants of Concern and evaluated for compliance with minimum threshold and undesirable results.

Recommendations Regarding Groundwater Quality Monitoring:

At a minimum, the groundwater quality monitoring network must be changed to include the following elements:

1. Ensure that the GSP plans to measure the following contaminants at all representative monitoring wells:[28]
    a. All contaminants with primary drinking water standards
    b. Secondary drinking water contaminants like manganese which are known to be widespread
    c. PFOs/PFOAs and chrome-6, which are contaminants known to be very harmful to human health despite not having established drinking water standards
    d. Contaminants like uranium which are known to increase due to groundwater management practices
2. Explicitly define a set of SGMA monitoring wells that will be included in the SGMA monitoring network for degraded water quality to ensure these wells will be consistently monitored and will fully comply with requirements for SGMA monitoring networks as outlined in the GSP regulations.
3. Include details for each monitoring site. Provide a list of monitoring sites included in the SGMA monitoring network for degraded water quality and include relevant information about each well (locations, well types/owners, well construction details, screening intervals, etc.) to meet GSP requirements for data and reporting standards as outlined in 23 CCR §352.4(c).
4. Ensure that the monitoring network provides adequate coverage of all principal aquifers. Include this information clearly in the GSP.
5. Specify which monitoring sites are being used to monitor for compliance with groundwater quality minimum thresholds and undesirable results.
6. If the monitoring network for degraded water quality does not include domestic wells or wells from small community water systems, this should be clearly stated, and an action plan should be developed to add these sites to the monitoring network such that there is sufficient coverage to evaluate potential water quality impacts to all drinking water beneficial users within the Subbasin.
7. Ensure accurate detection of impacts on drinking water users and DACs:[29] Ensure that the groundwater level monitoring network includes representative monitoring wells in or near DACs, and placed in a way that detects impacts to the vast majority of drinking

[28] 23 CCR § 354.34(b)(2) and (f)(3)

[29] 23 CCR § 354.34(b)(2) and (f)(3)

water users in the GSP area. If new monitoring wells are required, ensure that the GSP contains a concrete plan to fund and construct new representative monitoring wells within the first year of GSP implementation to ensure that vulnerable communities' drinking water resources are monitored. The plan to improve the monitoring network should include testing of domestic wells in the interim as wells are constructed.

8. Identify baseline contaminant levels: Ensure that the GSP identifies the current contaminant levels, minimum thresholds and measurable objectives at each RMW, so that it is clear to the public how the contamination could change at each RMW site.
9. Frequent testing: Ensure that the groundwater quality monitoring network tests for contaminants of concern frequently, in a way that avoids persistent drinking water contamination. Testing should be done monthly.

~ ~ ~

Our aim with these comments is to provide effective feedback on ways to ensure that drinking water is protected for vulnerable communities in the Subbasin, and to ensure that the GSP complies with the requirements in SGMA and applicable law. We appreciate the opportunity to provide comments on these Draft Chapters, and would welcome further conversation with GSA staff and consultants to ensure that significant and unreasonable impacts to vulnerable drinking water users (domestic well users and disadvantaged communities) do not occur in the Turlock Subbasin.

Sincerely,

Amanda Monaco, Water Policy Coordinator

Aracely G. Gonzalez, Policy Advocate

Phoebe Seaton, Co-Director

Focused Technical Review:
Turlock Subbasin Groundwater Sustainability Agencies
Public Review Draft Groundwater Sustainability Plan

Water Level Monitoring Network and Sustainable Management Criteria (SMCs)

The draft Groundwater Sustainability Plan (GSP) for the Turlock Subbasin (Subbasin) was developed jointly by two Groundwater Sustainability Agencies (GSAs) - the West Turlock Subbasin GSA (WTSGSA) and East Turlock Subbasin GSA (ETSGSA). Collectively, these two GSAs cover the entire Subbasin.

The draft GSP sets the minimum thresholds (MTs) for groundwater levels at "the low groundwater elevation observed in Fall 2015 at each representative monitoring site [RMS] in each Principal Aquifer" (Section 6.3.2). Measurable Objectives (MOs) are established as "the midpoint between the MT and the high groundwater elevation observed over the historical Study Period WY 1991 – WY 2015 at each RMS for each Principal Aquifer" (Section 6.3.3.) The draft GSP defines the undesirable result (UR) for chronic lowering of water levels for each Principal Aquifer unit "when at least 33% of representative monitoring wells exceeds the MT for that Principal Aquifer in three (3) consecutive Fall semi-annual monitoring events" (Section 6.3.1.4).

As described in the comments below, the draft GSP does not include a thorough analysis of impacts to key beneficial users in the Subbasin, particularly domestic well users, and does not provide a clear plan to mitigate against adverse effects to these users that may occur before an undesirable result is triggered in the Subbasin.

- As shown on **Figure 1**, the Subbasin includes over 4,300 domestic wells, eleven DWR-designated DACs[1] (i.e., Ballico, Bret Harte, Bystrom, Ceres, Delhi, Hickman, Keyes, Modesto, Parklawn, Riverdale Park, and Snelling) with a collective population of over 280,000 people. It should be noted that the majority of the City of Modesto overlies the Modesto Subbasin, and the population of the DACs excluding Modesto is approximately 75,000. The Turlock Subbasin also includes over 100 public water systems, including 76 systems with less than 15 service connections, and 94 systems with less than 100 service connections. **While the draft GSP notes that input from the TAC was used to develop definitions of undesirable results, the GSP should provide more detail as to what input was provided and how it was applied to the process.**
- As discussed in Section 6.3.1 of the draft GSP, domestic wells and some municipal supply wells are particularly at risk from lowering of water levels and experienced adverse effects during the 2013-2016 drought. According to the draft GSP, 165 domestic wells were documented as having been impacted during the drought, and well owners required substantial aid including trucked water, storage tanks, and new well installations. Municipal suppliers also experienced significant impacts, including collapsed wells, loss of pumping capacity, and water quality issues. However, the draft GSP defines the undesirable results for chronic lowering of groundwater levels as "significant and unreasonable groundwater level declines such that water supply wells are adversely impacted during multi-year droughts in a manner that cannot be readily managed or mitigated. An undesirable result for each principal aquifer will occur when at least 33% of representative

[1] Designated at the Census Place level.

monitoring wells exceeds the MT for that Principal Aquifer in three (3) consecutive Fall semiannual monitoring events." This definition of an undesirable result is not protective of drinking water users, as it will allow for water level declines below historic drought levels across significant areas of the Subbasin for an extended period of time (more than 3 years) before the GSAs are required to take action. Thus, the effects that would be felt by drinking water users before the GSA would need to take action could be even more severe and widespread than was experienced during the 2013-2016 drought period. **The GSP should set a definition for undesirable results for water levels that is protective of drinking water users, and requires the GSA to take action well before widespread adverse effects take place.**

- Section 2.3.2.4 of the draft GSP explains that significant measures were taken by Stanislaus and Merced Counties to mitigate the effects of the 2013-2016 drought on domestic well users in the Subbasin. The draft GSP explains "The 386 new and deeper wells in areas of about 165 failed wells suggest that many failed wells have been replaced by deeper wells. No new domestic well failures have been documented by the counties or reported to the DWR on the new web-based records of domestic water supply shortage. However, the status of older wells remains unknown. The relatively high density of domestic wells suggests that some shallow wells may remain at risk of failure if future water levels continue to decline. Even if wells have now been replaced and are capable of supplying water at 2015 levels, significant future declines could trigger additional well failures in the future." Given that the water level MTs are set relative to the 2013-2016 drought conditions, widespread adverse effects were experienced by drinking water users during this drought (both domestic well users and municipal suppliers), and that the undesirable results definition in the draft GSP would allow localized water level conditions to become worse than experienced during the 2013-2016 drought, **the GSP should include a detailed and proactive plan, to mitigate these effects on drinking water users, before drinking water users lose access to their water supply or the supply is affected by reduced water quality. This plan should include an identified funding source, and not assume that state or federal grant funds will be available to address such issues in the future.**

- Section 2.3.2.4 of the draft GSP (quoted in the above bullet) provides a high level assessment that additional domestic well failures could happen in the future. The GSP should provide a more **rigorous assessment of the potential domestic well failures, and present the results of this impact analysis in a clear and transparent manner, illustrating for example, 1) where the likely impacted wells are located, 2) what communities are most affected (including DACs), 3) an estimate of the size of the population that relies on these domestic wells, or 4) if the creation a new or expanded community water system could address some or all of the population affected by the loss of domestic wells.**

- Section 6.3.2.1 of the draft GSP states that "However, setting the MTs at the low water levels of 2015 will prevent significant future groundwater level declines that could lead to undesirable results." However, **because the definition of undesirable results allows for water levels in up to 33% of the RMWs to drop below 2015 water levels for a 3 year period, significant future groundwater level declines will still be likely, and would be expected to further impact vulnerable drinking water users, as occurred during the 2013-2016 drought. Thus, the draft GSP is not adequately projective of drinking water users.**

- **Figure 1** shows the location of key drinking water users as indicated above, along with the proposed water level representative monitoring wells (RMWs) that are identified as being in the Western Upper or Eastern principal aquifers (i.e., excluding those identified as being in the Western Lower aquifer beneath the Corcoran clay), including both existing wells and those that have been proposed for construction, per the draft GSP. As illustrated in Figure 1m there are notable gaps in coverage of the water level network in several areas with a substantial number of domestic well users and small public water systems. Of the approximately 4,300 identified domestic wells in the Subbasin, approximately 2,500, or 57%, are located more than 1.5 miles from a water level RMW. In particular, domestic well users and small public water systems located 1) along the northern portion of the Subbasin, including the communities of Hughson, Ceres, Hickman, Bret Harte, Parklawn, and southern Modesto (most of which are DACs), 2) along the southern Subbasin boundary, including those surrounding Ballico, Delhi, and Snelling, and 3) a significant portion of domestic well users surrounding the City of Turlock. **Therefore, it is recommended that additional water level RMWs be established proximate to these communities and domestic wells, in order to be protective of drinking water beneficial users across the Subbasin.**

- **Figures 2A** and **2B** show the approximate locations of domestic wells and water level RMWs within the Subbasin. For each RMW, the change in water level from current conditions (i.e., the most recent water level measurement reported in the hydrographs presented in the draft GSP Appendix X), that will occur if water levels reach the MOs and MTs were calculated. Based on this, if water levels reach the MOs, this will result in an increase in water levels in the eastern portion of the Subbasin (up to 62 feet higher), and a decline in water levels in the western portion of the Subbasin (up to 21 feet lower). If water levels reach the MTs, water levels across the majority of the basin will decline, by up to 38 feet. The draft GSP makes several unsupported assertions that domestic wells will not be further impacted if water levels reach MTs, but does not include an actual analysis of this, by comparing available domestic well depth data to the anticipated water level declines. The draft GSP also does not address how many domestic wells will be affected if water levels in areas of 33% of the RMWs are allowed to decline below MTs for a three year period before triggering an undesirable result. **The GSP should present a thorough, robust, and transparent analysis, supported by maps, that identifies: 1) which domestic wells are likely to be impacted at the MTs and at the MOs, and 2) the location of the likely impacted wells with respect to DACs and other communities and systems dependent on groundwater.**

- **Figures 2A** and **2B** show current (Spring 2017) groundwater elevation contours for the Subbasin, alongside the change in water level depths to reach the MOs and MTs, respectively. As illustrated in **Figure 2A** and **2B**, given that the change in groundwater elevation to reach MOs and MTs varies significantly between RMWs, groundwater flow gradients would be expected to change as MOs and MTs are reached. However, the draft GSP does not include an analysis of these gradients (i.e., presenting contour maps of groundwater elevations at MOs and MTs). Section 6.3.2 says "These MTs allow GSAs to manage to an existing groundwater surface throughout the Subbasin, demonstrating that hydraulic gradients associated with the MTs can be supported by the Principal Aquifer systems;" however, the draft GSP does not provide any further analysis or explanation to support this statement. Further, this analysis is key to demonstrating "How minimum thresholds have been selected to avoid causing undesirable results in adjacent basins or affecting the ability of

adjacent basins to achieve sustainability goals," as required by 23-CCR §354.28(b)(3) and would support DWR's ability to evaluate whether the GSP will "adversely affect the ability of an adjacent basin to implement its Plan or impede achievement of its sustainability goal" per 23-CCR §355.4(b)(7). **Therefore, the GSP should include a transparent analysis of the groundwater flow gradients expected to be present when the Subbasin reaches sustainability at MOs and if groundwater levels are allowed to reach MTs.**

- **Figure 3** shows the approximate locations of domestic wells and water level RMWs (excluding those identified as being in the Western Lower principal aquifer) within the Subbasin. For purposes of this evaluation, a 1.5-mile radius is shown around each RMW. Based on available well construction information, the well screens of the domestic wells located within this 1.5-mile radius are compared to the proposed MTs for the RMWs. For purposes of this assessment, a well is identified as fully dewatered if the MT is below the midpoint of the screen well screen interval, and partially dewatered if the MT is below the top of the screen interval. For domestic wells with incomplete well screen information, it is assumed that the well screen extends 40 feet above the bottom of the well. Approximately 43% of domestic wells in the Subbasin are located within the 1.5-mile radius of RMWs; given the location of the RMWs this analysis excludes the approximately 2,500 domestic wells, including those located in and around the communities of Hughson, Ceres, Hickman, Bret Harte, Parklawn, southern Modesto, Ballico, Delhi, Snelling, and Turlock (most of which are DACs). Based on this assessment, if water levels reach the proposed MTs, approximately 3% of domestic wells within a 1.5-mile radius of RMWs (approximately 61) would be expected to be fully dewatered and an additional 2% of domestic wells within a 1.5-mile radius of RMWs (approximately 38) would be expected to be partially dewatered.

  We acknowledge that this is a "quick and dirty" assessment of domestic well impacts; however, the results of this assessment suggest that dewatering of domestic wells may occur if water levels reach the MTs. Given that the UR for chronic lowering of water levels allows for water levels in significant portions of the Subbasin to continue to drop below MTs, additional domestic well users would be vulnerable to impacts. Further, more than half of domestic wells are located outside of a 1.5 mile radius of the RMWs and may also be impacted by declining water levels. The GSAs could evaluate the likely effects on domestic wells by developing a water level contour map that extends across areas not proximate to RMW and evaluates dewatering effects. **The GSP should present a thorough, robust, and transparent analysis, supported by maps, that identifies: 1) which domestic wells are likely to be impacted at the MTs, 2) which domestic wells are likely to be impacted as water levels are allowed to drop below MTs before the UR definition is met, 3) the location of the likely impacted wells with respect to DACs and other communities and systems dependent on groundwater, and 4) an estimate of the total population likely to be affected. This assessment should include multiple scenarios in which 33% or more RWMs exceed their MTs at for three years, to appropriate represent conditions that may occur under the GSAs' definition of URs. This analysis would allow the GSAs not only to evaluate the potential impacts, but to proactively plan for mitigation of domestic well impacts, rather than responding only under emergency conditions, as was done during the 2013-2016 drought.**

Water Quality Monitoring Network and SMCs

The draft GSP identifies chemicals of concern (COCs) for the Subbasin, which include arsenic, uranium, manganese, sulfur, total dissolved solids (TDS), nitrate, 1,2,3-trichloropropane (1,2,3-TCP), tetrachloroethylene (PCE), and dibromochloropropane (DBCP). MTs for groundwater quality are set as "a new (first-time) exceedance of a drinking water quality standard (primary or secondary maximum contaminant level [MCL]) in a potable supply well in the representative monitoring network for any of the Subbasin constituents of concern, [including]: nitrate (as N) (10 milligrams per Liter [mg/L]), arsenic (10 micrograms per Liter [µg/L]), uranium (20 picocuries per Liter [pCi/L]), TDS (500 mg/L), 1,2,3-TCP (0.005 µg/L), and PCE (5 µg/L)" (Section 6.6.2). MOs for groundwater quality are defined as "no increase above the maximum historical concentration for any constituent of concern in a potable water supply well in the draft GSP monitoring program caused by GSA management activities" (Section 6.6.3). The draft GSP defines the UR for water quality as occurring if "a new (first-time) exceedance of an MT is observed in a potable water supply well in the representative monitoring network that results in a well owners increase on operational costs and is caused by GSA management activities" (Section 6.6.1.3). As identified below, several clarifications or improvements are recommended for the water quality SMCs and monitoring network presented in the draft GSP.

- The draft GSP identifies additional COCs that have historically impacted groundwater quality conditions near population centers within the Subbasin but does not define SMCs for these COCs. Specifically, Section 4.3.5.3.4 notes that "elevated [manganese] concentrations near or exceeding the secondary MCL were detected in in some wells near Hughson and the Tuolumne River", and that a public supply well in the "City of Ceres exceeded the MCL for manganese" that ultimately prevented it from being put into service. Additionally, Section 4.3.5.10. notes that "elevated concentrations of DBCP (more than 50 percent of or exceeding the MCL) are prevalent in the vicinity of Denair and Hughson" and that "several wells near and west of Ceres have had recent concentrations of DBCP that are greater than 50-percent or exceed the MCL." While manganese is not typically considered a health risk, it does impact drinkability of water from a color and taste standpoint, and thus can result in significant cost to treat water for drinking water purposes (similar to TDS). DBCP, is a soil fumigant and nematicide, and can have significant health effects. **Because manganese and DBCP are present near or above MCLs and because they present a clear risk to use of groundwater for drinking water purposes, the GSAs should include these constituents in its monitoring program and establish MOs and MTs for these constituents.**

- As mentioned above, the UR for degraded water quality is limited to addressing first-time MT exceedances in the representative monitoring well network "that results in a well owners increase on operational costs." This UR notably excludes the impairment or total loss of access to safe drinking water supplies as a "significant and unreasonable impact" of degraded water quality, which is especially relevant to domestic well users who do not have access to alternative potable water supplies within the Subbasin. **The UR definition for degraded water quality thus does not adequately address significant and unreasonable impacts to drinking water beneficial users of the Subbasin.**

- Similarly, the UR for degraded water quality is limited to water quality impairments "caused by GSA management activities." The draft GSP loosely defines "GSA regulated groundwater levels, extractions, or projects/management actions" as GSA management activities that could contribute to a water quality UR and notes that "GSAs are responsible for ensuring that their

groundwater management activities do not cause or contribute to exceedances of drinking water standards" (Section 6.6.1). Several sections of the draft GSP note there is a correlation between groundwater level declines and/or changes in hydraulic gradients and degraded groundwater quality. For example, Table 6-1 (Section 6.3.1) notes that historic low water levels observed during the 2014-2017 drought resulted in water quality impacts to potable water supply wells in the cities of Modesto, Ceres, and Waterford as well as the Hilmar Community Water District (CWD). Section 6.6.2.1.7 notes that "in other parts of the Central Valley, naturally occurring arsenic, uranium, and TDS have been correlated with depth and observed to increase in concentration when water levels decline." However, the draft GSP does not attempt to quantify what declines in groundwater elevations and/or increases in groundwater pumping would result in additional water quality impairments to the Subbasin and does not adequately explain how potential water quality impacts were evaluated in the design of projects and management actions. **The GSP should include a more detailed explanation of the protocols and methodologies the GSAs will use to determine whether or not a "GSA management activity" is causing any future observed MT exceedances in water quality and to evaluate how implementation of projects and management actions will not result in further water quality impairments, particularly those that effect drinking beneficial water users, to the Subbasin.**

- Section 6.3.2.2 notes that "MTs for chronic lowering of water levels are supportive of the MTs developed for degraded water quality. By arresting water level declines…potential increases in [COCs] associated with depth (such as TDS) can be avoided. By managing to a previous groundwater level surface (Fall 2015), the MTs will not significantly alter historical hydraulic gradients and will not accelerate the rate of migration of any groundwater contaminants." However, as mentioned above, the draft GSP notes that during the 2014-2017 drought water quality impacts were already being observed in public supply wells throughout the Subbasin. Furthermore, as described above, the draft GSP allows for a sustained exceedance in water level MTs for up to three (3) consecutive years before a UR is triggered, which could further exacerbate groundwater quality issues known to occur when water levels decline below Fall 2015 elevations. **Therefore, the draft GSP fails to note that URs for chronic lowering of water levels could allow for further water quality impairments within public water supply wells (including those used by small community water systems) and thus are not sufficiently protective of "significant and unreasonable impacts" to drinking water beneficial users of the Subbasin.**

- **Figure 4** shows the locations of water quality RMWs relative to domestic wells, public water systems, and DACs within the Subbasin. As described in Section 7.1.4, the GSAs have not specifically defined a SGMA monitoring network for degraded water quality and will rely entirely on existing water quality monitoring programs in place throughout the Subbasin (including GAMA, Geotracker, CV-SALTS, and the Nitrate Control Program). The draft GSP notes that "the monitoring network will vary from year-to-year based on regulatory requirements from each water quality program." By outsourcing water quality monitoring to existing programs outside the purview of SGMA regulation, the GSAs will not be able to independently control the availability, frequency, and quality of water quality monitoring data used to evaluate SGMA compliance within the Subbasin and may not meet GSP regulations to "develop a monitoring network capable of collecting sufficient data to demonstrate short-term, seasonal, and long-term trends in groundwater conditions… to demonstrate progress toward achieving measurable objectives described in the Plan, [or] to monitor impacts to the beneficial uses or users of groundwater" (23-CCR §354.34). **Therefore, it is recommended that the GSP explicitly define a set of monitoring**

wells that will be included in the SGMA monitoring network for degraded water quality to ensure these wells will be consistently monitored and will fully comply with requirements for SGMA monitoring networks as outlined in the GSP regulations.

- The draft GSP does not provide a list of monitoring sites included in the water quality monitoring network or include any other pertinent information about these sites (e.g., well type/owner, well construction details, Principal Aquifer designations, etc.). All the draft GSP provides is a figure (Figure 7-4) that shows the general location of the wells, without any identifying information or a designation of what principal aquifer they are located in. As mentioned above, the UR, MT, and MO definitions for degraded water quality are specifically tied to "potable water supply wells" in the representative GSP monitoring network. It is it is unclear from the information presented in the draft GSP which public supply wells will be monitored or if the water quality monitoring network includes domestic wells or wells within small public water systems. **The GSP should clearly provide a list of monitoring sites included in the SGMA monitoring network for degraded water quality and include relevant information about each well (locations, well types/owners, well construction details, screening intervals, etc.) to meet GSP requirements for data and reporting standards as outlined in 23-CCR §354.2(c).**

- Domestic wells are typically not covered by the state's existing water quality regulatory programs and thus may not be adequately covered by the water quality monitoring program presented in this draft GSP. **If the SGMA monitoring network for degraded water quality does not include domestic wells or wells from small community water systems, this should be clearly stated, and an action plan should be developed to add these sites to the monitoring network such that there is sufficient coverage to evaluate potential water quality impacts to all drinking water beneficial users within the Subbasin.**

- As noted above, the draft GSP does not identify what principal aquifer each water quality RMW is located in. **The water quality monitoring network should provide adequate coverage of all principal aquifers, and this information should be readily available in the GSP.**

Water Budget

The water budget section of the draft GSP was reviewed to identify approaches and assumptions used in water budget development that may not be protective of DACs, rural domestic water users, and small community water systems. Water budgets were developed by the GSAs for historical conditions (WY 1991 - 2015), current conditions (for an "average year of the historical simulation that incorporates current irrigation and operational practices," selected to be WY 2010), and projected future conditions (based on the 50-year hydrologic period WY 1969-2018). As further described below, the description of the water budget and supporting data and assumptions is incomplete in the draft GSP, and it is unclear if/how water demands from rural domestic water users and small community water systems are included in the water budgets presented for the Subbasin. Therefore, the draft GSP does not allow for adequate public review and comment of key components related to drinking water beneficial users, and DWR cannot evaluate "Whether the Agency has adequately responded to comments that raise credible technical or policy issues with the Plan," as required under 23-CCR §355.5(b)(10).

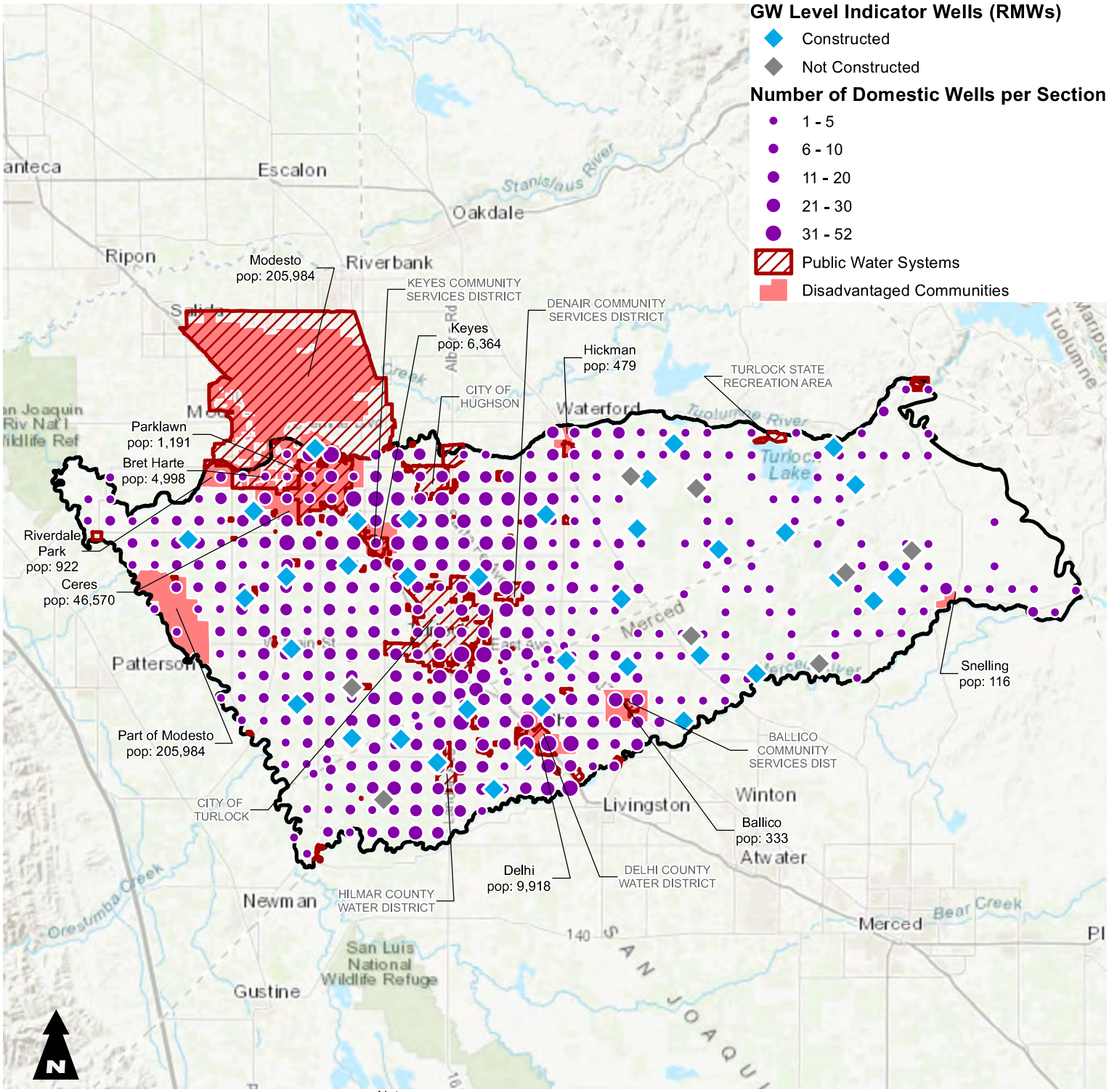
- The draft GSP is lacking information on the assumptions and data sources used to develop water budget estimates for the Subbasin, thus making a a detailed review of individual water budget components impossible at this time. Section 5.1.2 notes how "water budgets were developed utilizing the C2VSimTM, a fully integrated surface and groundwater flow model covering the entire Central Valley." Further description of the C2VSimTM is limited to the following statement: "Development of the model was informed by the study and analysis of hydrogeologic conditions, agricultural and urban water supplies, and an evaluation of regional water quality conditions. Additional detail on the data used to develop the C2VSimTM, which represents the best available data known at this time, is included in Appendix X." However, Appendix X has not been made available on the GSAs' website[2] as of 12 November 2021. **Per 23-CCR §354.2(f)(2), "groundwater and surface water models used for a Plan shall include publicly available supporting documentation." GSAs should therefore upload the *C2VSimTM Model Development Technical Memo* appendix to their website to allow for adequate public review and comment of the model and associated datasets and assumptions used to develop the water budgets for the Subbasin.**

- Per the above comment, the draft GSP includes no pertinent information on how urban water demands are quantified within the water budget and it is unclear if domestic and small community water system demands are even included in the estimate of urban pumping. Section 5.1.4 notes how groundwater production by "municipal and private domestic wells for urban/residential water supply" is a "primary component of the groundwater system;" however, the water budget tables and figures only include estimates of "urban pumping" and do not explicitly quantify groundwater demands from rural communities or domestic well users. Table 5-1 notes that historical urban demands were estimated from "historical records," yet no supporting references or citations are provided. Section 5.1.4.3 further notes that "development of the projected water demands is based on the population growth trends reported in the 2015 urban water management plans (UWMPs)," yet these assumptions are not detailed in the draft GSP. UWMPs are limited to retail supplier serving 3,000 or more service connections or 3,000 acre-feet per year, and demand assessments and projections are, as a rule, limited to that which is met through sales from the urban water supplier. Thus, these demand projections would not be expected to include estimates of groundwater demands from rural domestic well users or the many smaller community water systems within the Subbasin. **The draft GSP should further detail the data and assumptions used to develop estimates of urban and rural groundwater pumping in the Subbasin and should, to the extent possible, quantify groundwater demands from individual cities, small community water systems, and domestic well users and clearly report this information in the water budget tables and figures. Water demands by each public water system and domestic users should be presented in a transparent, tabular format as required by 23 CCR §354.18(a), and to allow for the public to review the included assumptions and estimates.**

[2] https://turlockgroundwater.org/gsp#GSPsections

Figure 1 - Representative Monitoring Network for Groundwater Levels Relative to Domestic Wells, DACs, and Public Water Systems

West and East Turlock Subbasin GSA



Notes

1. All locations are approximate.
2. Wells beneath the Corcoran clay (i.e., Principal Aquifer identified as Western Lower) are excluded.

Abbreviations

CWC = Community Water Center
DAC = disadvantaged community
GSA = Groundwater Sustainability Agency
GSP = Groundwater Sustainability Plan
MO = measurable objective
MT = minimum threshold
RMW = representative monitoring well

References

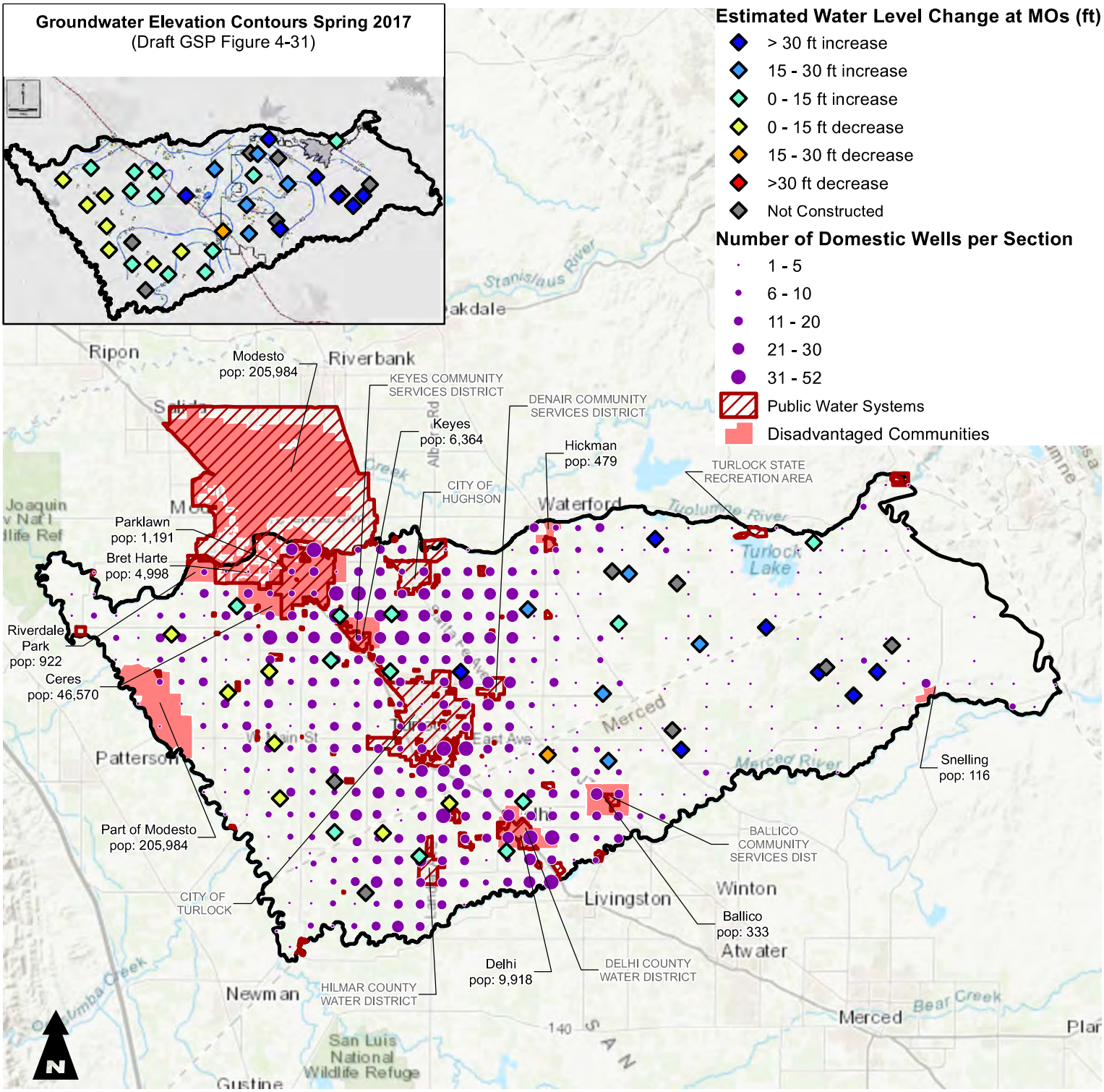
1. Domestic Well Densities: Research to develop the CWC Vulnerability Tool draft as of 16 May 2019 and 6 August 2019.
2. Disadvantaged community data (place): downloaded on 6 August 2019 from the DAC Mapping Tool: https://gis.water.ca.gov/app/dacs/.
3. Public Water System data: downloaded on 6 August 2019 from Tracking California: https://trackingcalifornia.org/water/map-viewer.
4. Groundwater level indicator monitoring wells are the wells assigned with MTs and MOs according to the draft Turlock Subbasin GSP. The well information is from Table 7-1 in the draft GSP - Public Review Draft dated October 2021.

Self-Help ENTERPRISES

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

Figure 2A - Estimated Water Level Change at Measurable Objectives and Domestic Wells

West and East Turlock Subbasin GSA



Abbreviations

CWC = Community Water Center
DAC = disadvantaged community
GSA = Groundwater Sustainability Agency
GSP = Groundwater Sustainability Plan
MO = measurable objective

Notes

1. All locations are approximate.
2. Wells beneath the Corcoran clay (i.e., Principal Aquifer identified as Western Lower) are excluded.

References

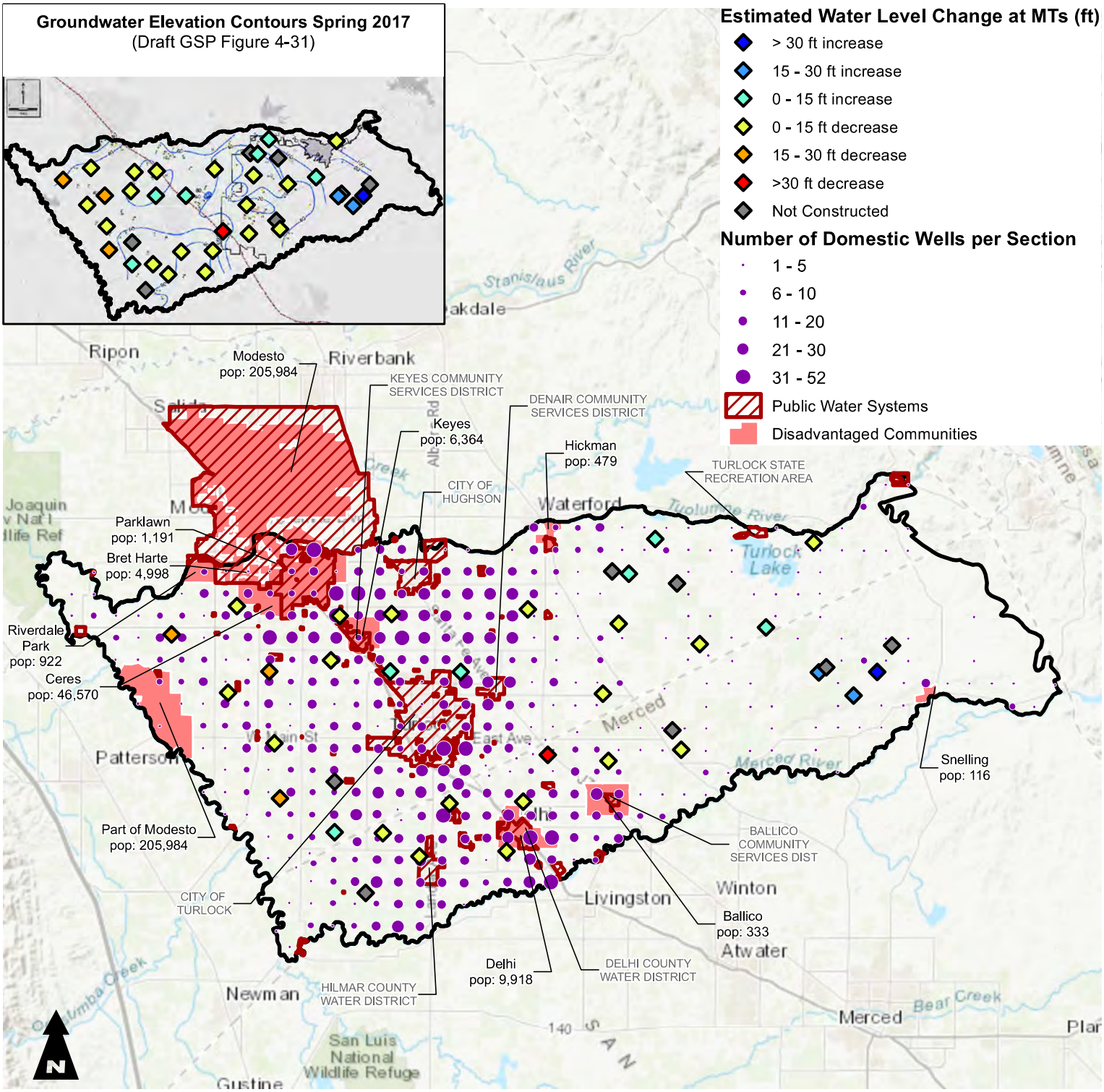
1. Domestic well data: Research to develop the CWC Vulnerability Tool draft as of 16 May 2019 and 6 August 2019.
2. Disadvantaged community data (place): downloaded on 6 August 2019 from the DAC Mapping Tool: https://gis.water.ca.gov/app/dacs/.
3. Public Water System data: downloaded on 6 August 2019 from Tracking California: https://trackingcalifornia.org/water/map-viewer.
4. MO values are from Table 7-1 in the Turlock Subbasin GSP - Public Review Draft, dated October 2021. Current water level values are from Appendix X of the draft GSP. Inset contour map is from Figure 4-31 of the draft GSP.

Self-Help ENTERPRISES

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

Figure 2B - Estimated Water Level Change at Minimum Thresholds and Domestic Wells

West and East Turlock Subbasin GSA



Abbreviations

CWC = Community Water Center
DAC = disadvantaged community
GSA = Groundwater Sustainability Agency
GSP = Groundwater Sustainability Plan
MT = minimum threshold

Notes

1. All locations are approximate.
2. Wells beneath the Corcoran clay (i.e., Principal Aquifer identified as Western Lower) are excluded.

References

1. Domestic well data: Research to develop the CWC Vulnerability Tool draft as of 16 May 2019 and 6 August 2019.
2. Disadvantaged community data (place): downloaded on 6 August 2019 from the DAC Mapping Tool: https://gis.water.ca.gov/app/dacs/.
3. Public Water System data: downloaded on 6 August 2019 from Tracking California: https://trackingcalifornia.org/water/map-viewer.
4. MT values are from Table 7-1 in the Turlock Subbasin GSP - Public Review Draft, dated October 2021. Current water level values are from Appendix X of the draft GSP. Inset contour map is from Figure 4-31 of the draft GSP.

Self-Help ENTERPRISES

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY