

Yolo County Water Awareness Forum

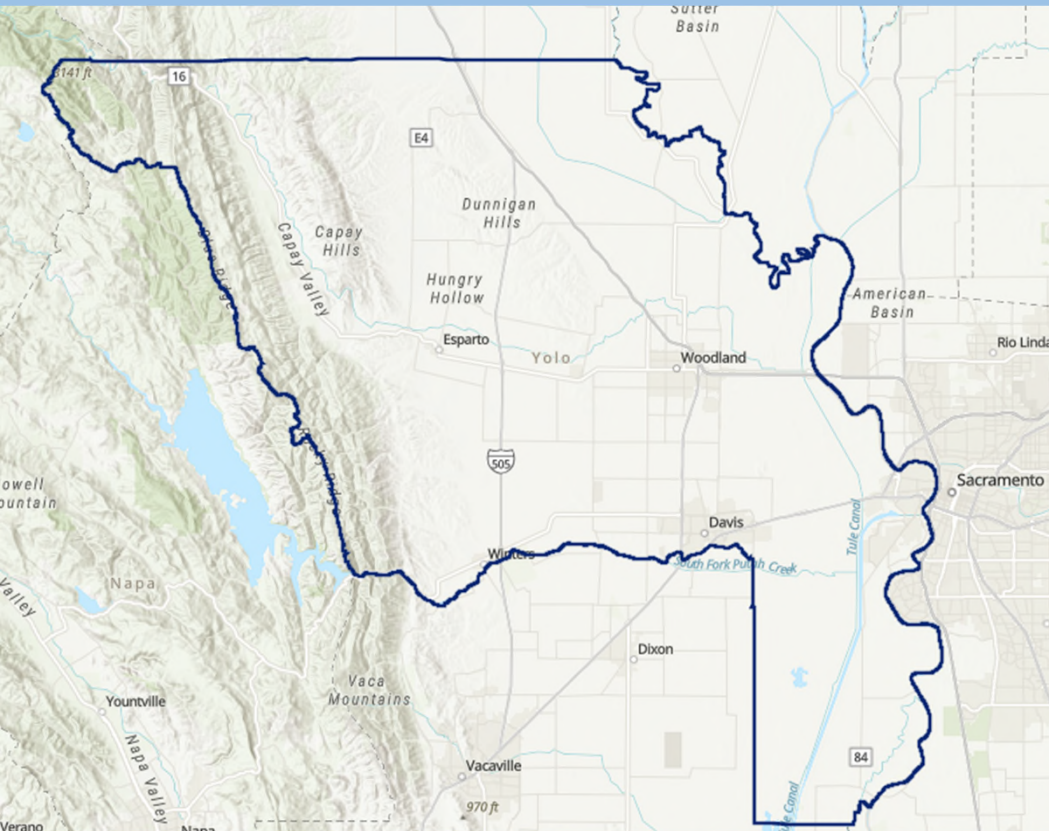
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Yocha Dehe Wintun Nation Sustainable Water Protection

Marc Fawns P.G. – Water Quality Manager
Yocha Dehe Environmental Department



The Yocha Dehe Wintun Nation Tribal Operations are primarily in the Capay Valley, Yolo County, California



Cache Creek Casino Resort

Million gallons of highly treated
wastewater is reused annually for
irrigation on the adjacent Yocha Dehe
Golf Course.

Million gallons of highly treated
wastewater is reused annually for toilet
and urinal flushing; reducing daily
potable water demand by 55,000
gallons.

Raw groundwater is used for
irrigation at the Yocha Dehe Golf
Course.





Increased Use of Surfacewater From Cache Creek

- The use of surfacewater reduces the groundwater demand and improves long-term groundwater sustainability.
- 2015 - the golf course creek intake distribution system expanded for irrigation of the casino landscaping, reducing the demand of the groundwater wells by approximately 1 million gallons annually. Also allowed for delivery to farmland previously irrigated solely by groundwater.
- 2020 – North Pump Surfacewater Intake System brought online, distributing surfacewater to farmland previously irrigated solely by groundwater.
- 2021 – North Pump Surfacewater Distribution System expanded to other groundwater-dependent tribal properties, further reducing groundwater demand.



Tribal Water Well Ordinance

- 2018 - Tribal Water Well Ordinance adopted by the Tribal Council (applicable to all lands controlled by Yocha Dehe, fee or trust land).
- Identifies standards for well work and identifies permitting requirements for new wells, soil borings, anytime a well seal is broken, and well destructions.
- Has allowed for a better understanding of groundwater conditions on tribal properties.
- The Yocha Dehe Environmental Department is the enforcing agency.



Tribal Environmental Department Groundwater Monitoring

- Groundwater Levels:
 - 35 wells monitored a minimum of twice a year, with many measured monthly.
 - Additional 15 wells monitored that are associated with regulatory requirements.
- Groundwater Sampling:
 - Minimum 14 wells annually at varying locations on the tribal properties.
 - Additional 9 wells twice a year for regulatory purposes.

Annual Crop Selection

Prior to each planting season, the Yocha Dehe arm reviews projected surfacewater deliveries, groundwater levels, and historical water use information to assist with annual crop selection and planning.

Current and historic irrigation crop demand is also monitored.

Once the available water sources are reviewed, determinations are made on which annual crops will be planted.

Being mindful of available water and irrigation crop demands protects the sustainability of groundwater and safeguards other tribal operations.



Perennial Crop Selection

The Yocha Dehe Farm is diversified in their perennial crops, but olive trees are preferred due to a lower annual irrigation demand.

New perennial crops only planted after careful consideration of long-term water demands.

Selection of olive and almond crops provides additional flexibility as they can be deficit irrigated, if needed.

Perennial crops are irrigated with lowest possible water use in mind, utilizing best management practices and current technology.





Declaring Tribal Drought Emergency and Instituting Water Conservation Measures

- In 2014 and 2022, the Yocha Dehe Tribal Council declared a Tribal Drought Emergency and instituted water conservation measures. In 2022, water conservation methods resulted in water conservation and use reduction across tribal operations, including an approximately 20% agricultural water reduction.
- The 2022 agricultural water reduction was a result of detailed planning that included: crop rotation, fallowing water intensive annual crops and pasture, targeted removal of aging orchards, and water reduction to crops that would not be permanently damaged (late season alfalfa and olive orchards).



Reuse of wastewater at the Seka Hill Olive Mill

- Up to 1.6 million gallons of olive oil milling process wastewater can be reused annually for irrigation under current permitting requirements.
- Shallow groundwater conditions are closely monitored beneath the application areas. Wastewater is applied to fallow grasses or perennial crops at agronomic rates.
- The fallow grasses in the primary application area are grazed by cattle each year.



Additional Water Conservation Actions

- Prioritizing low water use irrigation across tribal properties.
- Selection of decorative landscaping that includes drought tolerant plants, dryscape, and artificial turf.
- Cutting irrigation to non-essential landscaping when needed.
- Installing low water use fixtures and appliances (retrofit and new construction)
- Limiting wet drills at the Yocha Dehe Fire Department.
- Limiting the use of pressure washers on tribal properties.