

SFK Advisory Committee

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consultants



- Mitigation Policy
- Recharge Policy
- Management Plans
- Allocation Methodology



- See flow chart



- Want Encourage Recharge
- Want to avoid gw quality impacts

- Land has to be within SFK
- Must be in compliance with SFK Policies
- Dedicated Recharge Facility
 - Provide data to SFK
 - Surface water diverted must be metered
 - 90% credit, 10% leave behind
 - Credit only in aquifer that receives the recharge

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- Credits good for 5 years, lose 10% a year
- Open ground – 60% credit
- Land in production – 60% credit
- No application pesticides, etc



- See handout



- What are we trying to protect/avoid
- Sustainable Yield Value?
- Groundwater reductions based on impacts?



- **A-& B-Zones: Dry wells**
 - Shallow domestic wells
 - No more than 10% of domestic wells
- **C-Zone: Subsidence**
 - Limit to maximum of 6 feet
 - No subsidence after 2040

- **Sustainable Yield**
 - All acres or only acres in production?
- **Transitional Pumping**
 - Acreage in production anytime since 2015

- Current GW Model still being updated
- Alternate Methods for one year
 - Use 2020 Model values
 - Reduce Pumping from actual
 - GW reductions proposed in GSP (AF)
 - Spread proportionally across GSAs
 - Subtract reduction from current pumping

- 2020 does not differentiate between upper and lower SY
- SY = 299,220 af
- Total area 535,869 ac
- SY = 0.55 af/ac

- Eligible lands – 65,257 acres
- SY pumping = $65,257 \times 0.55 \text{ af/ac} = 35,891 \text{ af}$
- Transitional Pumping??
 - 2, 1.5, 1, 0.5 ??
 - How does that compare to actual pumping??

South Fork Kings Groundwater Extraction by Sector

Water Year	Agriculture Groundwater Extraction (AF)	Urban Groundwater Extraction (AF)	Other Groundwater Extraction (AF)	Total Groundwater Extraction (AF)
WY20	56,753	8,045	1,740	66,538
WY21	79,489	7,334	1,644	88,467
WY22	68,171	6,436	1,638	76,245
WY23	34,338	5,748	1,606	41,692

Notes:

AF = Acre-feet.

WY = Water year.

Agricultural = Estimated by the Farm Demand calculation (2022 GSP, Appendix D) using evapotranspiration over agricultural fields, precipitation and surfacewater delivery data.

Urban = Sum of municipal supply well totalizer volumes provided by the City of Lemoore and Stratford PUD.

Other = Estimated based on the County of Kings population census, assuming 179 gallons per person per day¹ evenly divided among the five Tulare Lake Subbasin GSAs.

1 = Water and the future of the San Joaquin Valley (2019). Public Policy Institute of California. Retrieved from <https://www.ppic.org/publication/water-and-the-future-of-the-san-joaquin-valley/>



- Groundwater Reduction across Subbasin
 - Upper – 20,000 AF/y
 - Lower – 50,000 AF/yr
- Based on **acreage**, SFK is 16.6% of the subbasin
 - 3,320 Af/y reduction
 - 8,300 Af/y reduction

- **Current Pumping**
 - 68,200 Af (average WY 20, 21 & 22)
 - Assumed 75% upper and 25% lower
- **Adjusted values**
 - $51,150 - 3320 = 47,830$ Af
 - $17,050 - 8,300 = 8750$ Af

Allocation Part 4

- Upper Aquifer – 0.57 af/ac
- Lower Aquifer – 0.29 af/ac