

# Notice of Exemption

## Appendix E

**To:** Office of Planning and Research  
P.O. Box 3044, Room 113  
Sacramento, CA 95812-3044

County Clerk

County of: Sonoma

585 Fiscal Drive #103F

Santa Rosa, CA 95403

**From:** (Public Agency): Gold Ridge RCD  
2776 Sullivan Road  
Sebastopol, CA 95472

(Address)

**Project Title:** The effects of actively aerated compost tea on greenhouse gas emissions, soil carbon sequestration in a Sonoma County pome fruit orchard.

**Project Applicant:** Gold Ridge RCD

**Project Location - Specific:**

3175 Sullivan Road

**Project Location - City:** Sebastopol

**Project Location - County:** Sonoma

### Description of Nature, Purpose and Beneficiaries of Project:

Soil health is one of the primary concerns in pome fruit orchards. Compost tea applications have been shown to increase the number of beneficial microorganisms in soil and increase available nutrients. However, little is known about the lasting effects of actively aerated compost tea on soil carbon sequestration or GHG emissions. At Gabriel Farm, we will establish treatment and control orchard blocks. Current orchard floor management will be adjusted to test the efficacy of actively aerated compost tea applications on soil health, soil water holding capacity, carbon sequestration, and the exchange of GHG and water vapor between the orchard floor and the atmosphere. This project will evaluate the impacts of adding actively aerated compost tea from dairy cow manure vermicompost on soil health, GHG emissions and crop yields. Soil sampling and gas exchange sampling will be conducted to measure change in total organic carbon, bulk density, water infiltration rate, CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O fluxes from each treatment and control fields.

**Name of Public Agency Approving Project:** \_\_\_\_\_

**Name of Person or Agency Carrying Out Project:** \_\_\_\_\_

### Exempt Status: (check one):

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15333
- ☐ Statutory Exemptions. State code number: \_\_\_\_\_

### Reasons why project is exempt:

The project will not to exceed five acres in size to assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife provided that:

- (a) There would be no significant adverse impact on endangered, rare or threatened species or their habitat pursuant to section 15065,
- (b) There are no hazardous materials at or around the project site that may be disturbed or removed, and
- (c) The project will not result in impacts that are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

**Lead Agency**

**Contact Person:** William Hart

**Area Code/Telephone/Extension:** 707-823-5244 x 15

### If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☐ No

**Signature:** William Hart Digitally signed by William Hart  
Date: 2020.08.03 11:35:56 -07'00' **Date:** 03 August 2020 **Title:** Project Manager

☒ Signed by Lead Agency ☐ Signed by Applicant

**Governor's Office of Planning & Research**

Authority cited: Sections 21083 and 21110, Public Resources Code.  
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: **Aug 03 2020**

**STATE CLEARINGHOUSE**



**Date:** August 3, 2020

**From:** William Hart, Project Manager [william@goldridgercd.org](mailto:william@goldridgercd.org)

**Project Title:** The effects of actively aerated compost tea on greenhouse gas emissions, soil carbon sequestration in a Sonoma County pome fruit orchard.

**Project Applicant:** Gold Ridge Resource Conservation District

**Project Location:** 3175 Sullivan Road

**Project Location - City:** Sebastopol, CA

**Project Location – County:** Sonoma

**Description of the Nature, Purpose and Beneficiaries of Project:** Orchard understories perform a number of ecosystem services and each can impact each other (e.g. water relations and gas exchange), and each ecosystem service is interconnected and impacted by one or more management decisions by the producer. In organic farming systems, tillage is often utilized in the rows for weed control and suppression, which has negative consequences such as accelerated decomposition of organic matter, degradation of soil structure, reduction of water infiltration, and increased susceptibility to water and wind erosion.

Organic amendments are reported to improve soil health and reduced greenhouse gas (GHG) emissions. This project will evaluate the impacts of adding actively aerated compost tea from dairy cow manure vermicompost on soil health, GHG emissions and crop yields. Soil sampling and gas exchange sampling will be conducted to measure change in total organic carbon, bulk density, water infiltration rate, CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O fluxes from each treatment and control fields. We hypothesize that actively aerated compost tea will be measurably increasing the soil carbon pool and releasing less CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O to the atmosphere over the life of the project than the Control.

The project site is located at Gabriel Farm in western Sonoma County near the city of Sebastopol. Historically, this was the central apple production area in northern California. Gabriel Farm is a known innovator. Their willingness to experiment and test practices, their reputation in the community as an active small family farm, and their central location in the Sonoma County apple region were instrumental in choosing Gabriel Farm for this demonstration project. The issues that Gabriel Farm faces in relation to soil health and orchard floor management are not unique. Soil health concerns are key issues among orchardists throughout the north coast region and the state. Implementing this demonstration project at Gabriel Farm will enable these practices to reach a broad audience of growers and landowners.



Carbon Cycle Institute

## 2019 Healthy Soils Demonstration Project

The effects of compost tea on greenhouse gas emissions and soil carbon sequestration in a Sonoma County pome fruit orchard



Gabriel Farm



Gabriel Farm  
3175 Sullivan Road  
Sebastopol, CA 95472

APN 130-090-024, 14 acres

Treatment  
Compost Tea (2.2 acres)  
Control (2.2 acres)