



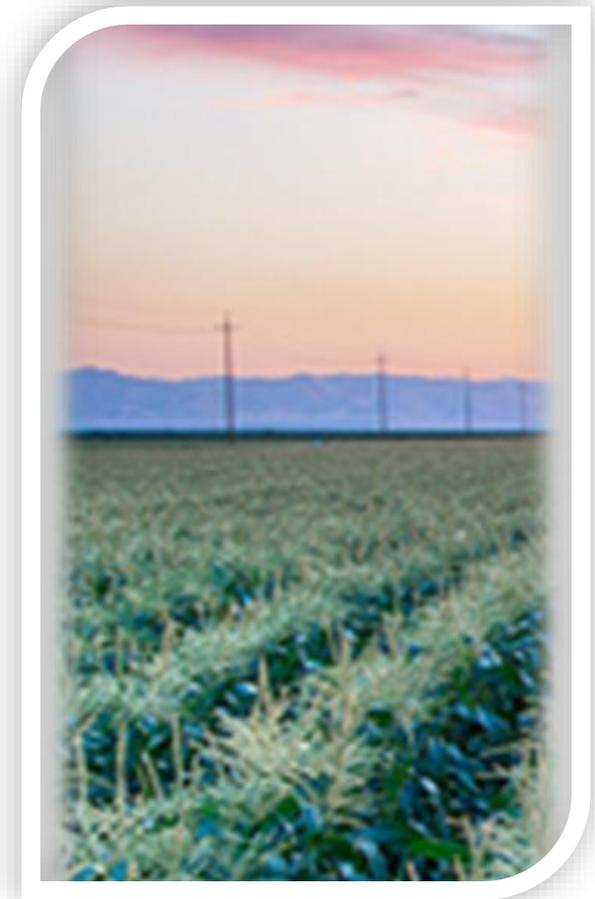
Westlands Water District

Baseline Groundwater Model- Results

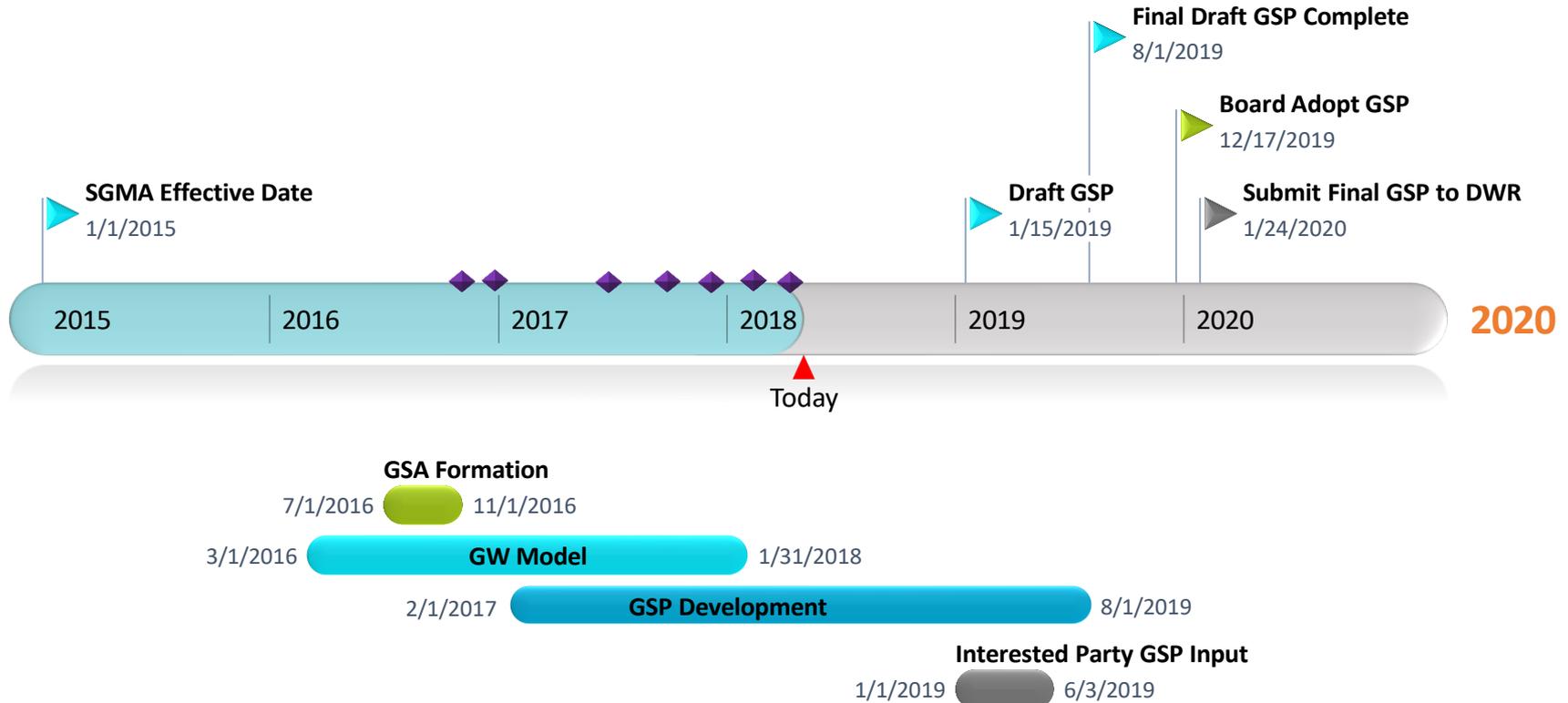
WWD Special Board Meeting
May 3, 2018

Outline

- SGMA Implementation Timeline
- SGMA Orientation
- GSP Content
- Westside Subbasin Hydrogeology
- Water Balance
- Modeling Results
- Enhancement Strategies



SGMA Implementation Timeline



◆ SGMA workshops & outreach events

SGMA Orientation

- **Groundwater Sustainability Agency (GSA)**
 - **Westlands Board**
 - ✓ **Develop a GSP by 2020:**
 - ✓ **Achieve sustainability by 2040, and**
 - ✓ **Avoids undesirable results**
- **DWR**
 - **Implement regulations, provide technical assistance, manages grant funding, and evaluate GSP**
- **SWRCB**
 - **Oversight and intervention if a GSA is not formed or if basin not managed sustainably**

SGMA's Obligations

- Expanded Groundwater Sustainability Agency authority
- “Sustainable GW management” is **not voluntary**
- Groundwater Sustainability Plans (GSPs) required in medium – high priority basins within 20 years
- The Westside Subbasin designated as a high priority basin in critical overdraft
- State scrutiny and approval of each GSP
- State intervention now possible for failure to comply

SGMA Tactical Advantages

Short Term:

- Conflict management
- Address uncertainty as to rules and outcome

Long Term:

- Conflict management
- Local adaptive management of groundwater supplies
- Expanded and intergrated groundwater management
- Physical solution: Yield optimization through collaboration
- Financing
- Certainty for long term outcome

GSP Content

1

- **Administrative Information**

2

- **Basin Setting**

3

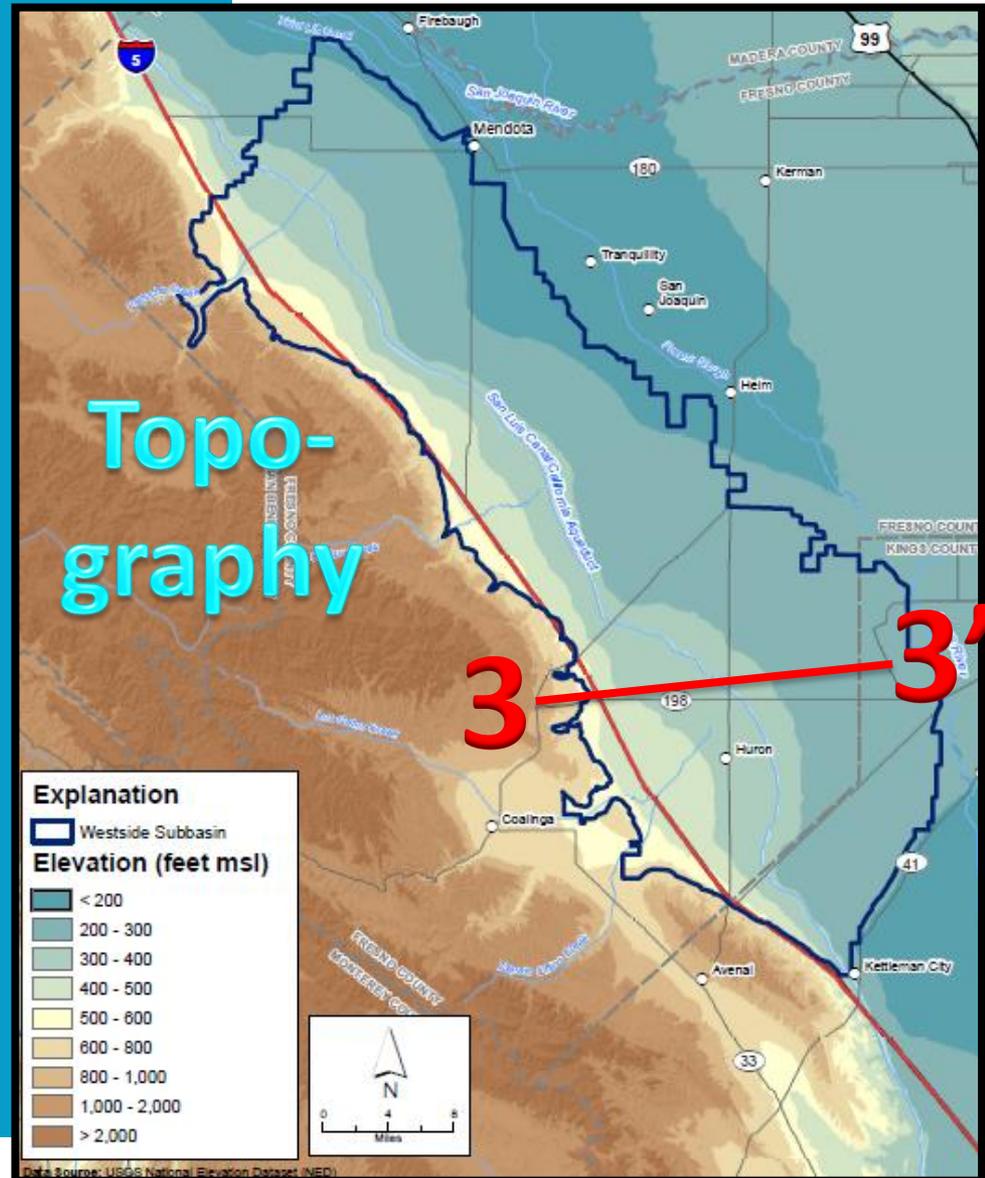
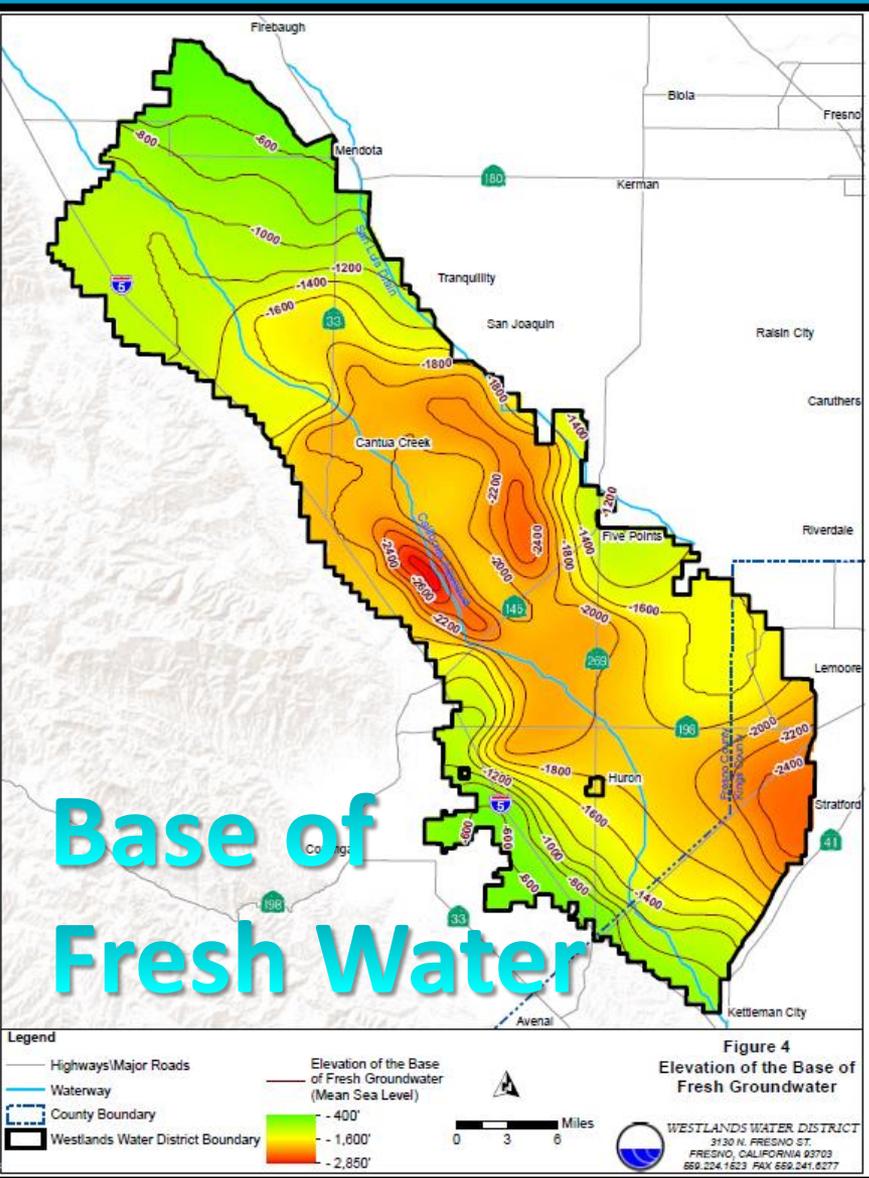
- **Sustainable Management Criteria**

4

- **Monitoring Network**

5

- **Projects and Management Actions**



Sustainable Groundwater Management Act (SGMA)

- Local Management of the Groundwater Basin
- Requires subbasins to be **sustainably** managed by 2040
 - Avoiding undesirable results



Water Balance

Land Use Breakdown (2012 Example)

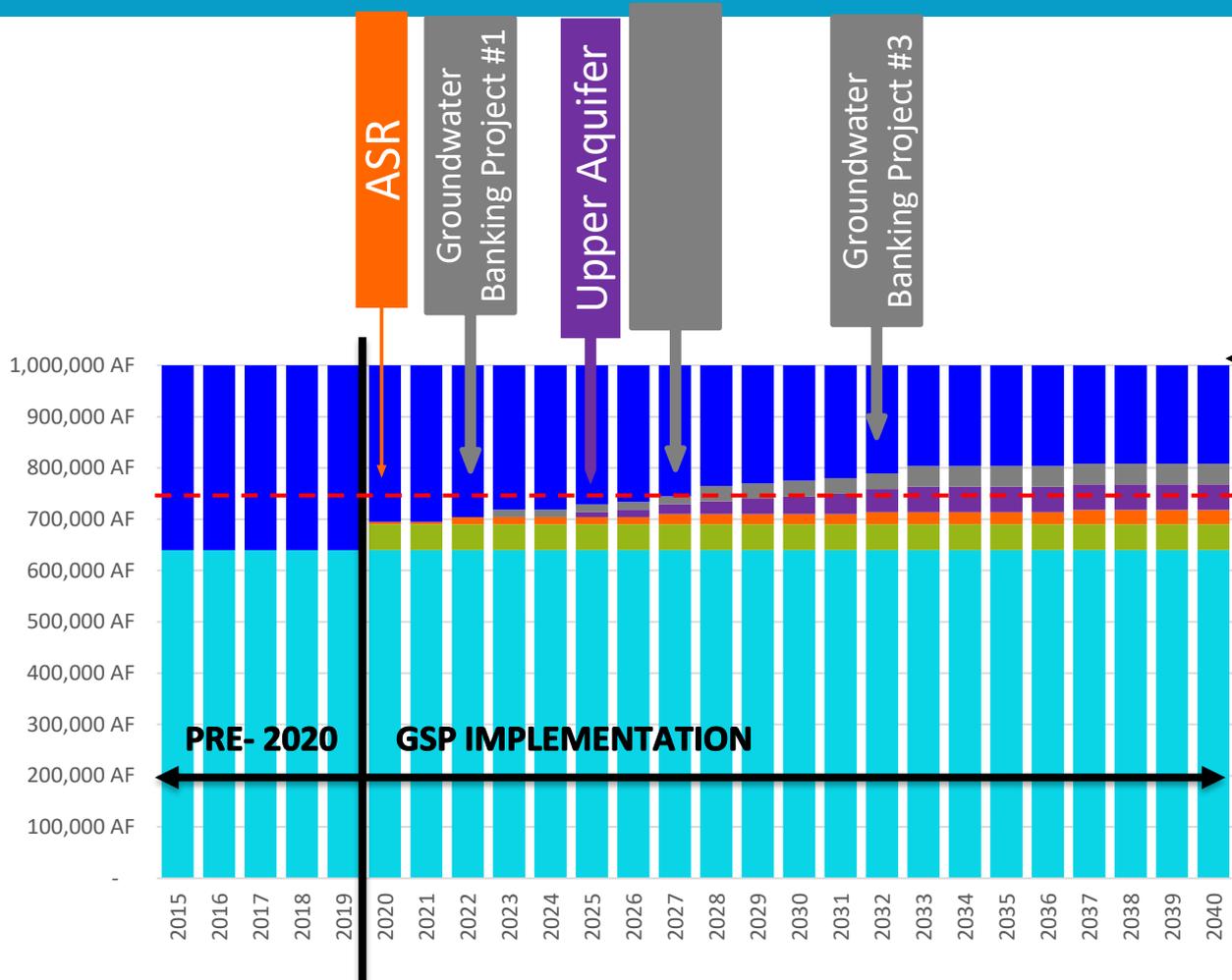
390,000 Acres Irrigated
 60,000 Acres Dry Farmed
120,000 Acres Fallow
 570,000 Acres Total

Avg. Demand

390,000 Acres Irrigated
 * 2.56 AF/Acre
1,000,000 AF

Avg. Surface Water

478,000 AF 40% Allocation
 124,000 AF Supplemental
38,000 AF W.U. Transfers
 640,000 AF Total



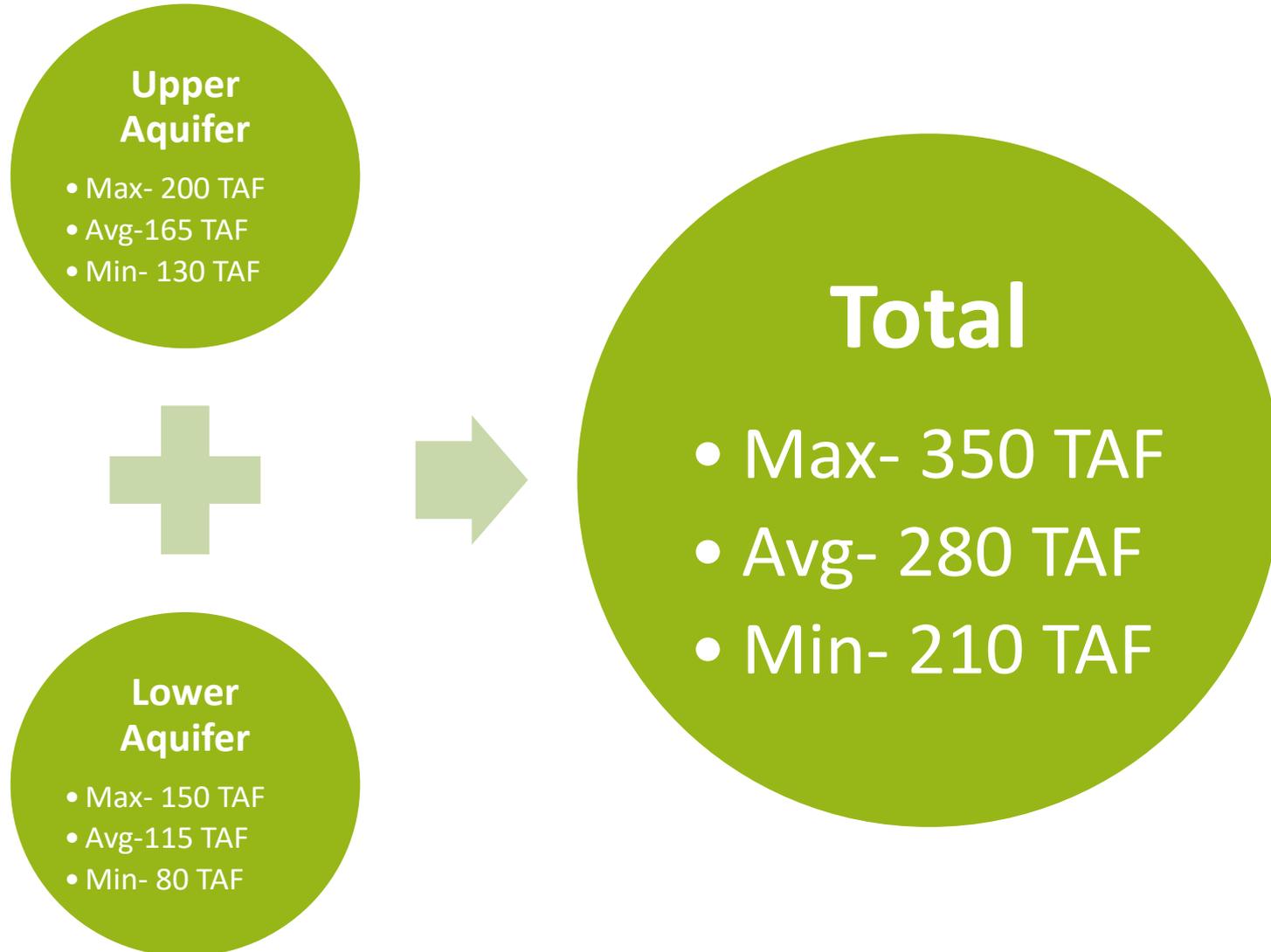
■ Surface Water
 ■ Additional Supplemental Water
 ■ ASR
■ Upper Aquifer Supply
 ■ Groundwater Replenishment
 ■ Groundwater Pumping



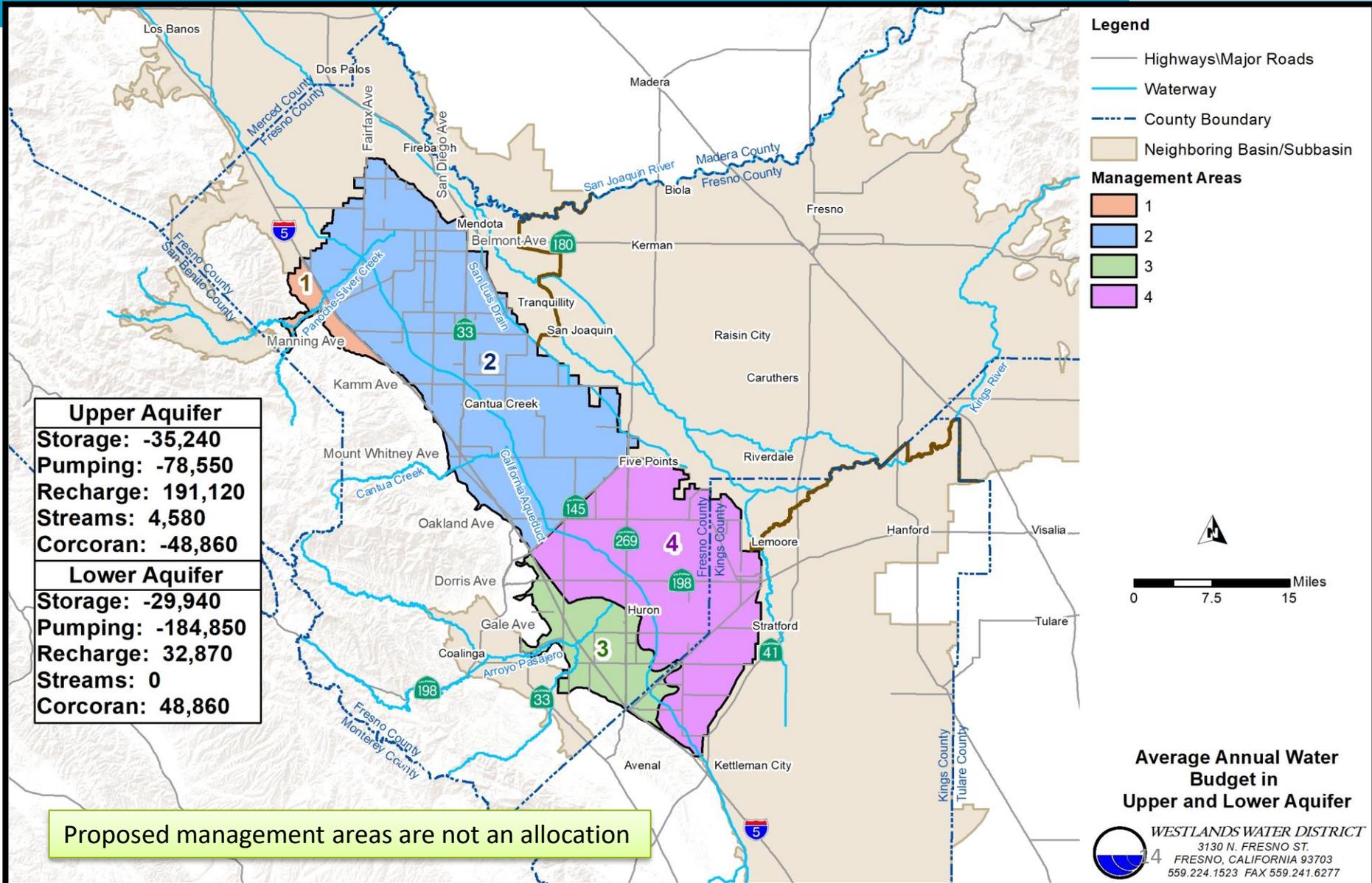
Water Balance- Average

Water Type	Pre-2020	GSP Implementation (2040)
Surface Water	640,000 AF	640,000 AF
Groundwater Pumping	360,000 AF	192,000 AF
Additional Supplemental Water		50,000 AF
Aquifer Storage and Recovery (ASR)		28,000 AF
Upper Aquifer Pumping		50,000 AF
Groundwater Replenishment		40,000 AF

Groundwater Pumping Potential



Average Annual Water Budget



Enhancement Strategies*

- Augmentation Credits
 - ASR
 - On-Farm Recharge
 - Subsurface Recharge
- Conservation Credits
 - Reduce groundwater pumping
 - Fallowing Land
- Trading Credits
 - Purpose of Management Areas

*Subject to physical solutions/undesirable results

QUESTIONS

