

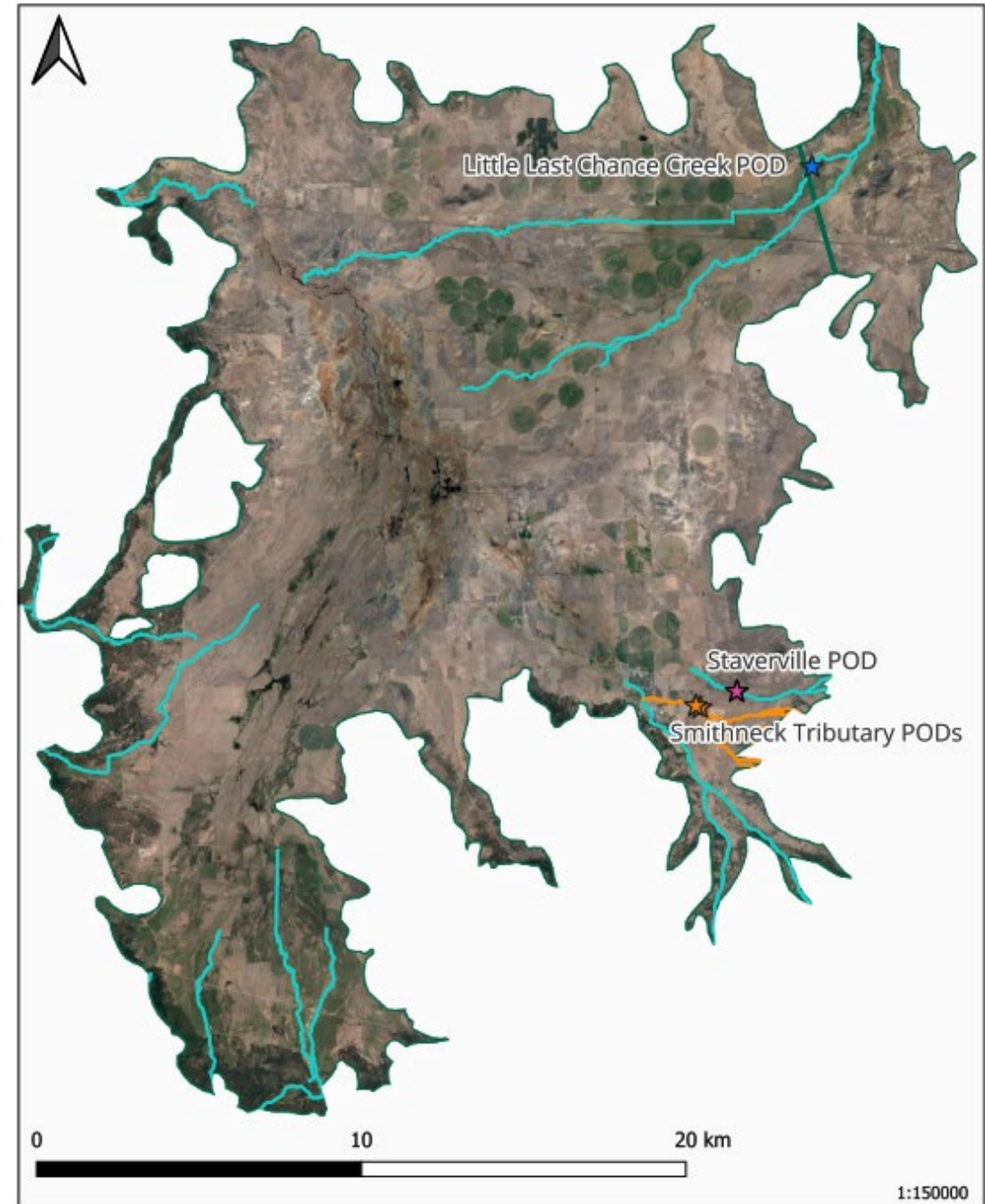
Groundwater Recharge Project Development

- Sierra Valley Recharge goal is to increase water storage in shallow and deep aquifer
- Potential benefits – GDEs, support flood control, water supply in dry years
- State Water Board allows diversion for recharge of high-volume winter flows



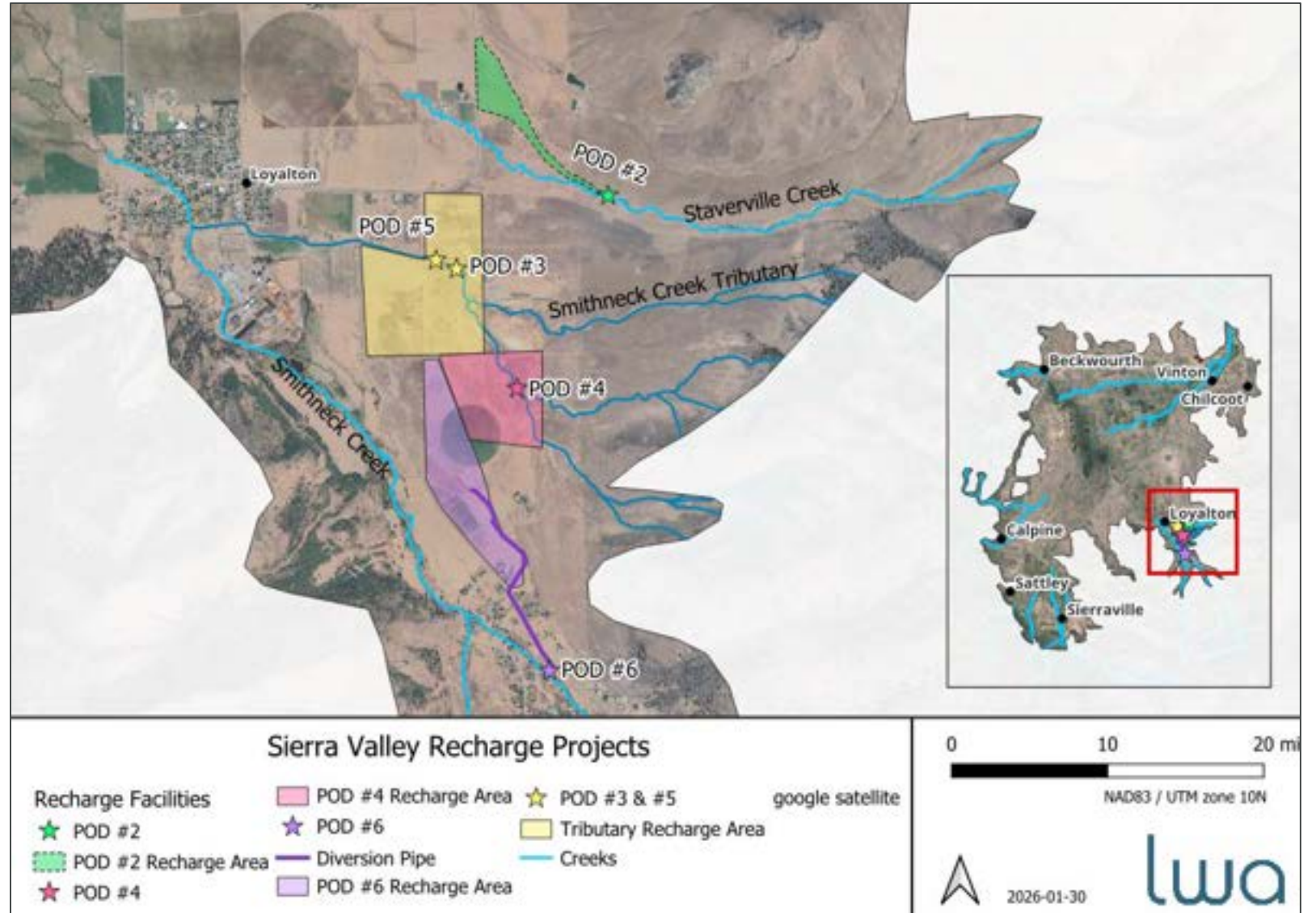
Sierra Valley Recharge Pilot Project Site Identification

- Locations along Little Last Chance Creek in the north and Staverville and Smithneck Creek in the south evaluated for
 - infiltration/permeability,
 - availability of existing diversions
 - landowner willingness
- Constraints
 - Geology (thick clay layer) limited potentially viable locations to perimeter of Basin
 - Waterbodies are adjudicated, protecting downstream water rights is a key condition
 - Upstream of Oroville which adds additional constraints
- Sites identified on Staverville and Smithneck Creeks
- LLCC site identified but infeasible due to location of permeable soils and associated operational/power costs

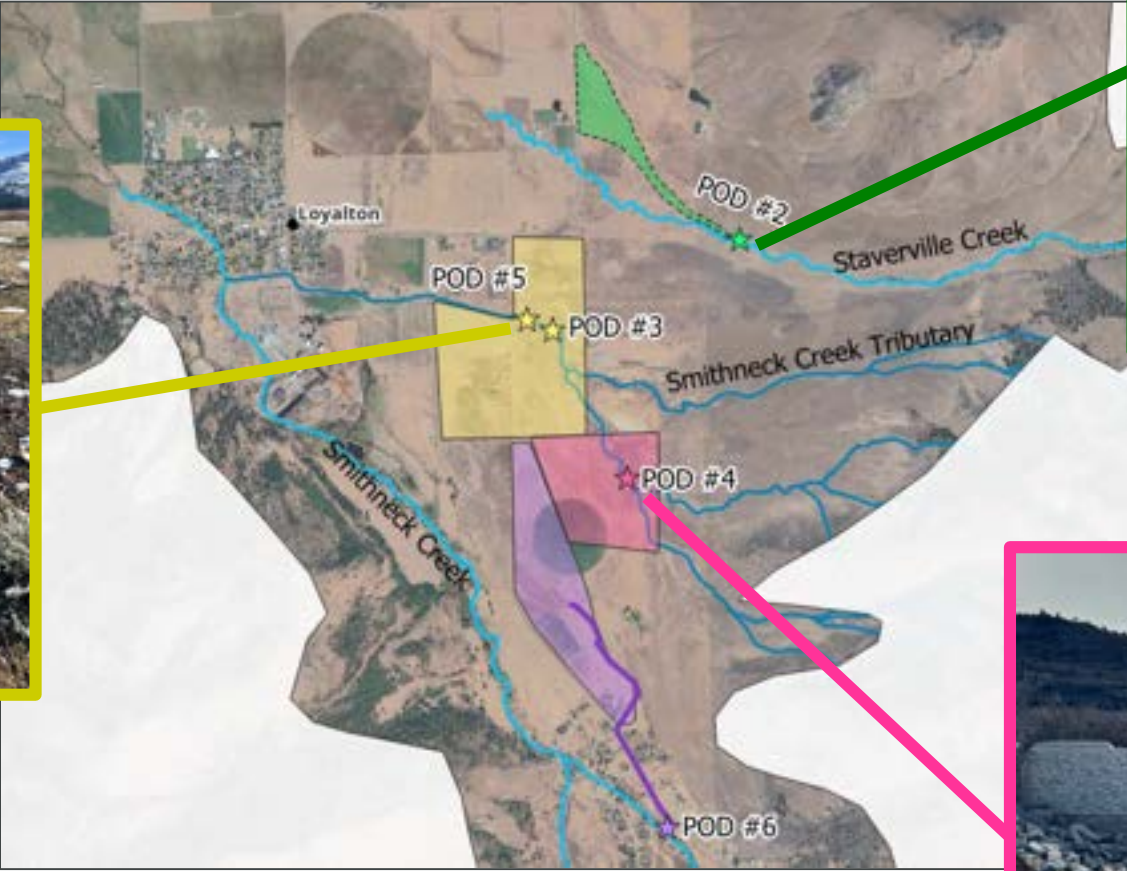


Recharge Project Development

- 3 projects in ephemeral drainage areas on a tributary to Smithneck Creek and 1 diversion off Staverville Creek (POD 2,3,4,5)
- Protection of Water Rights – recharge in non-irrigation season, December 1- March 14
- Obtained State Water Board temporary diversion permits for excess high flows
 - 180-day permit in 2023/24 and 2024/25
 - 5-year permit issued in September 2025



Recharge Project Development



Recharge Permit Conditions to ensure protection of beneficial uses and water rights

- Maintain a minimum flow in Creeks to protect downstream water rights
- Stream flow must be above 90th percentile of historic data for that day – diversion not to exceed 20% of stream flow or the difference between the 90th percentile and measured flow (whichever is lower)
- Instantaneous flow rate at the Oroville Dam gage must be $\geq 10,000$ cfs
- Delta must be in excess (with notable exceptions)



Recharge Projects Activity in 2025/26

- Met all conditions January 4-8, 2026 allowing ~12 AF of recharge at 4 sites (~2.5 AF/day)
- Continuing to recharge under water right on near Staverville (~0.5 cfs or 1 AF/day)
- Looking for options to recharge for longer periods or at more sites to increase total recharge potential

Recharge Check Structure near Staverville Creek



Recharge Check Structure near Smithneck Creek



Next Steps – Evaluate effectiveness, identify potential improvements for 2026/27

Ephemeral Drainage and Dry Well near Smithneck Creek

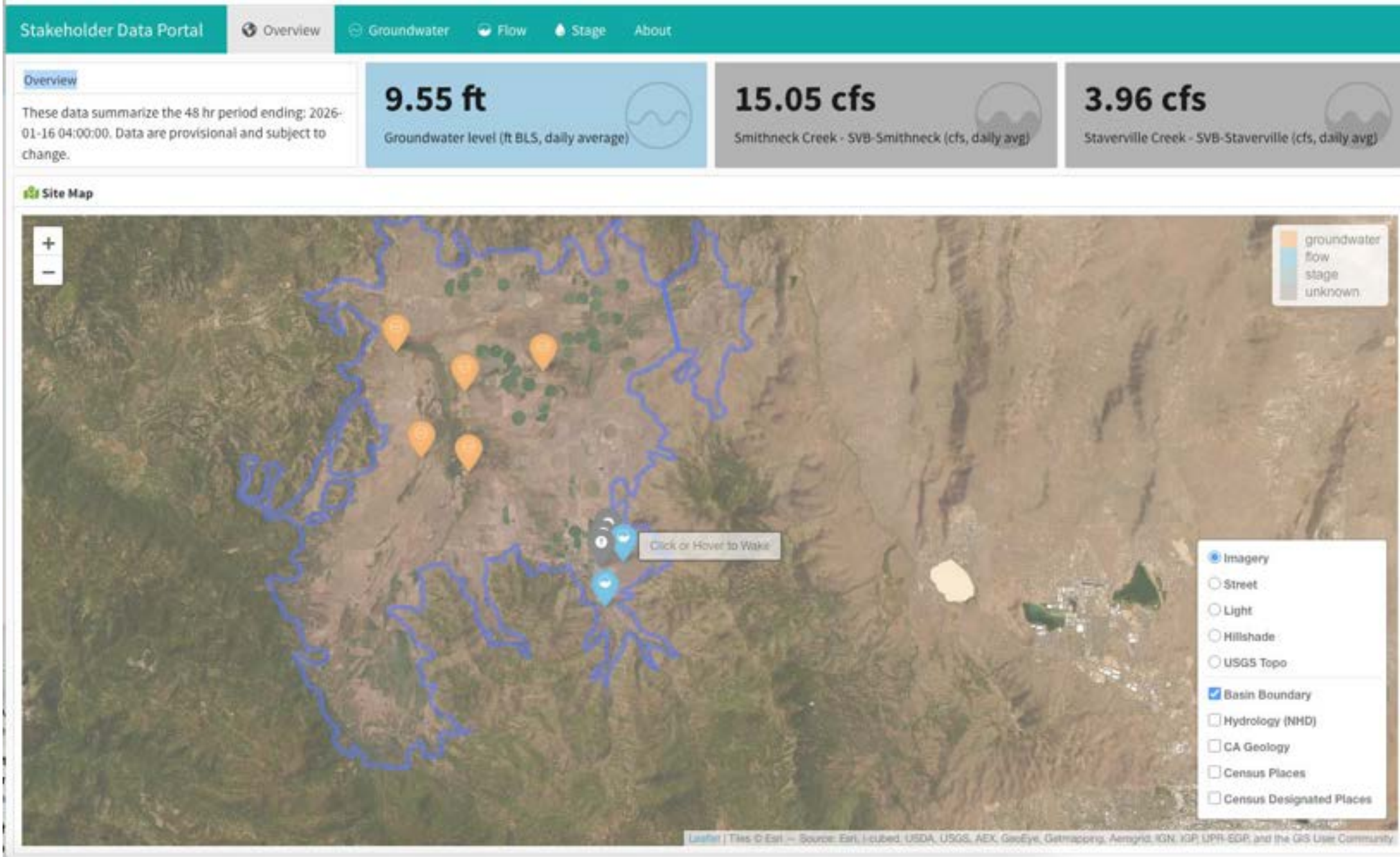


Recharge Check Structure near Staverville Creek



Recharge Dashboard

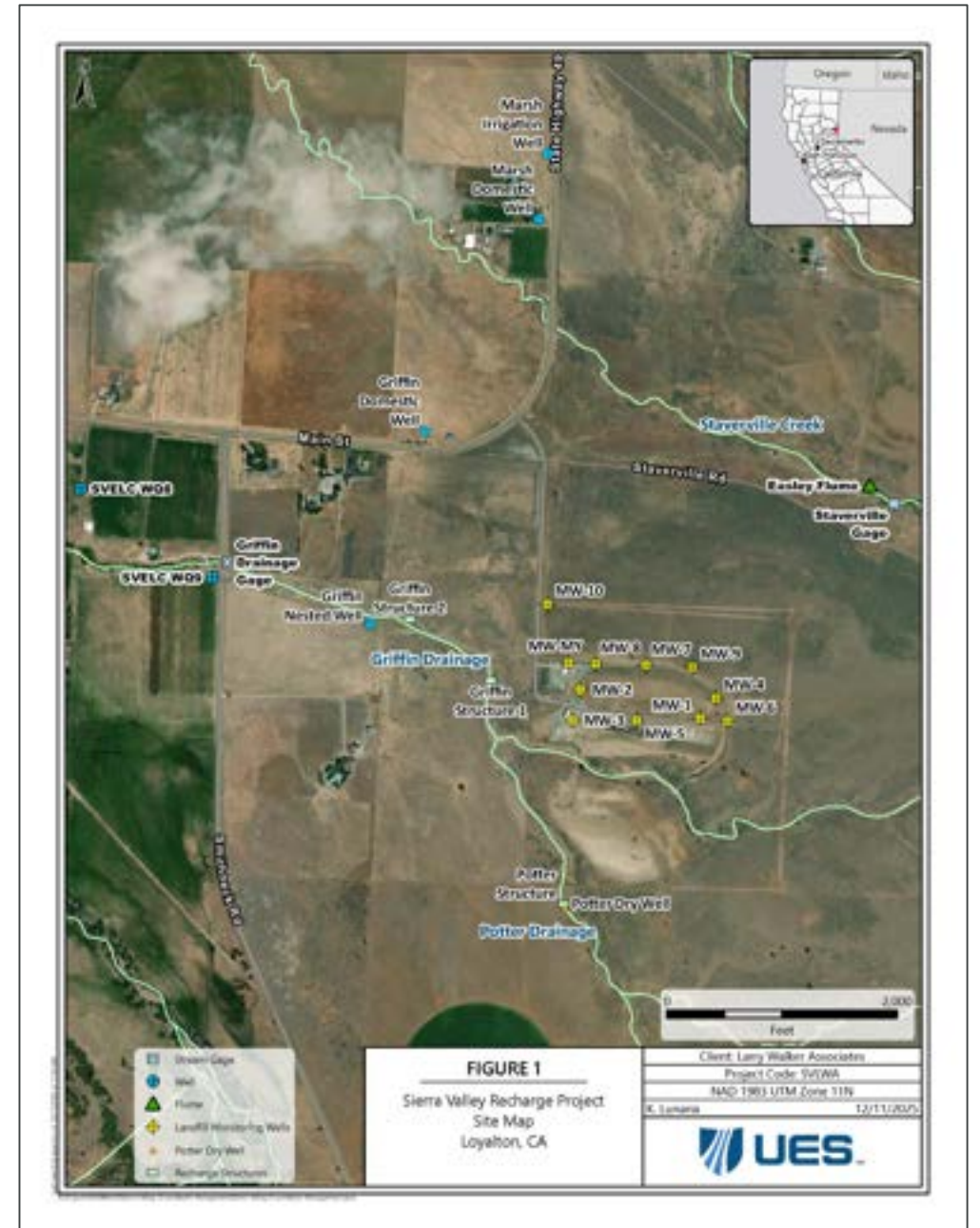
Recharge Project Monitoring Points



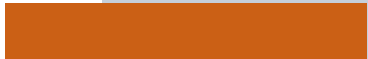
Recharge Project Monitoring

Loyalton Area

- Staverville Creek
- Smithneck Drainages

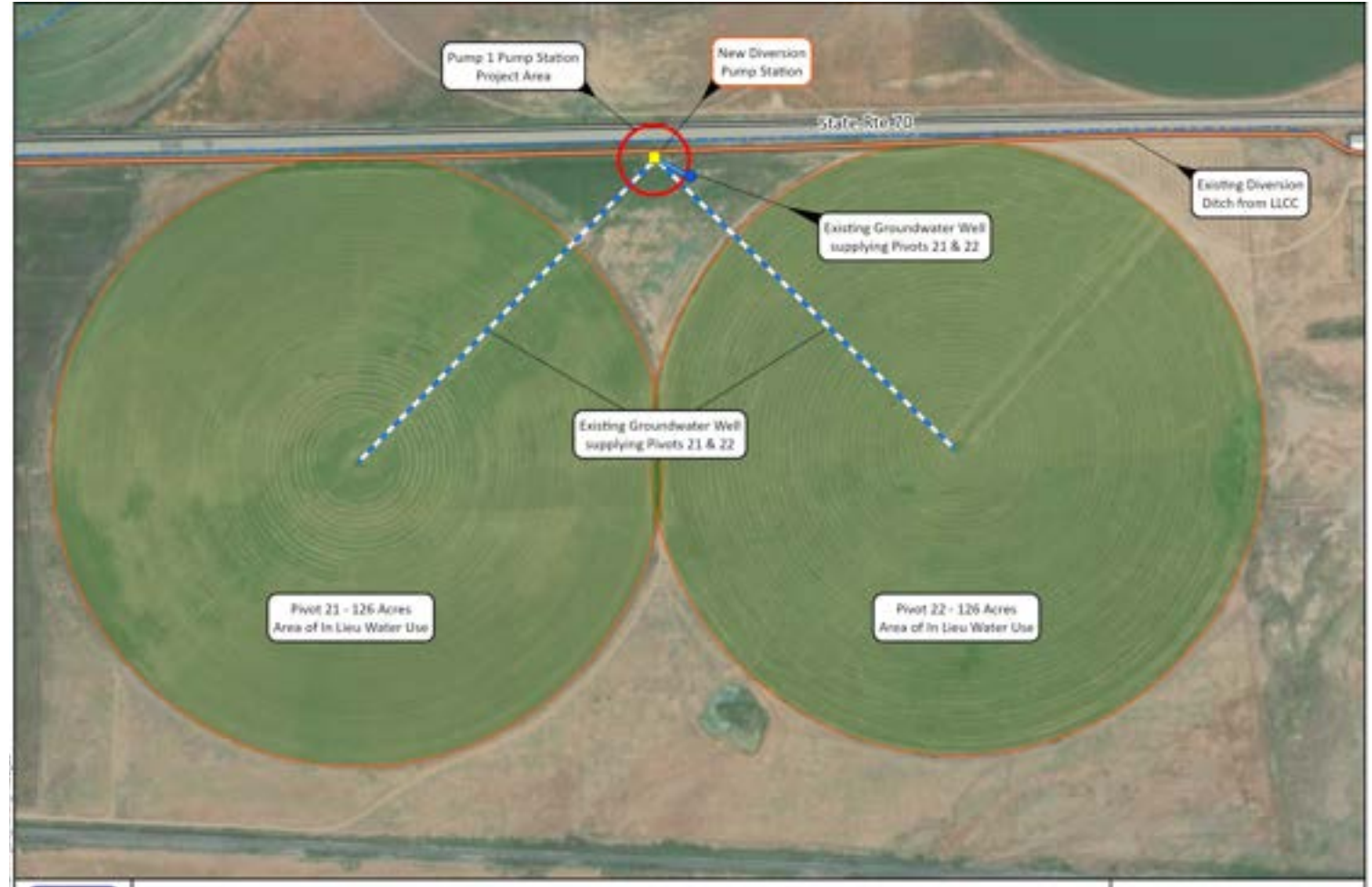


In-lieu Recharge/ Conjunctive Use

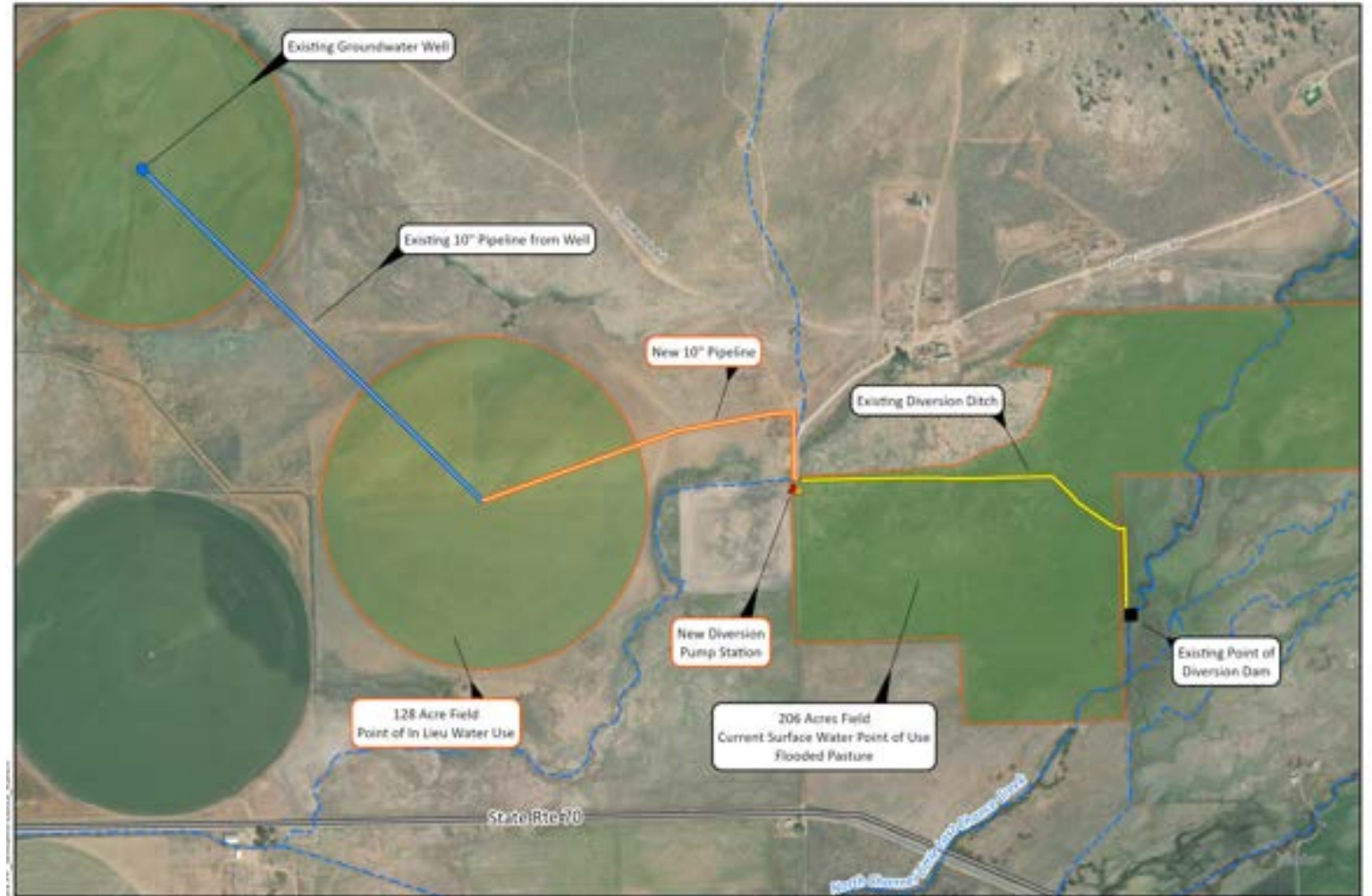


In-Lieu Recharge Projects (growing season)

- 3 projects identified near Little Last Chance Creek
- Using surface water instead of groundwater for irrigation
- Will directly benefit the water budget and achieving the sustainable yield
- Using existing diversions and water rights
- No new diversion permits required
- Pilot phase to be implemented this spring



Pipeline connecting existing diversion to area previously irrigated by groundwater



Connecting existing diversion to existing pipeline from groundwater well

