



Stanislaus County Drought Resilience Plan

County Service Plan (CSP-14)

**Water Advisory
Committee Meeting**

JULY 30, 2025



Agenda

1. Meeting Outcomes
2. Recap and Actions, Strategies, and Implementation Overview
3. Short-Term Actions
4. Long-Term Mitigation Strategies and Actions
5. Implementation Considerations
6. Next Steps and Questions

Key Team Members



Stanislaus County Task Force Stanislaus County PCT

Christy McKinnon

Water Resources Manager

Rob Kostlivy

Stanislaus County Environmental
Resources Director

Ruben Wegner

Stanislaus County OES

Julissa Matute Velasquez,

Stanislaus County OES

Aaron Wilson

Stanislaus County OES



Julia Ekstrom

Supervisor, Urban Unit Rural
Communities Program
Water Use Efficiency Branch

Sarah Ko

Environmental Scientist,
Division of Regional Assistance



Sarah Hamilton

CSP-14 Lead
Water Resources Engineer

Haydee Yonamine

CSP-14 Deputy
Project Manager

Meeting Outcomes



Understand the role of short-term actions, long-term strategies, and their implementation in the DRP



Frame out 'best' approach for short-term actions



Identify long-term mitigation strategies



Recap Prior Efforts and Overview of Actions, Strategies, and Implementation



Drought Resilience Plan Goals

1. Establish a standing **Drought Task Force (Task Force)** to facilitate drought and water shortage preparedness for *state small water systems (SSWS)* and *domestic wells* within the county's jurisdiction
2. Develop a County **Drought Resilience Plan (DRP)** that includes potential drought and water shortage risk and proposed short-term actions and long-term strategies

Primer of Senate Bill 552:
Drought Planning for Small Water
Suppliers and Rural Communities

Prepared by



And



May 2022



Legislative Directive

SB 552, CWC Section 10609.70:

*(b) A county shall develop a plan that includes potential drought and water shortage risk and **proposed interim and long-term solutions for state small water systems and domestic wells** within the county's jurisdiction. The plan may be a stand-alone document or may be included as an element in an existing county plan, such as a local hazard mitigation plan, emergency operations plan, climate action plan, or general plan. A county shall consult with its drought task force or alternative coordinating process as established by this section in developing its plan. **A county shall consider, at a minimum, all of the following in its plan:***

- (1) Consolidations for existing water systems and domestic wells.***
- (2) Domestic well drinking water mitigation programs.***
- (3) Provision of emergency and interim drinking water solutions.***
- (4) An analysis of the steps necessary to implement the plan.***
- (5) An analysis of local, state, and federal funding sources available to implement the plan.***



Definitions

Short-Term **Actions** mitigate impacts during drought/water shortage onset and throughout a drought/water shortage event

Long-Term Mitigation **Strategies** reduce the vulnerability to drought/water shortage events

The DRP will select actions and strategies and develop an implementation strategy



Drought Resilience Plan Outline

- Chapter 1: Introduction
- Chapter 2: County Drought and Water Shortage Task Force
- Chapter 3: Drought and Water Shortage Risk Assessment
- **Chapter 4: Short-Term Response Actions**
- **Chapter 5: Long-Term Mitigation Strategy and Actions**
- **Chapter 6: Implementation Considerations**
- Chapter 7: References

Reviewed during the May WAC meeting.

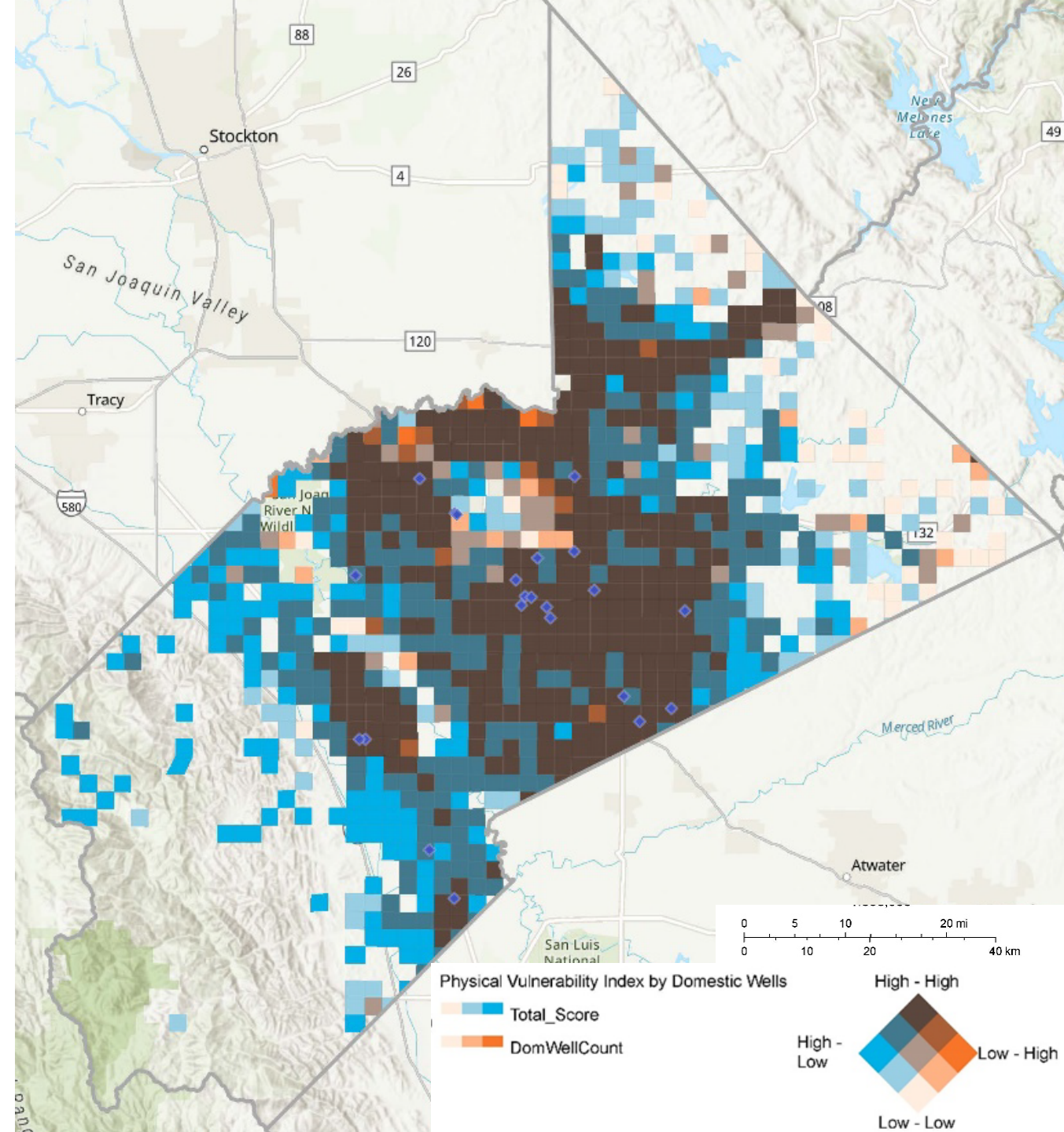
Focus of today's discussion. Initiating development of Chapters 4, 5, and 6.

Reference: [County Drought Resilience Plan Guidebook \(March 2023\)](#)



Physical Vulnerability by Domestic Wells

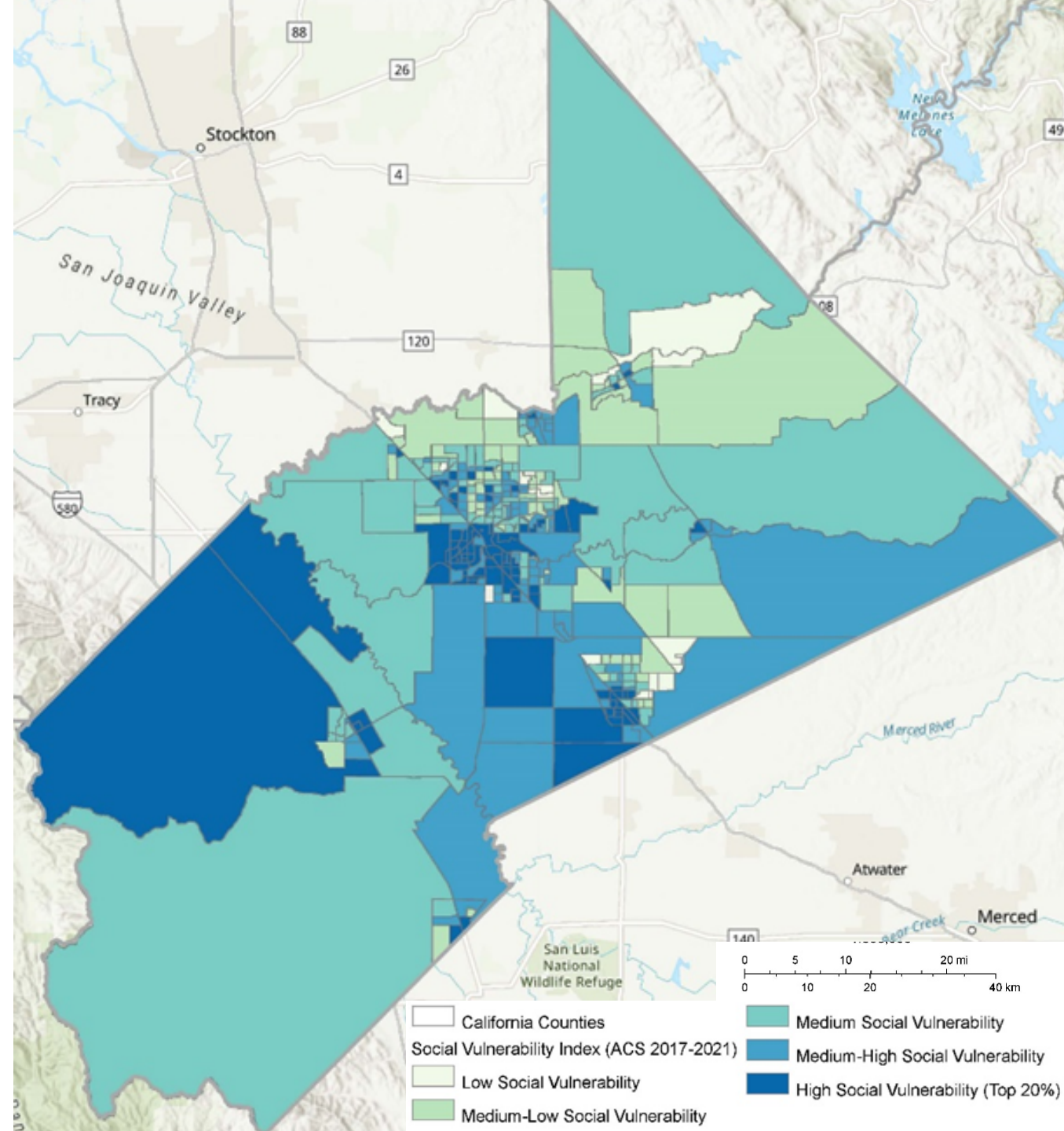
- Intersection of Physical Vulnerability and location of domestic wells and SSWS
- **Dark Brown areas** indicates higher presence of domestic wells or SSWSs within an area of high physical vulnerability
- **Blue areas** have higher physical vulnerability but minimal domestic wells or SSWSs
- **Orange areas** have higher presence of domestic wells or SSWSs but low physical vulnerability





Total Social Vulnerability Results

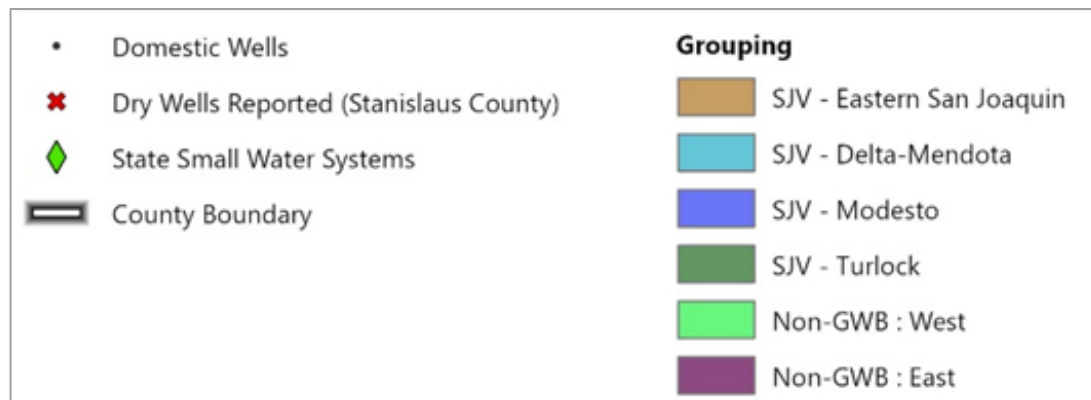
- Composite of all 15 social vulnerability indicators
- Dark shaded areas indicate higher social vulnerability
- Total social vulnerability calculated at the Census Block Group scale (geographical unit with population between 600 and 3,000 people, based on U.S. Census Bureau)



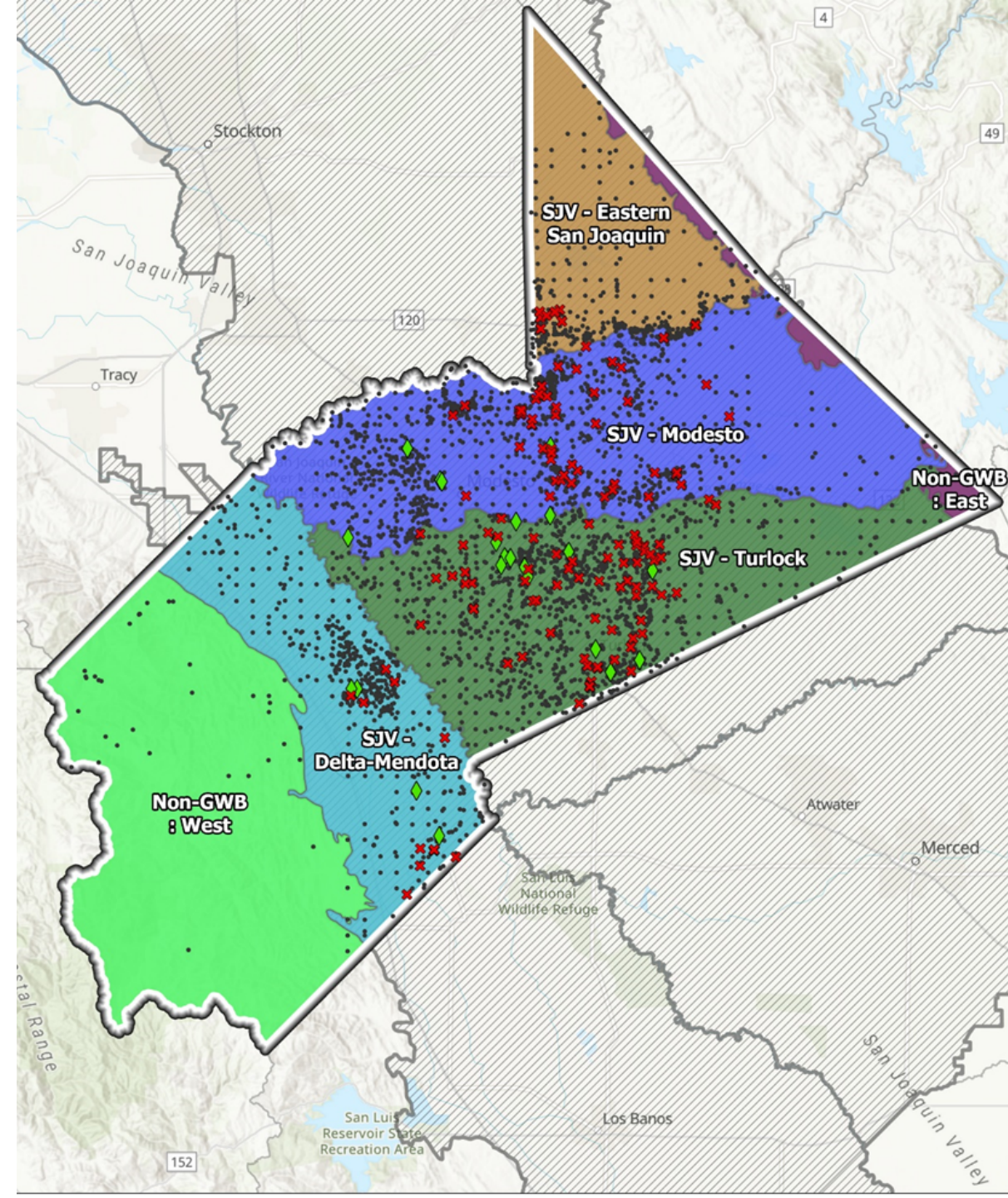


Risk Assessment Findings

- Risk assessment findings were summarized by GSA or groups of GSAs to characterize the physical vulnerabilities and develop short-term actions and long-term mitigation strategies
- These 6 areas were defined based on Bulletin 118 basins and fractured rock areas.



Note: GWB = groundwater basin; SJV = San Joaquin Valley





Risk Assessment Findings

Bulletin 118 Groundwater Basin		GSA within the County		Physical Vulnerability Indicators ¹	Social Vulnerability Score
Basin ID	Name				
5-022.01	San Joaquin Valley – Eastern San Joaquin	<ul style="list-style-type: none">Eastside San Joaquin GSAOakdale Irrigation District GSASouth San Joaquin GSA		<ul style="list-style-type: none">Wildfire Increase (RC1c)Consecutive Dry Years (RC2aa)Wildfire Risk (RC2b)Overdrafted Basin (RC2f)Chronic Declining Water Levels (RC2g)Water Quality Aquifer Risk (RC2i)Surrounding Land Use (RC2j)Dry Domestic Well Susceptibility in Alluvial basins (RC3a)Reported Household Outage on Domestic Well	Low to Medium
5-022.02	San Joaquin Valley – Modesto	<ul style="list-style-type: none">Stanislaus and Tuolumne Rivers Groundwater Basin Association GSA		<ul style="list-style-type: none">Wildfire Increase (RC1c)Consecutive Dry Years (RC2aa)Wildfire Risk (RC2b)Chronic Declining Water Levels (RC2g)Water Quality Aquifer Risk (RC2i)Surrounding Land Use (RC2j)Dry Domestic Well Susceptibility in Alluvial basins (RC3a)Reported Household Outage on Domestic Well	Low to High
5-022.03	San Joaquin Valley – Turlock	<ul style="list-style-type: none">East Turlock Subbasin GSAWest Turlock Subbasin GSA		<ul style="list-style-type: none">Consecutive Dry Years (RC2aa)Wildfire Risk (RC2b)Chronic Declining Water Levels (RC2g)Water Quality Aquifer Risk (RC2i)Surrounding Land Use (RC2j)Dry Domestic Well Susceptibility in Alluvial basins (RC3a)Reported Household Outage on Domestic Well	Low to High



Risk Assessment Findings

Bulletin 118 Groundwater Basin		GSAs within the County		Physical Vulnerability Indicators ¹	Social Vulnerability Score
Basin ID	Name				
5-022.07	San Joaquin Valley – Delta-Mendota	<ul style="list-style-type: none">West Stanislaus Irrigation District GSACity of Patterson GSAPatterson Irrigation District GSANorthwestern Delta-Mendota GSADM-II GSACity of Newman GSASan Joaquin River Exchange Contractors GSA		<ul style="list-style-type: none">Wildfire Increase (RC1c)Consecutive Dry Years (RC2aa)Wildfire Risk (RC2b)Overdrafted Basin (RC2f)Chronic Declining Water Levels (RC2g)Water Quality Aquifer Risk (RC2i)Surrounding Land Use (RC2j)Dry Domestic Well Susceptibility in Alluvial basins (RC3a)Reported Household Outage on Domestic Well	Medium-Low to High
N/A	Fractured Rock Aquifer (Non-Groundwater Basin in the West)	<ul style="list-style-type: none">N/A (Area not covered by GSA)		<ul style="list-style-type: none">Wildfire Increase (RC1c)Consecutive Dry Years (RC2aa)Wildfire Risk (RC2b)Geology (RC2c)Domestic Well Density in Fractured Rock Areas (RC3c)	Medium to High
N/A	Fractured Rock Aquifer (Non-Groundwater Basin in the East)	<ul style="list-style-type: none">N/A (Area not covered by GSA)		<ul style="list-style-type: none">Temperature shift (RC1a)Consecutive Dry Years (RC2aa)Wildfire Risk (RC2b)Geology (RC2c)Domestic Well Density in Fractured Rock Areas (RC3c)	Medium-Low to Medium-High

Notes: 1. Abbreviations are included next to Indicator Name (i.e., “RC1a”) for clarity to underlying methodology. Key: GSA = Groundwater Sustainability Agency, N/A = not applicable



Short-Term Actions

Picture Source: Knights Ferry Bridge, <https://knightsferry.com/>



Organization within DRP

Chapter 4: Short-Term Response Actions

- The **Risk Assessment** shows that domestic wells and SSWS in fractured rock areas and alluvial basins may be susceptible to water shortages, particularly due to extended droughts.
- Based on the assessment, County identified **short-term response actions (STRA)** to include in the DRP to help address the effects of water shortage emergencies that could occur in the vulnerable regions of the County.
- In the context of the County DRP, STRA are defined as **actions implemented in advance of, and during, water shortage emergencies caused by drought and/or water shortage events, often addressing immediate and basic public safety needs.**



Short-Term Response Actions Overview

- Defined Stages and Defining Criteria (Readiness, Pre-Impact, Impact)
- Portfolio of Actions Tied to Stages
 - **Mutual aid agreements**
 - **Permit streamlining for well construction, deepening, rehabilitation**
 - **Interties**
 - **Emergency and Interim Drinking Water Supplies and Distribution Plan**
 - Bottled water, water tanks, filling stations, temporary treatment of alternate water supplies
- Implementation considerations
 - What do you need to do now to be able to implement this?
 - Includes clear roles, responsibilities, and contact for County and non-County organizations



Short-Term Actions: Response Actions

Mutual aid agreements

- Has the County established mutual aid agreements for wildfire response and other County emergencies? Are there any provisions for emergency water supplies?
- If so, which domestic wells or SSWS communities are covered by this?
- Are there other appropriate Mutual Aid Agreements in place to support the distribution of emergency water supplies?



Short-Term Actions: Response Actions

Permit streamlining for well construction, deepening, rehabilitation

- Does the County have expediated or differentiated permitting set up already for drought/water shortage emergencies?
- If not, are there opportunities the County would like to explore?



Short-Term Actions: Response Actions

Interties

- Are there any interties currently set up to support emergency/interim supplies to domestic wells or SSWS communities?
- If not, could investigate where potential interties could be developed.



Identified Short-Term Actions

Mutual aid agreements

- Partner Agency Agreements

Permit streamlining for well construction, deepening, rehabilitation

- Expediated Well Permitting

Interties

- SSWS Intertie, Emergency
- SSWS Intertie, Permanent

Emergency and Interim Drinking Water Supplies and Distribution Plan

- Dedicated Water Filling Stations During a Water Shortage
- Packaged and Bottled Water Supplies
- Water Hauling, Bulk Water for Temporary Tanks



Short-Term Action: Mutual Aid Agreements

	Description
Action Type	Short-Term Response Action
Category	Mutual Aid Agreements
Subcategory	Other Entities
User Group	Combination
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	Partner Agency Agreements
County Description	County to establish mutual aid and system investment agreements with entities commonly relied upon by communities in the event of a disaster. These include schools, county fairgrounds, and others. Agreements would focus on installation of emergency potable water supply actions called for in the plan such as bottled water, bottled water storage, water filling stations and bulk water distribution. MOUs with large water suppliers and municipalities will be developed as needed and will clearly define triggers for activation, responsibilities, logistics, and legal protections to ensure swift, adequate and safe water provisions during a crisis.
Responsible Agency	Stanislaus County Office of Emergency Services
Partner Agency/Organization	Stanislaus County Public Health Department
Implementation/Phases/Funding	FEMA Funding, California Disaster Assistance Act, other state and federal funding sources



Short-Term Action: Permit streamlining for well construction, deepening, rehabilitation

	Description
Action Type	Short-Term Response Action
Category	Permit Streamlining and Coordination
Subcategory	Well Permitting
User Group	Combination
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	Expedited Well Permitting
County Description	County to prepare and implement expedited permit authorization for construction of replacement wells in the event of a water shortage emergency.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Department of Environmental Resources Environmental Health Division, GSAs
Partner Agency/Organization	Local GSAs
Implementation/Phases/Funding	Well Permit Fee



Short-Term Action: Interties

	Description
Action Type	Short-Term Response Action
Category	Interties
Subcategory	Emergency
User Group	SSWS
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	SSWS Intertie, Emergency
County Description	The County will encourage consolidations and the installation of temporary interties between SSWS and/or public water systems in the event of a water shortage where appropriate to improve water service reliability. The County may facilitate the implementation of mutual aid agreements between water systems to minimize or mitigate impacts associated with emergency water shortage events.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	Local GSAs, Self-Help Enterprises, Valley Water Collaborative (non-profit)
Implementation/Phases/Funding	State Small Water System Permit Fees, SGMA Technical Assistance Programs, Safe and Affordable Funding for Equity and Resilience (SAFER), other state grants supporting emergency response provided by NGO partners.



Short-Term Action: Interties

	Description
Action Type	Short-Term Response Action
Category	Interties
Subcategory	Permanent
User Group	SSWS
Method	Direct Support
Resource Requirement	Staff Time, County Budget, Infrastructure
Action or Strategy	SSWS Intertie, Permanent
County Description	County, in coordination and collaboration with public water systems, will encourage SSWS to develop and install permanent interties with other SSWS or public water systems in advance of a water shortage where possible and appropriate.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	Local GSAs, Self-Help Enterprises, Valley Water Collaborative, Public Water Agencies
Implementation/Phases/Funding	State Small Water System Permit Fees, SGMA Technical Assistance Programs, Safe and Affordable Funding for Equity and Resilience (SAFER), other state grants supporting emergency response provided by NGO partners.



Short-Term Action: Emergency/ Interim Drinking Water Supplies

	Description
Action Type	Short-Term Response Action
Category	Emergency/ Interim Drinking Water Supplies
Subcategory	Replacement Water
User Group	Combination
Method	Direct Support
Resource Requirement	Staff Time
Action or Strategy	Dedicated Water Filling Stations During a Water Shortage
County Description	The Stanislaus County Department of Environmental Resources partners with Valley Water Collaborative who is working on establishing a water filling station near Ceres and in Turlock, with the Ceres facility to be completed tentatively in summer 2025 and the Turlock station to follow once the Ceres installation is up and running. If additional resources are needed during a shortage of emergency event, the County could investigate the feasibility of purchasing water hauling trucks and installing additional water filling stations in areas that are accessible to affected communities.
Responsible Agency	Stanislaus County Department of Environmental Resources, Stanislaus County Office of Emergency Services, Valley Water Collaborative
Partner Agency/Organization	Local GSAs
Implementation/ Phases/Funding	Safe and Affordable Funding for Equity and Resilience (SAFER), other FEMA and state grants supporting emergency response efforts.



Short-Term Action: Emergency/ Interim Drinking Water Supplies

	Description
Action Type	Short-Term Response Action
Category	Emergency/ Interim Drinking Water Supplies
Subcategory	Replacement Water
User Group	Combination
Method	Direct Support
Resource Requirement	Staff Time
Action or Strategy	Packaged and Bottled Water Supplies
County Description	Stanislaus County has partnered with Self-Help Enterprises and Valley Water Collaborative to provide emergency relief, recovery and support services in the event of a well outage, water supply shortage or contamination event and has outreach materials from the NGOs posted on the Groundwater Resources Webpage. The GSAs are looking to solicit services where optional from the NGOs to provide outreach, well assessment, emergency supplies and water hauling/bulk water-tank installation and services via upcoming agreements for Domestic Well Mitigation Program Services. The cost for mitigating well failures due to GSA management activities will be funded by the GSAs, and otherwise with existing funding mechanisms in place.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Department of Environmental Resources Environmental Health Division, GSAs
Partner Agency/Organization	Self-Help Enterprises, Valley Water Collaborative, Local GSAs
Implementation/ Phases/Funding	State Small Water System Permit Fees, SGMA Technical Assistance Programs, Safe and Affordable Funding for Equity and Resilience (SAFER), other state grants supporting emergency response provided by NGO partners.



Short-Term Action: Emergency/ Interim Drinking Water Supplies

	Description
Action Type	Short-Term Response Action
Category	Emergency/ Interim Drinking Water Supplies
Subcategory	Replacement Water
User Group	Combination
Method	Direct Support
Resource Requirement	Staff Time, County Budget
Action or Strategy	Water Hauling, Bulk Water for Temporary Tanks
County Description	Stanislaus County has partnered with Self-Help Enterprises and Valley Water Collaborative to provide assessment, emergency relief, recovery and support services in the event of a well outage, water supply shortage or contamination event and has outreach materials from the NGOs posted on the Groundwater Resources Webpage. The GSAs are looking to obtain services from these NGOs to provide outreach, well assessment, emergency supplies and water hauling/bulk water-tank installation via upcoming agreements for implementation of these Domestic Well Mitigation Program services. The cost for mitigating well failures due to GSA management activities will be funded by the GSAs, and otherwise with existing funding mechanisms in place.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Department of Environmental Resources Environmental Health Division, GSAs
Partner Agency/Organization	Self-Help Enterprises, Valley Water Collaborative, Local GSAs
Implementation/ Phases/Funding	State Small Water System Permit Fees, SGMA Technical Assistance Programs, Safe and Affordable Funding for Equity and Resilience (SAFER), other state grants supporting emergency response provided by NGO partners.



DRP Short-Term Actions: Approach

Drought and Water Shortage Emergency Response Process

- This process would describe
 - How County staff would evaluate drought and water shortage conditions in the County and declare a water shortage, and
 - Outline an Emergency and Interim Drinking Water Distribution (EIDWD) Plan to activate emergency and interim drinking water supplies and communicate with affected domestic well and SSWS communities.



DRP Short-Term Actions: Approach

Drought and Water Shortage Emergency Response Process

- An accessible process for County staff to follow at the onset, and during, a drought or water shortage emergency,
- Outlining stages tied to conditions
 - Primarily drought, but also wildfire, earthquake, etc.
 - Portfolio of actions tied to each stage
- Can be wrapped into other County emergency response plans or processes (e.g., County Emergency Operations Plan)
- Described in 4 to 5 pages, not a plan but what to do in an emergency response



Water Shortage Emergency Response Process

- Review relevant Urban Water Management Plans, Water Shortage Contingency Plans, and/or Drought Contingency Plans
- Organize short-term response actions around three general stages
 - **Green Stage:** No Major Drought/Water Shortage Issues
 - General proactive communications
 - **Yellow Stage:** Drought is Occurring
 - Encourage proactive responses
 - **Red Stage:** Water Shortage are Occurring or Could be Imminent
 - Activate Emergency Interim Drinking Water Distribution Evaluation
- Include clear roles, responsibilities, and contact information for County and non-County organizations.



Short-Term Response Actions: Stages and Triggers

Stage	Description	Triggers					Response Actions
		Drought				Disaster	
		GSA-Reported Groundwater Decline	Dry Well Reports	Current Year Precipitation/ Snowfall	Drought Status on U.S. Drought Monitor	Earthquake, Contamination, Wildfire, etc.	
Green: Information	No Major Drought/Water Shortage Issues	Less than 15 feet	Less than 4 reports	More than 80% of average San Joaquin River runoff	D0: Preliminary Preparedness/First Signals of Abnormally Dry		Baseline Actions
Yellow: Alert	Drought is Occurring	15 – 30 feet	5 – 10 reports	50 – 80% of average San Joaquin River runoff	D1 to D2: Moderate to Severe Drought		Moderate Actions
Red: Response	Water Shortage are Occurring or Could be Imminent	More than 30 feet	More than 11 reports	Less than 50% of average San Joaquin River runoff	D3 to D4: Extreme to Exceptional Drought		Severe Actions

- These are example triggers
- Triggers can be specific to this DRP or can be adapted from other plans
- Triggers can also align with GSAs



Emergency Interim Drinking Water Distribution Evaluation

- Evaluation of how to distribute interim drinking water supplies during a water shortage emergency
 - What actions are relevant and how could the County apply them
 - Who would need to be involved
 - Level of detail is customized by the County



Long-Term Mitigation Strategies and Actions



Organization within DRP

Chapter 5: Long-Term Response Actions

- The **Risk Assessment** shows localized and regional water supply concerns, including domestic well density in alluvial basins, groundwater water quality aquifer risk, and amount of irrigated agriculture.
- While risks that impact the basic public health and safety of residents can be addressed through short-term response actions (STRA), **long-term mitigation strategies and actions (LTMSA)** mitigate and potentially prevent the conditions that lead to water shortage emergencies.
- In the context of the County DRP, LTMSA **serve to reduce drought and water shortage vulnerabilities for domestic well and SSWS communities**. When implemented, LTMSA **can reduce the extent and cost of emergency response actions but cannot eliminate the need for emergency response actions**.



Long-Term Mitigation Strategies Overview

Drinking Water Well Mitigation Program

- Strategies that reduce water shortage risks and improve water supply sustainability for domestic wells and SSWS
- Link to well mitigation programs implemented by GSAs within the county

System Consolidation Plan

- Physical or managerial consolidation of existing domestic wells or SSWS

Regional Water Infrastructure Investment

- Evaluate other large-scale plans – GSPs, IRWMPs, UWMP – to describe regional water infrastructure investment actions that may provide benefits to domestic wells and SSWS

Filling Data Gaps

- Improving planning, forecasting, and monitoring of domestic well and SSWS supplies



Long-Term Mitigation Strategies Overview

Drinking Water Well Mitigation Program

- Shortage prevention for existing and future wells
 - Water tank installation
 - Improved monitoring
 - Outreach
 - Well permitting policy
- Well rehabilitation
 - Point-of-Use water treatment
 - Vendor and County contact list
 - Aging infrastructure assessment
 - GSA, State, Local Coordination
- County assistance for funding, resources, and monitoring

System Consolidation Plan

- Creating a new water system
- Integrating with an existing water system
- Managerial consolidations or water partnerships

Regional Water Infrastructure Investment

- Evaluate regional water projects to participate in, including flood prevention projects and capital improvement plans

Filling Data Gaps

- Dry well reporting, well completion reports, and water quality data



Evaluate Long-Term Strategies

- Opportunity to mitigate the vulnerability of domestic wells and SSWS to water shortages
- Acceptability by domestic well and SSWS owners and operators
- Resource required to implement
 - County staff time, monetary, physical and non-physical barriers
 - Authority



Identified Long-Term Mitigation Strategies

Drinking Water Well Mitigation Program

- Alternative Supply Identification
- County DRP Website
- County Planning Integration
- Domestic Well Resource Support
- Dry and Distressed Well Tracking
- Regional Groundwater Level Monitoring and Communication
- Well Permitting Considering Future Growth
- Well Permitting Considering Impacts to Other Groundwater Users

System Consolidation Plan

- System Consolidation Planning

Regional Water Infrastructure Investment

- County Planning Integration

Filling Data Gaps

- Database Management System
- Dry Well Abandonment
- Evaluate and Update Well Completion Report Administrative Record
- Local Small Well System Program



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Replacement Water
User Group	SSWS
Method	Planning and Assistance
Resource Requirement	Staff Time, County Budget, Infrastructure
Action or Strategy	Alternative Supply Identification
County Description	The County and NGOs, and public water agencies will provide technical assistance to SSWS to explore short term options that would allow for an emergency supply during outage and emergency events. Approval of the water source and/or treatment system will be required by the Environmental Health Division to ensure the supply is safe and adequate for human consumption and its intended use. The Division will be available to provide guidance to private well users on obtaining approved treatment devices and their limitations to address contamination in private water supplies. The Division will also be available to assist in substandard housing investigations to ensure dwellings have a potable and reliable water supply as determined by the Health Department and California Law.
Responsible Agency	Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	NGOs
Implementation/Phases/Funding	SSWS Permit Fee



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Plan Implementation
User Group	Combination
Method	Outreach
Resource Requirement	Staff Time
Action or Strategy	County DRP Website
County Description	The Groundwater Resources Webpage will be linked to the OES webpage and includes this information and the County DRP and Development Progress at this location: https://www.stancounty.com/er/groundwater/ Links, outreach materials, notifications and additional information regarding domestic well mitigation programs will be included in the near future. Information regarding conservation from the SWRCB is provided on the GW Division webpage and expanded conservation outreach materials can be posted here when available and as necessary.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Office of Emergency Services
Partner Agency/Organization	Drought Task Force
Implementation/Phases/Funding	Well Permit Fee, GSA Program Funding Agency Cost Share



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Long-Term Planning
User Group	Combination
Method	Planning and Assistance
Resource Requirement	Staff Time
Action or Strategy	County Planning Integration
County Description	County to update its Multi-Jurisdictional Hazard Mitigation Plan, its Emergency Operations Plan, and/or related documents to confirm interagency roles, responsibilities, and actions associated with implementation of the Drought Resilience Plan.
Responsible Agency	Stanislaus County Office of Emergency Services, Stanislaus County Department of Planning and Community Development
Partner Agency/Organization	None
Implementation/ Phases/Funding	None



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Water Quality
User Group	Combination
Method	Outreach
Resource Requirement	Staff Time
Action or Strategy	Domestic Well Resource Support
County Description	DWR "Be Well Prepared," resource is available on the DER Groundwater Resources Webpage and provides information on measuring, maintenance, testing and treating well water. EH oversees the state small water systems and educates owners and operators on minimum safe drinking water standards and conducts education and enforcement actions as necessary to keep systems in compliance and notify users of water quality exceedances. Staff are available to provide general education, outreach and available resources to groundwater users as requested.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	Local GSAs, California Department of Pesticide Regulation (CDPR), California Department of Water Resources (DWR)
Implementation/ Phases/Funding	Well Permit Fee, GSA Program Funding Agency Cost Share



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Dry Well
User Group	Combination
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	Dry and Distressed Well Tracking
County Description	Well permit applications designating an emergency water outage are recorded and tracked and the Groundwater Division assists applicants with reporting dry wells to the state portal on a voluntary basis. "Report of Well Problem" form is available in house and on the DER Groundwater Resources Webpage. Information and outreach materials about GSA well mitigation programs will be included on the Groundwater webpage and applicants referred to such programs as needed.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division
Partner Agency/Organization	Local GSAs, California Department of Water Resources (DWR), NGOs
Implementation/Phases/Funding	Well Permit Fee, GSA Program Funding Agency Cost Share



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Shortage Prevention, Existing and Future Wells
User Group	Combination
Method	Monitoring
Resource Requirement	Staff Time
Action or Strategy	Regional Groundwater Level Monitoring and Communication
County Description	County to monitor and communicate (via social media, website, Water Advisory Committee Meetings, etc.) regional groundwater levels in coordination and collaboration with groups and entities (e.g. GSAs, DWR) that have established charges and practices for well monitoring.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division
Partner Agency/Organization	GSAs, California Department of Water Resources (DWR)
Implementation/Phases/Funding	None



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Shortage Prevention, Existing and Future Wells
User Group	Combination
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	Well Permitting Considering Future Growth
County Description	County to implement existing policy such that the Planning Department evaluates specific plans, vacant land in unincorporated regions zoned for residential use, other long-term development initiatives for groundwater basin/subbasin water demands at full build-out.
Responsible Agency	Stanislaus County Department of Planning and Community Development, Stanislaus County Department of Environmental Resources
Partner Agency/Organization	GSA's
Implementation/ Phases/Funding	



Long-Term Mitigation: Drinking Water Well Mitigation Program

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Drinking Water Well Mitigation Program
Subcategory	Shortage Prevention, Existing and Future Wells
User Group	Combination
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	Well Permitting Considering Impacts to Other Groundwater Users
County Description	The DER is responsible for implementing the Groundwater Ordinance, (Stanislaus County Ordinance Code Chapter 9.37) which prohibits the unsustainable extraction of groundwater and exportation of groundwater outside of the County. All new non-exempt wells must be reviewed under the Discretionary Well Permitting Program and be approved by the Groundwater Division prior to issuance of a permit.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division
Partner Agency/Organization	GSAs
Implementation/Phases/Funding	Well Permit Fees, Environmental Review Fees



Long-Term Mitigation: System Consolidation

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	System Consolidation
Subcategory	System Consolidation
User Group	Combination
Method	Planning and Assistance
Resource Requirement	Staff Time
Action or Strategy	System Consolidation Planning
County Description	The Environmental Health Division acts as the Local Primacy Agency overseeing all small public water systems within Stanislaus County in addition to the state small water systems. The Division works closely with the SWRCB and NGOs to identify potential consolidations and funding sources where possible and when necessary to provide an adequate and safe source of drinking water. Prior to approval of infrastructure for new small public water systems, the Division ensures that the projects adhere to technical, managerial and financial analysis to identify feasible consolidation to existing systems where possible. The Groundwater Division has partnered with GSA member agencies to develop well mitigation plans that include consolidation as a long-term mitigation strategy and action to be evaluated against all other available actions for the best option. CA Water Board SAFER Program Information and Partnership and Consolidation maps can be viewed to the GW Resources Webpage for water users to consider future consolidation based on proximity to other Water Systems and includes guidance on a step-by-step approach to achieve physical consolidation and managerial goals.
Responsible Agency	Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	GSA, SWRCB
Implementation/Phases/Funding	State Small Water System Permit Fees, SGMA Technical Assistance Programs, Safe and Affordable Funding for Equity and Resilience (SAFER), other state grants supporting emergency response provided by NGOs and other partners.



Long-Term Mitigation: Regional Water Infrastructure Investment

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Regional Water Infrastructure Investment
Subcategory	Long-term Planning
User Group	Combination
Method	Planning and Assistance
Resource Requirement	Staff Time, County Budget
Action or Strategy	County Planning Integration
County Description	Stanislaus County has partnered with many public agencies and coordinated the development and adoption of 4 GSPs that include the development, implementation and execution of projects and management actions to support long-term water supply reliability for at risk communities. These projects include direct and in lieu recharge projects, flood management projects, multi-benefit land repurposing projects, and others to benefit at risk communities and contribute to each groundwater subbasin achieving its sustainability goals pursuant to the adopted GSPs.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division, Local GSAs, Public Water Agencies, Stanislaus County Department of Public Works, Stanislaus County Department of Planning and Community Development, Stanislaus County Office of Emergency Services
Partner Agency/Organization	California Department of Water Resources (DWR)
Implementation/ Phases/Funding	Subject to availability of grant funds, County Board of Supervisors authorization or private contributions.



Long-Term Mitigation: Data Gaps

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Data Gaps
Subcategory	Plan Implementation
User Group	Combination
Method	Planning and Assistance
Resource Requirement	Staff Time
Action or Strategy	Database Management System
County Description	<p>The DER Environmental Health Division maintains an Access Database and electronic files that include all information provided associated with plan submittal and final documentation related to permits for construction, repair and destruction of new and replacement well permits. A Well Permit Review Plugin (KMZ) file is interactive and publicly accessible at the DER website and includes data from state resources including, GeoTracker, GeoTracker GAMA, Aquifer Risk Map, and Updated Groundwater Quality Analysis and High Resolution Mapping for Central Valley Salt and Nitrate Management Plan, (June 2016). Routine Groundwater Level and Water Quality Data collected as required by an Adopted Groundwater Sustainability Plans or Extraction Permits are maintained electronically in the Groundwater Division records and uploaded as required to the SGMA Portal. The Groundwater Division participates in 5 GSAs and has partnered with other member agencies complete monitoring and reporting requirements as required by the adopted GSPs. Data is stored in GSP data management systems.</p>
Responsible Agency	Stanislaus County Department of Environmental Resources Environmental Health Division, Stanislaus County Department of Environmental Resources Groundwater Division
Partner Agency/Organization	California State Water Resources Control Board, California Department of Water Resources, Local GSAs
Implementation/Phases/Funding	Well Permit Fee, GSA Program Funding Agency Cost Share



Long-Term Mitigation: Data Gaps

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Data Gaps
Subcategory	Dry Well
User Group	Combination
Method	County Policies
Resource Requirement	Staff Time
Action or Strategy	Dry Well Abandonment
County Description	The DER Environmental Health Division is responsible for enforcing Chapter 9.36 of the Stanislaus County Ordinance Code which incorporates the standards set forth in the California Well Standards - Bulletin 74-81/90 and allows for the adoption of additional guidelines that are more stringent to protect groundwater quality under local conditions. Chapter 9.36 requires destruction of abandoned wells pursuant to measures specified in the adopted Guidelines, under permit and inspection by the EH Division.
Responsible Agency	Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	Local GSAs
Implementation/Phases/Funding	Well Permit Fee



Long-Term Mitigation: Data Gaps

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Data Gaps
Subcategory	Well Completion Reports
User Group	Combination
Method	Planning and Assistance
Resource Requirement	Staff Time
Action or Strategy	Evaluate and Update Well Completion Report Administrative Record
County Description	The Groundwater Division maintains an Access database and paper records of the historical well completion report record within Stanislaus County and incorporates new well construction information into the well permit database and Environmental Health electronic record.
Responsible Agency	Stanislaus County Department of Environmental Resources Groundwater Division
Partner Agency/Organization	California Department of Water Resources
Implementation/Phases/Funding	Well Permit Fees



Long-Term Mitigation: Data Gaps

	Description
Action Type	Long-term Mitigation Strategies and Actions
Category	Data Gaps
Subcategory	Local Small Systems
User Group	Domestic
Method	County Policies
Resource Requirement	Staff Time, County Budget
Action or Strategy	Local Small Water System Program
County Description	The DER EH Division only permits and oversees the operation of State Small Water Systems as required by AB 664. The DER Well Construction "Guidelines" requires that prior to being placed into use, water from new domestic wells must be tested bacteriologically and chemically for nitrates, in addition to known contaminants found at concentrations exceeding their respective MCLs in Title 22 of the CCR that are within 1/2 mile of the well.
Responsible Agency	Stanislaus County Department of Environmental Resources Environmental Health Division
Partner Agency/Organization	None
Implementation/Phases/Funding	Well Permit Fee



Implementation Considerations



Organization within DRP

Chapter 6: Implementation Considerations

- The **short-term response actions (STRA)** and **long-term mitigation strategies and actions (LTMSA)** identified and described in Chapters 4 and 5 represent the range of in-progress and proposed activities.
- Implementation of these STRA and LTMSA often
 1. Fall under the authorities and jurisdictional responsibilities of separate County departments and other local and State public agencies, and
 2. Require the involvement of other interested parties
- This section describes the **implementation steps designed to assist the County.**



Implementation Considerations Overview

This section will describe the implementation steps designed to assist the County with:

- On-going water supply monitoring and inter-agency collaboration in support of implementation
- Outlining short-term response actions (STRA) and long-term mitigation strategies and actions (LTMSA) implementation responsibility, status, and resource needs
- Identifying opportunities to align the County DRP with other County policy and County and regional planning documents
- Adaptive management
- Identifying funding opportunities



Plan Implementation: Drinking Water Well Mitigation Program

	Description
Action Type	Plan Implementation
Category	Drinking Water Well Mitigation Program
Subcategory	Funding
User Group	Combination
Method	Planning and Assistance
Resource Requirement	Staff Time
Action or Strategy	Grant Management
County Description	Stanislaus County has received a DWR grant for facilitation support services in the amount of \$125,000 to assist with development and adoption of the County Drought Resilience Plan and is a member of 5 GSAs within 4 Groundwater Subbasins within Stanislaus County. 4 GSAs have adopted Domestic Well Mitigation Programs for funding wells that failed due to declining water levels and GSA management activities. The last GSA is scheduled to adopt its Plan to be ready for implementation by January 2026.
Responsible Agency	Stanislaus County Office of Emergency Services, Stanislaus County Department of Environmental Resources
Partner Agency/Organization	Drought Task Force
Implementation/ Phases/Funding	



Next Steps



Next Steps

- Task Force to provide comments and feedback on Chapter 1 and Chapter 3
- Stantec to prepare Chapters 2, 4, 5, and 6 and provide to Task Force for comments and feedback
- Stantec to revise the chapters based on Task Force comments for incorporation into the Draft County DRP
- Next Task Force Meeting scheduled for **January 28, 2026**
 - Tentative Topics:
 - Review of Draft County DRP



Schedule

	Feb-24 to Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26
Task 1. Risk Assessment														
Baseline Risk Assessment														
Revised Baseline Risk Assessment														
Task 2. Task Force Engagement and Subgroup Formation														
Kick off Meeting (In person)	★													
Risk Assessment Review Meeting		◆												
Short-term Response Actions and Long -term Mitigation Strategies and Actions Discussion Meeting				★ ◆										
Draft Stanislaus County DRP Review Meeting										★ ◆				
Final Stanislaus County DRP Review Meeting												◆ ★		
Task 3. Stanislaus County Drought Resilience Plan														
Develop Draft Stanislaus County DRP														
Revise the Draft Stanislaus County DRP														
Final Stanislaus County DRP Development														
Stanislaus County DRP Adoption													★	
Task 4. CSP Administration														

- ★ • Project Management Team (PMT) Meetings: Up to 5
- ◆ • Task Force meetings: Up to 4 (hybrid)
- Draft County Drought Resilience Plan anticipated December 2025; Final March 2026



Questions and Discussion



Contact Us

- **Christy McKinnon** (Stanislaus County),
 - cmckinnon@envres.org
- **Sarah Hamilton** (Stantec),
 - Sarah.Hamilton@stantec.com
- **Haydee Yonamine** (Stantec),
 - Haydee.Yonamine@stantec.com