SAN MATEO RESOURCE CONSERVATION DISTRICT

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HALF MOON BAY, CA 94019

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CERTIFICATE OF DETERMINATION
OF EXEMPTION/EXCLUSION
FROM ENVIRONMENTAL REVIEW

Project Title:	Soil Health Practices Implementation at Farm Fatales on Irish Ridge Ranch
Project Location:	Farm Fatales, 2500 Lobitos Creek Road
Assessor's Parcel Numbers:	066-300-110
City and County**:**	Half Moon Bay, San Mateo County

Description of Nature and Purpose of Project:

This project will help a rancher to implement common agricultural practices to improve ecosystem function for their agricultural operation. The project involves pasture compost application, and hedgerow and windbreak establishments.

Compost use is a common agricultural practice primarily because it is an effective way to increase soil organic matter (SOM). Soil organic matter is an important component of soil health as it provides and retains nutrients, improves soil aggregation, reduces soil erosion, and increases water holding capacity (Tisdall and Oades, 1982; Brady and Weil, 2002). Many recent studies and initiatives (like the California Department of Food and Agriculture's Healthy Soil Initiative) have focused on the connection between increasing soil organic matter and carbon sequestration, particularly in grassland ecosystems. The research resulting from a study done in Marin County (Marin Carbon Project) documented an increase in soil carbon from a single application of compost to rangelands (Ryals, et al., 2014). In addition to the carbon sequestration potential, these studies showed an increase in plant productivity and forage production (Ryals, et al., 2016), which is of interest to ranchers.

Plantings like hedgerows and windbreaks are also common agricultural practices. Woody plantings provide a variety of benefits: they "serve as habitat for beneficial insects, pollinators and other wildlife; provide erosion protection and weed control; serve as windbreaks; stabilize waterways; reduce non-point source water pollution and groundwater pollution; increase surface water infiltration; buffer pesticide drift, noise, odors and dust; act as living fences and boundary lines; increase biodiversity; sequester carbon; and provide an aesthetic resource," (Earnshaw, 2018).

The San Mateo Resource Conservation District (RCD), with funding from Zero Food Print and PG&E Foundation, will be assisting Farm Fatales, a grazing and orchard agricultural operation in coastal San Mateo County, with implementation of three agricultural practices: a ¼" compost application to 2.2 acres of grazed pasture, a 390-foot native hedgerow, and a 315-foot coniferous windbreak. This project consists of implementation of three common agricultural practices with minimal land disturbance, and as such, there is no significant impact.

Name of Person, Board, Commission or Department Proposing to Carry Out Project:
San Mateo Resource Conservation District
Kellyx Nelson
80 Stone Pine, Suite 100
Half Moon Bay, CA 94019

EXEMPT STATUS:
X Categorical Exemption, Class 4 (15304)

REMARKS: See next page.

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Contact Person: Kasey Butler Telephone: (650) 712-7765 x 108

09/24/2021

Date of Determination:

I do hereby certify that the above determination has been made pursuant to State and Local requirements.

Kasey Butler

Digitally signed by Kasey Butler
DN: cn=Kasey Butler, o=San Mateo RCD, ou, email=kasey@sanmateorcd.org, c=US
Date: 2021.09.24 14:29:09 -07'00'

Kasey Butler, Project Manager
San Mateo Resource Conservation District

REMARKS:

This project aims to improve pasture soil health, reduce weed drift, and develop pollinator habitat for a working ranch and farm south of Half Moon Bay in San Mateo County. As described below, the project meets the CEQA criteria for exemption from environmental review under Class 4 (15304).

Project Description

The San Mateo Resource Conservation District (RCD), with funding from Zero Food Print and PG&E Foundation, will be assisting Farm Fatales, a grazing and orchard agricultural operation in coastal San Mateo County, with implementation of three agricultural practices: a ¼" compost application to 2.2 acres of grazed pasture, a 390-foot native hedgerow, and a 315-foot coniferous windbreak. This project consists of implementation of three common agricultural practices with minimal land disturbance, and as such, impact is negligible.

Pasture Compost: Nutrient management (which includes the use of compost) is used to reduce soil erosion and maintain or improve soil conditions for the sustainability of the resource; protect air quality; increase the rate of soil organic matter accumulation; sequester carbon in the soil; manage nutrients and improve nutrient cycling; and promote increased productivity and economic stability through farm and ranch land sustainability.

Compost use is commonly used for nutrient management because it also increases soil organic matter (SOM), which is an important component of soil health as it provides and retains nutrients, improves soil aggregation, reduces soil erosion, increases water holding capacity, and sequesters carbon (Tisdall and Oades, 1982; Brady and Weil, 2002). This project aims to improve soil health in the pasture through a one-time application of compost on 2.2 acres, at a rate of 17 tons/acre, which is equivalent to a ¼" depth. Many recent studies and initiatives (like the California Department of Food and Agriculture's Healthy Soil Initiative) have focused on the connection between increasing soil organic matter and carbon sequestration, particularly in grassland ecosystems. The research resulting from the Marin Carbon Project study documented an increase in soil carbon from a single application of compost to rangelands (Ryals, et al., 2014). In addition to the carbon sequestration potential, these studies showed an increase in plant productivity and forage production (Ryals, et al., 2016), which is of interest to ranchers.

Compost will be purchased from a CalRecycle certified compost facility, with a C:N ratio like the cited studies. Delivery of compost will be done within a few days, but with a goal of the day before, spreading will occur. Measures will be taken to reduce nutrient runoff from stockpiled compost. Compost will be applied in October -

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November, before the first rains of the season. The RCD will monitor the weather to apply the compost at the most opportune time to minimize air and water impacts from stockpiled compost. The compost will be spread by a professional agricultural firm following routine agricultural best management practices. Compost application will involve a compost spreader, loading of compost, and slow driving across the application site to achieve even coverage. The compost application will take place within one day. Disturbance shall not exceed the minimum area necessary to complete the project and shall be limited to the Work Area, which includes access, staging, and compost application site and hedgerow and windbreak planting area (See Figure 1). The site was selected because the pasture is relatively flat, and the closest water ways are over 0.4 miles from the application site, to reduce potential impacts to water quality. The required buffer for this practice when funded through California Department of Food and Agriculture is 30' (Gravuer, K. 2016).

Hedgerow: This project also involves the planting of a 390-foot hedgerow to attract pollinators and act as a natural weed barrier between Farm Fatales and Lobitos Creek Cutoff Road and the ranch across the road. Woody plantings such as this one, provide a variety of benefits: they "serve as habitat for beneficial insects, pollinators and other wildlife; provide erosion protection and weed control; serve as windbreaks; stabilize waterways; reduce non-point source water pollution and groundwater pollution; increase surface water infiltration; buffer pesticide drift, noise, odors and dust; act as living fences and boundary lines; increase biodiversity; sequester carbon; and provide an aesthetic resource," (Earnshaw, 2018).

The hedgerow is 390 feet long and will be located between the pasture and Lobitos Creek Cutoff Road. The hedgerow will be planted with 80 plants, consisting of native species (see Species List) which will provide habitat and alternate food sources for wildlife. Plants will be spaced between 3-5 feet apart. Plants have been provided through an NCAT (National Center for Appropriate Technology) grant and purchased by the rancher. Implementation activities include establishing irrigation, which will include trenching approximately 350 feet to install a 1.5-inch irrigation pipe within the pasture adjacent to the hedgerow location, which will be connected to an existing water tank. This is necessary as the plantings will not survive without irrigation for at least the first few years. Once established they will likely survive with the water delivered from the winter and spring rains. The trenching will be done with equipment. Planting holes will be dug before planting. Other activities include amending native soil with compost, installing plants, and adding irrigation lines. Cardboard and natural mulch will be spread on top of the planting area in a few feet wide path around the plants to prevent weeds from overtaking the new plantings and to improve soil moisture retention. The hedgerow will be installed in the late fall in advance of the first rains, and work will be concluded within two weeks.

Windbreak: The windbreak project will extend an existing windbreak by 228 feet along the northeast side of the property, bordering the farm and neighboring property, and will provide a natural fence, shade, and wildlife habitat. There will also be an 80-foot section of windbreak planted at the west end of the hedgerow between the pasture and Lobitos Creek Road. The windbreak will consist of approximately 22 conifers and hardwood species (see Species List), which have been purchased by the rancher. Irrigation is not currently available in the locations where the windbreak project is planned, therefore trenching of approximately 57 feet will be required to bring water from a nearby water connection to the windbreak. This is necessary as the plantings will not survive without irrigation for at least the first few years. Once established they will likely survive with the water delivered from the winter and spring rains. The trenching will be done with equipment. Planting holes will be dug before planting. These holes will be large enough to fit a one-gallon potted plant and will be spaced roughly 10-25 feet apart depending on the size of the plant at maturity. The planting holes will be amended with a small amount of compost and will be filled back in with the native soil. Cardboard and mulch will be spread on top of the planting area in a few feet wide path around the plants to prevent weeds from overtaking the new plantings and to improve soil moisture retention. The planting and mulching will be done by hand. These practices not only provide habitat for wildlife and nectar

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sources for pollinators, but they also sequester carbon, improve soil health, and provide a barrier to the farm property from wind and weed seeds.

Class 4 (CEQA State Guidelines, Section 15304)

Class 4 consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes.

This project consists of minor alterations to the land at the agricultural operation and will be limited to improved soil condition of the pasture, native flowering shrubs for pollinators and to act as a natural weed barrier, and the extension of an existing windbreak with coniferous trees to also act as a natural fence and wind barrier. No healthy, mature, scenic trees will be removed as part of this project.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

This is a one-time project, and as such, there is no cumulative impact.

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

CEQA Guidelines define "significant effect on the environment" as substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. As common agricultural practices it is unlikely that there will be unusual circumstances that will have a significant effect on the environment. The project area is limited to the agricultural operation.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

While a portion of the parcel is within the County of San Mateo's scenic corridor, the project location is not and therefore will not impact scenic resources. The windbreak, which may be visible from neighboring properties, is an extension of an existing windbreak.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962 .5 of the Government Code.

This project is not located on a Hazardous Waste Site.

(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

No activities included within the project scope that will change the nature or use of the site.

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References:

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Figure 1: Work area for Rangeland Compost application trial, Hedgerow and Windbreak implementation.

Legend:

Rangeland compost application	Windbreak	Hedgerow

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Appendix:

Appendix A:

Species List for Hedgerow:

Plant Name	**Botanical Name**	**Number of plants**
California Buckwheat	Erigonum fasiculatum	4
Yarrow	Achillea millefolium	4
California sagebrush	Artemesia californica	4
Goldenrod	Solidago velutina	4
White Sage	Salvia apiana	4
Great Valley Gumweed	Grindelia camporum	4
Narrowleaf Milkweed	Ascelpias fascicularis	16
Elderberry	Sambucus nigra	4
Flannel bush	Fremontodendron "California Glory"	4
Purple Sage	Salvia leucophylla	4
Deer grass	Muhlenbergia rigens	4
Coast Sunflower	Encelia californica / farinosa	4
Oregon Grape	Mahonia aquifolium	4
Holly Leaf Cherry	Prunus ilicifolia	4
Toyon	Heteromeles arbutifolia	4
Flowering currant	Ribes sanguineium glutinosum	4
Scarlet bugler	Penstemon centranthifolius	4
Ceanothus Ray Hartman	Ceanothus spp.	6
Ceanothus Julia Phelps	Ceanothus spp.	6
Red flowered buckwheat	Erigonum grande var. Rubescens	6
Myrica californica	Pacific wax myrtle	2
Total number of plants		**100**

Species List for Windbreak:

Plant Name	**Botanical Name**	**Number of plants**
Bay Laurel	Laurus nobilis	2
Silk Tassel	Garrya congdonii	2
Madrone	Arbutus menziesii	2
Willow	Salix spp.	2
Elderberry	Sambucus nigra	2
Monterey Pine	Pinus radiata	2
Monterey Cypress	Hesperocyparis macrocarpa	2
Blue Spruce	Picea pungens	2
Coast Redwood	Sequoia sempervirens	2
Western Red Cedar	Thuja plicata	2
Douglas Fir	Pseudotsuga menziesii	2
Total number of trees/plants		**22**

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