

East Turlock Subbasin Groundwater Sustainability Agency

Multibenefit Land Repurposing Program

ROTATIONAL/EXTENDED FALLOWING

How it Works

Extended Fallowing involves lengthening the interval between replanting of permanent crops such as orchards to at least three years for a given piece of land. Multiple benefits are promoted during these extended fallow periods by planting beneficial cover crops on the fallowed land. These cover crops can enhance soil health, prevent erosion and control dust, and provide habitat for pollinators and beneficial insects. Ten-year contract commitments may be achieved by rotating fallowed lands within a farm unit or by pooling with other sites across the program under an ETSGSA-coordinated pooling program.

Benefits



Soil Health – Improved soil structure, fertility, and microbial activity.



Erosion and Dust Control – Planting cover crops during the fallow period helps prevent soil erosion and dust emissions, protecting soil integrity and air quality.



Habitat and Biodiversity – Selected cover crops can provide habitat for pollinators and other beneficial species.



Nutrient Cycling – Improved nutrient cycling through nitrogen fixation, reducing the need for synthetic fertilizers.



Pest and Disease Management – Disrupt pest and disease cycles, resulting in reduced reliance on chemical controls.



Additional Considerations



Establishment and Maintenance of Cover Crops – Requires resources and knowledge to select appropriate cover crops and manage them effectively for optimal soil health benefits.



Potential for Weed Growth – Fallow periods can provide an opportunity for weeds to establish.



Long-term Sustainability Planning – Develop a long-term plan that integrates extended fallowing into broader farm management and sustainability goals, considering economic, environmental, and social factors.



Research and Innovation – Invest in research to optimize fallowing practices, cover crop selection, and management techniques for different soil types and climates.



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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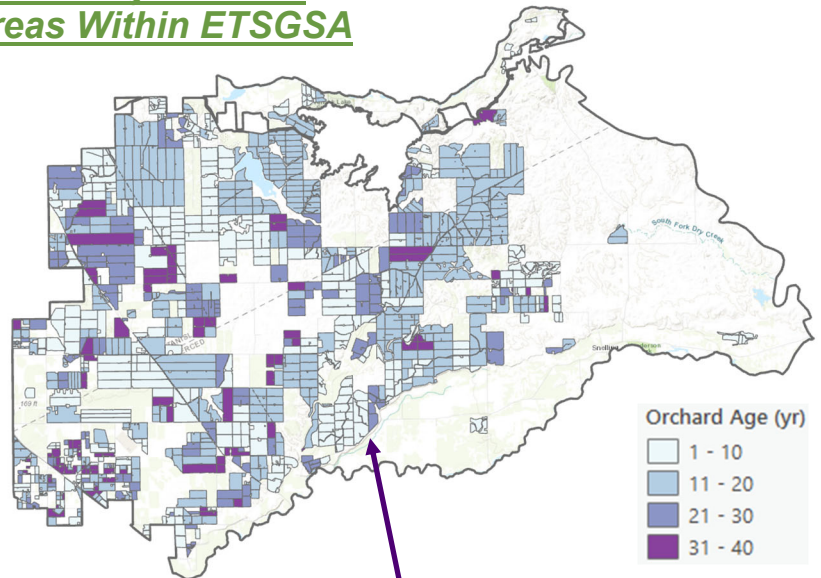
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Implementation Steps

- 1) **Planning** – Evaluate existing orchard rotations to identify optimal timing and schedule for rotational fallowing.
- 2) **Cover Crop Design** – Choose appropriate cover crops based on local soil conditions, climate, and desired soil health benefits.
- 3) **Site Preparation** – Orchard tree removal, whole orchard recycling (optional), irrigation system removal or adjustment, and soil testing, as needed.
- 4) **Cover Crop Establishment and Maintenance** – Plant cover crops, hedgerows (optional), manage through mowing, grazing, or tilling, depending on the desired soil health benefits and farming practices.
- 5) **Maintenance & Monitoring** – Weed and pest control, monitoring of soil health, nutrients, moisture levels, etc.
- 6) **Adaptive Management** - Adjust rotations based on monitoring

Potentially Suitable Areas Within ETSGSA

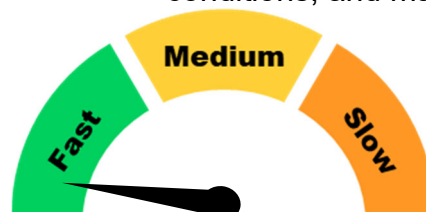


Priority Areas (12,607 acres identified as >20 years old): Areas with permanent crops like orchards that benefit from periodic rest and recovery, and areas where long-term soil health, water conservation, and sustainable agricultural practices would be most beneficial.

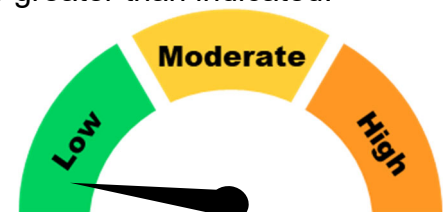
¹ Land area estimation from Formation Environmental Land Suitability Assessment. MLRP mapping is provided for preliminary planning purposes only. Project designs will need to be based on parcel-specific analysis.

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)
- [Cover Cropping for Pollinators and Beneficial Insects](#) (SARE)
- [Center for Regenerative Agriculture and Resilient Systems](#) (CSU Chico)
- [Cover Cropping in the SGMA Era](#) (Sustainable Conservation, 2024)



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