



Westlands Water District

The background is a photograph of a vast green field under a sunset sky. A large, rounded blue rectangle is overlaid on the left side of the image, containing the title text in white.

# Westside Subbasin's Draft Groundwater Sustainability Plan

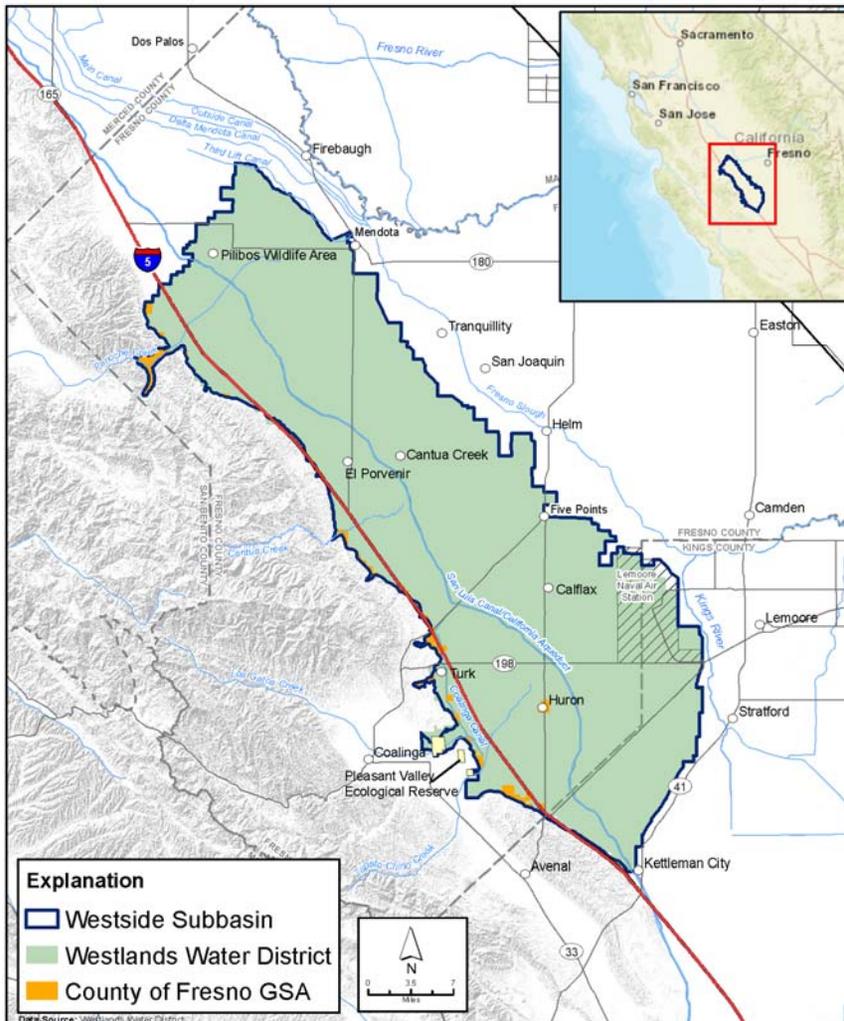
Westlands Water District Board of Directors  
Serving as the Groundwater Sustainability Agency  
of the Westside Subbasin

October 15, 2019

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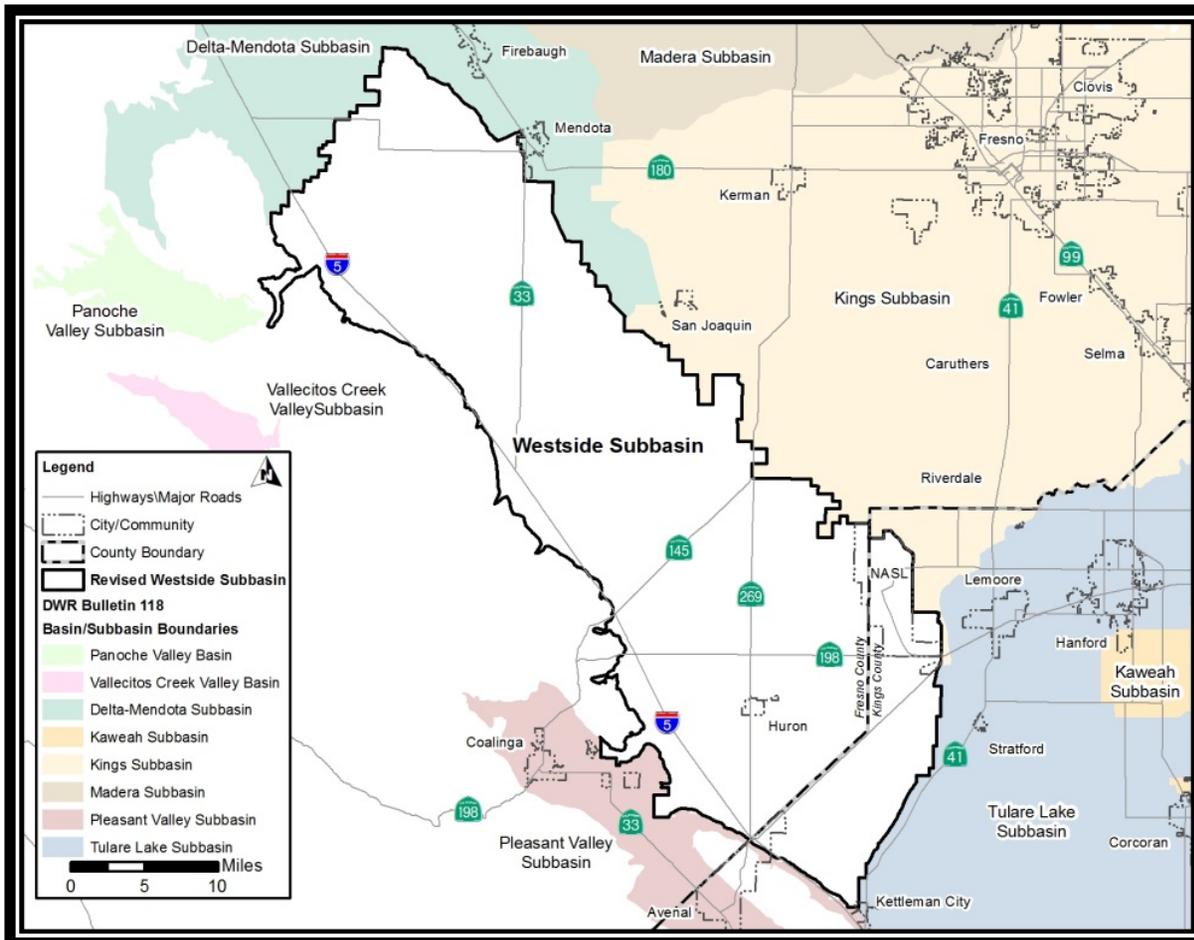
# Outline

- Groundwater Sustainability Agency
- Basin Setting
- Monitoring Network
- Projects and Management Actions (PMAs)
- Implementation Costs
- Governance
- Questions



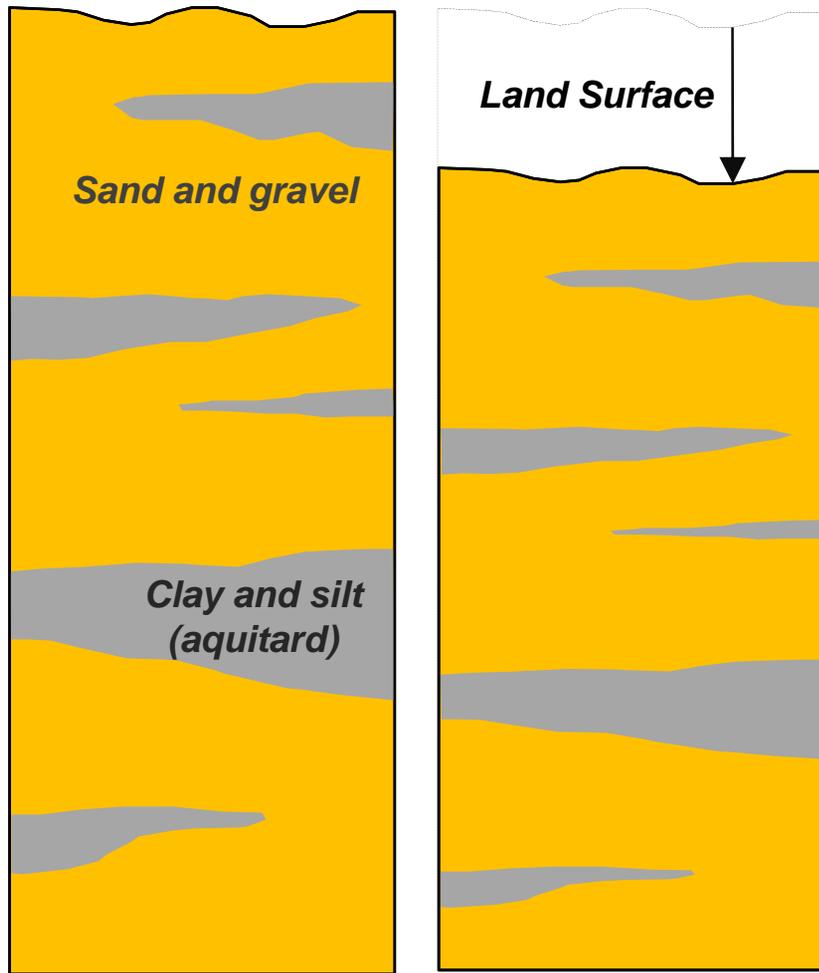
- Sustainable Groundwater Management Act requirements
- Westlands Water District and Fresno County are the GSAs
- Required to submit and adopt Groundwater Sustainability Plan (GSP) by January 31, 2020 to address undesirable results

- Hosted 15 Public Outreach Events
- Provided 43 Board Updates



- Western Area of the San Joaquin Groundwater Basin
- Adjacent Subbasins:
  - Delta-Mendota,
  - Kings,
  - Tulare Lake and
  - Pleasant Valley
- Groundwater Conditions
- Land Use
- Water Supplies
- Water Quality

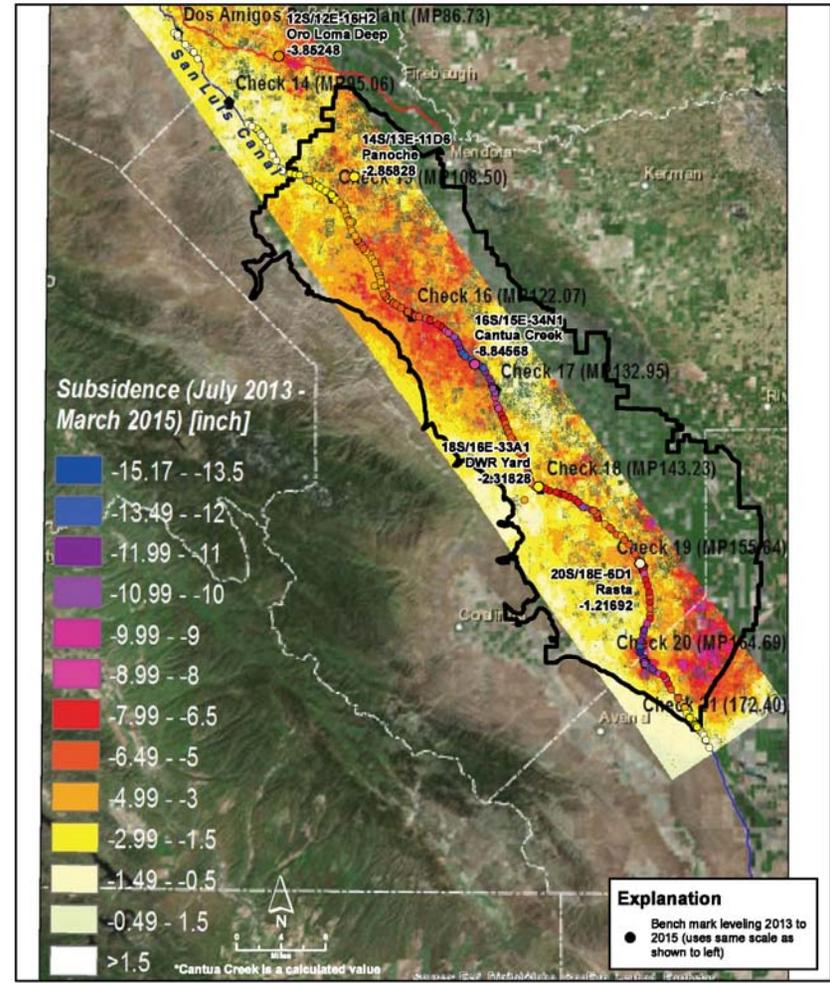
# Basin Setting (Subsidence)



**Pre-Development**

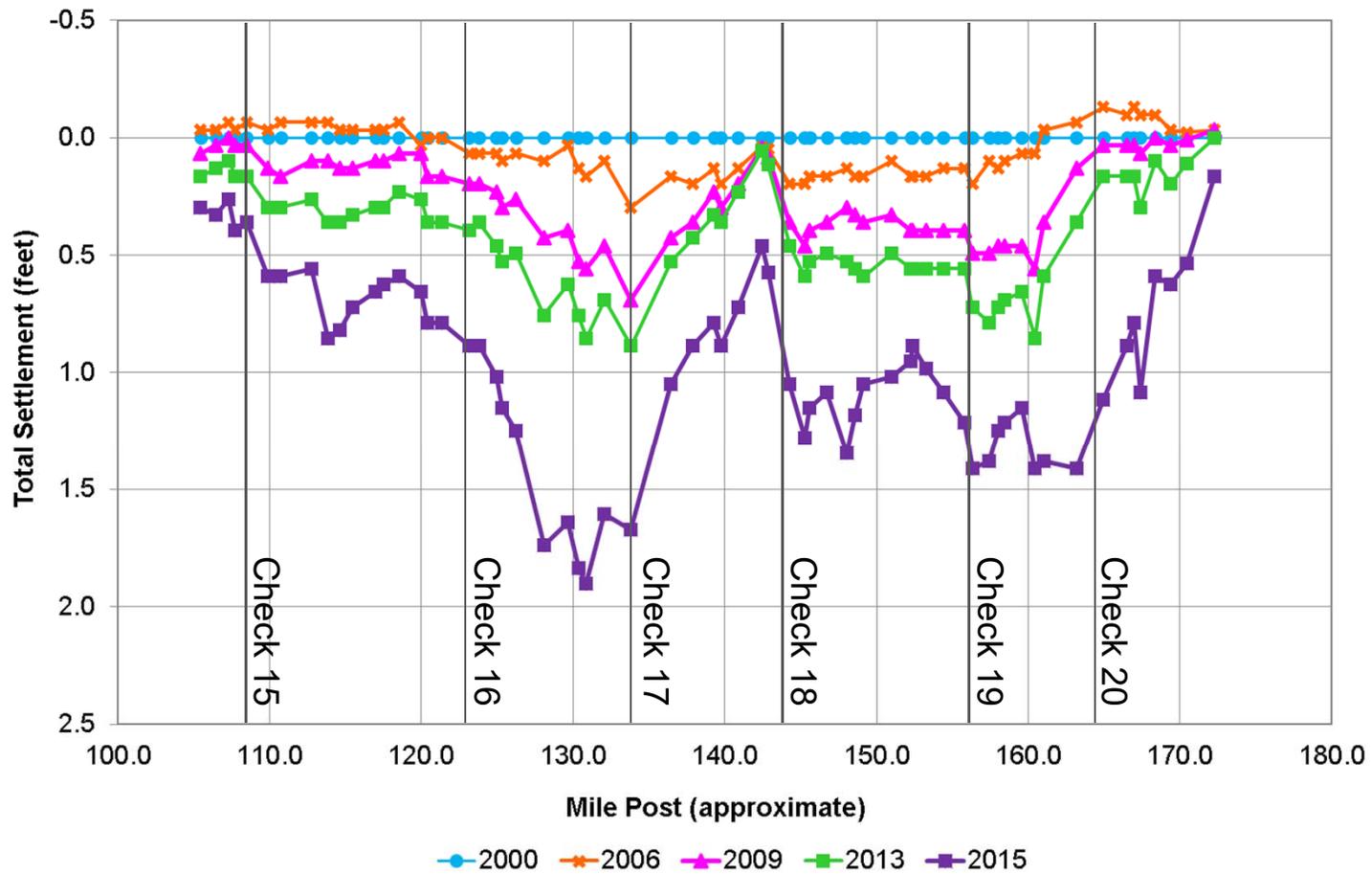
**Post-Development**

PRELIMINARY



**Radar Subsidence Measurements  
July 2013 to March 2015**

# Basin Setting (Subsidence)



PRELIMINARY

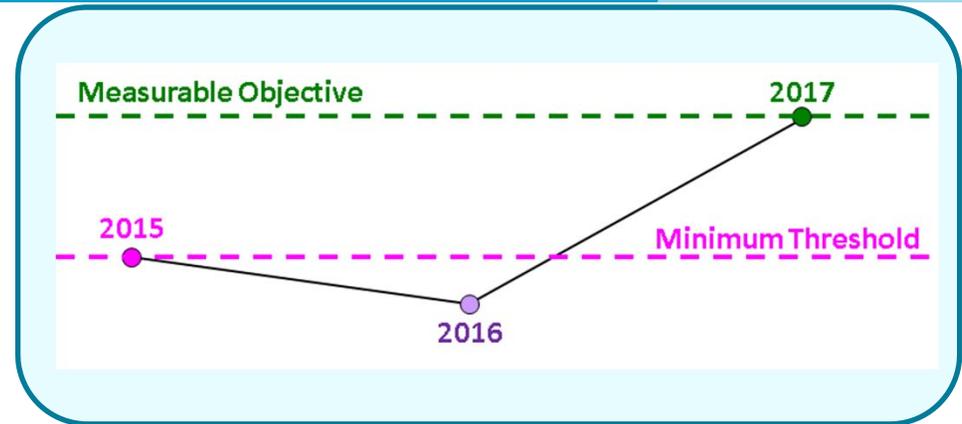


# Monitoring Network (Considerations)

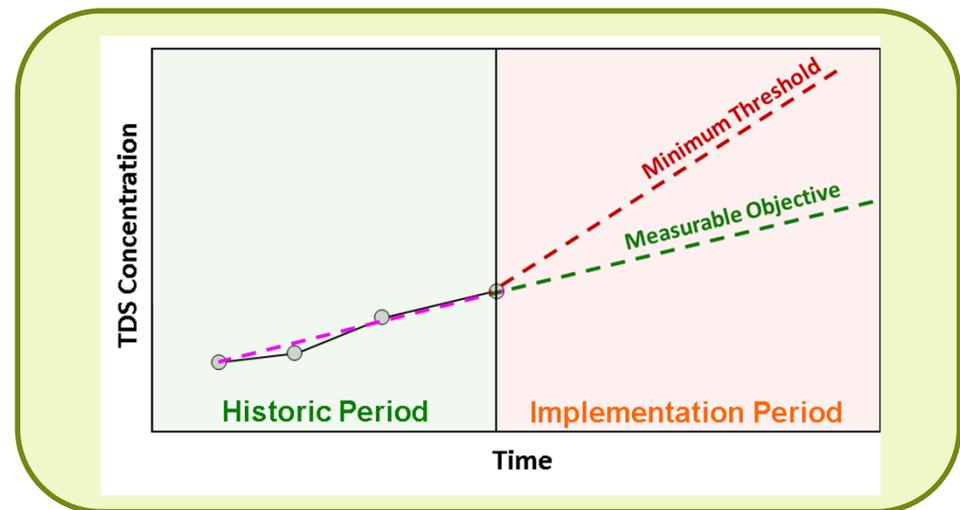
- Sustainability Criteria



- Undesirable Results
- Minimum Threshold
- Measurable Objective

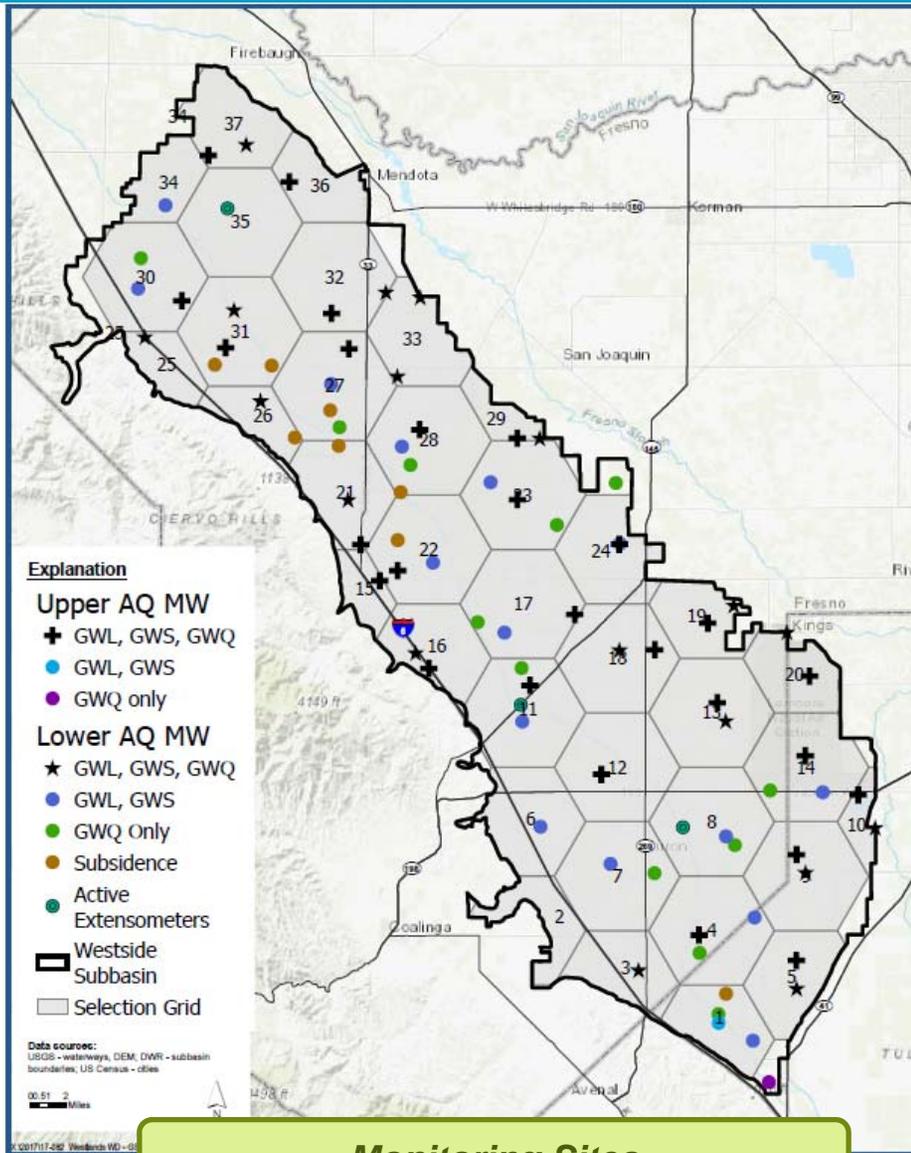


*Groundwater Levels*



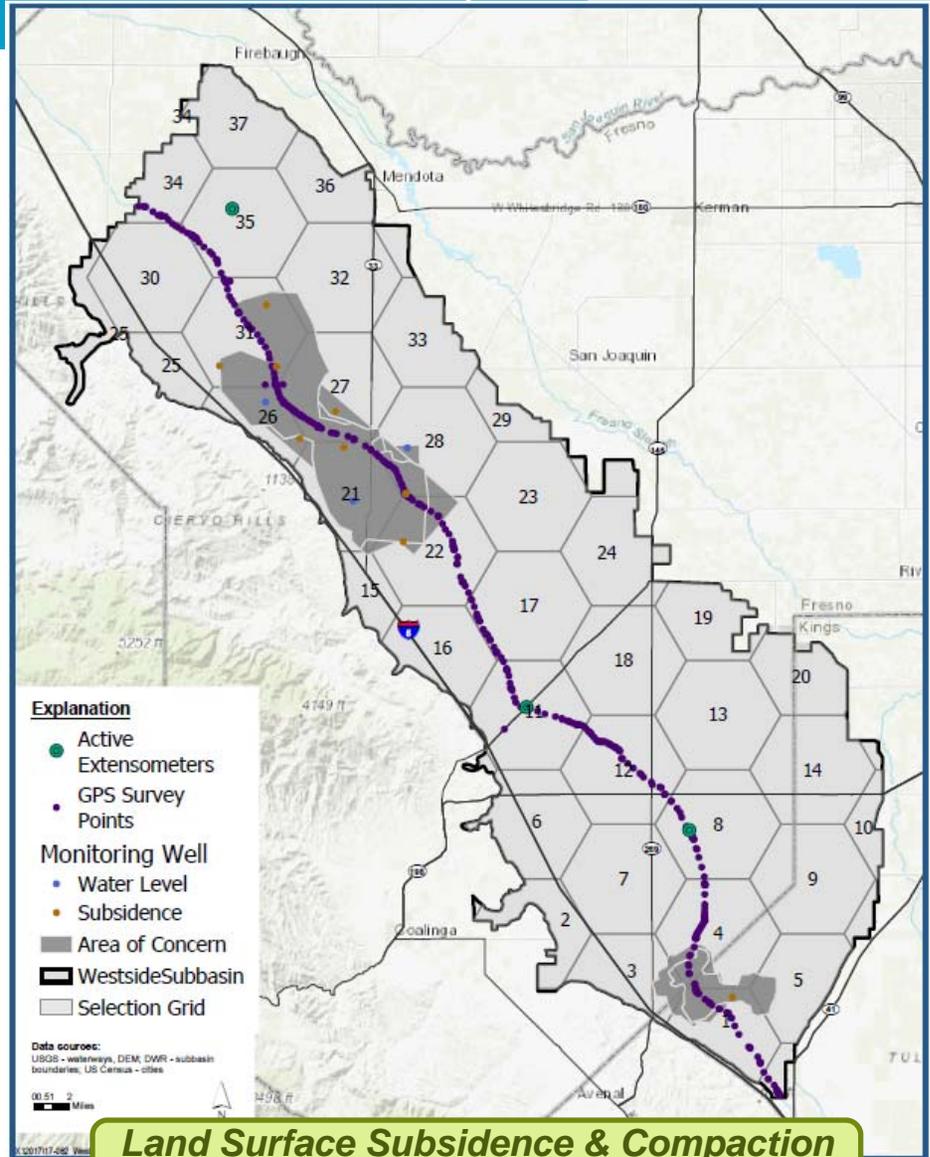
*Groundwater Quality*

# Monitoring Network (Groundwater Levels)



**Monitoring Sites**

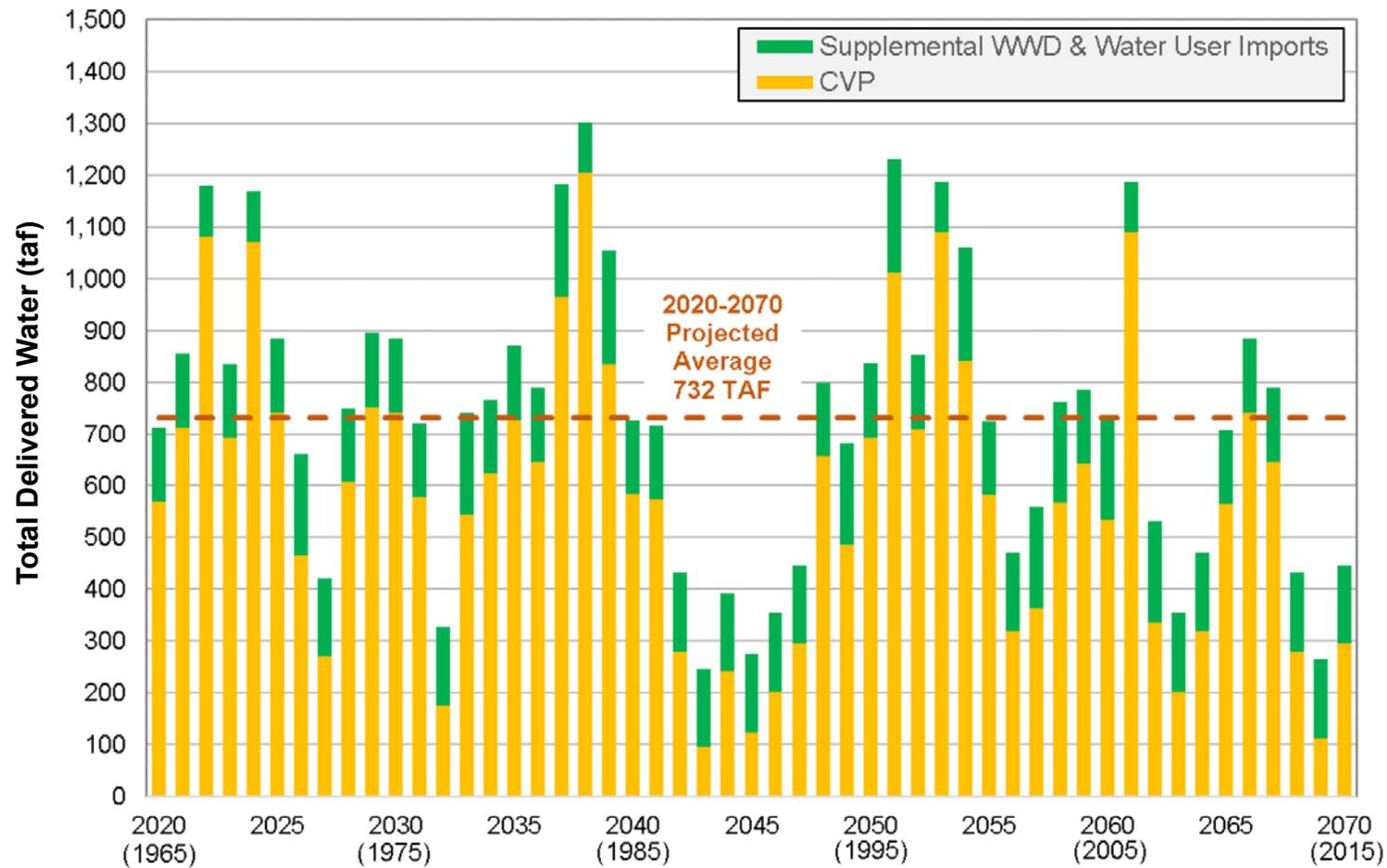
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**Land Surface Subsidence & Compaction Monitoring Sites**

# PMA No. 1 – Surface Water Deliveries

## Chapter 4



PRELIMINARY

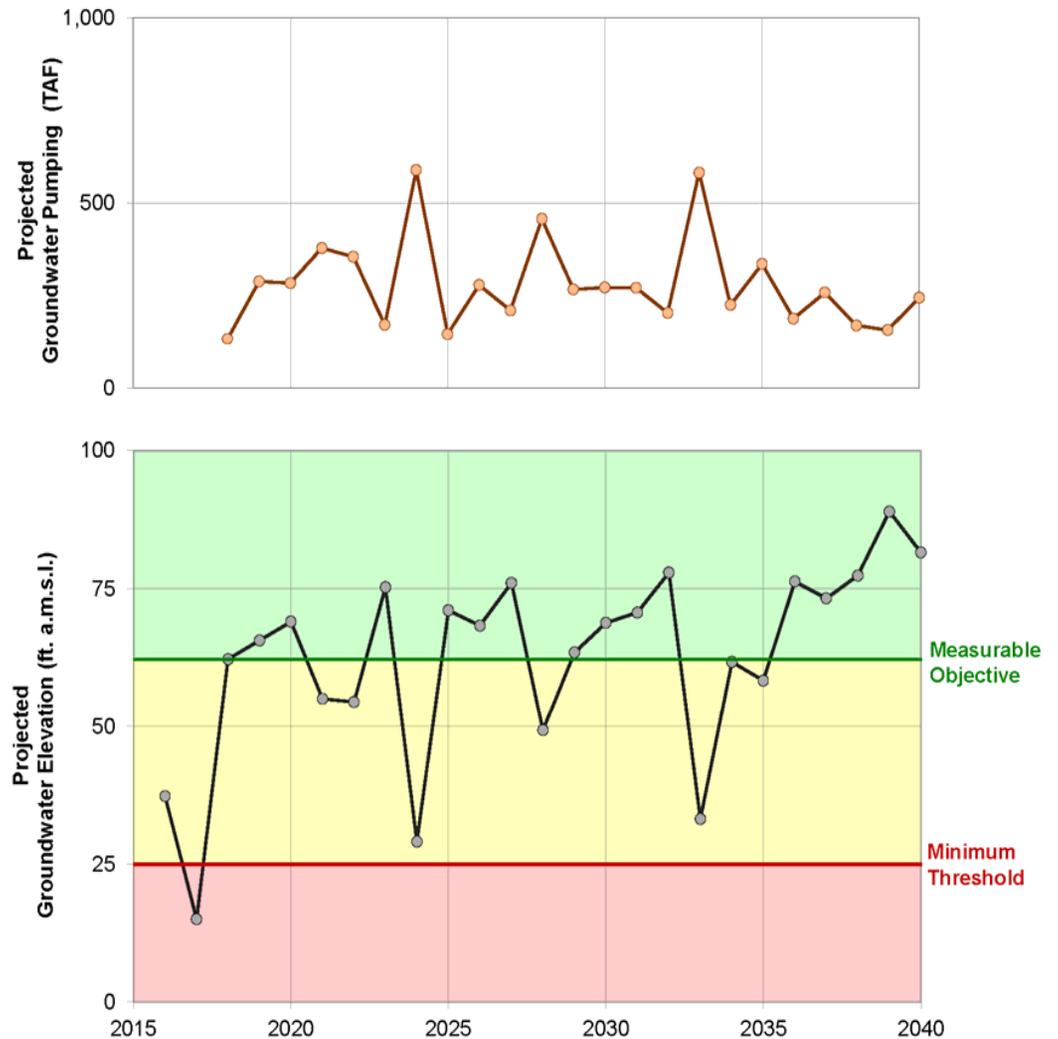
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# PMA No. 2 - Groundwater Extraction Allocation

## Chapter 4

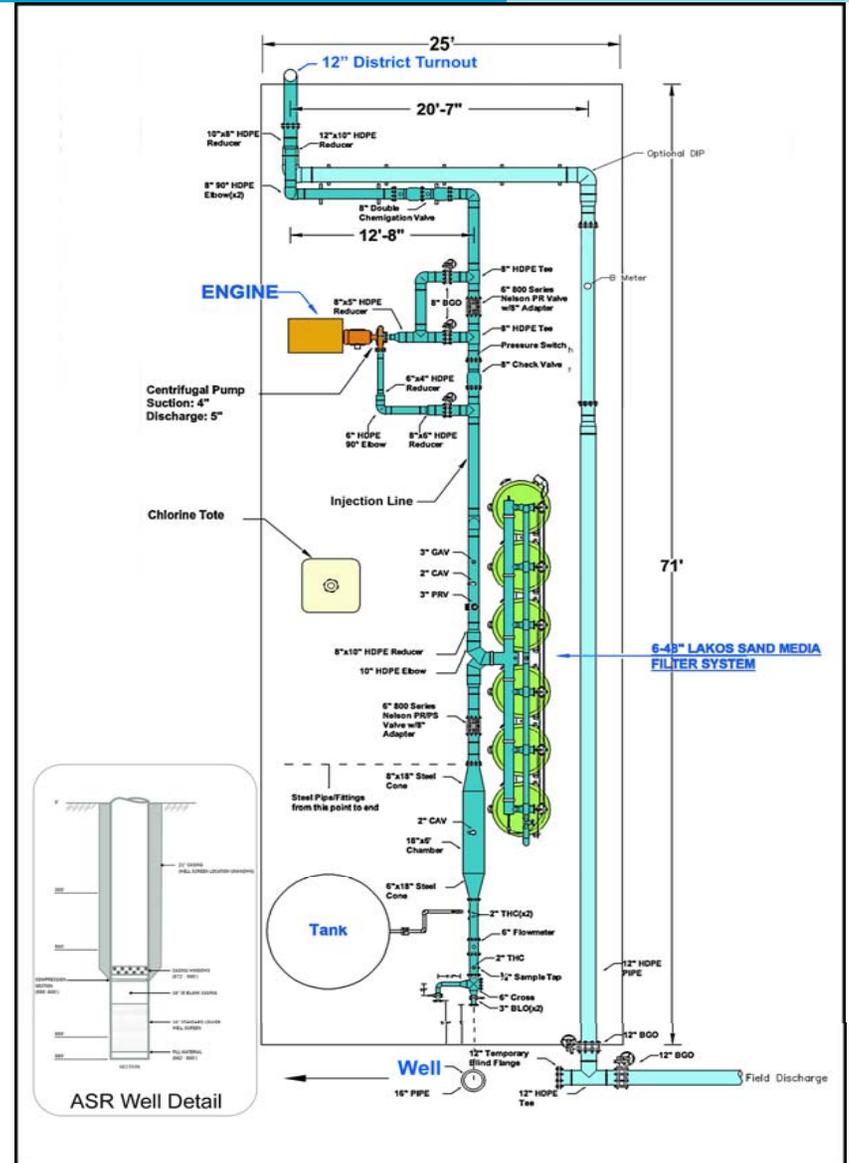
- Extraction amount based on estimated Sustainable Yield:
  - Previous estimates
  - Numerical model
- Distribution on per- gross acre
- Provisional amount: 0.45 AF/acre
- Provisional Aquifer-specific allocation: 0.60 AF/acre
- Carryover/banking permitted
- Augmented through GW Credit Program
- Designed to Promote Conjunctive Use



# PMA No. 3 – Aquifer Storage and Recovery

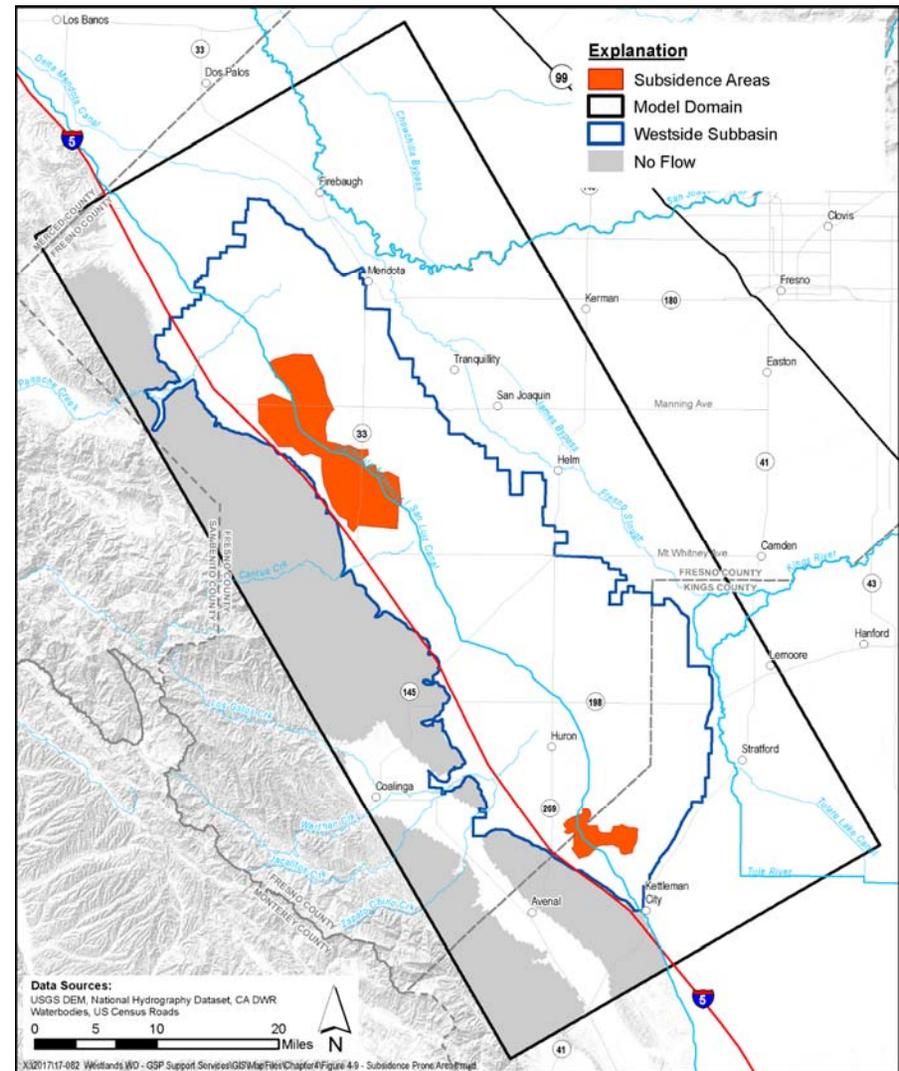
## Chapter 4

- Feasibility demonstrated in 2017 pilot study
- Retrofitting existing wells
- Report of Waste Discharge Permit complete
- CEQA Review complete

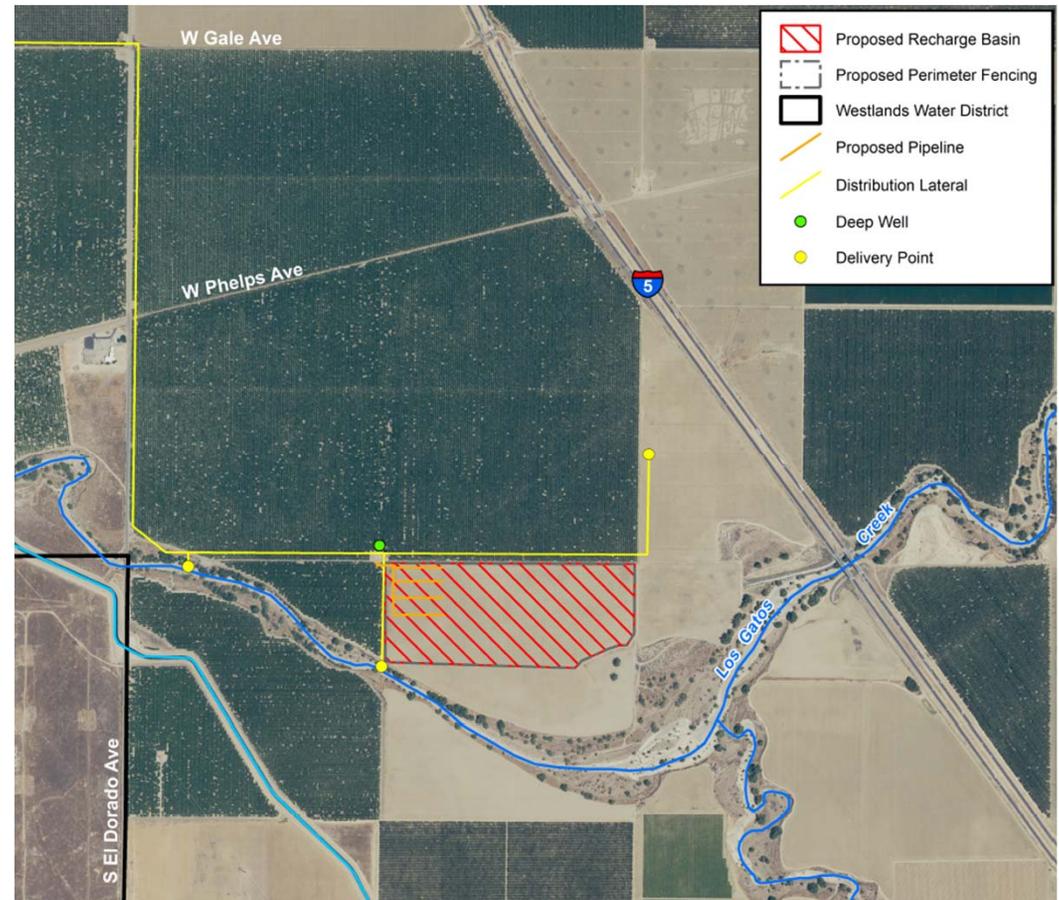


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- Incentives to reduce pumping in sensitive areas/period
  - Determined at start of water contract year
  - Subsidence areas
- Alternative sources of water
  - Pumping from unaffected areas (Upper Aquifer)
  - In-lieu surface water provided by District
- PMA No. 2 may be sufficient



- Currently in exploratory and planning phase
- Located on District owned land in western portion of Subbasin
- Recharge rate up to 18 acre-ft/day
- Contingent on demonstrating feasibility



# Estimated Annual GSP Monitoring Costs

No.	Description	Estimated Annual Cost
1	Groundwater Level Monitoring	\$10,000
2	Water Quality Monitoring	\$20,000
3	Land Subsidence Monitoring	\$14,000
4	Administrative Personnel	\$170,000
5	Annual Comprehensive DWR Reporting	\$50,000
	Total	\$264,000

# Estimated Annual GSP Management, Administration and Other Costs

No.	Description	Estimated Annual Cost
1	Groundwater Metering	\$15,000
2	Operation and Maintenance	\$45,000
3	Project Management and Coordination	\$100,000
4	Administrative Personnel	\$70,000
5	Engineering & Consulting Services	\$20,000
6	Legal Expenses	\$50,000
7	Public Outreach	\$15,000
	<b>Total</b>	<b>\$315,000</b>



- Powers of the GSA
  - Rules and Regulations
  - Specific Powers
    - Replenishment
    - Groundwater Storage
    - Transfers (water, credits, allocations, stored water)
    - Accounting
    - Committee formation
      - Advisory Committee
      - Technical Advisory Committee
  - Variances

## Next Steps

- Host a workshop on October 18<sup>th</sup> at 1:30 P.M.
- Host a Special Board Meeting on October 30<sup>th</sup> at 3:00 P.M. to receive public comments
- Review and respond to public comments
- Consider adopting the GSP on December 17, 2019

# Questions

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Westlands Water District

PRELIMINARY

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