

East Turlock Subbasin Groundwater Sustainability Agency

Multibenefit Land Repurposing Program

ORCHARD SWALE REWILDING

How it Works

Orchard swale rewilding involves converting low-lying areas (swales) within orchards, typically prone to water accumulation or lower productivity, into areas of native / resident vegetation. This process includes removing orchard trees from these areas and planting beneficial cover crops or native / resident plant species, which can help restore natural ecosystems, improve biodiversity, enhance water management, and provide a range of environmental and community benefits. By allowing these areas to revert to more natural states, orchard swale rewilding can help balance agricultural productivity with ecological restoration.



+ Benefits



Water Management – Improved water infiltration, reduced runoff, enhanced groundwater recharge, reduced soil erosion.



Habitat and Biodiversity – Habitat for various wildlife species, including pollinators, birds, and small mammals; increased biodiversity in agricultural landscapes.



Soil Health – Improved soil structure, increased organic matter, increased microbial diversity.



Climate Resilience – Carbon capture; resilience to drought conditions.



Social Benefits – Enhanced aesthetics, potential recreational or educational opportunities for communities (dependent on project location).

Additional Considerations



Design – Cover crop or native / resident vegetation planning to ensure long-term vitality and sustainability.



Maintenance – Pest management, invasive species, drought and climate change impacts.



Working Around Rewilded Areas – Orchard operations (e.g., pruning and harvesting) may need to be adjusted to avoid disturbance to rewilded swale areas.



Implementation Incentive Payment

The ETSGSA will be able to provide incentive payments to growers to implement multibenefit land repurposing using funding from a grant awarded to the GSA by the CA Department of Conservation.

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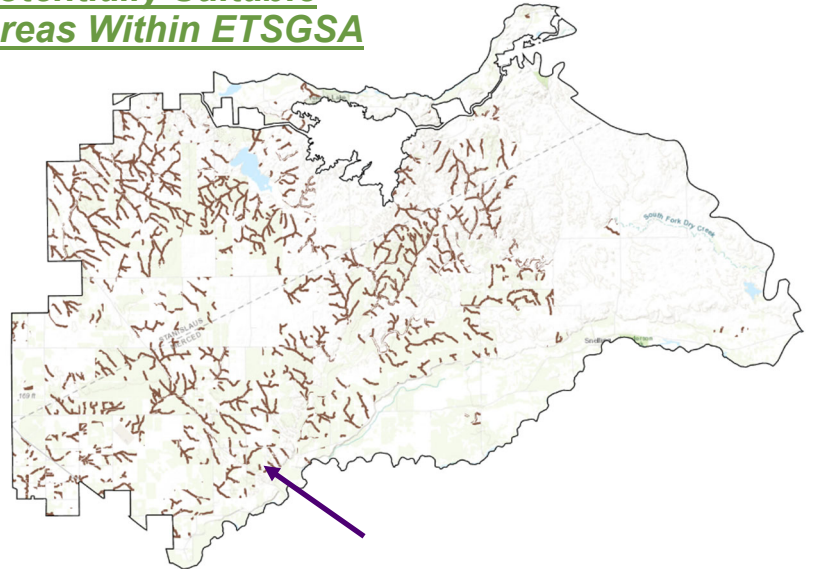
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Implementation Steps

- 1) **Planning and Design** – Demarcate rewilding area and buffer strip, staging area, etc.
- 2) **Site Preparation** – Orchard tree and irrigation system removal from demarcated area, whole orchard recycling (optional), irrigation system removal or adjustment, and soil testing, as needed.
- 3) **Water Management Infrastructure Installation** – Install berms or small stormwater retention ponds (optional) to reduce stormflows and enhance recharge.
- 4) **Vegetation Establishment** – Plant or seed cover crop or native / resident vegetation. Cover cropping may aid in removing excess nutrients from soil.
- 5) **Maintenance & Monitoring** – Monitor and manage vegetation (pruning, thinning, etc.), implement pest control and invasive species management, maintain water management infrastructure, as needed.

Potentially Suitable Areas Within ETSGSA

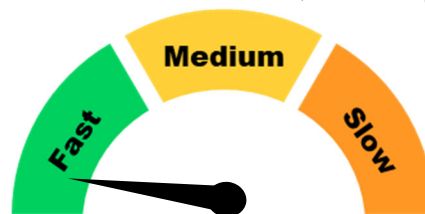


Priority Areas (11,382 acres identified): Swale areas with permanent crops like orchards that may exhibit decreased crop vitality and where long-term soil health, water conservation, and sustainable agricultural practices would be most beneficial.

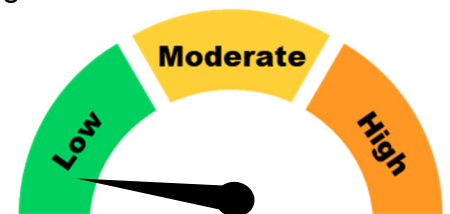
¹ Land area estimation from Formation Environmental Land Suitability Assessment. MLRP mapping is provided for preliminary planning purposes only. Project designs will need to be based on parcel-specific analysis.

Potential Permitting and CEQA Process

The general permitting and CEQA timeframe and complexity are shown below. However, permitting and CEQA requirements for specific projects may vary based on site- and project-specific conditions, and may be greater than indicated.



Permitting / CEQA



Permitting / CEQA
Complexity

Additional Information / Resources:

- [NRCS Conservation Practice Standard | 327 Conservation Cover](#) (USDA)
- [NRCS Conservation Practice Standard | 390 Riparian Herbaceous Cover](#) (USDA)
- [NRCS Conservation Practice Standard | 420 Wildlife Habitat Planting](#) (USDA)



For more information on the ETSGSA Multibenefit Land Repurposing Program visit: <https://turlockgroundwater.org/multibenefit-land-repurposing>