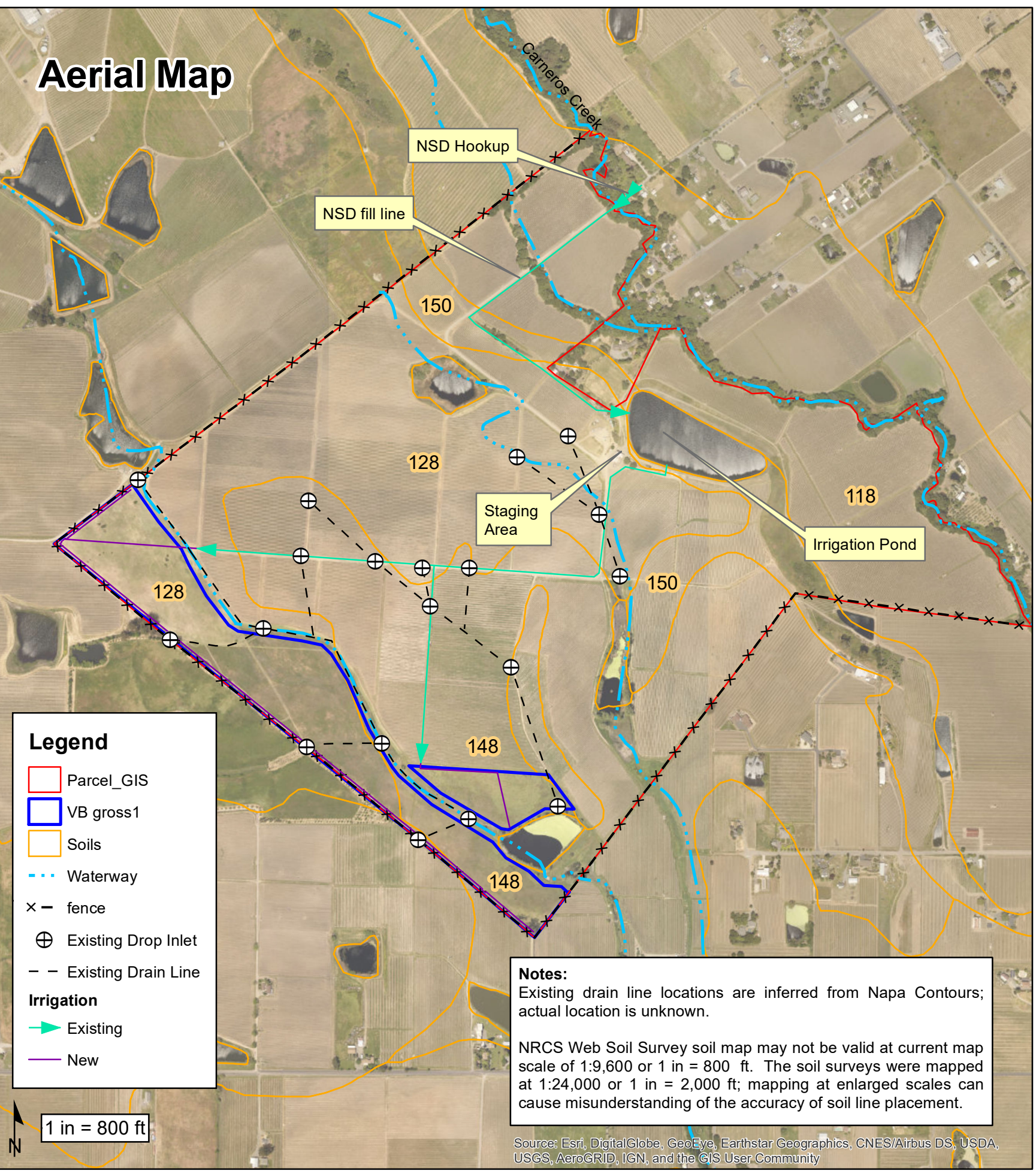
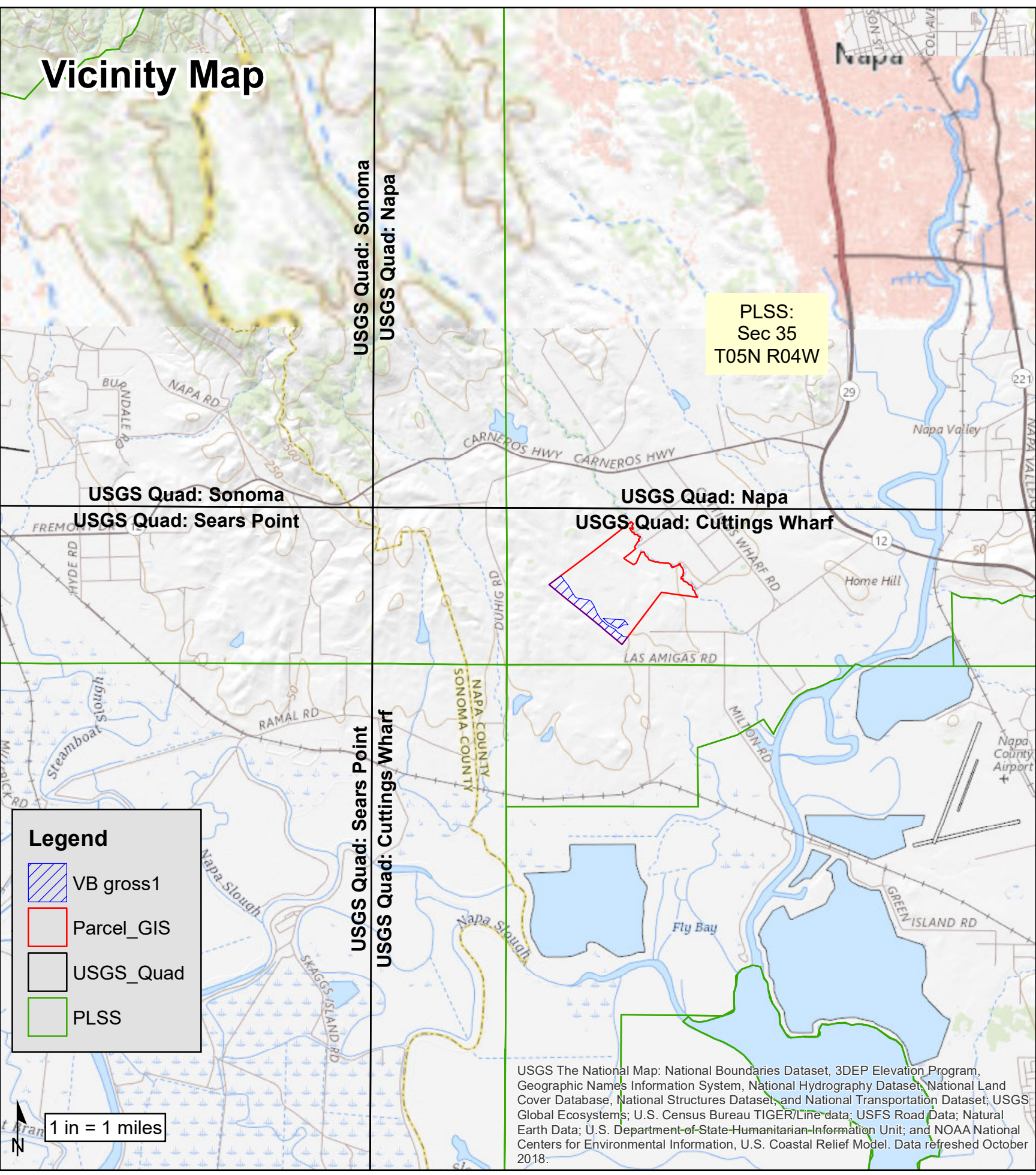
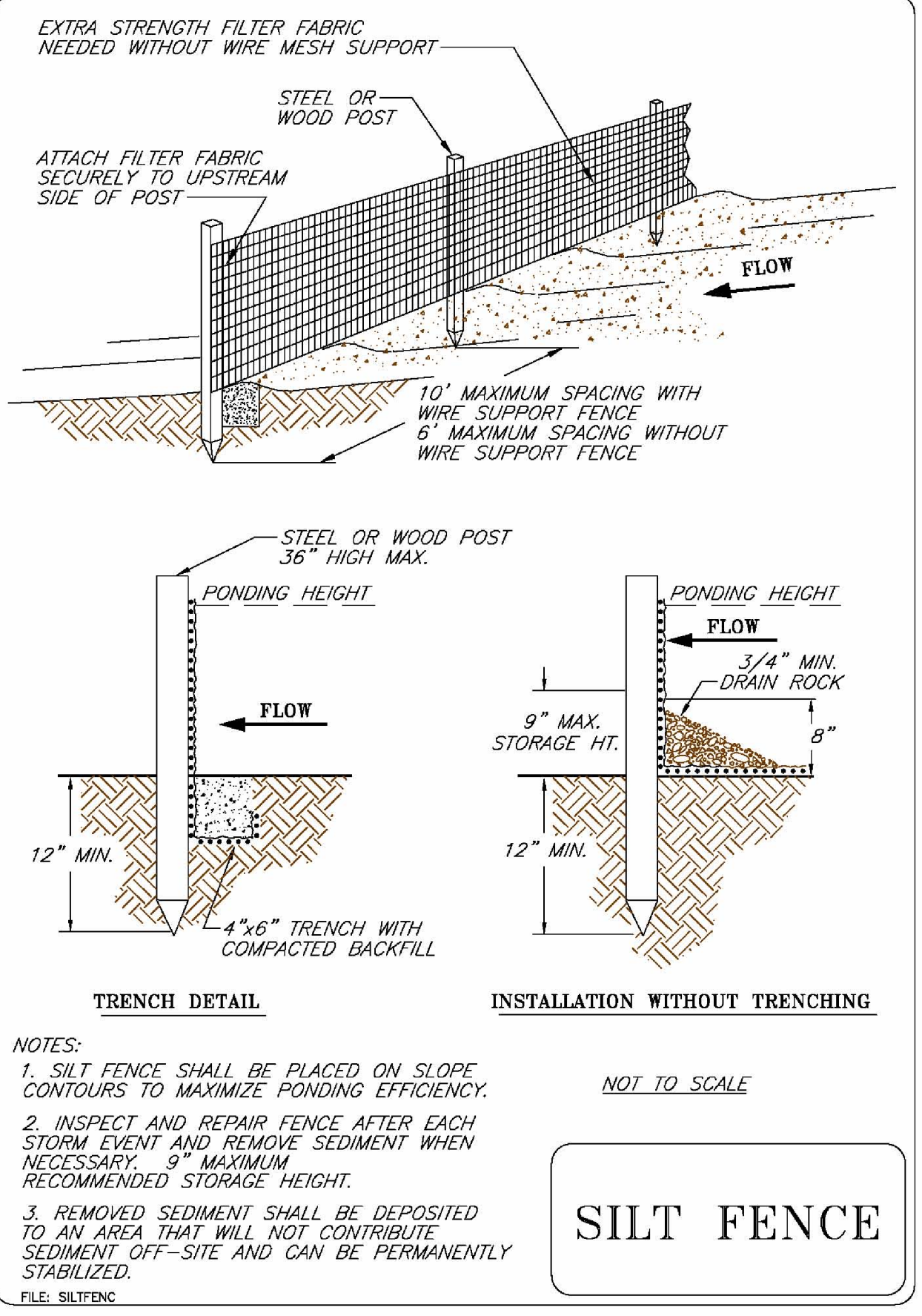
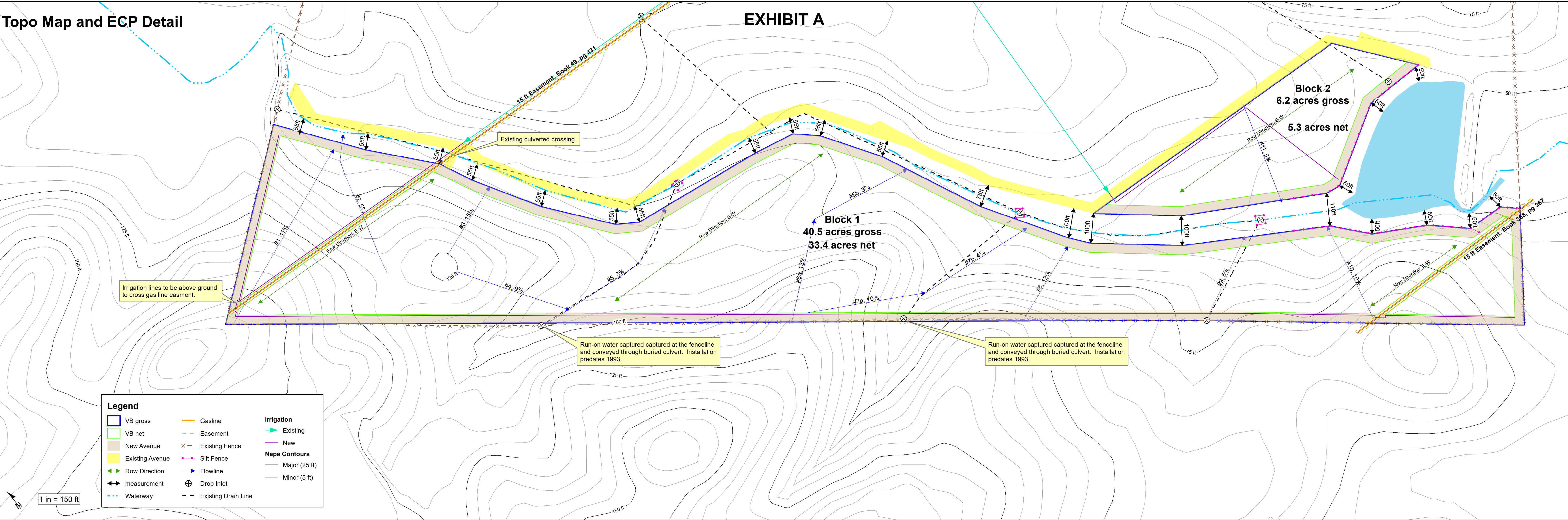


Topo Map and ECP Detail

EXHIBIT A



MITSUKO VINEYARD EROSION CONTROL PLAN

1. Property Owner: Vintage Wine Estates
2. Site Contact: Nick Patti, Shannon Ranches, nick@shannonranches.com
3. ECP prepared Sarah Pistone, CPESC#2296
signature:

4. ECP prepared: 2/8/19 ECP Revised: 8/21/19
5. Property Address: 4189 Withers Rd, Napa, CA 94559
APNs: 047-280-017
6. See Vicinity Map
USGS Quad: Cuttings Wharf
PLSS: Section 35: T05N, R04W
7. Access from Withers Rd; property is gated, call ahead for access
8. Legend, North arrow, and scale are noted on each map detail.
9. Soil type in disturbed areas is Diablo Clay (128) and Haire Clay Loam (148). Soil boundaries on Aerial Map. No potentially serious erosion problem areas were noted. (Custom Soil Resource Report for Napa County, California, Mitsuko Vineyard, from USDA NRCS Web Soil Survey, January 2019)
10. The closest blue-line stream runs through the property and is an unnamed tributary to Carneros Creek within the San Pablo watershed.
11. Existing vegetation in the project area includes wildcat grassland and orchard. The property has been cleared grassland for decades and shows evidence of mowing since at least 1940 aerial photography. The surrounding area has an extensive history of agriculture include orchards, row crops, rangeland, and vineyard.
12. No structures are within the disturbed area. On the parcel there is a barn structure, outbuildings and several water storage ponds. There are two gas line easements that cross the project area. They are parallel to row direction and the fifteen-foot easements are noted and worked into the Site Plan REV 1.
13. Napa County Contours (5 ft) are displayed on the Topo Map and ECP Detail.
14. Slope Sections are shown on Topo Map and ECP Detail. Average slope is 8%.
15. Irrigation lines are shown on the Topo Map and ECP Detail. Water for vineyard is stored in the reservoir labelled "Irrigation Pond" on the Aerial Map. Irrigation lines are established to existing vineyard. Irrigation water for this project will be supplied by Napa Sanitation District; encroachment and hookup for the recycled water allotment (60 af/yr) was established and installed in 2015.
16. Vineyard layout, including row direction and avenues, is shown on the site plan. Vine spacing will be 4 ft and row spacing will be 8 ft. Block 1 will be accessed via an established culvert crossing from the man vineyard. Block 2 can be accessed by existing avenues in the established vineyard.
17. An extensive drainage system was installed (c. 1990) along the property fenceline and within drainageways. The drainage system collects run-on water and conveys it to a series of retention ponds. No modifications or additional drainage systems are proposed for this project. Proposed erosion control features are noted on the site plan and design drawings on this sheet.
18. Silt fence and straw mulch will be used for erosion control. Disturbed areas on slopes greater than 5% will be straw mulched at 2 tons/ac. Silt fence must be removed or replaced 2 yrs from installation.
19. Seed permanent cover crop to 80% (see table for seed mix or equivalent). Cover crop will be fertilized with 16-20-0 at a rate of 100 lbs/acre the first year and as needed in future years. All seeding and mulching of disturbed areas will be completed by October 15. Any areas of cover crop that have less than their designated cover, will be seeded and mulched annually until adequate cover is reached. As an alternative, annual cover crop of Dwarf Barley at 80#/acre may be used in the first three years. For the first three years, cover may be disked after April 1st so long as BMPs are replaced prior to October 15 of any given year.
20. Call USA North (811) at least 48 hrs and up to 2 weeks prior to breaking ground.
21. Site visits with the plan preparer are required as follows (please schedule at least 2 weeks in advance):
a. At the beginning of construction with the owner/manager and the contractor
b. During construction with the contractor
c. At the beginning of each winter shutdown period
d. At the end of construction

Property Boundaries are approximate
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

REVISED

**Erosion Control Plan
for
Mitsuko Track I
Vineyard Development**

Project Site Address:

APN 047-280-017
4189 Withers Rd
Napa, CA 94559

Preparation Date:

~~February 25, 2019~~

August 23, 2019

Prepared for:

Vintage Wine Estates
c/o Shannon Ranches
PO BOX 2037
Clearlake Oaks, CA 95423
nick@shannonranches.com

Prepared by:

Sarah Pistone, CPESC #9225
LincolnAE LLC
PO Box 1686
Middletown, CA 95461
707 533-5331
sarah@lincolnAE.com

Erosion Control Plan

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A. Narrative

The applicant would like to permit vineyard development on the subject site located at APN 047-280-017, 4189 Withers Rd, Napa, CA. Access to the site is from Withers Rd. Property is gated; call ahead for entry.

1. Land Clearing, Grading or Earthmoving Activity

New vineyard development will require clearing of ~~53~~46.7 acres of grassland to plant ~~47~~38.7 acres of new vines. Slopes range from 3% to 15% with an average of 8%. No areas are greater than 30%. The need for spoils and disposal areas is not anticipated but would remain within the disturbed areas. Minimal rocks are expected, but any encountered will be stored within the disturbed area or may be used for vineyard avenues or landscaping. Other activities planned include trellising, installing end posts; disking; ripping (4'); vineyard layout; drip system installation; erosion control system installation; trellising, planting and seeding; and mulching of areas with no cover.

2. Existing Site Conditions

The plan preparer, Sarah Pistone of LincolnAE LLC, visited the site on the following occasions:

DATE	PURPOSE
10/19/18	Site visit, photos, project overview

Topography: The subject site is located in gently rolling upland hills of the San Pablo Watershed. Vineyard development areas on 3%-15% slopes.

Vegetation: The dominant vegetation type in the project area is wild oat grassland [1].

The subject parcel contains about 11 acres of canopy; 0 acres of canopy will be cleared leaving 100% acres of canopy in place. There are about 64 acres of shrub, brush, and grassland; ~~53~~46.7 acres of grassland will be cleared leaving ~~17%~~27% of shrub, brush, and grassland in place.

Soils: The NRCS web soil survey lists the soil type in the vineyard area as 128 Diablo Clay and (148) Haire Clay Loam [5]; see Site Plan – Aerial Map for soil boundaries. Soils are detailed in Attachment 8H, Soil Loss Analysis

Watershed: The subject site is part of the Carneros Creek watershed that flows into Napa River, and discharges to San Pablo Bay and ultimately San Francisco Bay. The project is not located in a municipal watershed nor a water-deficient area. The closest blue-line stream is an unnamed tributary to Carneros creek that runs through the project area. Carneros Creek forms the northern property boundary. The blueline streams indicated on

USGS maps do not appear to be current since they do not meet the definition of jurisdictional waters (no evidence of water conveyance, sediment transport or scour). ~~An Army Corps of Engineer inspection is requested to confirm this designation.~~ A 55 ft corridor is designed from the north side of block 1 to the existing avenue. In between Block 1 and Block 2 the corridor expands to 100 ft – 110 ft and a 50 ft buffer is planned around the on-stream pond. Even though the the unnamed blueline stream is largely captured in the existing drain system, the corridor will provide browsing land for local raptors and a vegetative buffer for vineyard runoff.

The topographic map was prepared in 2002 by Napa County. Item 7 (Photos) contains photographs documenting existing conditions.

3. Natural and Man-Made Features

The parcel site and surrounding area has been established as agricultural land since at least the 1940s. 63% of the parcel area is currently occupied by vineyard. The property contains some fallow land, grassland, water storage ponds, and out buildings. Two easements for natural gas lines are indicated on the Site Plan that run east-west through Block 1.

4. Location and Source of Water

Irrigation water for this project will be exclusively supplied by Napa Sanitation District reuse water, which has a base allotment of 39.8 af/yr. The water will be stored in the irrigation pond prior to distribution to the irrigation blocks. NSD hookup is on the north side of the bridge crossing over Carneros Creek (main entrance on Withers Road). The fill line empties into the large irrigation pond adjacent to the Staging Area. The NSD hookup was installed in 2015 and, so far, the water remains unallocated. The surface water is allocated to existing parts of the vineyard per the water rights documentation (A029391, A029603; click each application number for hyperlink to public e-WRIMS document). The Carneros Creek water is stored in the same large storage pond, but the input is metered separately from the NSD water.

5. Soil Types/Soil Series

The NRCS web soil survey lists the soil type in the vineyard area as 128 Diablo Clay and 148 Hair Clay Loam [5]; see Site Plan – Aerial Map for soil boundaries. Soils are derived from sedimentary rocks [6]. See Attachment 8H, Soil Loss Analysis, for more information

6. Critical Areas of Erosion and Slope Instability

No critical areas of erosion or slope instability were noted in the vineyard development area.

7. Erosion Calculations

See Soil Loss Analysis included with this application [4, [REV 1, July 16, 2019](#)]. See Site Plan – Aerial Map for soil boundaries and flow lines used in soil loss analysis.

8. Erosion Control Methods

Silt fencing will be used as protection for the drop inlets within the cleared areas; it is also called for on the downslope sides of the vineyard block near the manmade pond. Fiber rolls are not necessary due to very short slope lengths. Disturbed areas will be straw mulched at a rate of 2 tons per acre.

Vegetative erosion control areas are designated on the Site Plan: Topo Map and ECP Detail. Vineyard blocks will be seeded to a ~~70%~~80% permanent, no-till cover crop as noted on the plans. Species will consist of Blando Brome at 12#/ac., Crimson Clover at 6#/ac., Rose Clover at 6#/ac and Zorro Fescue at 8#/ac. Cover crop will be fertilized with 16-20-0 at a rate of 100 lbs/acre the first year and as needed in future years. All ECP measures will be completed by October 15. Any areas of cover crop that have less than their designated cover, will be seeded and mulched annually until adequate cover is reached. An annual cover crop of Dwarf Barley at 80#/ac. may be used in the first three years. In the first 3 yrs, cover crop may be tilled or disked after April 1st. Disked areas must have BMPs reinstalled prior to October 15. Strip or spot spraying of post-emergent herbicide may be conducted after March 1, so long as 70% cover is maintained (ex. for 8 ft row spacing, a 1 ft strip spray would require 80% cover in non-sprayed areas).

9. Storm Water Stabilization Measures

The vineyard installation will result in no change to hydrology or run-off conditions at the site. Fiber rolls and silt fence will be placed at the end of grading season for sediment control. See Attachment 8G, Hydrology Report [3].

10. Implementation Schedule

The following is the proposed implementation schedule. Schedule may shift due to permit approval timeline.

DATE	ACTIVITY
4/1/20	Clear and prepare planting area
6/1/20	Install erosion control, drip, trellis system and plant
10/1/20	Seed cover crop and straw mulch disturbed areas

Additional information on manpower and traffic from grading and land preparation tasks:

1. Anticipated truck and vehicle trips, 2 to 4 trucks – one trip per day for 45 days
2. Equipment required includes one tractor trailer and one caterpillar dozer.

3. Number of employees will be 4 to 10 existing employees that already work on-site. In general, tasks completed with heavy machinery will require less manpower (land prep, ripping, soil importation, incorporation of amendments, etc.) than the manual tasks (BMP installation, trellis layout, planting, etc.)

BMP installation must be complete prior to October 15 of any given year. Site visits with the plan preparer are required as follows (please schedule at least 2 weeks in advance):

- a) At the beginning of construction with the owner/manager and the contractor
- b) During construction with the contractor
- c) At the beginning of each winter shutdown period
- d) At the end of construction

11. Estimated Cost

The estimated cost of implementing the erosion and sediment control measures defined in this plan is about \$4000 per acre. Costs are based on estimates outlined in the CA Stormwater BMP Handbook [7] and industry experience. Copies of BMP Fact Sheets were presented to site contact.

B. Site Plan

The site plan for this project is included as Item 6: Site Plan, which includes the 7 ½ min USGS vicinity map, Topographic map and ECP detail, and Aerial Image Map. The Site Plan also includes specifications for erosion control BMPs and all items set forth in the document titled “Erosion Control Plan (ECP) Review Application Packet,” dated 02/11/2008 and created by the Napa County Conservation, Development and Planning Department.

C. Scale and Contour Intervals for Erosion Control Plans

The site plan was prepared in accordance with the scale and contour requirements set forth in the document titled “Erosion Control Plan (ECP) Review Application Packet,” dated 02/11/2008 and created by the Napa County Conservation, Development and Planning Department.

D. References

1. Attachments B&C, *Biological Resource Assessment with Botanical Survey and Delineation of Waters of the U.S. for Mitsuko Vineyard Project, APN 017-280-017, Napa County, CA*, prepared by Northwest Biosurvey, December 18, 2018
2. Attachment D, *Phase I Water Availability Analysis*, form
3. Attachment G, *Hydrology Report – Mitsuko, WinTR55 Modeling*, prepared by LincolnAE LLC, February 25, 2018

4. Attachment H, *Soil Loss Analysis – Mitsuko Vineyard, USLE Calculations*, prepared by LincolnAE LLC, January 14, 2018
5. *Custom Soil Resource Report for Napa County, California, Mitsuko Vineyard*, from USDA NRCS Web Soil Survey, January 2019
6. Lambert, G., Kashiwagi, J. et al., *Soil Survey of Napa County, California*, USDA in cooperation with UC Agricultural Experiment Station, August 1978
7. *Stormwater Best Management Practice Handbook: Construction*, California Stormwater Quality Association, November 2009