

Madera County *Drought and Water Shortage Risk Analysis and Response Plan*

Pursuant to Senate Bill 552



Photo credit: Cristina Anne Costello, Unsplash



A quick summary of SB 552 Plan effort...

- SB 552 requires Counties to plan for drought proactively:
 - Assess drought risk to Rural Communities
 - Plan response actions
 - Focus is on State Small Water Systems (14 or fewer connections) and domestic wells
- Plan be completed over remainder of Autumn 2022, Public Draft expected in December

A quick summary of SB 552 Plan effort...

- August 19, we introduced plan and kicked off stakeholder engagement efforts
- September 16, we discussed Drought Risks and Tracking Measures
- October 21, we are discussing Drought Response Actions (**we are here**)

Drought Response Actions

Big picture – when droughts occur, what are the most effective actions the County can take to respond to water shortages?

Draft Action Plan has a staged approach:

Drought Stage	Tracking Measure			Response Actions
	GW decline	Dry Wells Reports	Current Year Hydrology	
1	<15 ft	<4	> 80% of ave. SJR runoff	Baseline Actions
2	15-30 ft	5-10	50-80% of ave SJR runoff	Moderate Actions
3	>30 ft	>11	<50% of ave. SJR runoff	Severe Actions

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Options for the geographic focus of Response Actions

- Option 1: Board of Supervisors Districts
- Option 2: Census Block Groups
- Option 3: Radius Around Flagged Criteria Using GIS



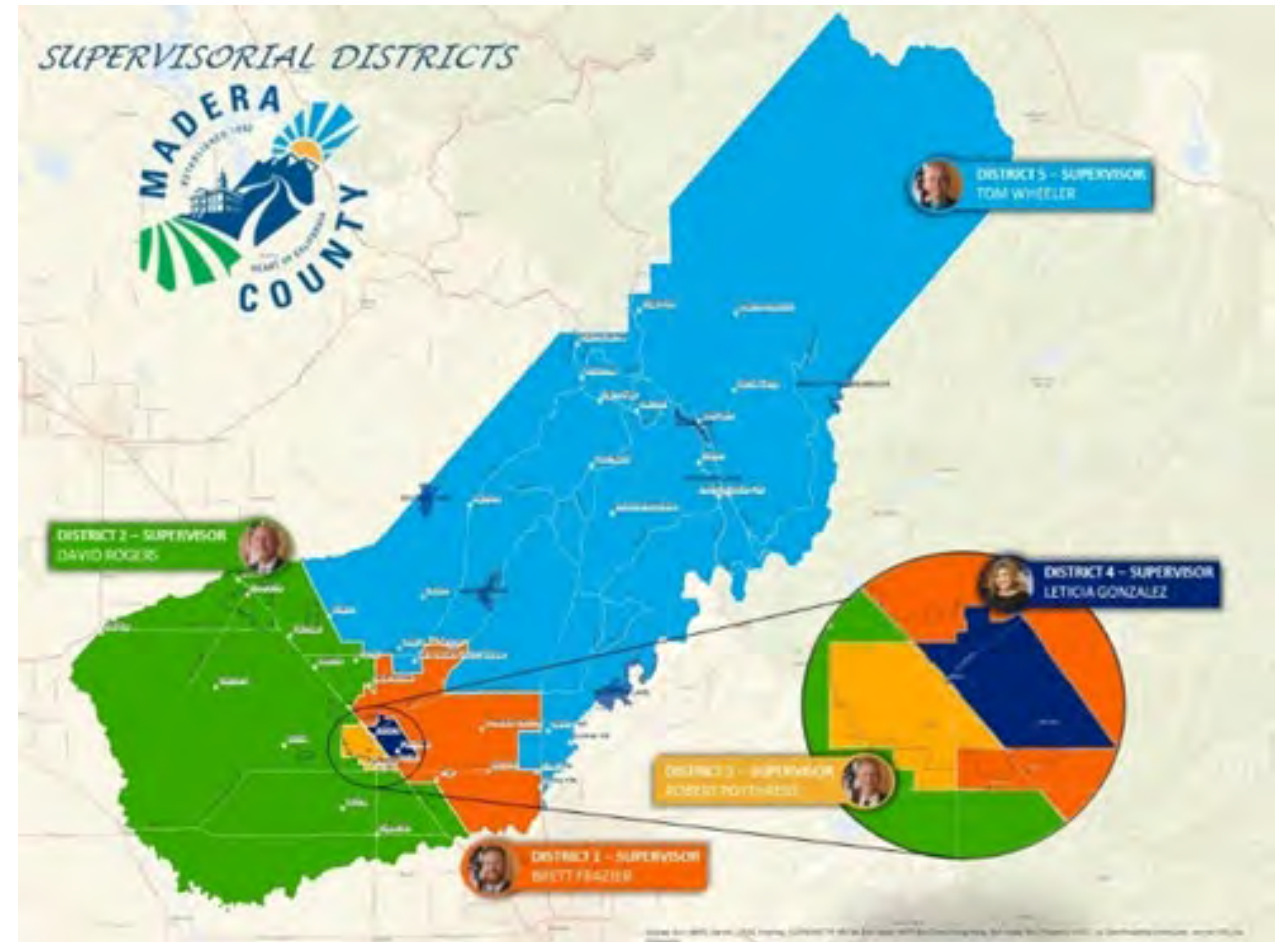
Geographic focus Option 1: BoS Districts

Pros:

- Constituent contact information is available
- Loosely corresponds with foothills, Madera City, & valley east & west of SR-99

Cons:

- Geographically coarse



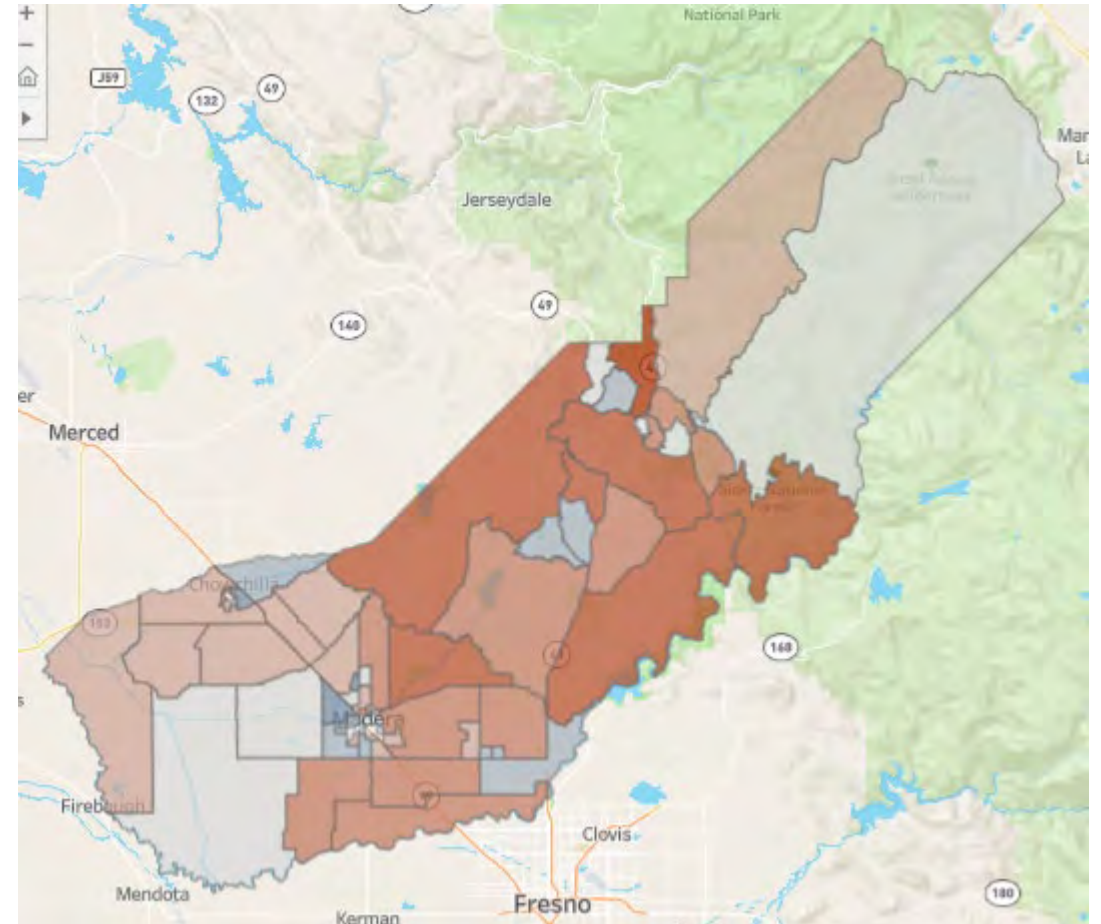
Geographic focus Option 2: Census Block Groups

Pros:

- Geographically specific
- Demographic information is available

Cons:

- Constituent contact information is not readily available



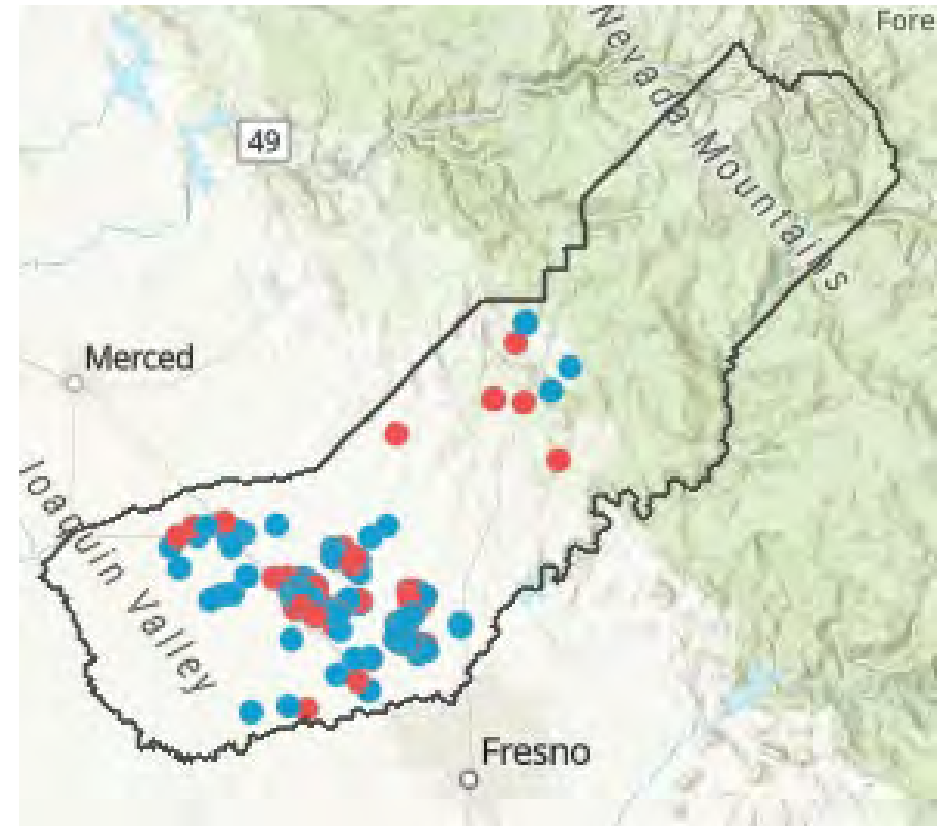
Geographic focus Option 3: Radius around flagged criteria using GIS

Pros:

- Very geographically specific

Cons:

- Requires greater implementation effort by County
- Constituent contact information is not readily available



Dry well reports in Madera County, YTD

Tracking Protocol 1: Groundwater levels change from previous year in alluvial groundwater basins

- **Stage 1 – Baseline**
 - Groundwater levels have increased, remained stable, or declined less than are 15 feet since the previous year
- **Stage 2 – Moderate Drought**
 - Groundwater levels have declined 15 to 30 feet from the previous year.
- **Stage 3 – Severe Drought**
 - Groundwater levels have declined more than 30 feet from the to within 10 feet of known well depths

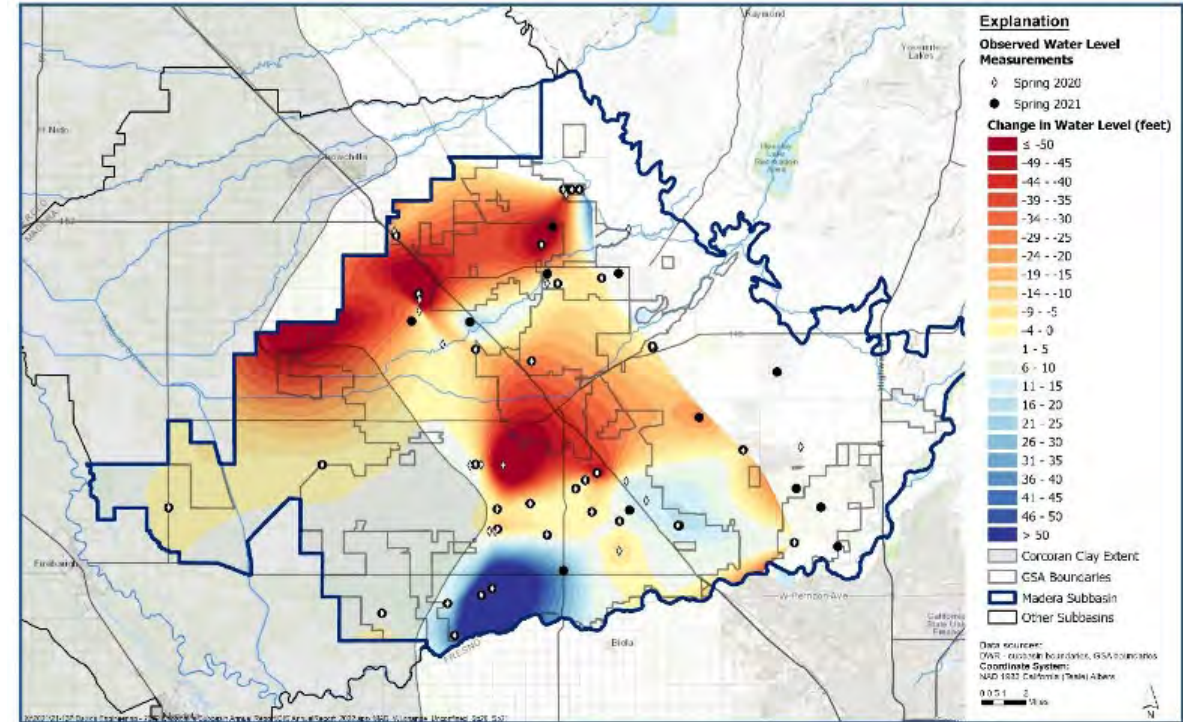
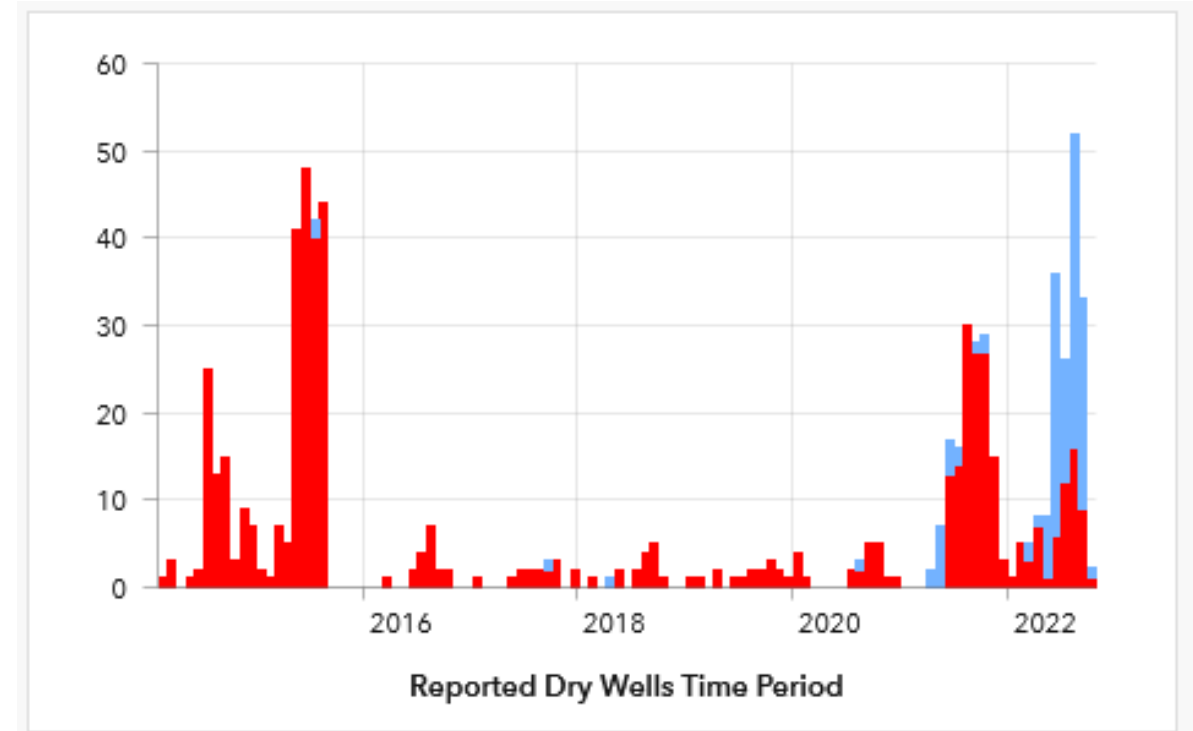


Figure 6-1. Change in Groundwater Level in the Upper Aquifer/Undifferentiated Unconfined Zone – Spring 2020 through Spring 2021.

Source: Madera Subbasin Annual Report 2022

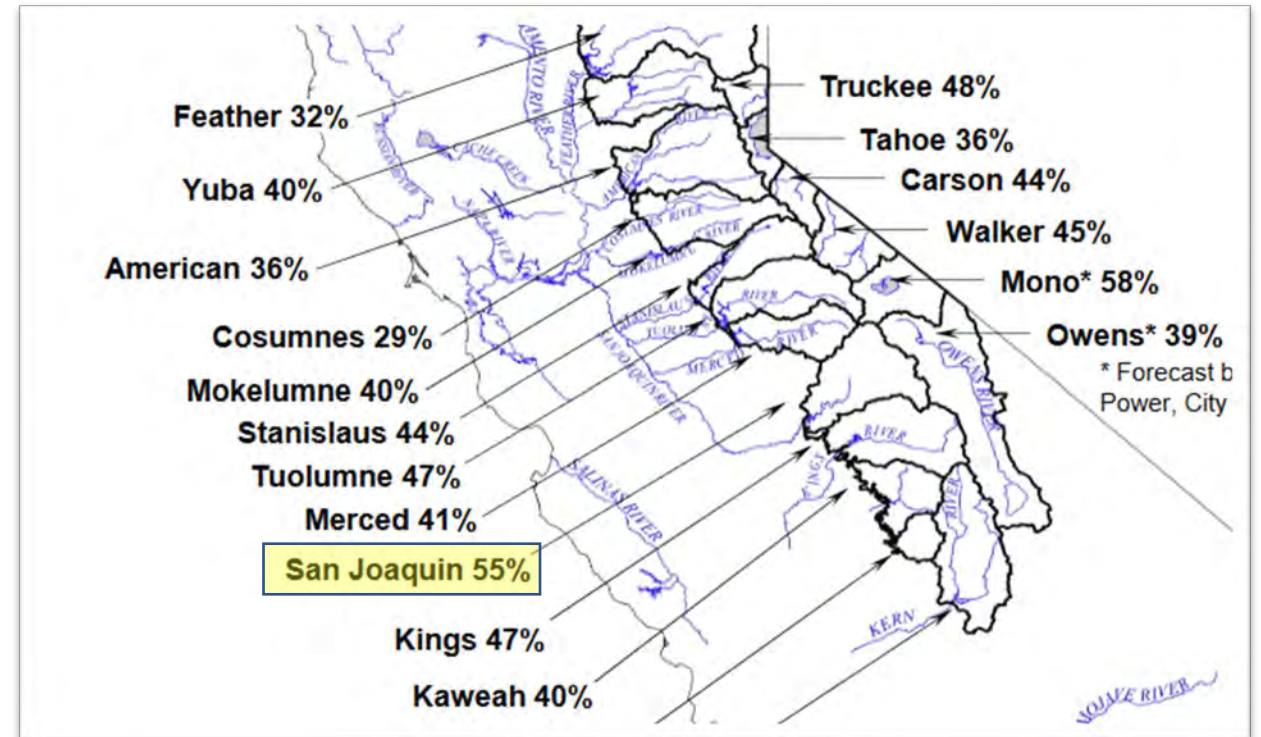
Tracking Protocol 2: Dry Well Reports

- Stage 1 – Baseline
 - 4 or fewer dry well reports are submitted in the County each month
- Stage 2 – Moderate Drought
 - 5 – 10 dry well reports are submitted in the County each month
- Stage 3 – Severe Drought
 - 11 or more dry well reports are submitted in the County each month



Tracking Protocol 3: Current Year Hydrology from Bulletin 120

- Stage 1 – Baseline
 - Apr-Jul Unimpaired Runoff (% of historical average) for the San Joaquin River is 80 percent or greater
- Stage 2 – Moderate Drought
 - 50 – 80 % of average
- Stage 3 – Severe Drought
 - <50% of average



Stage 1 – Baseline Response Actions

- Monitoring and tracking protocols
- Coordination w/ GSAs
- Constituent education, especially: resources available, reporting, tenant rights
- Formalize coordination with Self-Help, OES, etc with MOUs
- Well maintenance & education
- Consolidation consideration – encourage mutual aid agreements
- Consider updating permit and land use policies
- Update County website

Stage 2 – Moderate Drought Response Actions

- Initiate actions to access additional State/Federal funding
- Encourage voluntary demand reductions
- Direct outreach to stakeholders
- Implement drinking water solutions through partners: bottled water & tank delivery, well repair, etc
- Request County Board emergency declaration

Stage 2 – Moderate Drought Response Actions (cont.)

- Increase frequency of monitoring in identified high risk areas
- Consider extending well permit review timeline
- Trigger pre-established relationships with NGOs

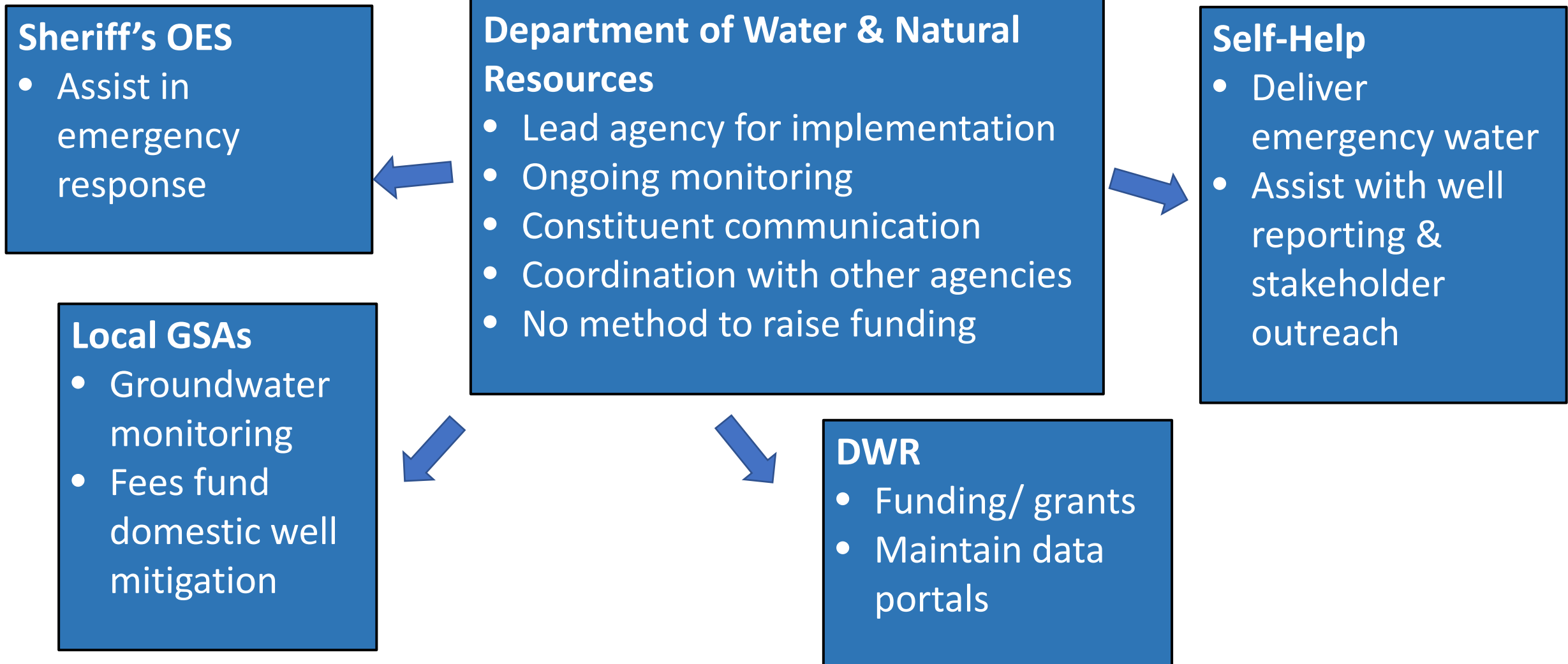
Stage 3 – Severe Drought Response Actions

- Work with County Departments and Board of Supervisors to evaluate enforcement of renters' rights by requiring landlords or property managers to address health and safety concerns
- Seek state disaster declaration
- Consider temporary moratorium on new agricultural well permits (while allowing replacement domestic wells)
- Additional targeted outreach and education
- Implement mutual aid agreements as necessary

Stage 3 – Severe Drought Response Actions (cont.)

- Increase frequency of monitoring in high-risk areas
- Implement water tank delivery programs
- Follow-up and assessment

Plan implementation: agency roles



Thank you!

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