



Devil's Den Potential Revenue & Water Yield/Quality Analysis

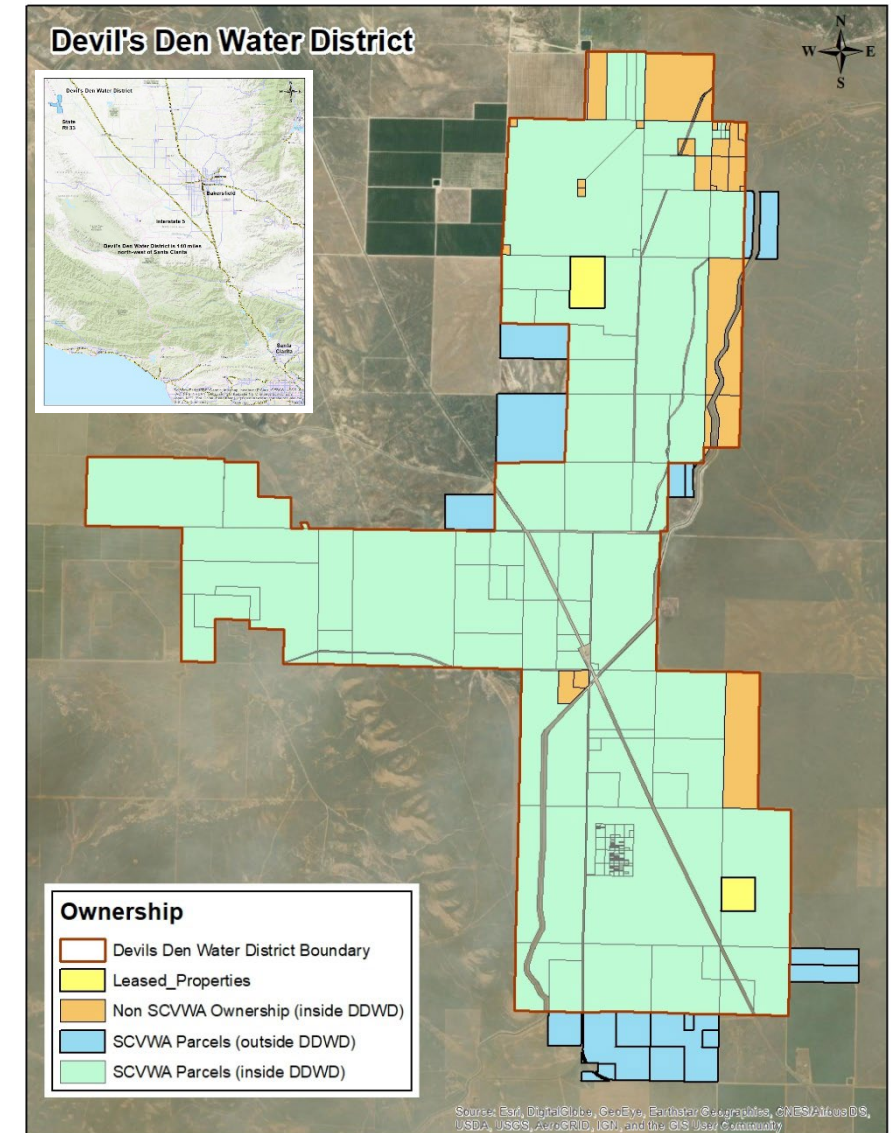
Water Resources and Watershed Committee
April 12, 2023



DDWD Land Ownership

CLWA purchased the DDWD property in Kern and Kings County in 1988:

- 7,800 Ac within DDWD
- 827 Ac adjacent to DDWD
- SCVWA leases 100 acres from other landowners within DDWD





Value and Costs to SCV Water

Value:

- Original Purchase Price was \$5 million
- 12,700 AF of Table A Entitlement now permanently part of SCVWA portfolio
- Nominal revenue from current Farming Lease
 - Sale of Water for Farming Operations

Costs:

- 2023/24 & 2024/25 Budget: \$300,000 annually
 - Includes Taxes, Maintenance, Wheeler Co. Property Management Contract, Water Testing and Analysis and Legal



Analysis of Devil's Den

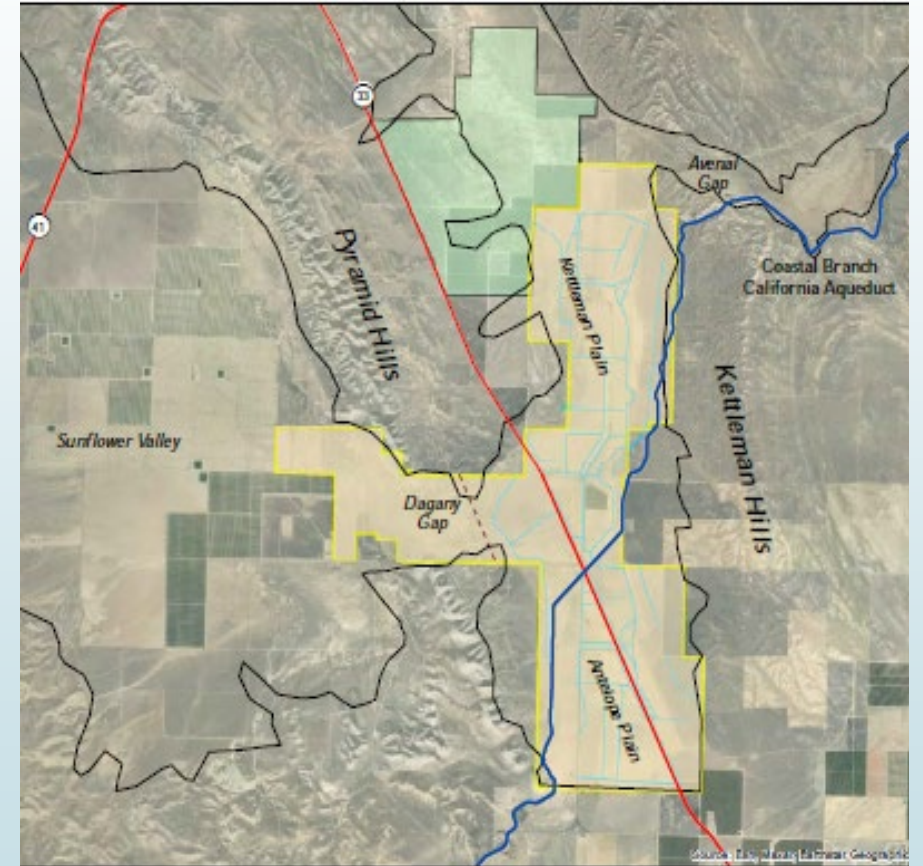
Purposes:

- Verify quality of water and its potential use
- Calculate Safe Yield
 - Determine quantity available for possible use
 - Changes from 1997 analysis
- Investigate revenue options
 - Land use underutilized since purchase

Evaluation of Water Quality

Kettleman Plain:

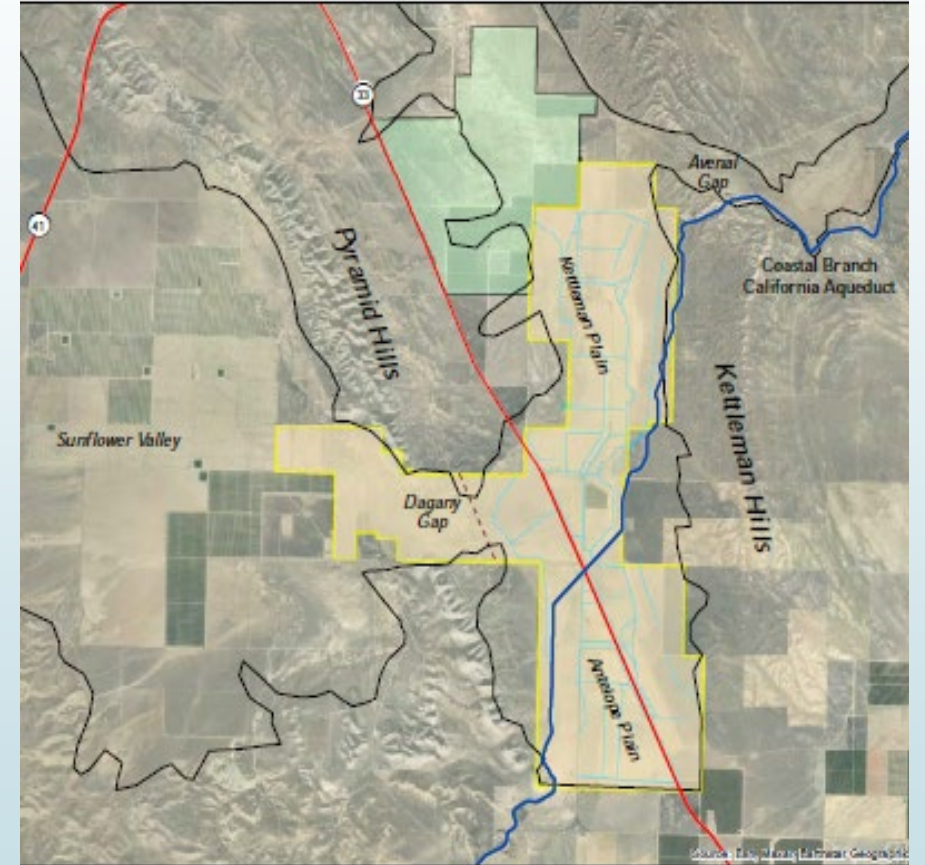
- High TDS concentrations
- Other inorganic constituents exceeding MCLs
- Not suitable for municipal supply without treatment
- Possibly suitable for Almond & Olive orchards
- Not suitable for Ag irrigation if TDS exceeds 2,000 mg/L



Evaluation of Water Quality

Sunflower Valley:

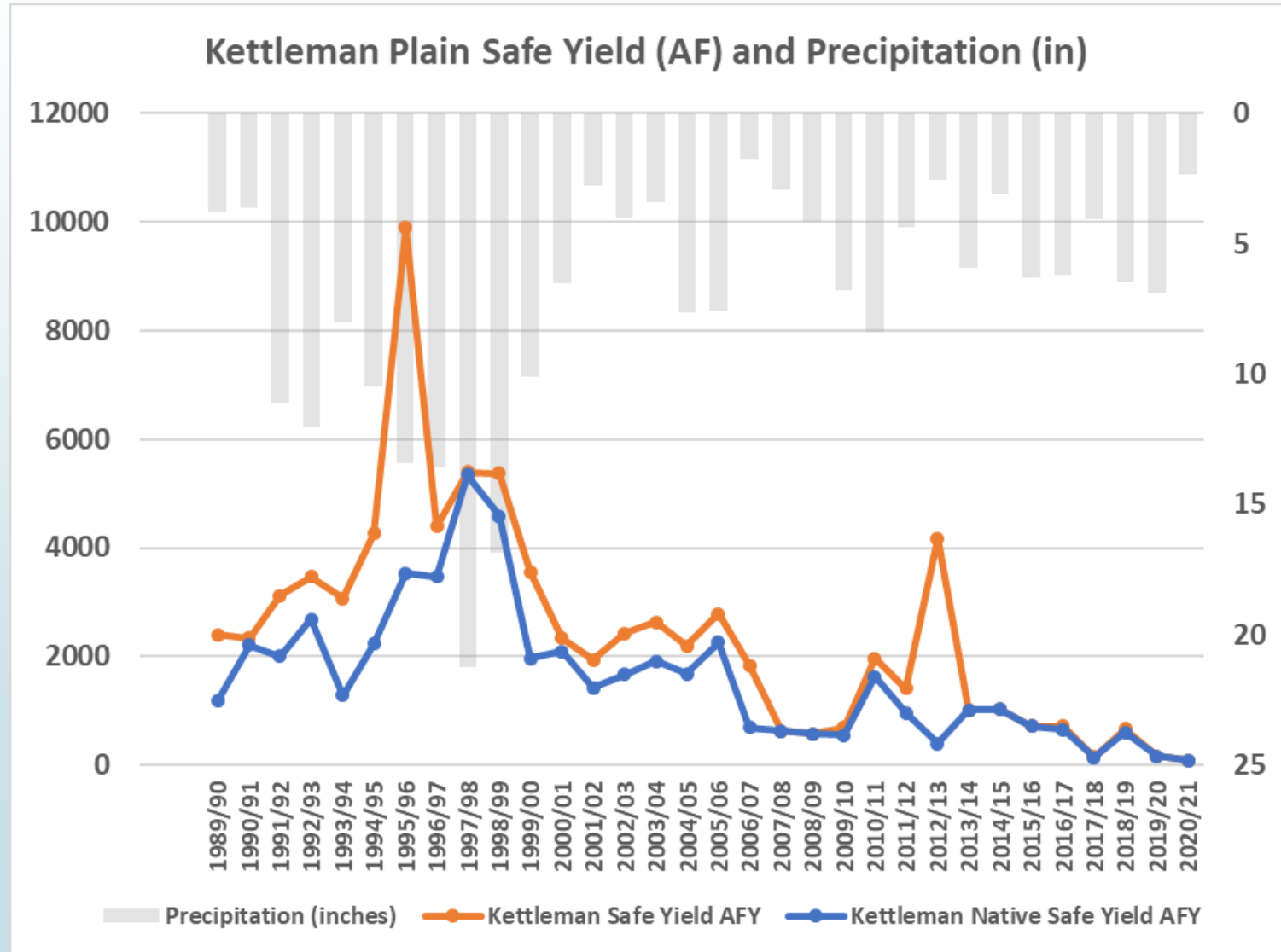
- High TDS concentrations
- High sulfate levels
- Inorganic constituent levels moderately better than Kettleman Plain
- Not suitable for municipal supply without treatment
- More suitable for Almonds & Olives



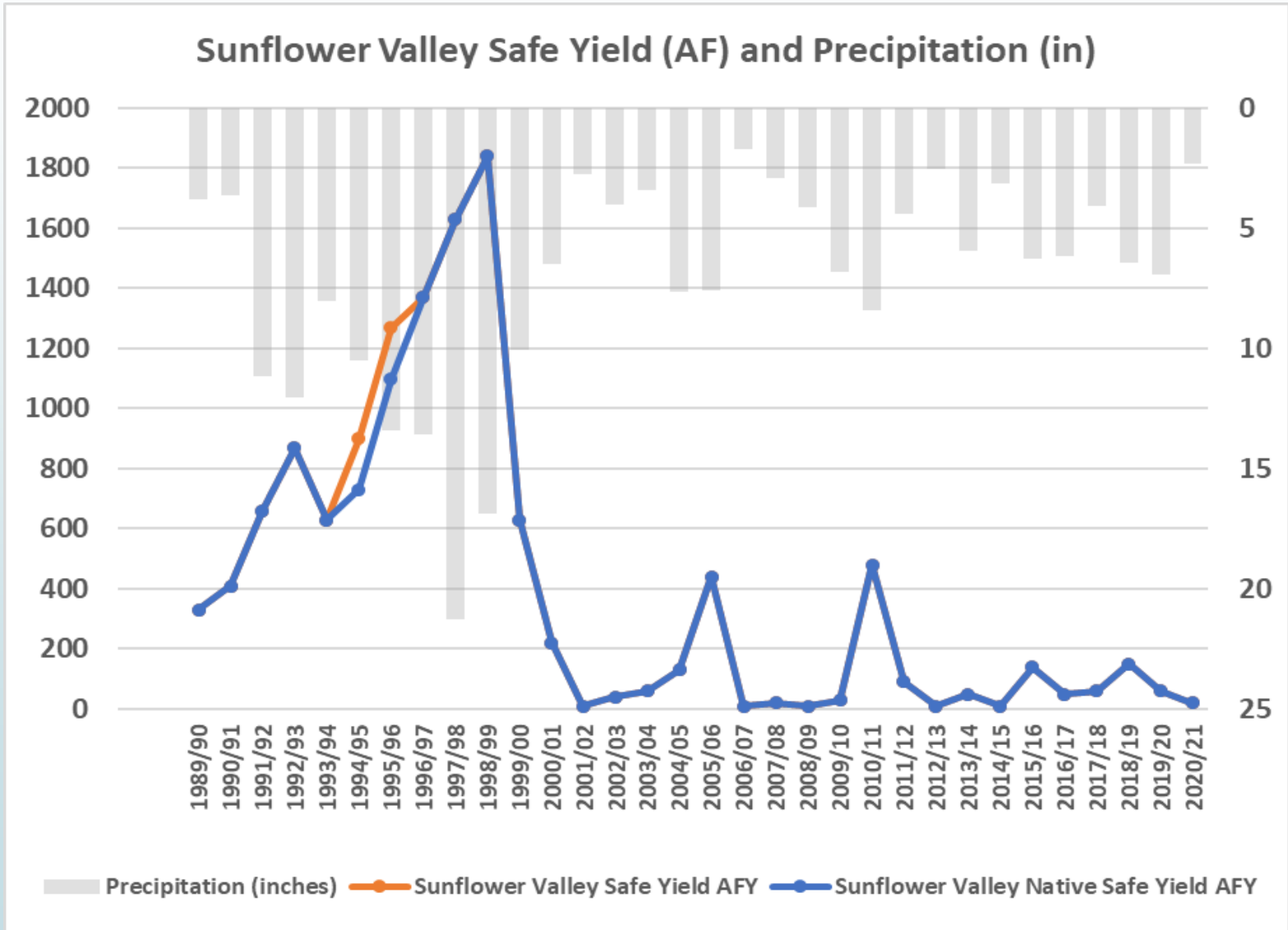
Sustainable Yield

- The California Water Code defines Sustainable Yield as:
 - The maximum quantity of water, calculated over a base period representative of long-term conditions that can be withdrawn annually from a groundwater supply without causing an undesirable result.
- Water Balance is an Accounting of all sources of Groundwater inflow and outflow from the basin
- Evaluated for two conditions
 - With full historical recharge including return flow of imported water
 - With removal of imported water to reflect “native” safe yield

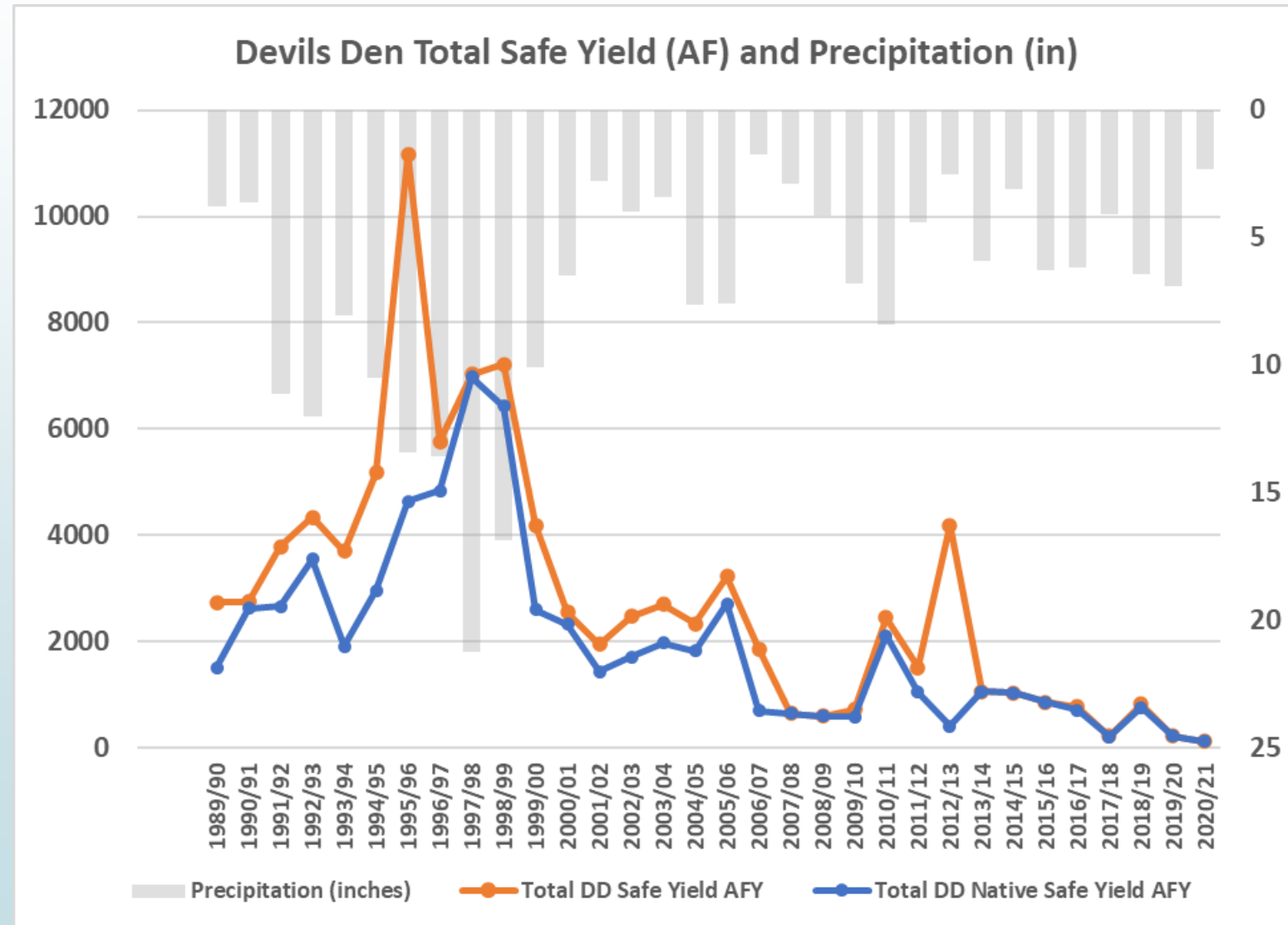
Sustainable Yield - Kettleman Plain



Sustainable Yield - Sunflower Valley



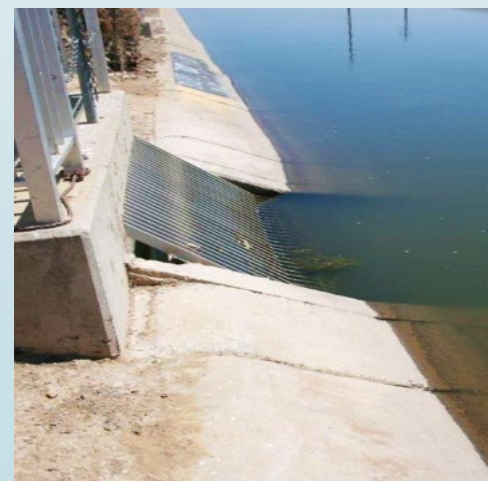
Total Devils Den Sustainable Yield



Summary of Findings

- Current safe yield
 - Lower than 1997 KJ report due to different precipitation data
 - Current total safe yield: 1,900 - 2,810 AFY
 - 1997 total safe yield: 2,600 - 6,400 AFY
- Precipitation above normal '89-'00 and below normal '01-'21
- Groundwater levels show declining trend after 1998 (30 feet)
- Groundwater quality limits beneficial use.
- Average annual native safe yield (no imported water) ranges between 1,900 to 1,990 AFY

Possible Revenue Streams for SCV Water



Possible Revenue Streams for SCV Water

SUMMARY OF ALTERNATIVES CONSIDERED							
Alternative	Capital Cost Required	Operational Cost?	Recommend for Further Analysis	How Much Land is Needed (acres)	CEQA Required?	Potential Revenues	Potential Risks
Status Quo	No	\$200k-\$300k/Yr	Yes	N/A	No	De minimus	Loss of Revenues from other alternatives
Lease for Agriculture	No	Minor or none	Yes	1040	No	\$13 M	Ties up land that could be leased for higher use (solar)
Solar Lease	No (EIR only)	Minor or none	Yes	1500-3000	Yes	\$44 M	Ties up land for long period of time - less flexibility
Water Easements	No	Minor or none	No (except for Solar Lease)	Variable	No	De minimus	Ties up land that could be leased for higher use
Other Utility Easements	No	Minor or none	No	Variable	No	De minimus	Ties up land that could be leased for higher use
Groundwater Export to adjacent property or district	Yes	Yes (power, well maintenance)	Yes	Variable	Maybe	\$57 M	Risk of triggering SGMA or unwanted local opposition
Desal (export or local)	Yes	Yes (power, plant operation)	No	180	Yes	Indeterminate	Risk of triggering SGMA or unwanted local opposition
Environmental Use	Yes	Minor or none	Yes	Variable	No?	Indeterminate	Land would have to be maintained in perpetuity
Surface Storage	Yes	Minor or none	No	80-481	Yes	N/A	Ties up land that could be leased for higher use
Sale of Property	Yes	No	No	N/A	No	\$76 M	No further revenue

Status Quo (Annual Farming & Grazing)

Continuation of existing lease:



- **Continue to Lease Property to Rolling Hills Farms**
 - No revenue unless selling water in dry years
 - RHF continues to maintain property for use of agricultural land

- **Find another annual crop farmer**



- SCVWA receives lease payments for farmed land
- Might involve delivery of SWP water
- Could charge more for delivered water
- SCVWA would have to pay for maintenance of non-farmed land

Solar Generation Leases

Benefits:

- Yearly Revenue of approx. \$750/Acre over 40-year term
- Revenue for 1,500 acres = \$44M (\$1.1M yearly)
- Minimal Option Payments may cover taxes
- SCVWA still owns land

Possible Risks:

- 4 to 6 years (possibly 10) to finalize land lease
 - Option payments much lower (\$50-\$80/ac) to secure land while due diligence is completed
- Solar Project may never be completed
 - Only 10% of projects get constructed



Long-Term Permanent Crop Lease

Benefits:

- Yearly Revenue of approx. \$440/Acre over 25-year term
- Revenue for 1,100 acres = \$12M (\$480K yearly)
- Revenue could increase in years where water can be sold and delivered to farm
- Still own land

Possible Risks:

- Grower request for lower lease payments (\$50/ac) to secure land while trees grow to production size (7 years)
- Grower may deplete groundwater supply
- DWR may request GSP be prepared



Export of Groundwater

Benefits:

- Revenue of approx. \$400/AF (averaged over 10 years)
- Native safe yield of 1,900 AFY relates to a Revenue of \$760,000 per year
- Exchange of Grower owned Table A water for local groundwater may be possible
- SCVWA Still owns land

Possible Risks:

- Upgrades to existing pumps and infrastructure
 - Could be paid for by Grower
- Depletion of groundwater supply
- Triggering SGMA and possible GSP



Easements

Benefits:

- One-time payments of \$500/ac for Permanent Easements
 - Value to some developers may be more
 - Path to Arco Substation
 - Conveyance of water to adjacent property
- One-year encumbrances - \$25-\$40/ac
- No cost to SCVWA
- SCVWA Still owns land

Possible Risks:

- May make leasing certain parcels more difficult



Environmental Uses/Mitigation Bank

Benefits:

- Unknown
 - Will depend on costs
 - Possible value between \$5,000 and \$30,000 per unit
 - SCVWA still owns land

Possible Risks:

- Cost of Habitat Restoration
- Cost of Design and CEQA Permitting
- Difficulty to Project Revenues
- Future difficulty in selling property





Sale of Property

Benefits:

- Influx of capital to SCVWA
 - \$6,750 – \$11,250 per acre
- No maintenance or liability concerns
- Savings of approx. \$300K/year
- State Water Project Table A remains with SCVWA

Possible Risks:

- SCVWA would no longer own property
- Issues with Surplus Lands Act
- Loss of revenue from other streams exceeding sales price

Conclusion

Multiple Streams	➔	Conjunctive use to maximize revenue
Solar Lease	➔	Largest revenue keeping ownership
Ag. Lease	➔	Large revenue but slightly riskier
Easements	➔	Can be done in conjunction with other revenue streams
Water Export	➔	Sustainable yield & costs may limit viability
Status Quo	➔	\$300K per year cost to SCV Water and liability
Mitigation	➔	Possible large initial costs to SCV Water
Sale	➔	Worth what someone is willing to pay

