Regulations for the Allocation and Use of Groundwater within Westside Subbasin

Advisory Committee Meeting

February 23, 2021

Westlands Water District

CONCEPT

Purpose

- Provide a Draft Outline for Rules and Regulations for the Groundwater Allocation Program and Use of Groundwater within the Westside Subbasin; and
- Provide input on Project and Management Actions from Chapter 4 of the Westside Subbasin GSP.

DRAFT REGULATIONS FOR THE GROUNDWATER ALLOCATION PROGRAM AND USE OF GROUNDWATER WATER WITHIN WESTSIDE SUBBASIN OUTLINE

1.1 PURPOSE
1.2 GLOSSARY OF TERMS AND DEFINITIONS
1.3 SUSTAINABLE YIELD OF THE WESTSIDE SUBBASIN
1.4 GROUNDWATER FLOW METER
1.5 WATER USER REGISTRATION AND GROUNDWATER ALLOCATION: APPLICATION FOR GROUNDWATER
1.6 GROUNDWATER ALLOCATION TRANSITION PERIOD
1.7 GROUNDWATER ALLOCATION
1.8 GROUNDWATER EXTRACTION LIMITATIONS
1.9 USE AND TRANSFER OF GROUNDWATER
1.10 GROUNDWATER RECHARGE PROJECTS
1.11 SUBSIDENCE PRONE AREAS
1.12 CARRYOVER, OTHER ALLOCATION RULES AND PROCEDURES
1.13 DOMESTIC USERS
1.14 MUNICIPAL AND INDUSTRIAL USERS
1.15 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS
1.16 PAYMENT FOR GROUNDWATER OR AGREEMENTS
1.17 YEAR-END PROCEDURES
1.18 VARIANCE PROCEDURES
1.19 APPEAL
1.20 MISCELLANEOUS

AC Topic Focus

1.7 GROUNDWATER ALLOCATION

1.8 GROUNDWATER EXTRACTION LIMITATIONS

1.9 USE AND TRANSFER OF GROUNDWATER*

1.10 GROUNDWATER RECHARGE PROJECTS*

1.11 SUBSIDENCE PRONE AREAS*

1.12 CARRYOVER, OTHER ALLOCATION RULES AND PROCEDURES

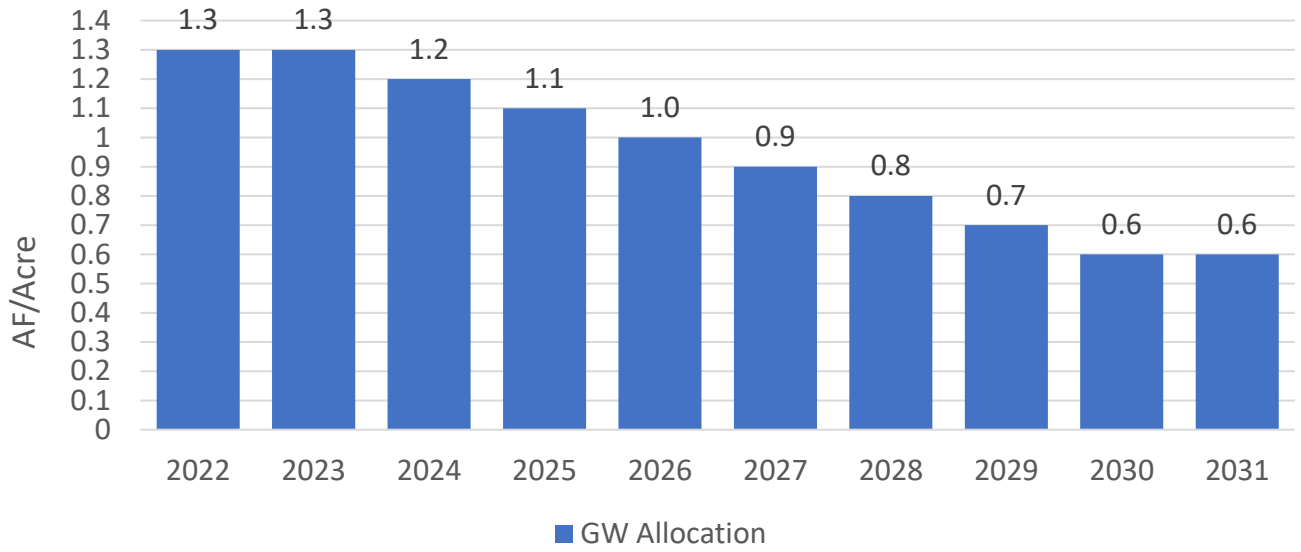
1.13 DOMESTIC USERS

1.14 MUNICIPAL AND INDUSTRIAL USERS

* Both AC and TAC topics

1.7 Groundwater Allocation and Transition Period

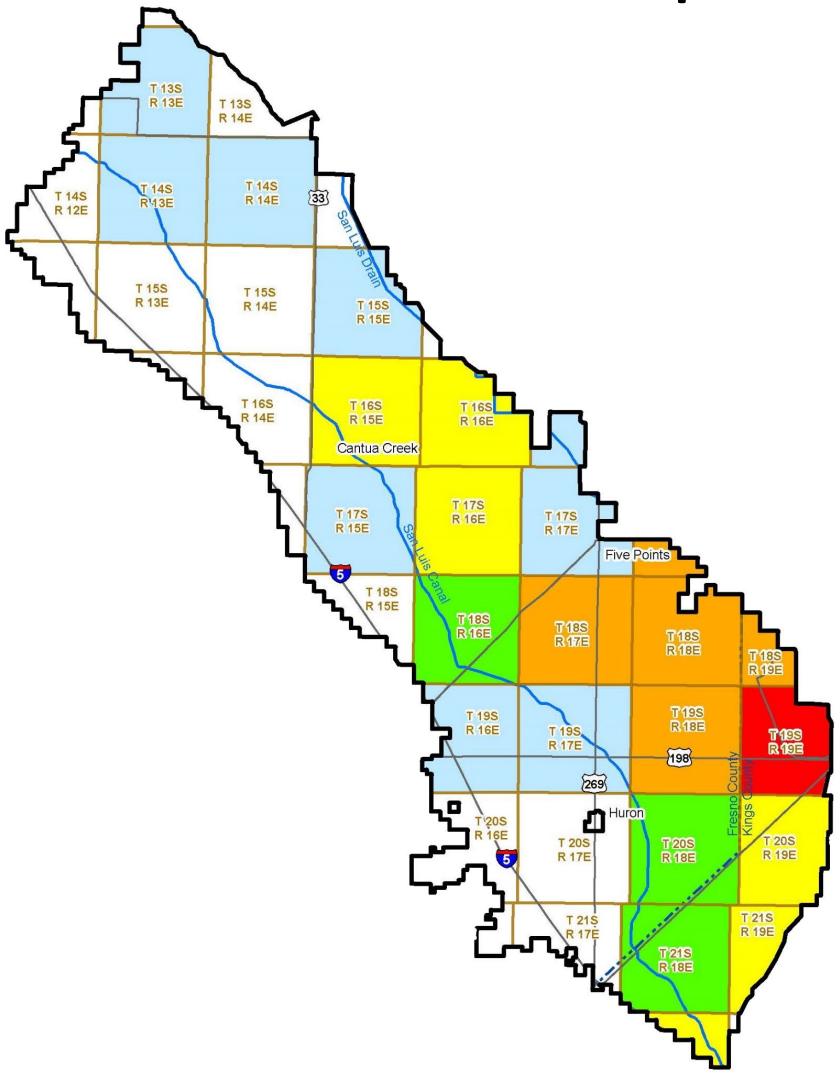
- Sustainable yield of 305,000 AF/year
- ~525,000 acres eligible receive allocation
- Starting 2022, 8-year "Transition Period" 1.3 AF/acre taper to 0.6 AF/acre allocation



Water Year	Allocation Cap
2022	1.3 AF per acre
2023	1.3 AF per acre
2024	1.2 AF per acre
2025	1.1 AF per acre
2026	1.0 AF per acre
2027	0.9 AF per acre
2028	0.8 AF per acre
2029	0.7 AF per acre
2030	0.6 AF per acre

CONCEPT

Lower Aquifer Groundwater Pumping



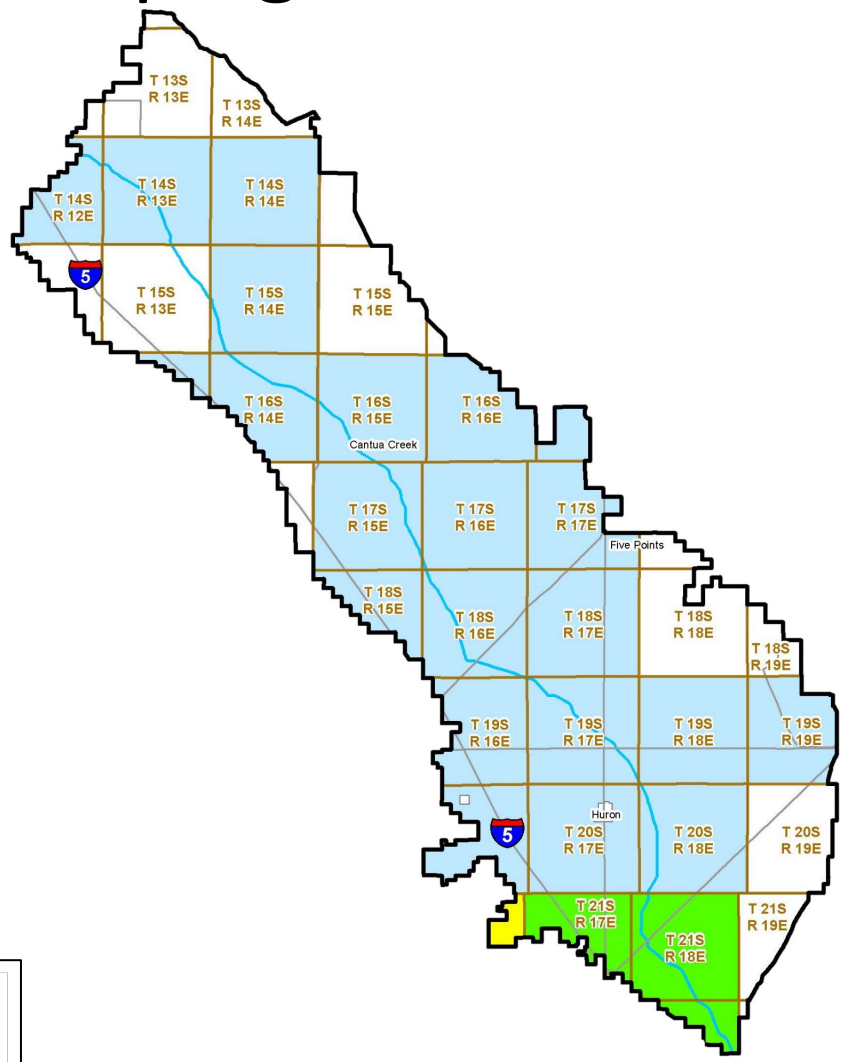
2018-2019

Legend

- Highways\Major Roads
- Waterway
- Township/Range
- WWD Boundary

Pumpage by Township (AF per Acre)

- 0 - 0.05
- 0.05 - 0.20
- 0.20 - 0.40
- 0.40 - 0.60
- 0.60 - 0.80
- 0.80 - 1.0
- >1.0



2019-2020

CONCEPT

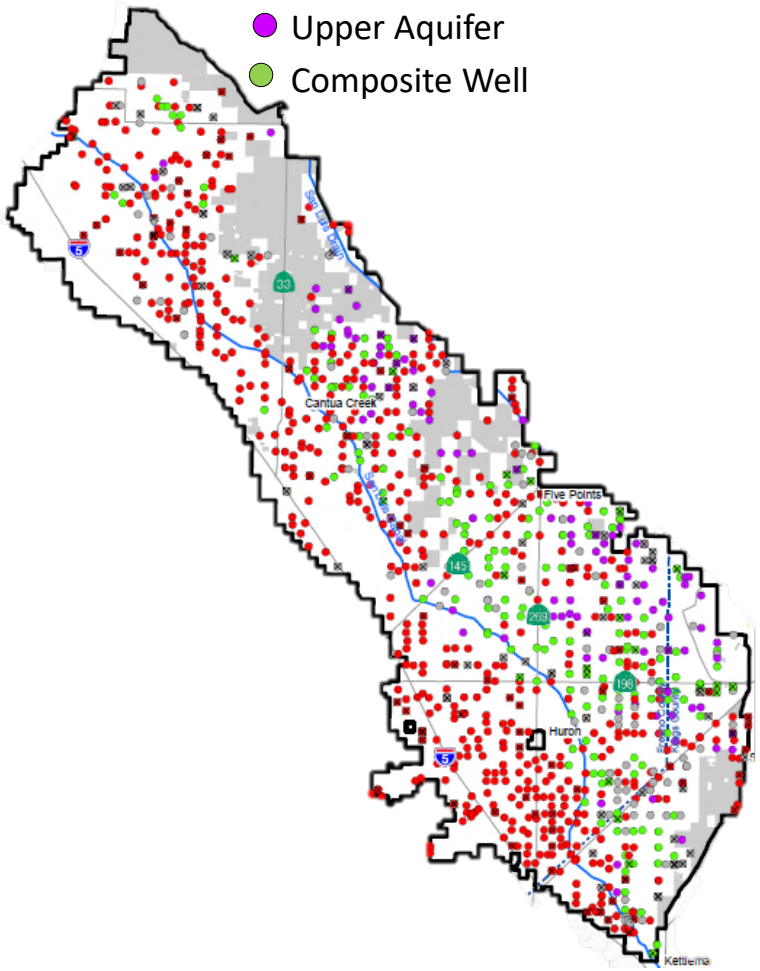
Meters and M&I

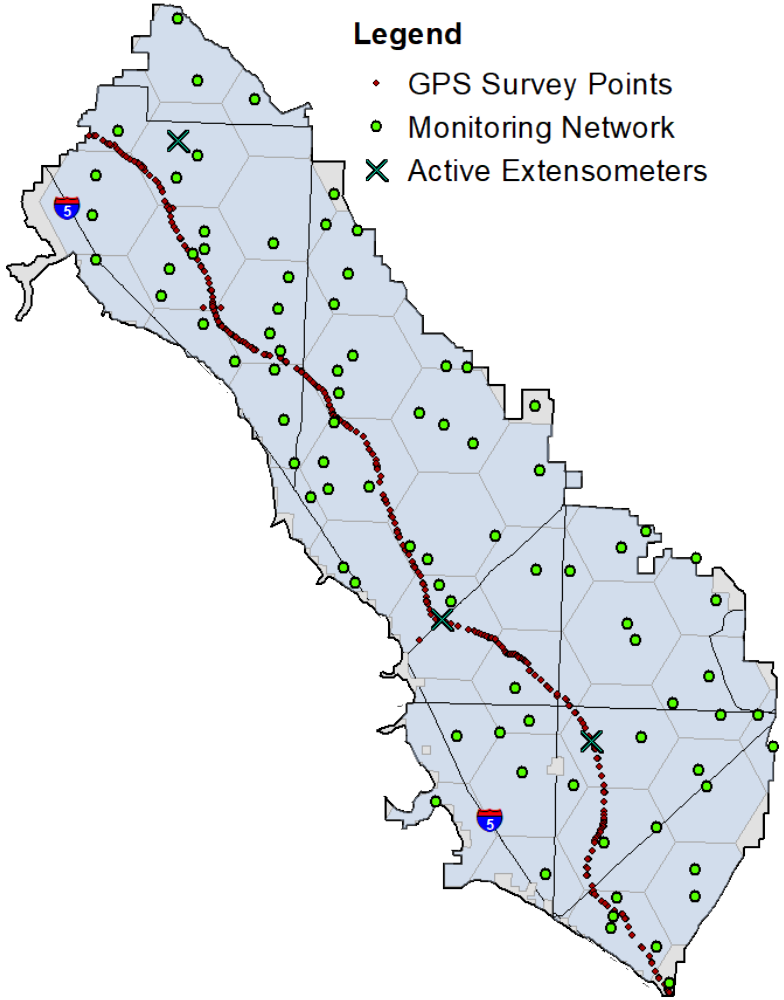
- The District will furnish and install a GW flow meter on all Ag wells by Jan 31, 2022
- The well owner is responsible for installation, operation and maintenance costs of the meter
  - Groundwater well owners will be directly invoiced
- Domestic users are classified as *de minimis* extractors and may not be required to meter GW usage
- Municipal and Industrial (M&I) may be classified as *de minimis* users if the usage is <2AF/year

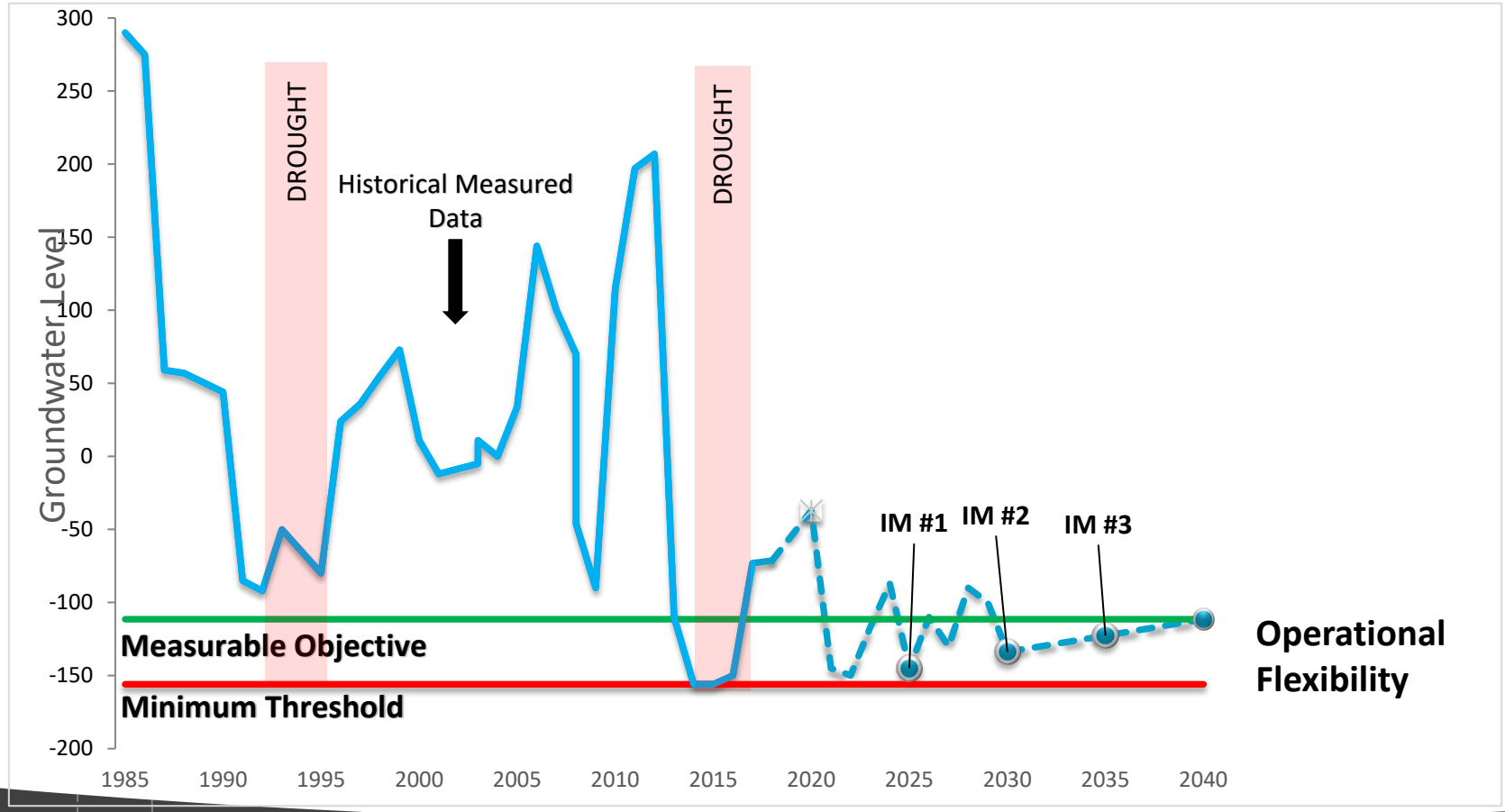
Monitoring Network

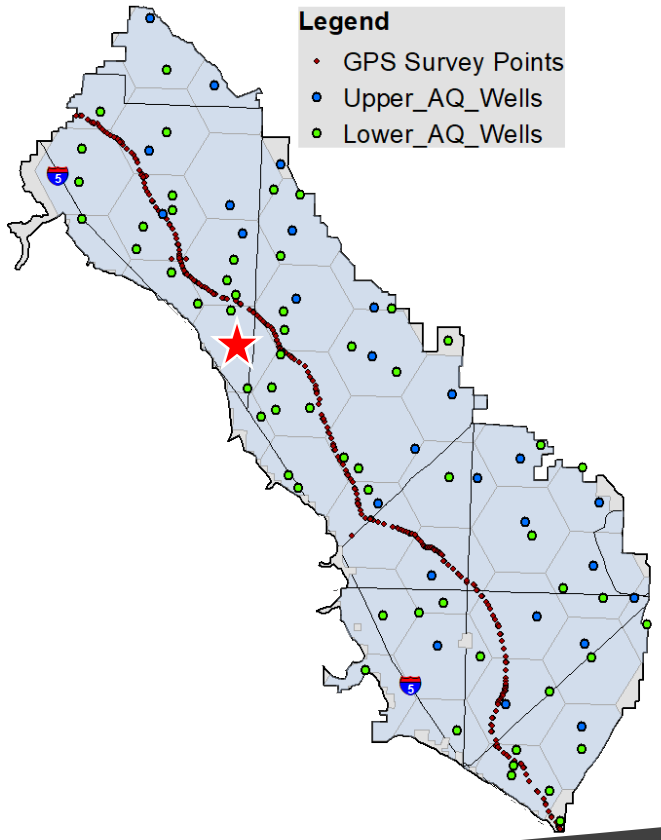
Review existing well locations

- Lower Aquifer
- Upper Aquifer
- Composite Well









Measurable Objectives & Minimum Thresholds*

- **Measurable Objectives (MO)-** "…specific, quantifiable goals for the maintenance or improvement of specific groundwater condition to achieve sustainability…"
- **Minimum Thresholds (MT)-**"…a numeric value used to define undesirable results."

CONCEPT

***Definitions from DWR's GSP Regulations**

1.8 Groundwater Extraction Limits

Green –Water levels greater than MT + (MO-MT)50%

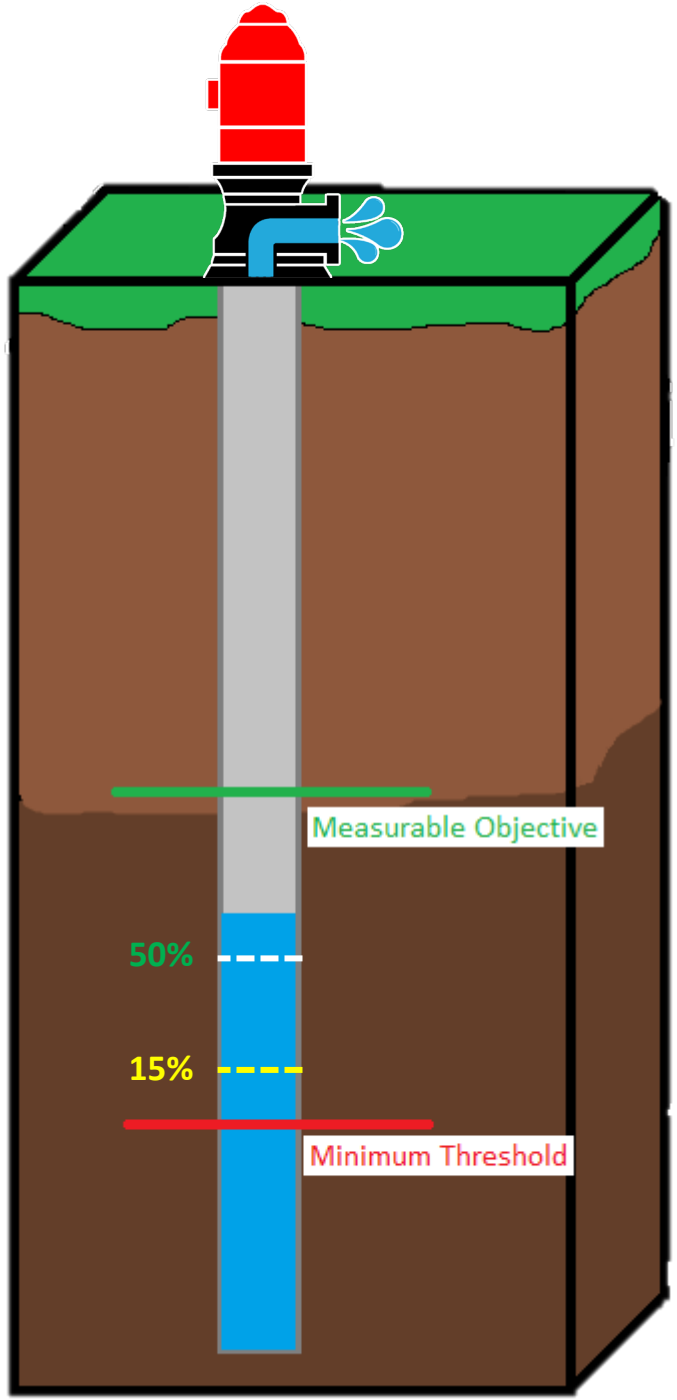
The GSA will limit pumping to 225% yearly allocation

Yellow –Water levels between 15%-50% above MT

- Pumping limited to current year allocation plus any carry-over or GW credits

Red –Water levels below 15% above MT

- Pumping limited to current year's allocation
- Accounts with negative balances may not pump until their balance is positive
- If undesirable results are projected, additional measures may be implemented



CONCEPT

1.9 Use and Transfer Of Groundwater

- Transfers
  - No transfers without District approval
  - No transfers out of the Subbasin

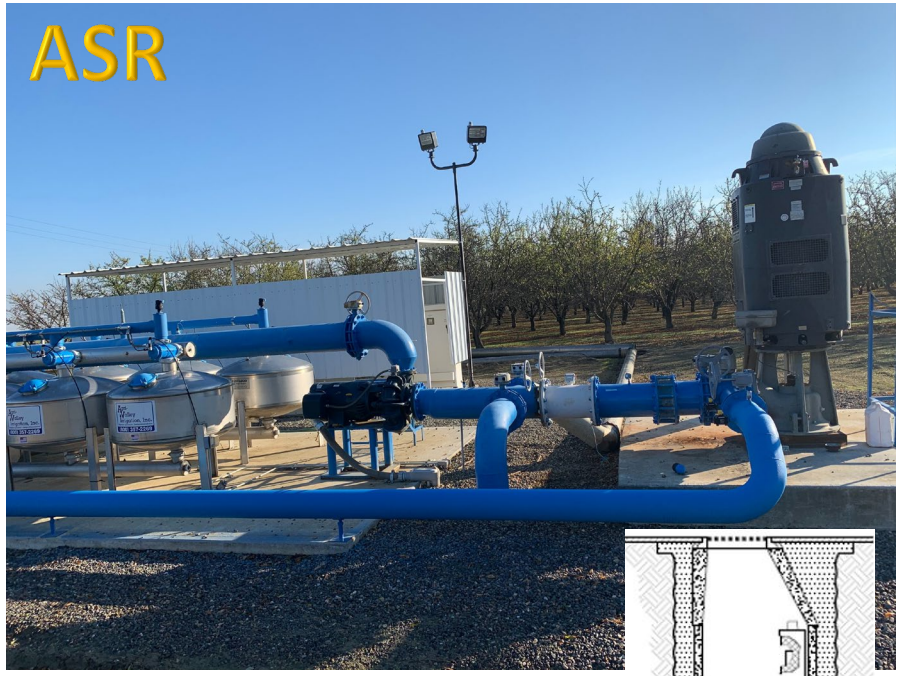
What limitations should be proposed?

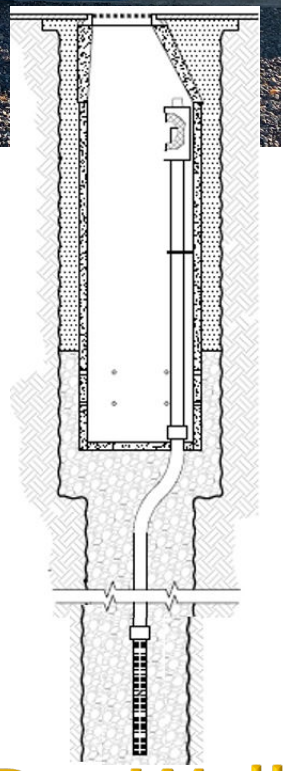
CONCEPT

1.10 Recharge Projects

- Currently proposed recharge projects are as described below:
  - Aquifer Storage and Recovery (ASR)
  - Recharge Basins*
  - Dry Well Injection
  - Sub-Lateral and Over Irrigation Recharge*
  - Growers are responsible for all costs associated with recharge projects (permitting, planning, construction, implementation, etc.)

*infiltration through vadose zone subject to 10% leave behind loss





What other recharge projects should be considered?

What percentage leave behind loss is reasonable?

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1.11 Subsidence Prone Areas

- Parcels in subsidence areas of concern are incentivized to pump less from the Lower Aquifer
- Participants are eligible for alternative surface water when available
- Participants may elect to pump all their allocation from the Upper Aquifer

Timing?

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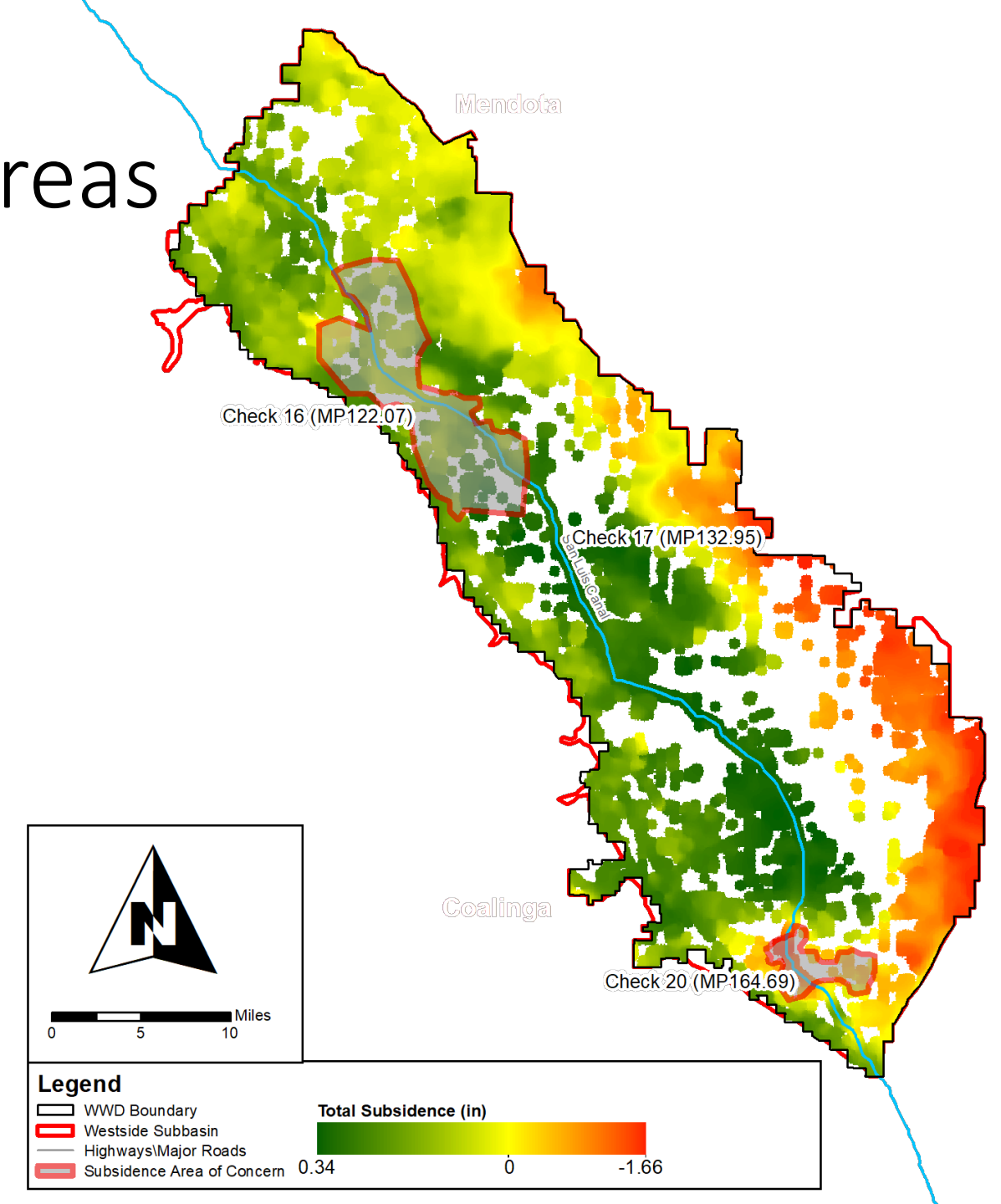

1.12 Carryover

- Unused GW allocation less than 0.6 AF/acre (applies to years 2022-2030) are credited as carryover for the user.
- GW Allocation – GW Extracted = Carryover Credit
- Example:

	0.60 AF/Acre Allocated
–	0.45 AF/Acre Extracted
	0.15 AF/Acre Carryover

- Credits may be subject to additional terms dependent on the District's ability to achieve sustainability

Should credits held more than 5 years be subject to 10% leave-behind?

Other flexibility considerations?

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Questions