



Westlands Water District

# Sustainable Management Criteria

**GSP Water User Technical Group**  
December 7, 2017

# Sustainable Groundwater Management Act (SGMA)

- Local Management of the Groundwater Basin
- Requires subbasins to be **sustainably** managed by 2040
  - “Sustainability” refers to any of the effects caused by groundwater conditions occurring throughout the basin that, when significant and unreasonable, cause undesirable results.





Basin Setting

Admin Information

Sustainable Management Criteria

GSP

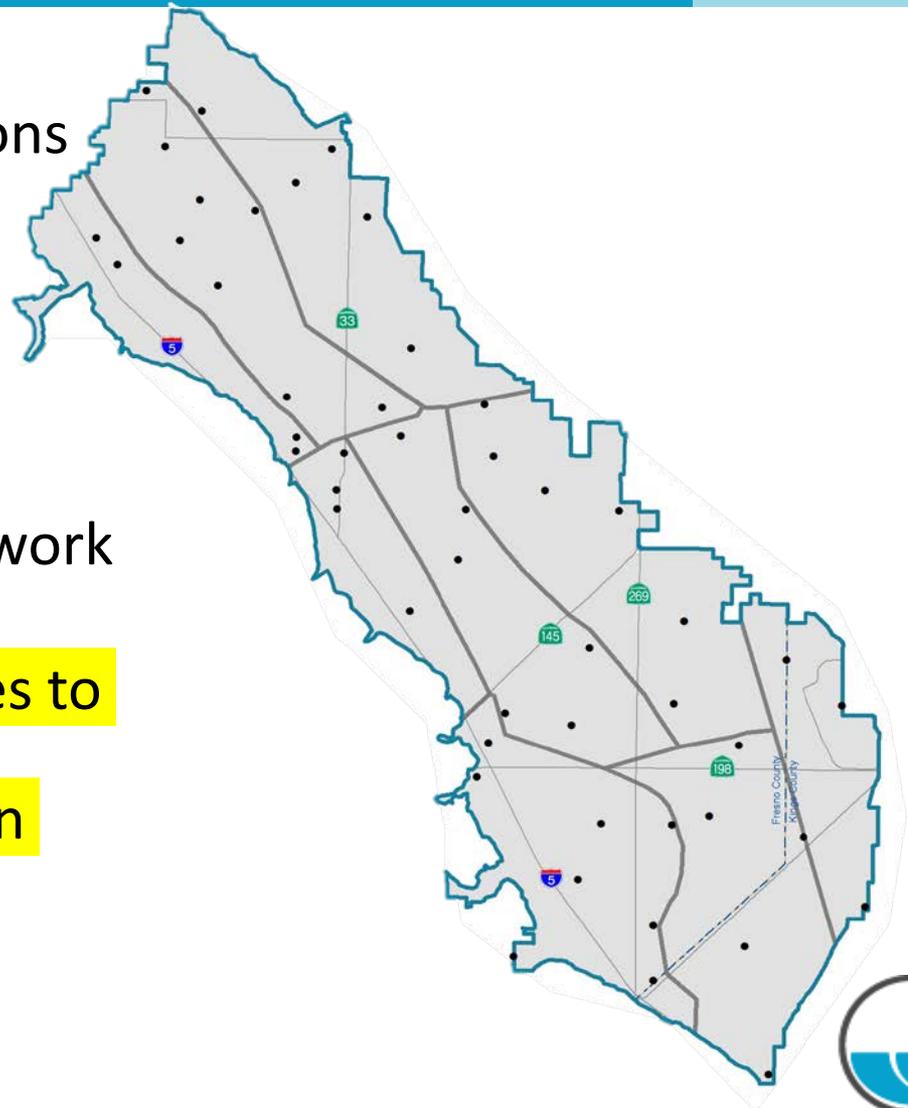
Projects & Management Actions

Monitoring Network



# Monitoring Network

- Review existing well locations
  - ● Lower Aquifer
  - ● Upper Aquifer
  - ● Composite Well
- Determine monitoring network
- District could fund upgrades to water user wells included in monitoring network (ex. Pumpsight)



# Sustainable Management Criteria

Undesirable  
Results

Minimum  
Thresholds

Measurable  
Objectives

Sustainability  
Goal

 Lowering Groundwater Level

 Reduction in Groundwater Storage

 Degraded Groundwater Quality

 Land Subsidence

***Quantitative combination of Minimum Threshold exceedances that constitute a significant & unreasonable result***

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- Significant and unreasonable is defined by the GSA's GSP
- Flexibility to account for a couple of sites trending below the minimum threshold:
  - Reduce groundwater pumping in exceedance areas,
  - Implement Projects and/or
  - Management Actions

# Sustainable Management Criteria

Undesirable  
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**Minimum  
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## Required Components

- Justification for Minimum Threshold
- Relationship between the Sustainability Indicator and Minimum Thresholds



Interbasin Agreements

- Avoid Undesirable Results in Adjacent Subbasin
- Affect on Beneficial Users of Groundwater or Land Use
- State/Federal/Local Standard
- Measurement of Minimum Threshold

Delta-Mendota



Kings



Tulare Lake



Pleasant Valley



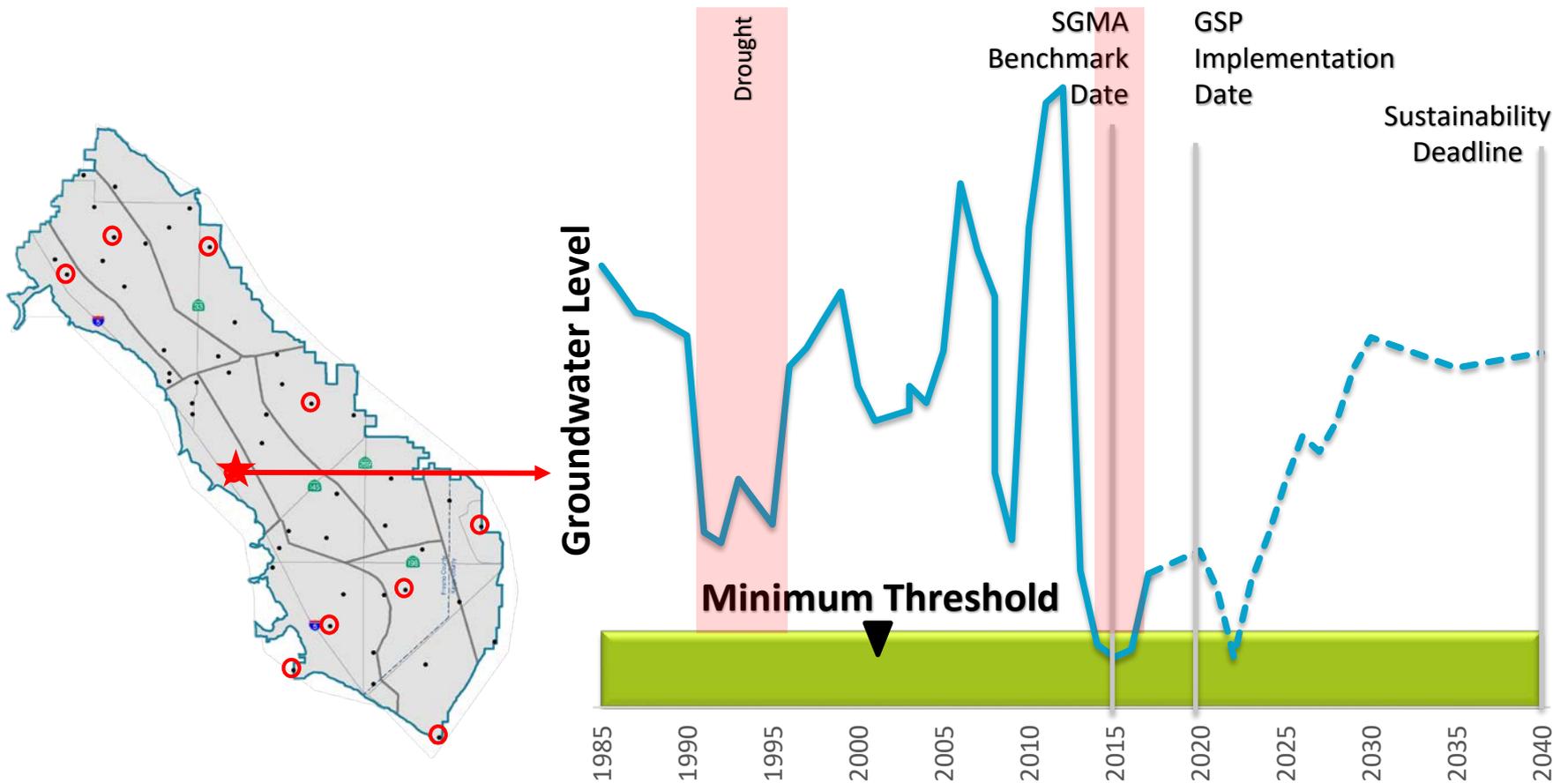
WWD

# Minimum Thresholds

***Numeric Value when conditions could be significant & unreasonable***

Sustainability Indicators	 Lowering GW Level	 Reduction in Storage	 Degraded Water Quality	 Land Subsidence
Metric(s)	<ul style="list-style-type: none"><li>• GW Elevation</li></ul>	<ul style="list-style-type: none"><li>• Total Volume</li></ul>	<ul style="list-style-type: none"><li>• Increases in Salinity</li></ul>	<ul style="list-style-type: none"><li>• Rate &amp; Extent of Land Subsidence</li></ul>

# Groundwater Level Minimum Threshold



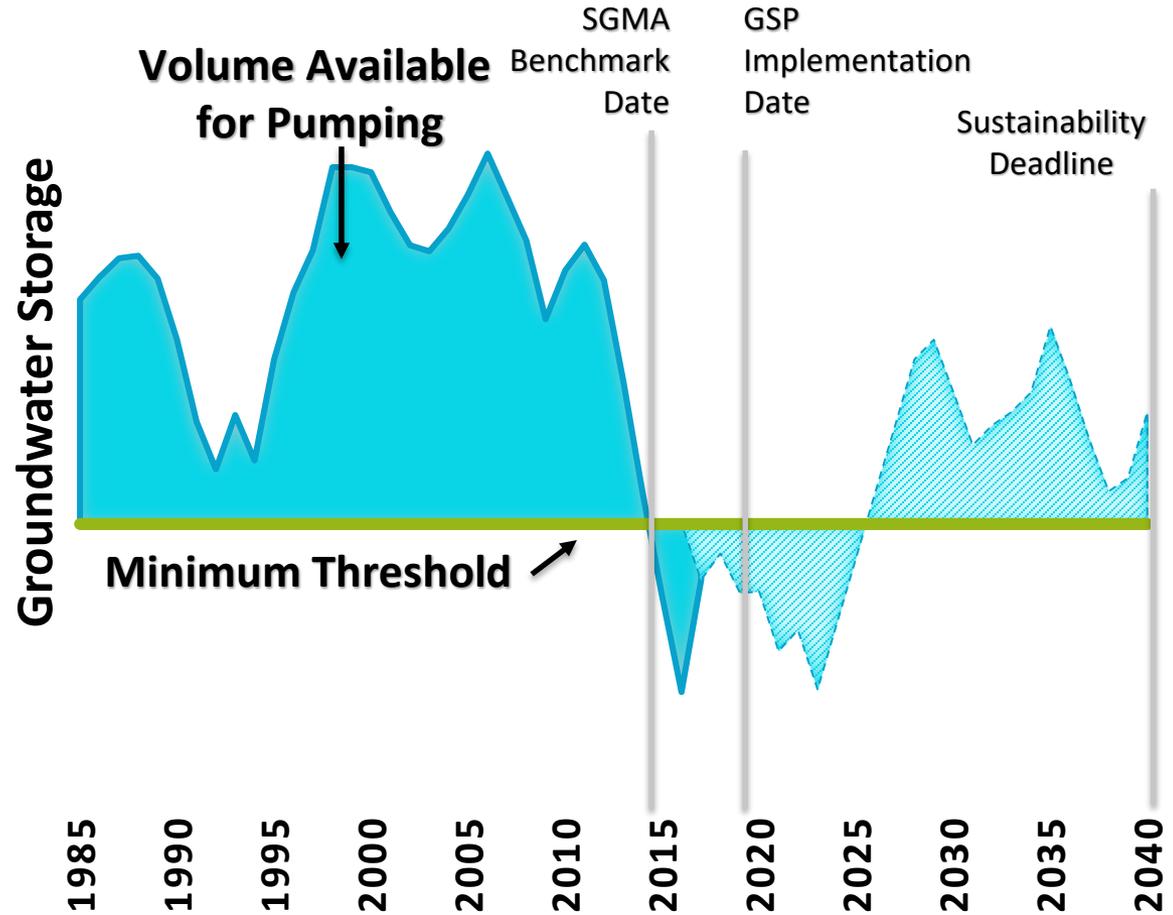
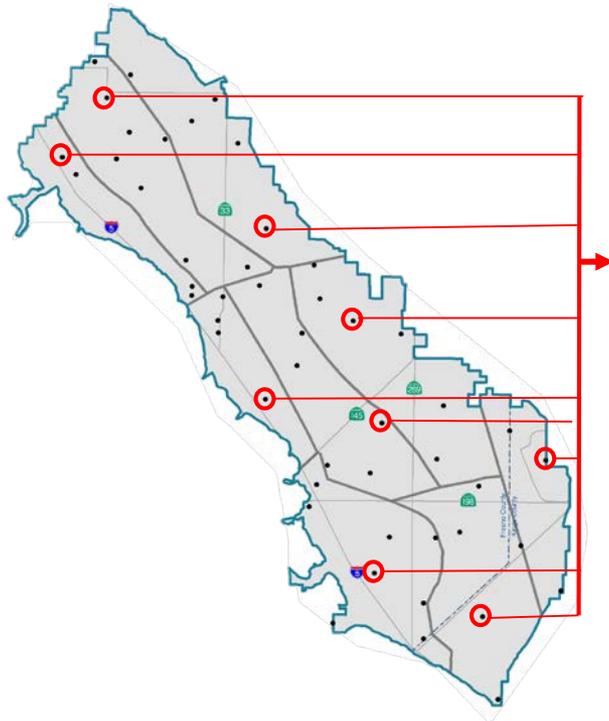
○ = Groundwater Level  
Representative Monitoring Site



# Water User Actions Support Water Level

- In-Lieu Recharge
- Aquifer Storage and Recovery
- Aquifer Recharge Projects
  - Percolation basins
  - Dry wells
  - Subsurface laterals (ex. Semitropic Water Storage District).
- Build up your groundwater credits

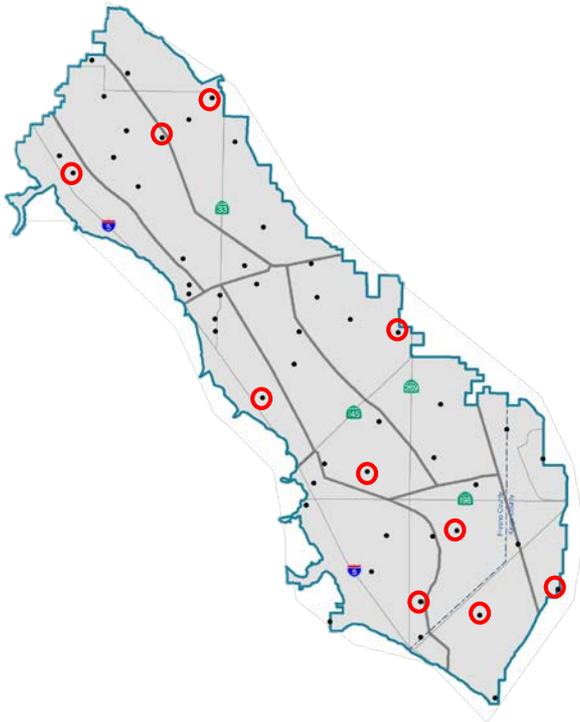
# Groundwater Storage Minimum Threshold



○ = Groundwater Storage Representative Monitoring Site

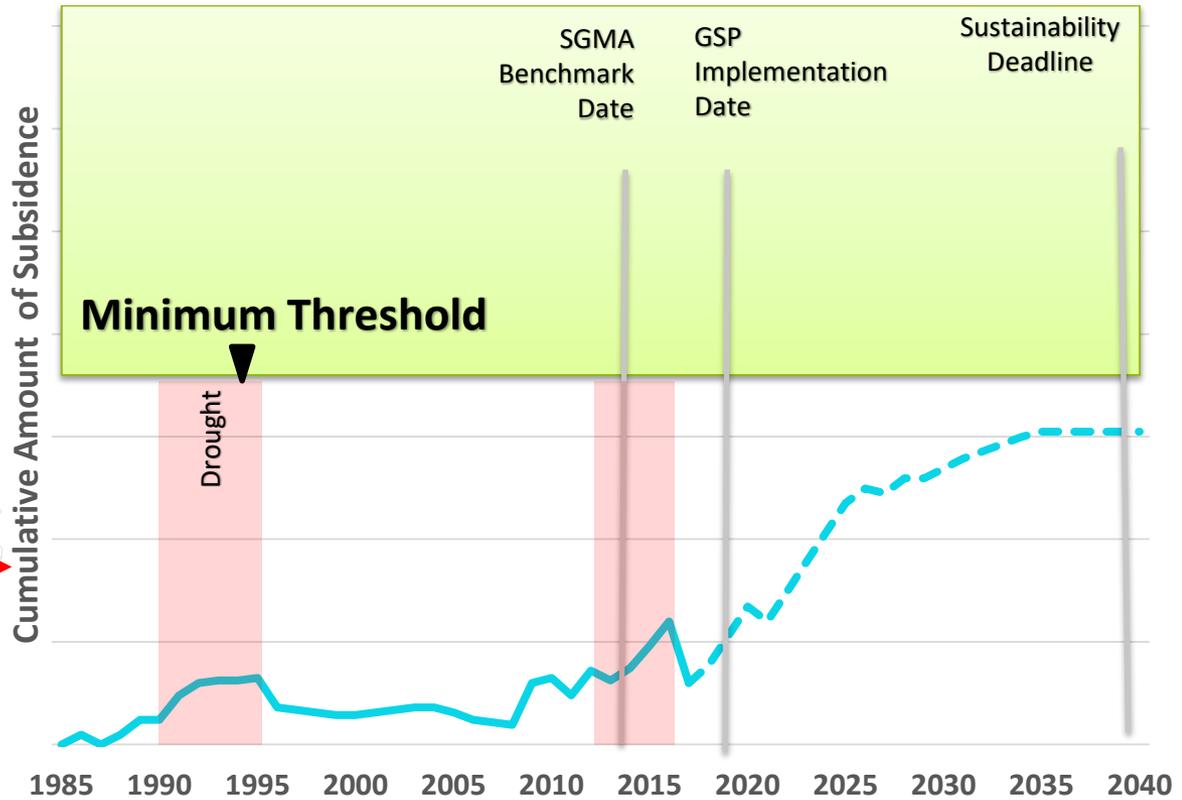
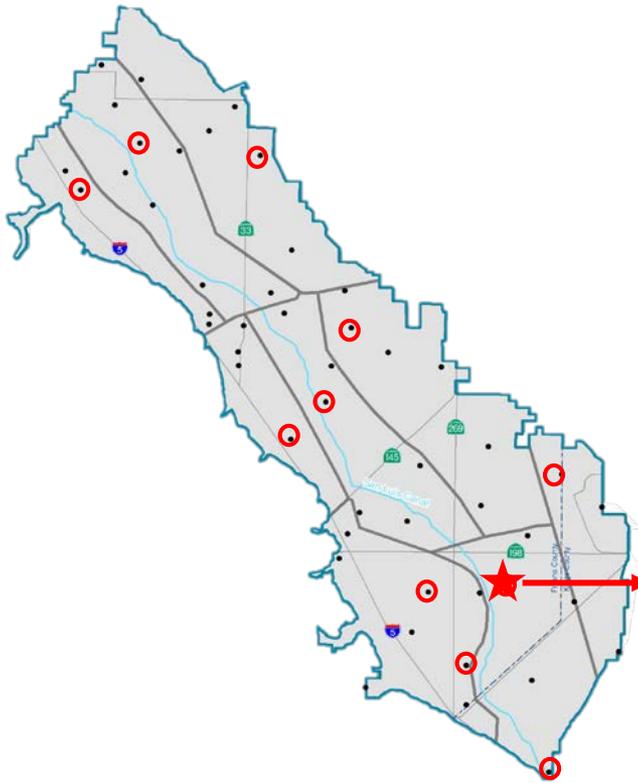
# Degraded Water Quality Minimum Threshold

- Required if groundwater extractions result in degraded water quality

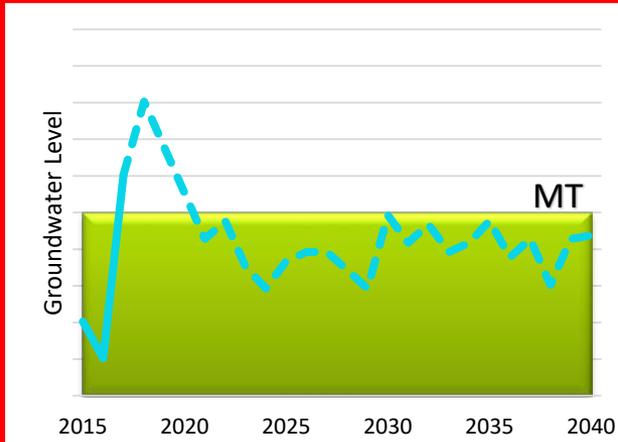
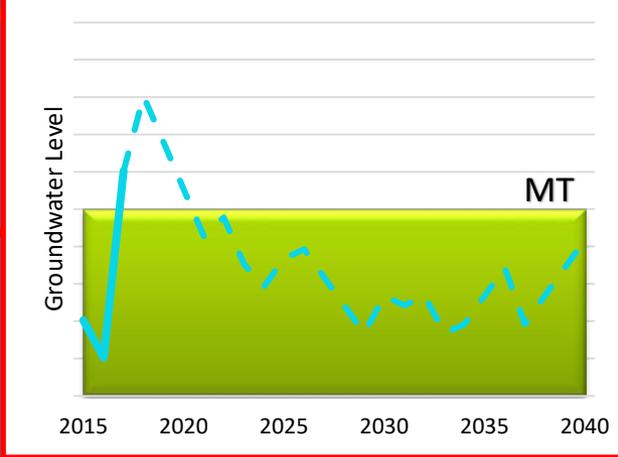
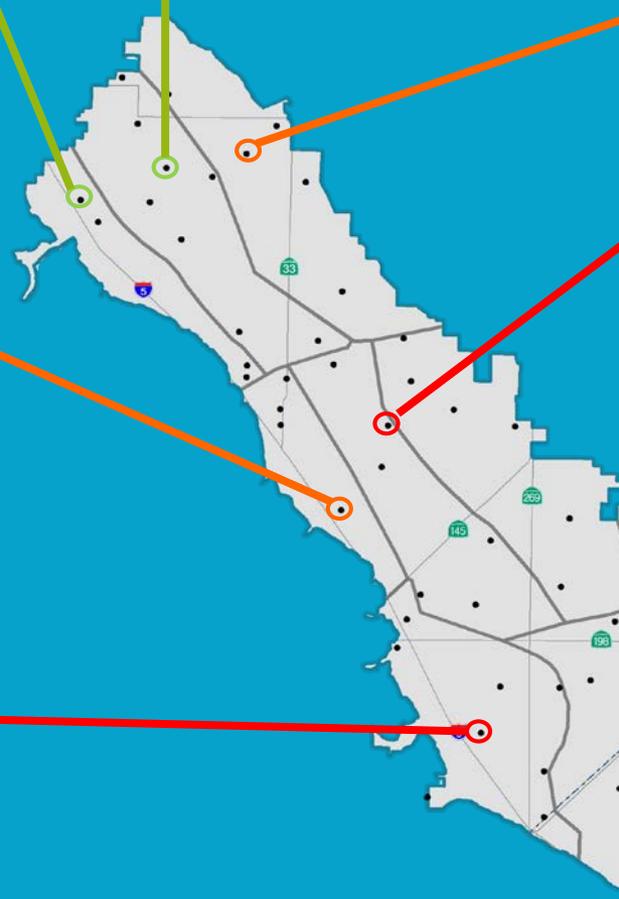
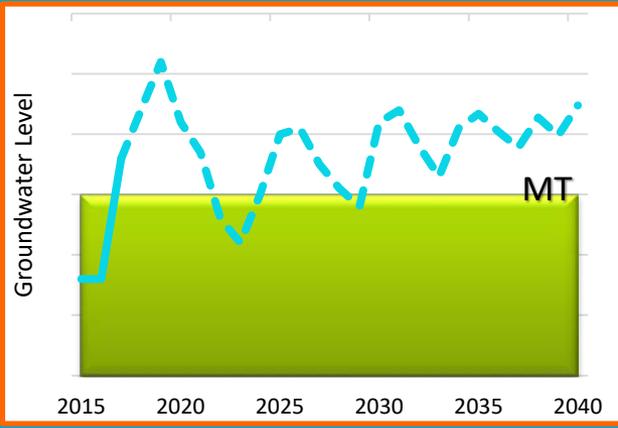
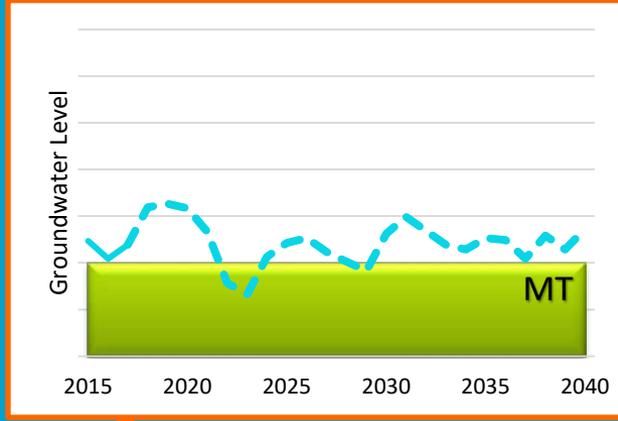
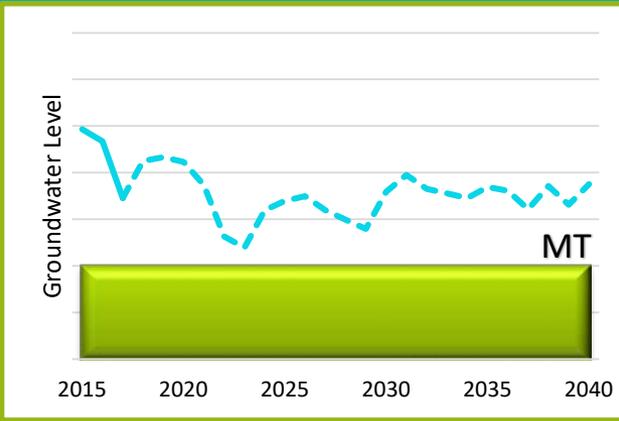
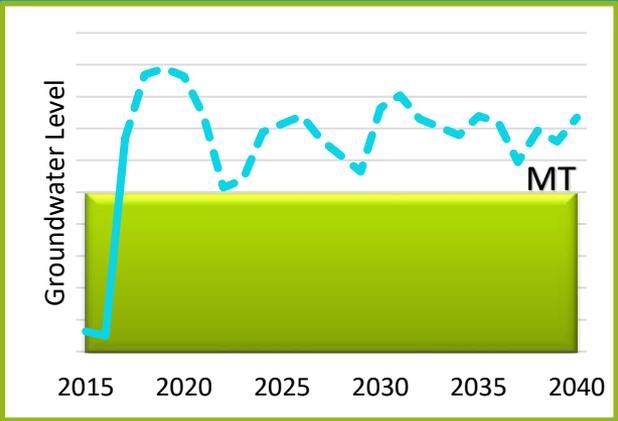


○ = Degraded Water Quality  
Representative Monitoring Site

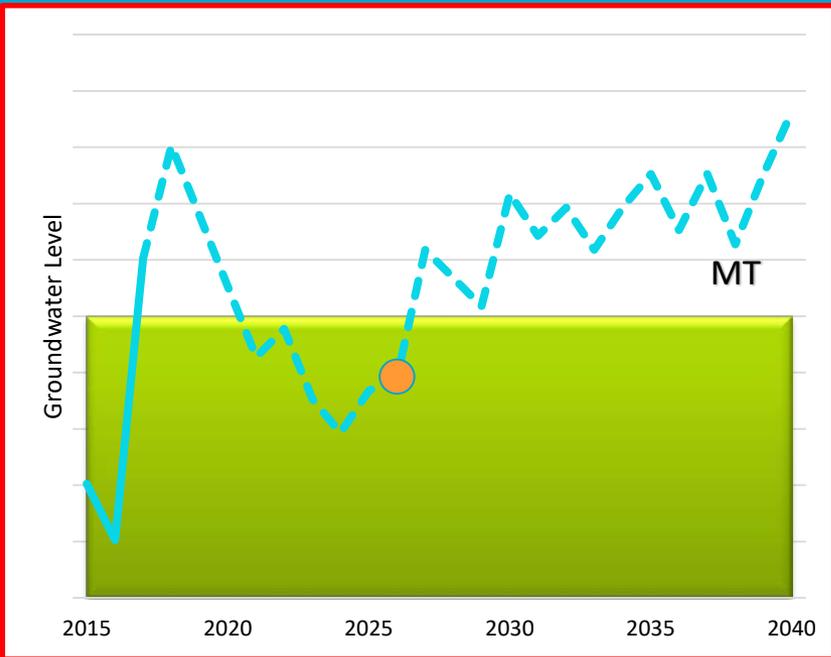
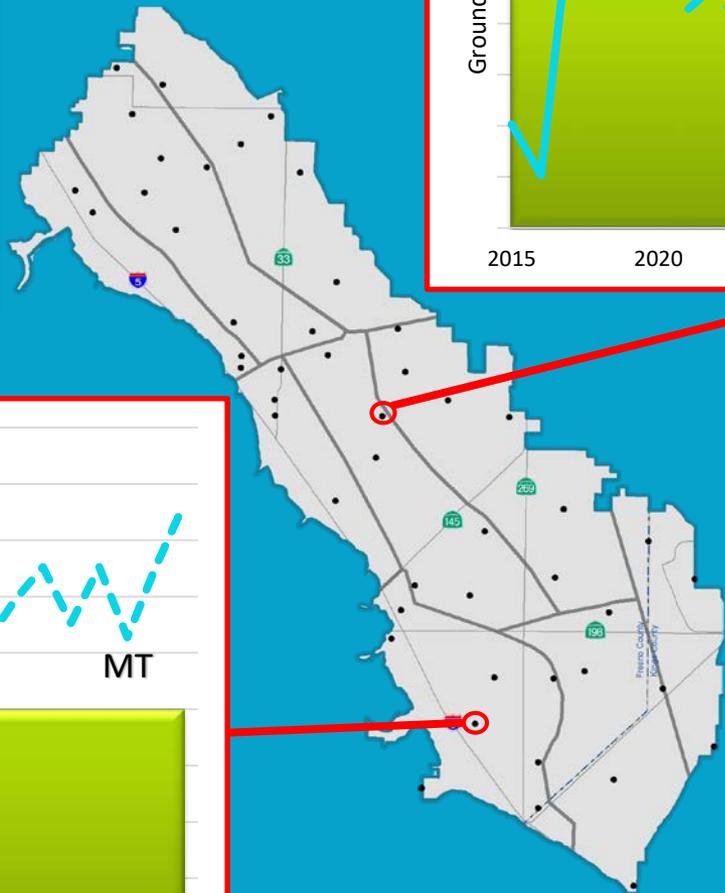
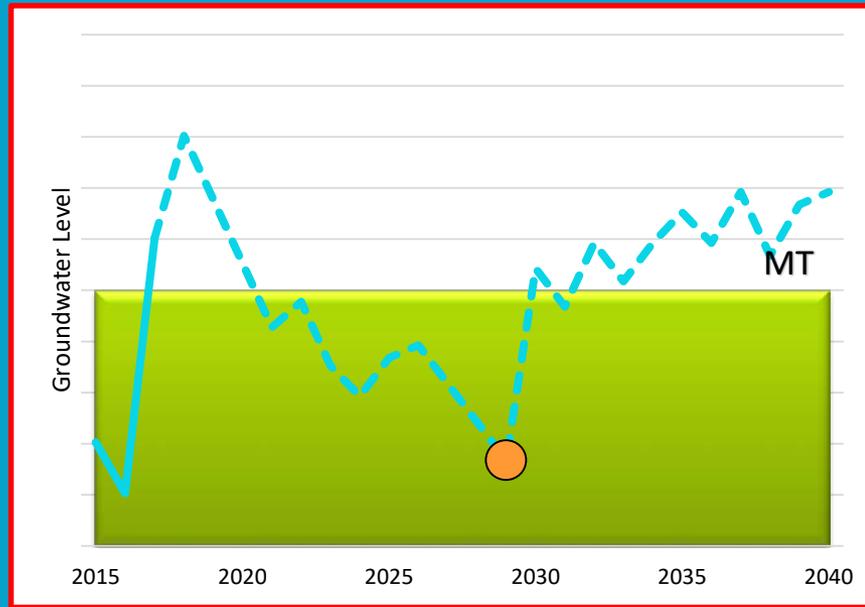
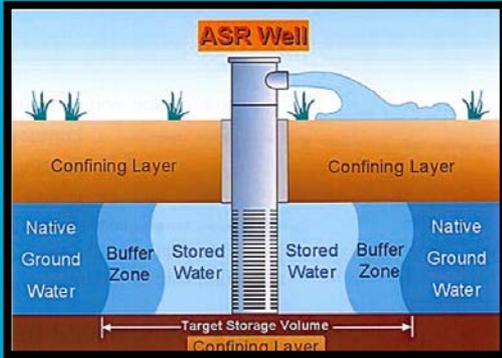
# Land Subsidence Minimum Threshold



○ = Land Subsidence  
 Representative Monitoring Site



- Recharge Projects
- Management Actions



# Sustainable Management Criteria

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**Measurable  
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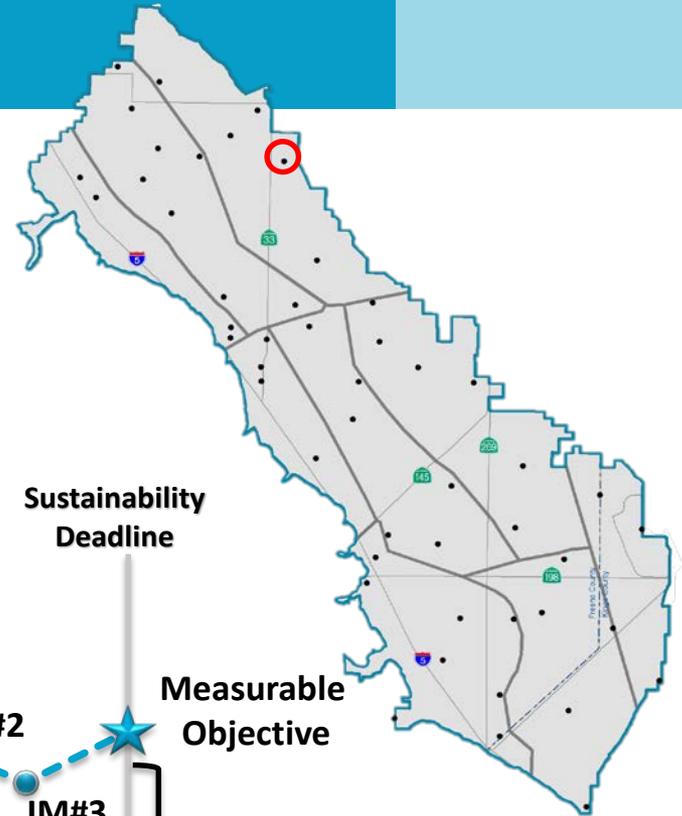
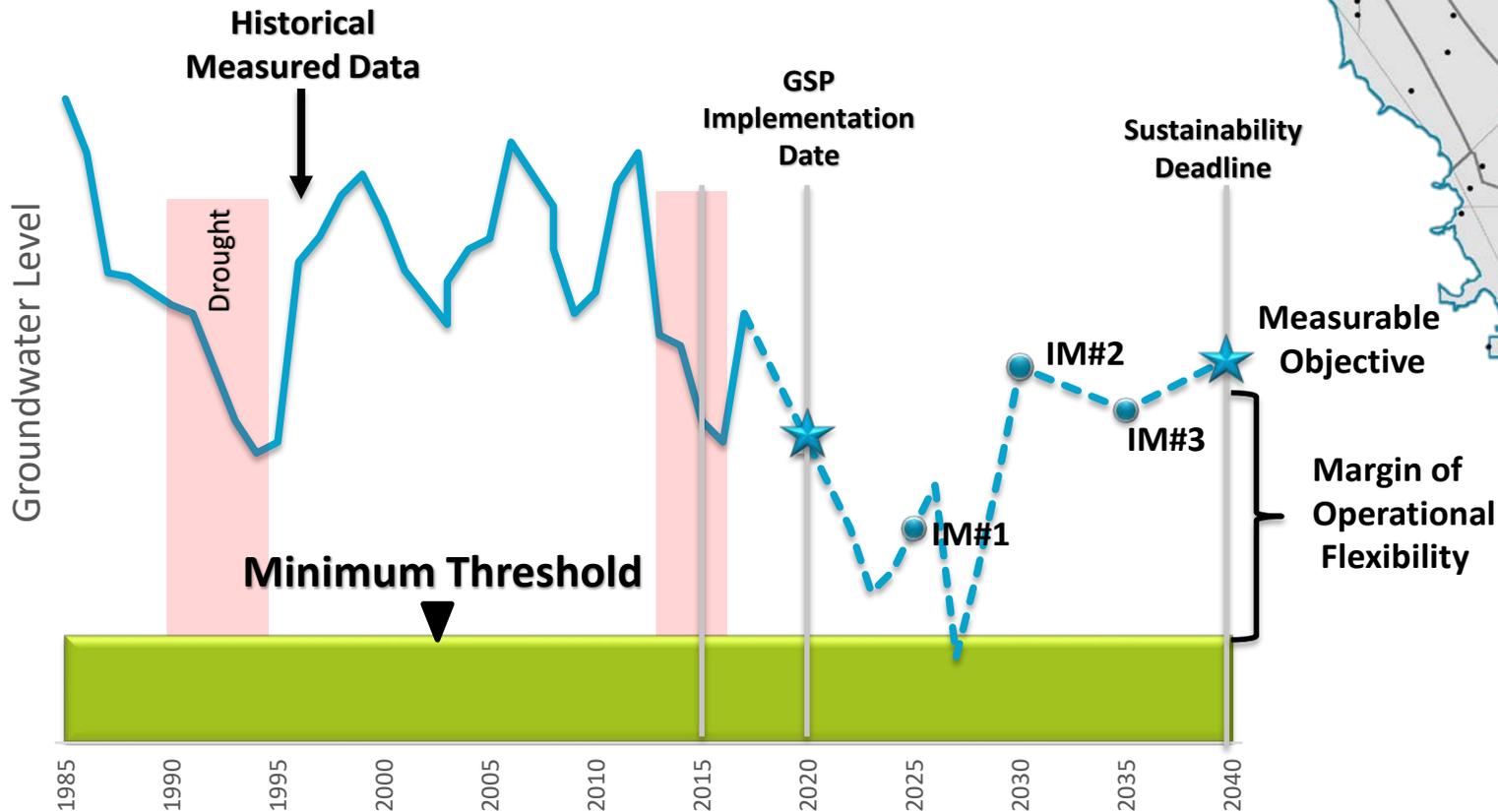
# Measurable Objectives

***Quantifiable goals to maintain a specified groundwater condition identified in the GSP to achieve sustainability***

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- Each Sustainability Indicator is required to have an:
  - Interim Milestone in 2025, 2030 & 2035
  - Measurable Objective in 2040
- If Undesirable Results occurred prior to 2015, then measurable objective must either maintain or improve upon

# Measurable Objectives



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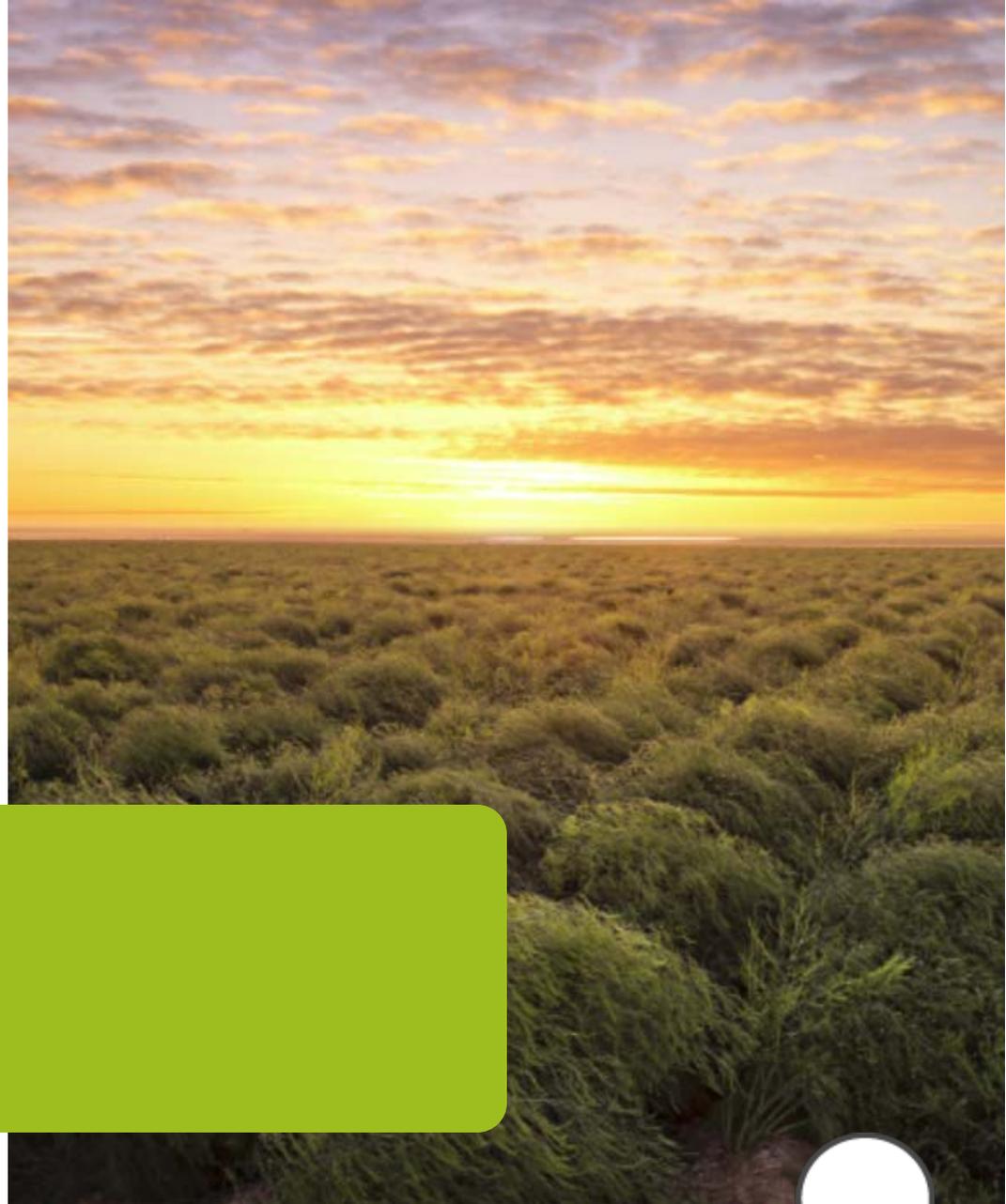
# Sustainability Goal

***Achieve sustainable groundwater management by identifying & causing the implementation of measures to ensure the subbasin operations within its sustainable yield.***

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- Mission statement for the Westside Subbasin
- Implementation measures that lead to sustainability:
  - Increased Water Supplies,
  - Groundwater Recharge Projects,
  - Fallow Program,
  - Water Market, and
  - Groundwater allocation carry over
- Proof implementation measures achieve sustainability by 2040

# QUESTIONS



WWD

[http://www.water.ca.gov/groundwater/sgm/pdfs/BMP\\_Sustainable\\_Management\\_Criteria\\_2017-11-06.pdf](http://www.water.ca.gov/groundwater/sgm/pdfs/BMP_Sustainable_Management_Criteria_2017-11-06.pdf)

- DWR's SMC BMP Public Meeting December 12, 2017 at the Visalia Convention Center
- Comments are due January 8, 2018

The image shows the cover of a document titled "Best Management Practices for the Sustainable Management of Groundwater Sustainable Management Criteria". The cover features a photograph of a large pipe discharging water into a body of water. In the top left corner, there is a circular logo for the California Department of Water Resources, State of California. In the top right corner, the text "California Department of Water Resources Sustainable Groundwater Management Program" and "November 2017" is visible. The word "DRAFT" is written in large red letters across the middle of the cover. Below this, the title "Best Management Practices for the Sustainable Management of Groundwater Sustainable Management Criteria" is written in white text on a dark blue background. At the bottom, the letters "BMP" are written in large white font, and "BWB" is written in a smaller white font. In the bottom right corner, there is a logo for "WWD" (Water Watchdog) featuring a stylized water drop and the letters "WWD".

DEPARTMENT OF WATER RESOURCES  
STATE OF CALIFORNIA

California Department of Water Resources  
Sustainable Groundwater Management Program

November 2017

**DRAFT**

Best Management Practices for the  
Sustainable Management of Groundwater

Sustainable  
Management Criteria

**BMP**  
BWB

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