COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: April 10, 2019

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Coastal Development Permit to drill a replacement domestic well for the property located at 3540 La Honda Road in the unincorporated San Gregorio area of San Mateo County. The project is not appealable to the California Coastal Commission.

County File Number: PLN 2018-00457
(Vida Verde Nature Education, Inc.)

PROPOSAL

The applicant is proposing to drill a replacement domestic well. The existing domestic well was found to have high turbidity and to be outside of the Environmental Protection Agency's federally established maximum contaminant level guidelines.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit, County File Number PLN 2018-00457, by making the required findings and adopting the conditions of approval as detailed in Attachment A.

SUMMARY

The project parcel is accessed off La Honda Road via a private road easement shared by three other adjacent properties. The project parcel is developed with a single-family residence and several buildings that support the agricultural operation. While developed, the 23-acre parcel is largely covered by native and non-native vegetation. San Gregorio Creek runs through the parcel around the developed areas in a U-shape. The surrounding parcels are made up of a mix of developed and undeveloped parcels. The developed parcels largely consist of low-density residential and agricultural development.

The proposed project was reviewed against the policies of the General Plan and has been found to be consistent with the applicable policies found in the Soil Resources, Visual Quality, Historical and Archaeological Resources, and Rural Land Use chapters.

The project was determined to be exempt from Architectural Review given the minor nature of the proposed project. The proposed project was also reviewed against the policies of the Local Coastal Program and has been found to be consistent with applicable policies found in the Agriculture, Sensitive Habitats, and Visual Resources, Components. Further, the project was conditioned to ensure that it will not result in any significant impacts to the subject or surrounding parcels and that the project remains consistent with the discussed applicable policies and standards.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: April 10, 2019

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit, pursuant to Zoning Regulations Section 6328 to drill a replacement domestic well for the property located at 3540 La Honda Road in the unincorporated San Gregorio area of San Mateo County. The project is not appealable to the California Coastal Commission.

County File Number: PLN 2018-00457
(Vida Verde Nature Education, Inc.)

PROPOSAL

The applicant is proposing to drill a replacement domestic well. The existing domestic well was found to have high turbidity and to be outside of the Environmental Protection Agency's federally established maximum contaminant level guidelines.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit, County File Number PLN 2018-00457, by making the required findings and adopting the conditions of approval as detailed in Attachment A.

BACKGROUND

Report Prepared By: Angela Chavez, Project Planner, 650/599-7217

Applicant: Sandy Sommer

Owner: Vida Verde Nature Education, Inc.

Location: 3540 La Honda Road, San Gregorio

APN: 081-320-060

Size: 23 acres

Existing Zoning: PAD/CD (Planned Agriculture District/ Coastal District)

General Plan Designation: Agriculture

Local Coastal Plan Designation: Agriculture

Williamson Act: The project parcel is a contracted Williamson Act parcel which was non-renewed in 2010. The contract will expire December 31, 2020.

Existing Land Use: Agriculture.

Water Supply: There is an existing domestic well which serves the existing residence and is to be replaced by the well which is the subject of this permit. The property also has adjudicated water rights to divert up to 11,200 gallons per day (April 1-November 1) from San Gregorio Creek for agricultural irrigation and an additional 100 gallons per day for stock watering.

Sewage Disposal: The project site has an existing onsite septic system to serve the existing development on the site.

Flood Zone: The project parcel contains both portions of Zone X (areas of minimal flood hazard) and Zone A (special flood hazard area without an established base flood elevation), FEMA Panel No. 06081C-0380E, Effective Date: October 16, 2012.

Environmental Evaluation: Categorically exempt per Section 15302, Class 2 of the California Environmental Quality Act for replacement of existing utility systems and/or facilities.

Setting: The project parcel is accessed off La Honda Road via a private road easement shared by three other adjacent properties. The project parcel is developed with a single-family residence and several buildings that support the agricultural operation. While developed, the 23-acre parcel is largely covered by native and non-native vegetation. San Gregorio Creek runs through the parcel around the developed areas in a U-shape. The surrounding parcels are made up of a mix of developed and undeveloped parcels. The developed parcels largely consist of low-density residential and agricultural development.

Chronology:

Date		Action
November 21, 2018	-	Application Submitted
February 4, 2019	-	Application Deemed Complete
April 10, 2019	-	Planning Commission Hearing

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

Staff has reviewed the project for conformance with the General Plan and has determined that the project is in conformance with all relevant policies. Specifically, Soil Resources and Rural Land Use Policies, as discussed below.

Vegetative, Water, Fish, and Wildlife Resources

Policy 1.28 (*Regulate Development to Protect Sensitive Habitats*) regulates land uses and development activities within and adjacent to sensitive habitats in order to protect critical vegetative, water, fish, and wildlife resources; protect rare endangered and unique plans and animals from reduction in their range or degradation of their environment and protect and maintain the biological productivity of important plant and animal habitats. As part of the permit application the applicant submitted a biologist report completed by Autumn Meisel of TRA Environmental Sciences. While the report addresses a larger project that is not the subject of this permit it does address the presence and/or potential for biological resources to occur on the project site. The submitted biological assessment notes that the project site supports riparian habitat and has the potential to serve as habitat for seven special status species. Specifically, the report identifies steelhead, coho salmon, California red-legged frog, western pond turtle, San Francisco garter snake, pallid bat, and the San Francisco dusky footed woodrat as having the potential to occur on the overall project site. The report notes that ground disturbance and vegetation removal have the potential to result in impacts to special status species. Given that the proposed replacement well complies with the required 50-foot setback from the limit of riparian habitat and is outside of the creek area, potential significant impacts are not anticipated. However, to insure that the project does not result in significant impacts, standard mitigation measures were recommended by the biologist and have been included as conditions of approval in Attachment A.

Soil Resources

Policy 2.17 (*Regulate Development to Minimize Soil Erosion and Sedimentation*) regulates development to minimize soil erosion and sedimentation; including, but not limited to, minimizing removal of vegetative cover. The proposed project does not require significant vegetation removal as both the proposed replacement well site and alternate site are to be located adjacent to the existing driveway in areas which are relatively flat and easily accessible. However, standard domestic well installation

involves drilling the ground which produces a byproduct soil core. Groundwater and turbid fluids can reach the surface as part of the drilling process and are expected to disperse and infiltrate the surrounding soil. Given this, a condition of approval has been added requiring that a sediment and erosion control plan be submitted for review and approval.

Policy 2.20 (*Regulate Location and Design of Development in Areas with Productive Soil Resources*) calls for the regulation of the location and design of development in a manner which is most protective of productive soil resources. Both the proposed primary well site and alternate well site locations are located in areas identified as prime soils. However, given the driveway layout and proximity to San Gregorio Creek, it is unlikely that these areas would be farmed. The areas which are currently utilized to support agricultural activities are not impacted by the primary or secondary proposed well location sites and are sufficiently buffered from these activities. This policy further encourages measures such as clustering structures in order to protect productive soil resources. Given that both the primary and secondary proposed well locations are adjacent to the existing driveway and existing development they comply with the clustering objective. The sites also comply with the setbacks required by the zoning district and locational criteria defined by the Environmental Health Services.

Policy 2.21 (*Protect Productive Soil Resources Against Soil Conversion*) calls for the regulation land uses of productive soil resources and encourages appropriate management practices to protect against soil conversion. While the project will convert a small area of the parcel to accommodate the proposed replacement well, there is no indication that the proposed well would result in damage to the capability of the surrounding soil or impact the existing agricultural activities on the site. Further, the primary and secondary well locations are located in areas which are not currently farmed and are unlikely to be used for agricultural activities in the future due to their proximity to the driveway and existing development on the site. The majority of the parcel remains available for agricultural uses.

Visual Quality

Policy 4.15 (*Appearance of New Development*) encourages the regulation of development to promote and enhance good design, site relationships, and other aesthetic considerations. The project parcel slopes downward from La Honda Road with the proposed development area occurring below the roadway elevation. The proposed well locations are not visible from the roadway due to the elevation change and existing vegetation. The finished well will not result in any significant structure and will not degrade the existing visual quality or character of the site.

Policy 4.22 (*Scenic Corridors*) seeks to protect and enhance the visual quality of scenic corridors by managing the location and appearance of structural development. The project parcel lies entirely within the La Honda Road County Scenic Corridor. The project parcel has access via an existing driveway (Hidden Creek) directly off La Honda Road. Given the project scope no improvements to the driveway are necessary or required in order to access the proposed well location as both the primary and secondary sites are immediately adjacent to the existing driveway. The completed well will be approximately 1-foot above the natural grade but will not be visible from public viewpoints due to the topography of the site, existing vegetation, and its relatively small nature.

2. Conformance with the Local Coastal Program

Staff has reviewed the project and found it to be in compliance with the policies of the Local Coastal Program (LCP). The applicable policies with specific discussion are detailed below:

Agriculture

Policy 5.5 (*Permitted Uses on Prime Agricultural Lands Designated as Agriculture*) requires that only agricultural and agriculturally related development on prime agricultural lands be permitted. The policy then provides a list of agricultural and non-residential uses, including water wells, which are allowed along with other uses which can be conditionally permitted, including single-family residences. Given that the project parcel was previously developed with a single-family residence and the water source to serve it has been determined to be inadequate, replacement of the water source is necessary. The primary and secondary well replacement locations are both located in lands designated for agriculture and as prime soils (as is the existing well). However, given the development pattern of the parcel it is unlikely that these areas would be utilized or could support farming activities.

Policy 5.22 (*Protection of Agricultural Water Supplies*) requires that prior to approval of all non-agricultural uses the demonstration of the availability of an adequate and potable well water source on the parcel to be developed be provided. The project site is currently developed and has an existing potable water source. A well water application report was completed by Norman N. Hantzsche, P.E. of Questa Engineering Corporation and submitted as part of the permit application. The report notes that the existing well is drilled to a depth which results in poor mineral quality of the water as it has tested positive for coliform and exhibited a turbidity reading and concentrations of manganese and total dissolved solids significantly above secondary drinking water standards. In addition, the existing well is located within a mapped floodplain and lacks confirmation of the original

construction details. Therefore, the proposed project seeks to replace the existing well with one which is located outside of the floodplain and is to be constructed at an appropriate depth in which to avoid mineral content.

This policy also requires that adequate and sufficient water supplies needed for agricultural production and sensitive habitat protection in the watershed are not diminished. The project site currently has adjudicated water rights to service the agricultural activities present on the site. The domestic well replacement is not expected to result in additional impacts as the project does not propose to introduce a new use. A review of the California Natural Diversity Database and the Local Coastal Program's Sensitive Habitat Maps determined that the area is mapped for steelhead/North Central Coast Steelhead/Sculpin which is a Federal mapped threatened species located within the project area (San Gregorio Creek). There is riparian habitat present around the perimeter of the creek but both the primary and secondary well locations are located outside of the 50-foot required riparian buffer zone.

Sensitive Habitats

Policy 7.11 (*Establishment of Buffer Zones*) requires that on both sides of riparian corridors, from the "limit of riparian vegetation extend buffer zones 50-feet outward for perennial streams and 30-feet outward for intermittent streams." As part of the permit application the applicant submitted a biologist report completed by Autumn Meisel of TRA Environmental Sciences. While the report addresses a larger project that is not the subject of this permit it does address the presence and/or potential for biological resources to occur on the project site. As discussed previously San Gregorio Creek meanders through the property around the existing development. The report notes that the riparian corridor is continuous on both sides of the creek supporting a dense cover of woody riparian species and an herbaceous understory. The biologist report delineates the riparian 50-foot buffer as defined by this policy. Both the primary well site and the secondary site are both located outside of the required buffer zone. However, groundwater and turbid fluids can reach the surface as part of the drilling process and are expected to disperse and infiltrate the surrounding soil. Therefore, in order to preserve water quality and prevent contaminants from entering the stream conditions of approval have been added in accordance with the biologist's recommendations.

Policy 7.36 (*San Francisco Garter Snake*) calls for the prevention of development where there is known to be a riparian or wetland location for the San Francisco garter snake (SFGS) and requires developers to provide a sufficiently detailed analyses of any construction which could impair the potential or existing migration routes of the SFGS. The policy also calls for the analyses to determine appropriate mitigation measures to be taken to

provide for appropriate migration corridors. The biologist's assessment notes that San Gregorio Creek is known to support the SFGS and could be found within the stretch of creek that winds around the property. The biologist determined that project activities were not expected to adversely impact SFGS because ground disturbing activities are confined to non-native grassland areas within the developed areas of the property. Further, the report notes SFGS generally avoids disturbed open areas with a human presence.

Visual Resources Component

Policy 8.5 (*Location of Development*) requires that new development on a parcel: (1) is least visible from State and County Scenic Roads; (2) is least likely to significantly impact views from public viewpoints; and (3) is consistent with all other LCP requirements, best preserves the visual and open space qualities of the parcel. The proposed well will not be visible from La Honda Road or any other public viewpoint. The proposed well is also compliant with the other requirements of the LCP as discussed in this section.

Policy 8.23 (*Utilities in County Scenic Corridors*) requires that any new distribution lines to the project site be located underground to lessen the visual impacts of utility lines from public view points. A condition of approval has been added to ensure that all new water distribution lines from the well will be installed underground in accordance with this policy.

B. ENVIRONMENTAL REVIEW

The project is categorically exempt from environmental review under Section 15302, Class 2, of the California Environmental Quality Act (CEQA) which allows for replacement of existing utility structures and facilities where the new structure will be located in the same area as the structure replaced and will have substantially the same purpose and capacity as the structure replaced.

C. REVIEWING AGENCIES

Building Inspection Section
Environmental Health Services

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Location Map
C. Project Plans
D. Biologist Report

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2018-00457 Hearing Date: April 10, 2019

Prepared By: Angela Chavez, Project Planner For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Coastal Development Permit, Find:

1. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms to the plans, policies, requirements and standards of the San Mateo County Local Coastal Program as described in the Staff Report.

2. That the project conforms to the findings required by policies of the San Mateo County Local Coastal Program specifically in regard to the Agriculture, Sensitive Habitats, and Visual Resources Components. In that a domestic well replacement is conditionally permitted but does not require the issuance of a PAD permit. That the project has been proposed to be located in an area that has been defined as "Prime Agricultural Lands" for agriculture and that the proposed project converts only a very small portion of the parcel leaving the large majority available for agricultural uses. That the project will not be visible from scenic roadways or corridors and does not result in a significant change to natural landforms.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Planning Commission on April 10, 2019. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of and in substantial conformance with this approval.

2. This permit shall be valid for one (1) year from the date of approval in which time a well permit shall be issued. Any extension of this permit shall require submittal of

an application for permit extension and payment of applicable extension fees sixty (60) days prior to the expiration date.

3. The applicant shall implement the following dust control measures during grading and construction activities:

    a. Water all active construction and grading areas at least twice daily.

    b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least 2-feet of freeboard.

    c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at the project site.

    d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets/roads.

    e. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

4. Prior to commencement of the project, the applicant shall submit to the Planning Department for review and approval an erosion and drainage control plan that shows how the transport and discharge of soil and pollutants from and within the project site shall be minimized. The plan shall be designed to minimize potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

    a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. No construction activities shall begin until after all proposed measures are in place.

    b. Minimize the area of bare soil exposed at one time (phased grading).

    c. Clear only areas essential for project activities.

    d. Within five (5) days of clearing or inactivity, stabilize bare soils through either non-vegetative BMPs, such as mulching, or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within two (2) weeks of seeding/planting.

e. Project site entrances shall be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

f. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling.

g. Soil and/or other construction-related material stockpiled on-site shall be placed a minimum of 200-feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

h. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

i. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

j. Install storm drain inlet protection that traps sediment before it enters any adjacent storm sewer systems. This barrier shall consist of filter fabric, straw bales, gravel, or sand bags.

k. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/ basins shall be cleaned out when 50% full (by volume).

l. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5-acre or less per 100-feet of fence. Silt fences shall be inspected regularly, and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion-resistant species.

m. Utilize coir fabric/netting on sloped graded areas to provide a reduction in water velocity, erosive areas, habitat protection, and topsoil stabilization.

n. Throughout the construction period, the applicant shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan.

5. Noise sources associated with the demolition, construction, repair, remodeling, or grading shall be limited to the hours from 7:00 a.m. to 6:00 p.m., weekdays and 9:00 a.m. to 5:00 p.m., Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360).

6. All new utility lines shall be installed underground.

7. To avoid impacts to nesting birds, reasonable efforts shall be made to schedule construction and vegetation trimming or removal outside of the breeding season (February 1 to August 15). However, if these activities will occur during the breeding season, a qualified biologist shall conduct a survey for nesting birds within five (5) days prior to the proposed start of construction. In the event the biologist identifies nesting birds during the survey, California Department of Fish and Wildlife (CDFW) shall be contacted on how to proceed. Typically, tree removal shall be delayed until chicks have fledged, and a no-work buffer shall be established around the nest. CDFW generally accepts a 50-foot radius buffer around passerine and non-passerine nests, but can require up to a 250-foot radius for raptors.

8. All construction vehicles entering the site that may have entered weed-infested areas (such as at other construction sites) prior to arriving at the project site shall first wash the tires and undercarriage of the vehicles before entering the project site. If fill is needed, native soil shall be used. All rock, aggregate, fiber rolls, or other construction material, if needed, shall be certified weed free.

Building Inspection Section

9. Electrification of the well requires a building permit.

10. The project shall meet all development requirements of FEMA.

Environmental Health Services

11. Prior to commencement of any well construction activities, the applicant shall obtain a well permit from Environmental Health Services for the construction of the well. The subject well shall be tested to confirm that it meets quantity and quality health standards.

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County of San Mateo - Planning and Building Department

ATTACHMENT B

San Mateo County

Location Map

0.14 0 0.07 0.14 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

1: 4,513

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

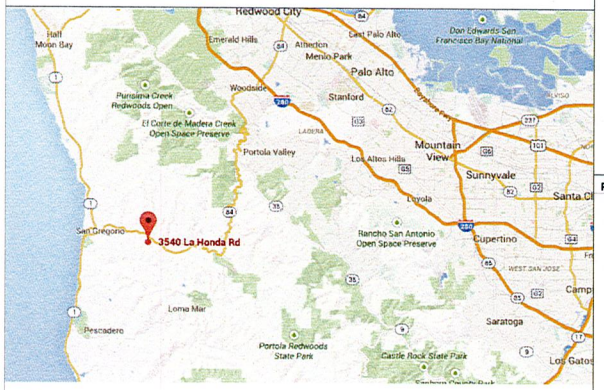
THIS MAP IS NOT TO BE USED FOR NAVIGATION

County of San Mateo - Planning and Building Department

ATTACHMENT C

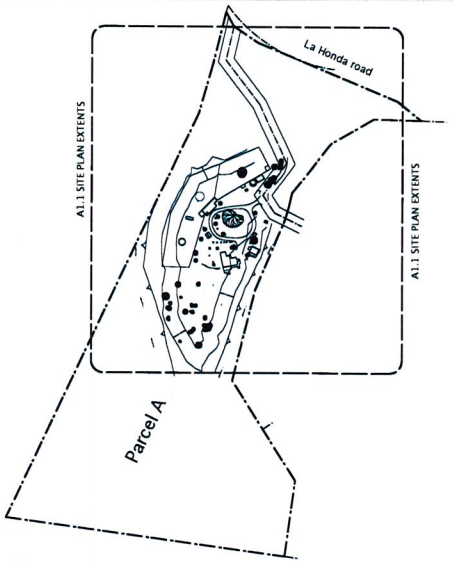
EXISTING PROGRAMMATIC BREAKDOWN

Existing Structures	*Existing SF*	*function*
Existing Structures		
House	3225	housing / office
Accessory Structure	530	office / meeting
Misc. Storage Sheds	320	ag
Chicken Coop	50	ag
Goatzebo Milking Shelter	400	ag
Ag Storage Structure (temporary)	460	ag
Garden Gazebo	400	ag/instruction
Greenhouse	200	ag
Ag Storage Yurt (temporary)	705	ag
Area Totals	6290 SF	



NORTH

1 / A0.1 VICINITY MAP
SCALE: N.T.S.



NORTH

2 / A0.1 PARCEL MAP
SCALE: 1" = 200'-0"

TOPO INFORMATION PREPARED BY R&R LAND SURVEYING JAN 27, 2013 (JOB # J201LH) - SEE SITE SURVEY FOR ZONING OVERLAY MAP
PROPERTY BOUNDARY INFO TAKEN FROM PARCEL MAP VOL. 27, PG 3

0 100 200

PROJECT DATA

LOCATION:	3540 LA HONDA RD SAN GREGORIO, CA 94074
ASSESSOR PARCEL NUMBER:	081-320-060
ZONING:	PAD / CD
OVERLAY DISTRICTS:	PRIME SOILS FLOOD PLAIN RIPARIAN ZONE
OCCUPANCY:	R-3 (HOUSE) / U (AG BUILDINGS)
SEISMIC DESIGN CATEGORY:	D
PARCEL A AREA:	23.08 ACRES
EXISTING LOT COVERAGE:	0.6% (6,290 / 1,005,411)

PROJECT DIRECTORY

VIDA VERDE NATURE EDUCATION
Shawn Sears, Executive Director
3540 La Honda Rd
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T: 650.747.8788
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Senior Biologist
TRA Environmental Sciences
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FLOOD ELEVATION SURVEY
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San Jose, CA 95148
T: 408.274.7994

BOUNDARY SURVEYOR
Randy Yick
R&R Land Surveying
2007 Arbor Ave
Belmont, CA 94002
T: 650.580.4050

DRAWING INDEX

Revision Date	

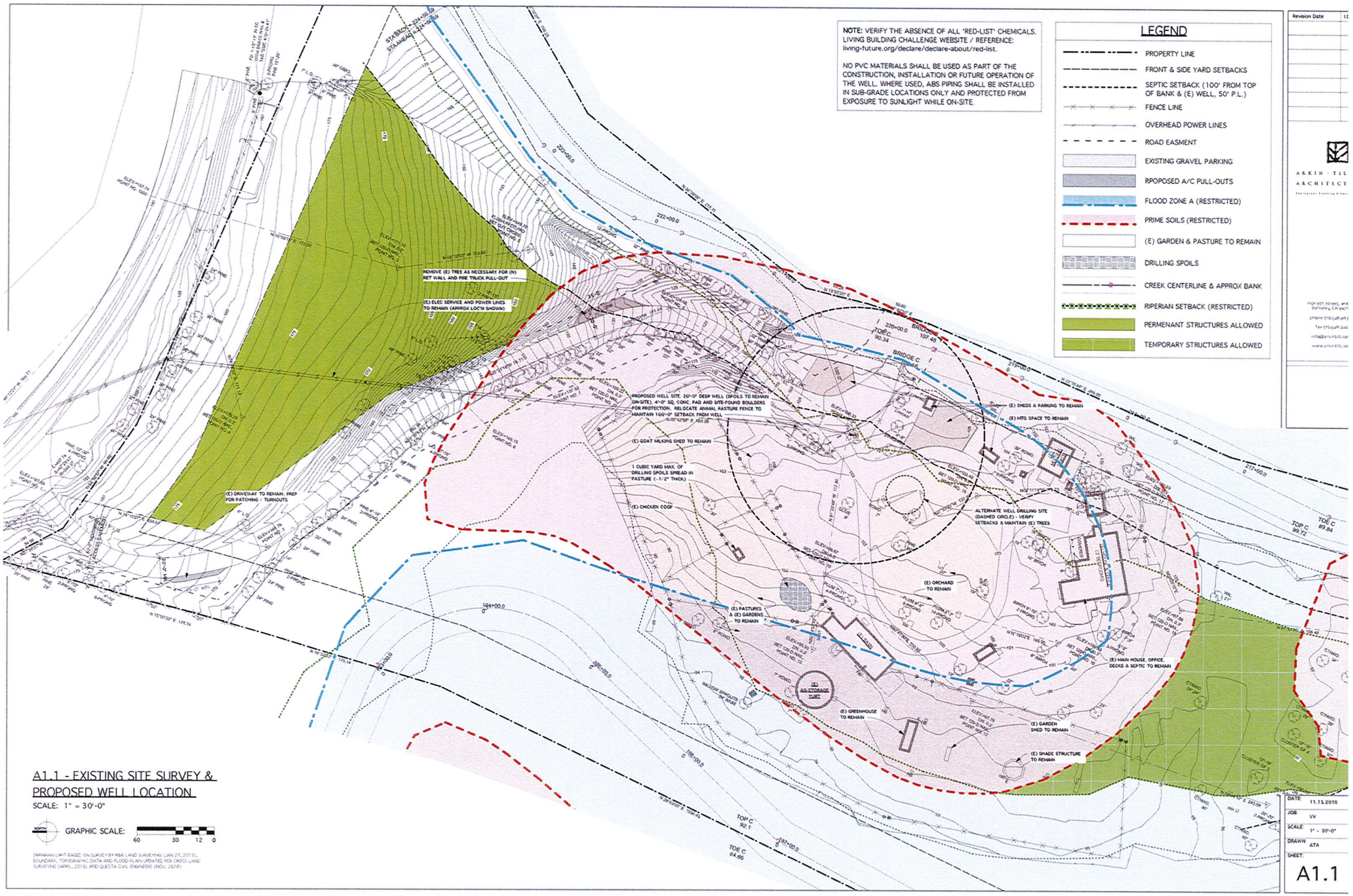
ARKIN · TILT
ARCHITECTS

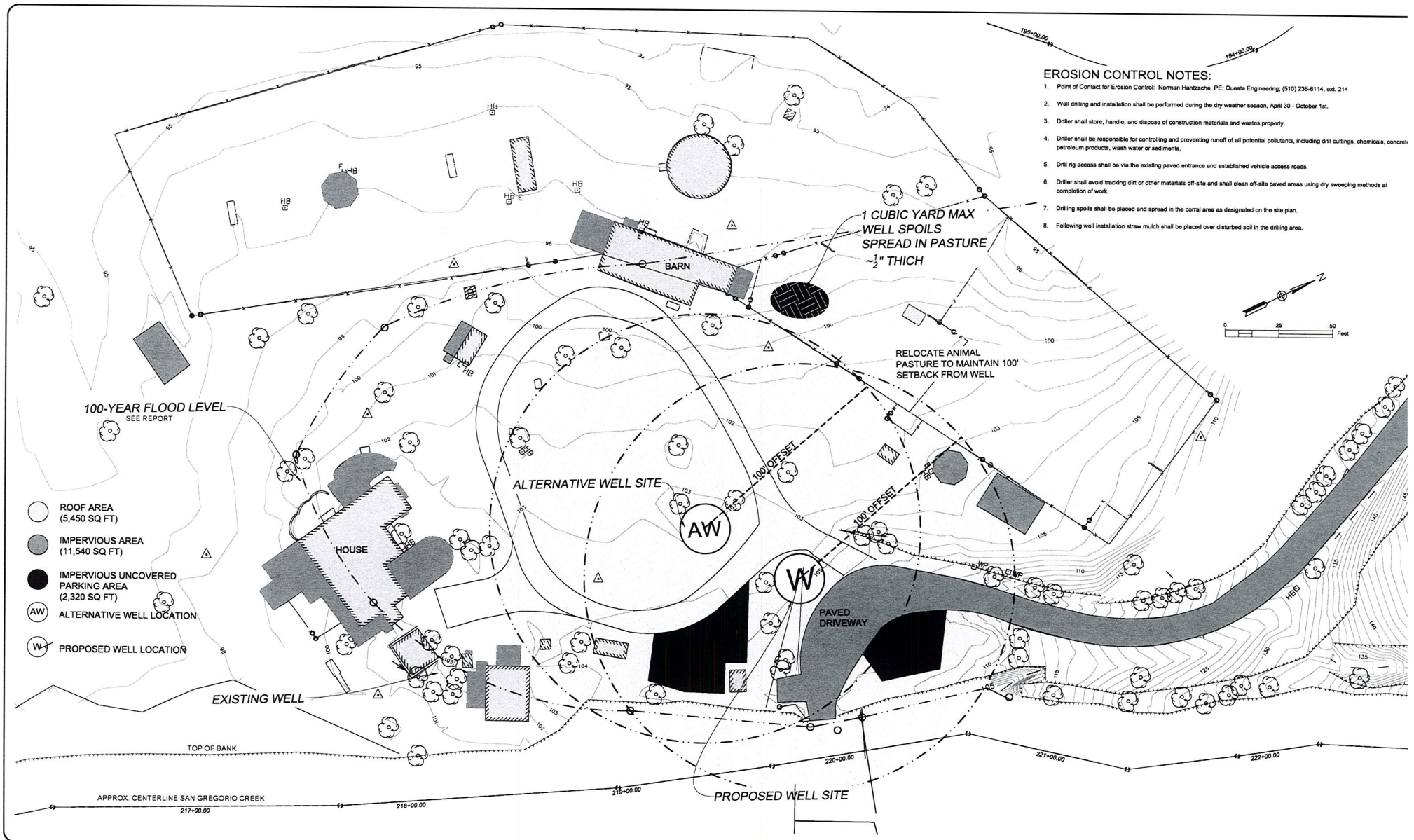
1101 8th Street, #18
Berkeley, CA 9471
phone 510 528 883
fax 510 528 020
info@arkintilt.com
www.arkintilt.com

New Well for:
Shawn & Laura Sears
3540 La Honda Rd (Hwy 84)
San Gregorio, CA 94074
APN#: 081-320-060

Coversheet & Project Information

DATE: 11.20.2018
JOB: VV
SCALE: VARIES
DRAWN: ATA
SHEET: A0.1


NOTE: VERIFY THE ABSENCE OF ALL 'RED-LIST' CHEMICALS. LIVING BUILDING CHALLENGE WEBSITE / REFERENCE: living-future.org/declare/declare-about/red-list.
NO PVC MATERIALS SHALL BE USED AS PART OF THE CONSTRUCTION, INSTALLATION OR FUTURE OPERATION OF THE WELL. WHERE USED, ABS PIPING SHALL BE INSTALLED IN SUB-GRADE LOCATIONS ONLY AND PROTECTED FROM EXPOSURE TO SUNLIGHT WHILE ON-SITE.
LEGEND
PROPERTY LINE
FRONT & SIDE YARD SETBACKS
SEPTIC SETBACK (100' FROM TOP OF BANK & (E) WELL, 50' P.L.)
FENCE LINE
OVERHEAD POWER LINES
ROAD EASMENT
EXISTING GRAVEL PARKING
RPOPOSED A/C PULL-OUTS
FLOOD ZONE A (RESTRICTED)
PRIME SOILS (RESTRICTED)
(E) GARDEN & PASTURE TO REMAIN
DRILLING SPOILS
CREEK CENTERLINE & APPROX BANK
RIPERIAN SETBACK (RESTRICTED)
PERMENANT STRUCTURES ALLOWED
TEMPORARY STRUCTURES ALLOWED
REMOVE (E) TREE AS NECESSARY FOR (N) RET WALL AND FIRE TRUCK PULL-OUT
(E) ELEC SERVICE AND POWER LINES TO REMAIN (APPROX LOC'N SHOWN)
(E) DRIVEWAY TO REMAIN, PREP FOR PATCHING / TURNOUTS
PROPOSED WELL SITE: 20'-0" DEEP WELL (SPOILS TO REMAIN ON-SITE), 4'-0" SQ. CONC. PAD AND SITE-FOUND BOULDERS FOR PROTECTION. RELOCATE ANIMAL PASTURE FENCE TO MAINTAIN 100'-0" SETBACK FROM WELL
(E) GOAT MILKING SHED TO REMAIN
1 CUBIC YARD MAX. OF DRILLING SPOILS SPREAD IN PASTURE (~1/2" THICK)
(E) CHICKEN COOP
(E) SHEDS & PARKING TO REMAIN
(E) MTG SPACE TO REMAIN
ALTERNATE WELL DRILLING SITE (DASHED CIRCLE) - VERIFY SETBACKS & MAINTAIN (E) TREES
(E) ORCHARD TO REMAIN
(E) PASTURES & (E) GARDENS TO REMAIN
(E) AG STORAGE TANK
(E) GREENHOUSE TO REMAIN
(E) GARDEN SHED TO REMAIN
(E) SHADE STRUCTURE TO REMAIN
(E) MAIN HOUSE, OFFICE, DECKS & SEPTIC TO REMAIN
BRIDGE C
TOE C
TOP C
A1.1 - EXISTING SITE SURVEY & PROPOSED WELL LOCATION
SCALE: 1" = 30'-0"
GRAPHIC SCALE: 60 30 12 0
(RIPARIAN LIMIT BASED ON SURVEY BY RSR LAND SURVEYING (JAN 27, 2013); BOUNDARY, TOPOGRAPHIC DATA AND FLOOD PLAIN UPDATED PER CROSS LAND SURVEYING (APRIL, 2018) AND QUESTA CIVIL ENGINEERS (NOV, 2018)
Revision Date
DATE 11.15.2018
JOB VV
SCALE 1" = 30'-0"
DRAWN ATA
SHEET A1.1



VIDA VERDE

VIDA VERDE NATURE EDUCATIONAL
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SAN GREGORIO, CA

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County of San Mateo - Planning and Building Department

ATTACHMENT D

Biotic Assessment Report
for
APN # 081-320-060
Vida Verde, San Gregorio, California

For compliance with
San Mateo County
Local Coastal Program

Prepared for:

Vida Verde
Shawn Sears
3540 La Honda Road
San Gregorio, CA 94074

Prepared by:

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May 2014

Biotic Assessment Report
for APN # 081-320-060
Vida Verde, San Gregorio, California

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1. Project location (include USGS Township, Range and Section)

The project site is located at 3540 La Honda Road, San Gregorio, approximately 3 miles east of the Pacific Ocean. The project site is located in the San Gregorio USGS quad in Township 01N and Range 01E (Figures 1 and 2).

2. Assessor's Parcel Number and any applicable Planning Permit numbers

APN: 081-320-060

3. Owner/Applicant: Shawn Sears

Address: 3540 La Honda Road, San Gregorio, CA 94074
Phone: (650) 747-9288

4. Principal Investigators (attach a qualification summary to the report).

This report was prepared by Autumn Meisel, Senior Biologist, TRA Environmental Sciences, Inc. (TRA). Graphics were prepared by Sarah Daniels, Biologist III and GIS Analyst, TRA. See Appendix A for qualification summaries.

5. Report summary (briefly state the results of the report, habitat type, rare, endangered, or unique species present, anticipated impacts, and proposed mitigation measures.)

This report documents the existing biological resources at APN #081-320-060 in San Gregorio, unincorporated San Mateo County. The project site was surveyed for biological resources on April 14, 2014. San Gregorio Creek flows in an oxbow through the property. San Gregorio Creek is a perennial, blue line stream that flows from the Santa Cruz Mountains to its mouth at the Pacific Ocean at San Gregorio State Beach.

The project site is privately owned and is home to Vida Verde, a non-profit organization that provides environmental education to underserved grade school children. The majority of the project site is earthen, either undeveloped or farmed (vegetable garden and goat and chicken pasture). Structures that have been developed on site include a single family home, a small cottage, a barn, and several outbuildings. Approximately 6 acres of the 23-acre Vide Verde property are actively used for Vida Verde's operations.

Vida Verde has proposed a site plan that would expand the existing, single-level barn to a two-level barn within the existing footprint and construct a septic field, ag storage building, solar array, and potentially one or two water storage tanks to meet fire suppression requirements. Other than the barn, which is existing, these features have yet to be fully designed and their precise location and size had not been finalized at the time this report was prepared. Development on the property is constrained by several factors, including the creek flood zone, riparian set back, and prime agricultural soil.

The majority of the property is well vegetated with native and non-native trees, grasses, and riparian vegetation. The riparian corridor is continuous on both sides of the creek and supports a

dense cover of woody riparian species with an herbaceous understory. All proposed development would be outside of the 50-foot setback from the edge of riparian vegetation.

Based on the habitat observed on the property and a careful study of rare plants with potential to occur in the region, it was determined that no rare or otherwise special-status plants have potential to occur on the property. Seven special-status animal species were found to have potential to occur in the project area, including steelhead (*Oncorhynchus mykiss irideus*), coho salmon (*Oncorhynchus kisutch*), California red-legged frog (*Rana draytonii*), western pond turtle (*Actinemys marmorata*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), pallid bat (*Antrozous pallidus*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*).

No impacts to special-status species are anticipated to result from implementation of the proposed project because all of the proposed development is located in areas that do not contain suitable habitat for the species. Barn construction could impact nesting birds if work is conducted during the bird nesting season. Measures are proposed to avoid impact to nesting birds, including timing work outside of the nesting season, or if unavoidable, conducting a pre-construction survey for nesting birds. Construction of the barn could negatively impact day roosting bats that may be present in crevices under the roof. An avoidance measure is proposed to significantly reduce potential impact to roosting bats.

It is recommended that Best Management Practices from San Mateo County's Watershed Protection and Maintenance Standards be incorporated into the project design to protect the water quality of nearby San Gregorio Creek.

This project would not contribute to any negative cumulative impacts on environmental resources.

6. Project and property description (describe the proposed project and property, including the size, topographic characteristics, water resources, soil types, and land uses on the property and in the vicinity up to a radius of one-quarter mile. Include a map of the area from the USGS 7.5-minute quadrangle series.)

The property is approximately 23 acres in size and is home to Vida Verde, a non-profit organization that provides environmental education for underserved grade school children. The property is located in a rural setting just south of La Honda Road and within an oxbow of San Gregorio Creek, approximately 3.3 miles east of the Pacific Ocean (Figures 1 and 2). The project site is accessed via an asphalt driveway that drops down from La Honda Road. The elevation at La Honda Road is 186 feet, and the developed property sits at 98 feet. Thus the driveway drops down a slope approximately 88 feet to the flat, developed portion of the property. The bed of the creek sits at an average elevation of 90 feet along the oxbow.

San Gregorio is a small community in unincorporated San Mateo County that supports low population density and primarily agricultural and rural development. The area surrounding the property up to and beyond a one-quarter mile radius is a mix of rural-residential and undeveloped open space.

Approximately 6 acres of the 23-acre Vide Verde property are actively used for Vida Verde's operations. Structures on site include a single-family home, small cottage, single-story barn, yurt, and several outbuildings. An asphalt drive leads onto the property from La Honda Road, and parking areas on site are on permeable gravel. Agricultural development on site includes a vegetable garden, fruit trees, and a pasture for goats and chickens. The property is well vegetated with native and non-native trees, non-native grassland, and riparian vegetation along the creek. A portion of the property is located within the flood zone of the creek and some soils on site are mapped as prime agricultural soils, limiting development potential (Figure 3).

San Gregorio Creek is a perennial, blue-line creek that originates on the western ridges of the Santa Cruz Mountains where it courses southwest through steep forested canyons. The San Gregorio Creek main stem begins at the confluence of Alpine and La Honda Creeks, from where it flows 12 miles through rolling grasslands and pasturelands where it ends in a lagoon at San Gregorio State Beach. The lagoon at its seasonal largest, is about five acres and six feet deep, and serves as habitat for tidewater goby (*Eucyclogobius newberryi*) and rearing steelhead. Coho salmon do not rear in the lagoon but outgoing smolts use it to physiologically prepare for migration to saltwater.

With approximately 45 miles of blue line streams, San Gregorio is one of nine priority creeks slated by California Department of Fish and Wildlife (CDFW) for coho reintroduction (Natural Heritage Institute 2010). In addition, San Gregorio Creek is considered a Critical Coastal Area (CCA) by the California Coastal Commission. Of the 101 CCAs in California, San Gregorio Creek is one of the ten highest priority watersheds based on existing water quality conditions, value and sensitivity of coastal resources, new or expanding threats to beneficial uses, and degree of local support for watershed-based planning efforts (Natural Heritage Institute 2010).

Several soil types are present on site, with the majority of soil being *Corralitos sandy loam, gently sloping*, which is typically found in flood plains, *Gazos loam, very steep, eroded*, found where the creek bank is steep and eroded, and *Mixed alluvial land*, also typical of flood plains and classed as excessively drained (NRCS 2014).

The owners of Vida Verde propose to increase the value of the barn for environmental education and outreach by adding a second story, working within the barn's existing footprint (1,341 square feet in size). Other modifications proposed for the property include a septic field, a building for ag storage, a solar array, and potentially one or two water tanks to meet fire suppression requirements (Figure 3a). An alternative site plan has been developed (Figure 3b) that would relocate the barn. Both alternatives are discussed under impacts, below. All new features have been located in the few areas that meet all requirements of being outside of the creek floodplain, riparian setback, and prime agricultural soils. The septic field is proposed in a flat grassy area between the house and vegetable garden. The solar array is proposed in a grassy flat area near the property entrance at La Honda Road. Locations for the water tank(s) have not yet been determined, but are likely to be staged somewhere alongside the asphalt driveway.

All proposed development would be outside of the 50-foot setback from the edge of riparian vegetation. No tree or shrub removal or trimming is anticipated at this time. A schedule for this project has not yet been determined.

7. Methodology (briefly describe the survey methods used in preparing the report and show on an appropriately scaled map the location of sample points, transects, and any additional areas surveyed in the vicinity of the project.)

The site was surveyed for biological resources by TRA Senior Biologist Autumn Meisel on April 14, 2014. Prior to the site visit, the California Natural Diversity Database (2014) was consulted for records of special-status species occurrences in the project area. The property and San Gregorio Creek were visually inspected, and areas where property modifications are proposed were evaluated and photographed. The edge of riparian vegetation and 50-foot setback had already been mapped over most of the property by another biologist prior to TRA's site visit. TRA completed the riparian mapping using an aerial image and ground truthing, and submitted these data to the applicant's architect for incorporation into the project plans.

8. Results (at length, describe the botanical and zoological resources of the project site. To the extent possible, describe the food chain of the habitat and how the proposed project will impact those resources. Use both common and scientific names and please indicate references used.)

The property outside of the riparian corridor is primarily non-native grassland. Dominant grass species include wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), and rip-gut brome (*Bromus diandrus*). Grassland around the farm and residential facilities where project activities are kept mowed. Within the grassland is a variety of trees, both ornamental species that have been planted, such as fruit trees and Monterey pine (*Pinus radiata*), as well as native species such as coast live oak (*Quercus agrifolia*), red alder (*Alnus rubra*) and Fremont cottonwood (*Populus fremontii*). Photos of the property are provided in Appendix B.

The riparian corridor is continuous on both sides of the creek and supports a dense cover of woody riparian species with an herbaceous understory. Dominant woody species include willow (*Salix*) species, box elder (*Acer negundo*), red alder, and blue elderberry (*Sambucus cerulea*). Common riparian herbaceous species observed include stinging nettle (*Urtica dioica*), thimbleberry (*Rubus parviflorus*), and non-native poison hemlock (*Conium maculatum*).

Avian species observed during the site visit include house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), American robin (*Turdus migratorius*), yellow-rumped warbler (*Dendroica coronata*), and Anna's hummingbird (*Calypte anna*). A wide variety of passerine and birds of prey are expected to occur in the project region and may nest or forage on site. Nesting substrate varies among species of birds, but can include trees and shrubs, buildings, cliff faces, and on the ground.

Common reptile and amphibian species that are expected to be found in the project region include coast garter snake (*Thamnophis elegans terrestris*), Santa Cruz garter snake (*Thamnophis atratus atratus*), western fence lizard (*Sceloporus occidentalis*), arboreal salamander (*Aneides lugubris*), California slender salamander (*Batrachoseps attenuates*), and Pacific treefrog

(*Pseudacris regilla*). Mammals that may move through and forage on site include black-tailed (mule) deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*), and raccoon (*Procyon lotor*), among others.

The scientific names used for plant species for this report are based on The Jepson Manual (Baldwin et al 2012). The scientific names used for animal species are based on Sibley (2003), Reid (2006), McGinnis (2006), and Stebbins (2003).

Food Chain Resources

With perennial San Gregorio Creek winding through the property, the site provides high quality foraging habitat for a variety of wildlife. The creek and adjacent riparian corridor provide a food chain resource for insects, fish, amphibians, birds, reptiles and mammals. Vegetation found around the developed farm and residential facilities of the property also offer foraging habitat for wildlife. The proposed project would not negatively impact food chain resources of the site because the project is restricted to the existing barn footprint and an area of non-native grassland that do not provide high quality foraging or nesting habitat for biological resources, and the project includes best management practices to protect the water quality in the creek. Neither the creek nor riparian habitat will be directly impacted because project activities are restricted to the existing barn footprint and to limited areas of non-native grassland adjacent to existing facilities.

9. List all direct and indirect impacts of the proposed project on the habitat. Include within the discussion an evaluation of the perceived cumulative biological impacts associated with the project.

All of the proposed project activities occur outside of the 50-foot riparian buffer and would be conducted within the existing footprint of the 1,341 square foot barn or within mowed, non-native grassland that occurs among the developed farm and facilities. There would be no direct or indirect impacts on riparian habitat. A loss of non-native grassland habitat would occur where the solar array, water tanks, and staff housing is built, and a temporary impact would occur where the septic field is installed. No indirect impacts to grassland habitat are anticipated.

An alternative site design had been proposed that would relocate the barn to a grassland area near the existing garden, rather than modify the barn on its existing footprint. From a biological perspective, the proposed design that would work within the barn's existing footprint is preferred. The existing barn is located directly adjacent to the animal pasture, gravel driveway, and in front of the yurt. This is an area already receiving higher human use and therefore provides less value for wildlife. The alternative location was set further away from existing facilities and is closer to the riparian corridor and the wildlife resources there.

Project activities are located away from San Gregorio Creek and are not expected to negatively impact creek water quality. However, it is still prudent to incorporate water quality protection measures into the project in order to reduce impacts to aquatic species habitat. It is recommended that Best Management Practices (BMPs) in San Mateo County's Watershed Maintenance and Protection Plan (2004) be incorporated into the project design.

This project would not contribute to any negative cumulative impacts on environmental resources. Only minor site modifications and development are proposed. There are several issues that may be impairing ecological conditions in the watershed, including water quantity, fine sediment sources and effects on the riparian ecosystem, stream temperature, turbidity, and bacteria levels, and non-native invasive species. Projects that contribute to these issues may have a negative cumulative impact on the environment. The proposed project at Vida Verde would not impact water quality or riparian vegetation, release sediment into the creek, nor change the stream temperature, turbidity or bacteria levels. A measure to minimize the potential that non-native plant species are introduced to the site during site construction is described under question 11, below.

10. List and discuss all probable impacts to threatened, rare, endangered or unique species either listed or proposed by the Local Coastal Program, a Federal or State agency, or the California Native Plant Society, both on-site and within an area of one-quarter mile radius from the project location.

Based on the habitat observed on the property and a careful study of rare plants with potential to occur in the region (CNDDB 2014 and CNPS 2010), it was determined that no rare or otherwise special-status plants have potential to occur within the project area because areas where ground disturbance will occur are already disturbed and mowed and support only non-native grassland. No rare plants were observed within the project area during the site survey.

From the CNDDB database (2014) and the preparer's knowledge of special-status wildlife species and their habitat requirements, a list was created of special-status species with potential to occur in the region. A total of 15 special-status animal species were considered for their potential to occur on site, and these species are listed in Table 1. The habitat requirements for most of these species are not met on site (Table 1). Seven species could occur in the habitats found on the site, including steelhead, coho salmon, California red-legged frog, western pond turtle, San Francisco garter snake, pallid bat, and San Francisco dusky-footed woodrat.

Table 1. Special status animal species that were considered for their potential to occur onsite.

Species Name	Status	Habitat Present or Absent	Potential to Occur Onsite	Rationale
Myrtle's silverspot (*Speyeria zerene myrtleae*)	FE	A	No	No suitable habitat (sand dune and coastal prairie) present.
Tidewater goby (*Eucyclogobius newberryi*) and Critical Habitat	FE, SSC	A	No	No suitable habitat present in project area (restricted to San Gregorio estuary). San Gregorio Creek and estuary mapped as Critical Habitat.
Coho salmon (*Oncorhynchus kisutch*) and Critical Habitat	FE, SE	P	Low	Known historically in San Gregorio Creek. The creek is mapped as Critical Habitat and National Marine Fisheries Service identifies the Watershed as one of

Species Name	Status	Habitat Present or Absent	Potential to Occur Onsite	Rationale
				the 28 focus watersheds for recovery of Coho (Natural Heritage Institute 2010).
Steelhead-Central California Coast ESU (*Oncorhynchus mykiss irideus*) and Critical Habitat	FT	P	Yes	Species occurs in San Gregorio Creek.
Longfin smelt (*Spirinchus thaleichthys*)	FC, ST, SCC	A	No	No suitable habitat present (pelagic species).
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, SSC	A	No	No suitable habitat (beach or sand dune) present.
Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)	SSC	A	No	No suitable habitat (saltmarsh) present.
Marbled murrelet *(Brachyramphus marmoratus)*	FT, SE	A	No	No old growth trees to provide nesting habitat present on site.
Bank swallow (*Riparia riparia*)	ST	P	Low	Suitable habitat present along eroding creek bank, but no evidence of the species or nests observed.
California clapper rail (*Rallus longirostris obsoletus*)	FE, ST	A	No	No suitable habitat (tidal mudflat) present.
California red-legged frog *(Ranadraytonii)* and Critical Habitat.	FT, SSC	P	Yes	Species may be present in San Gregorio Creek.
Western pond turtle (*Actinemys marmorata*)	SSC	P	Moderate	Species may be present in San Gregorio Creek.
San Francisco garter snake (*Thamnophis sirtalis tetrataenia*)	FE, SE, SFP	P	Low	Species may be present in San Gregorio Creek, although preferred marsh habitat not found on site.
Pallid bat (*Antrozous pallidus*)	SSC	P	Moderate	Moderately suitable habitat present, although species uncommon in region.
San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)	SSC	P	Yes	Woodrats houses present on site.

Notes: FE – Federal endangered; FT – Federal threatened; FC- Federal Candidate; SE – State endangered; ST – State threatened; SSC – California species of special concern; SFP – State Fully Protected.

Steelhead

Steelhead is the anadromous form of *O. mykiss*, spending a portion of its life cycle in fresh water and a portion in salt water. The older juvenile and adult life stages occur in the ocean, until the adults ascend freshwater streams to spawn. Unlike Pacific salmon, steelhead are iteroparous, or capable of spawning more than once before death. Although one-time spawners are the great majority, repeat spawners are relatively numerous in California streams. Eggs (laid in gravel nests called redds), alevins (gravel dwelling hatchlings), fry (juveniles newly emerged from stream gravels) and young juveniles all rear in freshwater until they become large enough to migrate to the ocean to finish rearing and maturing to adults. Although variation occurs, coastal California steelhead usually live in freshwater for 2 years, then spend 1 or 2 years in the ocean before returning to their natal stream to spawn. Adult steelhead typically immigrate to tributaries of San Francisco Bay between November and April, peaking in January and February. Adult steelhead are generally not present in streams between May and October.

Steelhead are known to occur in San Gregorio Creek (Natural Heritage Institute 2010 and CNDDB 2014) and may spawn within the stretch of creek that winds around the property. Proposed project activities would not result in adverse impacts to steelhead because no project activities would occur within or cause impact to the creek bed, banks, or riparian corridor. Recommendations for protection of water quality are provided under question 11, below.

Coho Salmon

Like steelhead, coho salmon are anadromous and adults migrate from a marine environment into freshwater streams and rivers of their birth in order to mate. Coho spend approximately the first half of their life cycle rearing and feeding in streams and small freshwater tributaries. Spawning habitat is small streams with stable gravel substrates. . As the time for migration to the sea approaches, juvenile coho salmon lose their parr marks, a pattern of vertical bars and spots useful for camouflage, and gain the dark back and light belly coloration used by fish living in open water. Their gills and kidneys also begin to change at this time so that they can process salt water. In their freshwater stages, coho feed on plankton and insects, and switch to a diet of small fishes as adults in the ocean. Adults return to their stream of origin to spawn usually at around three years old. Some precocious males known as "jacks" return as two-year-old spawners. Coho salmon spawn only once and then die (semelparity). Spawning males develop a strongly hooked snout and large teeth. Females prepare several redds where the eggs will remain for 6-7 weeks until they hatch.

Coho salmon are known to occur historically in San Gregorio Creek. According to the San Gregorio Creek Watershed Management Plan, small numbers of coho salmon are observed in San Gregorio Creek, although detailed information on their life history in the watershed is not available (Natural Heritage Institute 2010). The creek is mapped as Critical Habitat and the National Marine Fisheries Service identifies the Watershed as one of the 28 focus watersheds for recovery of Coho. It is unlikely that coho salmon are present in San Gregorio Creek within the project area given the rarity of this species in the watershed. Proposed project activities would not result in adverse impact to coho salmon because no project activities would occur within or

cause impact to the creek bed, banks, or riparian corridor. Recommendations for protection of water quality are provided under question 11, below.

Bank Swallow

The Bank Swallow is rarely found far from water. Social and always active, this small brown and white bird nests in colonies sometimes numbering in the thousands. Bank Swallows nest exclusively in the fresh banks or earthen walls cut by moving water, usually at lower elevations. They prefer meandering streams and rivers. Artificial banks created incidentally by mining are also used. Foraging and migrating occur over fields, streams, wetlands, farmlands, and still water. The bank swallow feeds and drinks almost exclusively on the wing. They consume bees, wasps, ants, beetles, and flies primarily from the air, but occasionally from the water surface. They eat no plant material. Arriving before the females, male bank swallows select a colony, then a nest site 3 to 12 feet above the base of a bank or cliff. With his beak, the male begins to dig a hole, which the pair will finish together. The swallows use their bills, wings, and feet to excavate. Breeding appears to be synchronized within the colony.

An eroded stream bank present at the north end of the property near La Honda Road provides suitable nesting habitat for bank swallow. However, no swallows or nests were observed during the site survey. No project activities would occur along the stream bank, and proposed project activities would not result in adverse impact to bank swallow.

California Red-legged Frog

The California red-legged frog uses a variety of habitat types, including various aquatic, riparian, and upland habitats. California red-legged frogs can use many aquatic systems, provided a permanent water source, ideally free of nonnative predators, is nearby. However, individual frogs may complete their entire life cycle in a pond or other aquatic site that is suitable for all life stages. California red-legged frogs breed in aquatic habitats such as marshes, ponds, deep pools and backwaters in streams and creeks, lagoons, and estuaries. Breeding adults are often associated with dense, shrubby riparian or emergent vegetation and areas with deep (greater than 27 inches) still or slow-moving water. However, the frog often successfully breeds in artificial ponds with little or no emergent vegetation and has been observed in stream reaches that are not covered in riparian vegetation. California red-legged frogs spend a substantial amount of time resting and feeding in riparian and emergent vegetation. The moisture and camouflage provided by the riparian plant community may provide good foraging habitat and may facilitate dispersal in addition to providing pools and backwater aquatic areas for breeding.

California red-legged frog is known from San Gregorio Creek (Natural Heritage Institute 2010 and CNDDB 2014) and may be found within the stretch of creek that winds around the property. Project activities are proposed on an existing structure (barn) and on non-native grassland that is mowed and within the developed portion of the site. California red-legged frogs use upland habitat, however the areas proposed for development do not provide refugia (such as wetted areas, logs, burrows, etc.) for the species. The species is unlikely to move through the developed portion of the property as San Gregorio Creek is wetted year round and thus provides a much more suitable movement corridor for the frog than the developed, upland habitat found within

the creek's oxbow. In addition, the species is nocturnal and migration typically occurs at night. Project activities are not expected to adversely impact California red-legged frog.

Western Pond Turtle

The western pond turtle is a small to medium-sized turtle growing to approximately 8 inches in carapace length. It is limited to the west coast of the United States and Mexico. Western pond turtles occur in both permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes. They favor habitats with large numbers of emergent logs or boulders, where they aggregate to bask. They also bask on top of aquatic vegetation or position themselves just below the surface where water temperatures are elevated. Western pond turtles seek refuge in deep water, under submerged logs and rocks, in beaver burrows and lodges, and by "swimming" into deep silt. Western pond turtles are omnivorous and most of their animal diet includes insects, crayfish and other aquatic invertebrates. Females produce 5-13 eggs per clutch. They deposit eggs either once or twice a year. They may travel some distance from water for egg-laying, moving as much as 1/2 mile away from and up to 300 feet above the nearest source of water, but most nests are with 300 feet of water. The female usually leaves the water in the evening and may wander far before selecting a nest site, often in an open area of sand or hardpan that is facing southwards.

Western pond turtle has been recorded in San Gregorio Creek (Natural Heritage Institute 2010), although the reach of creek within the project area is typically too shallow (2-12 inches) to provide preferred habitat for this species. Project activities are proposed on an existing structure (barn) and on non-native grassland that is mowed and within the developed portion of the site. Project activities are not expected to adversely impact western pond turtle.

San Francisco Garter Snake

The preferred habitat for San Francisco garter snake (SFGS) is a densely vegetated pond near an open hillside where it can sun, feed, and find cover in rodent burrows; however, markedly less suitable habitat can be successfully used. Temporary ponds and other seasonal freshwater bodies are also appropriate. Emergent and bankside vegetation such as cattails, bulrushes, and spike rushes apparently are preferred and used for cover. The zone between stream and pond habitats and grasslands or bank sides is characteristically utilized for basking, while nearby dense vegetation or water often provide escape cover. San Francisco garter snakes forage extensively in aquatic habitats. Adult snakes feed primarily on California red-legged frogs. They may also feed on juvenile bullfrogs (*Rana catesbeiana*), but they are unable to consume adults; in fact, adult bullfrogs prey on juvenile garter snakes. Newborn and juvenile SFGS depend heavily upon Pacific treefrogs as prey. On the coast, SFGS hibernates in the winter. Although mating can occur in the fall, the first warm days of March encourage encounters as SFGS emerge from their hibernacula and concentrate in nearby aquatic habitat.

San Francisco garter snake is known from San Gregorio Creek (Natural Heritage Institute 2010 and CNDDB 2014) and may be found within the stretch of creek that winds around the property. Project activities are not expected to adversely impact San Francisco garter snake because ground-disturbing activities are confined to non-native grassland areas within the developed

portion of the property. There is regular human presence here, including school groups, and the grass is kept mowed. SFGS avoids disturbed, open areas with human presence. The solar array and staff housing will be built in grassland adjacent to La Honda Road.

Pallid Bat

The pallid bat can be found in arid regions with rocky outcroppings, to open, sparsely vegetated grasslands. Water must be available close by to all sites. They typically will use three different types of roosts. A day roost which can be a warm, horizontal opening such as in attics, shutters or crevices; the night roost is in the open, but with foliage nearby; and a hibernation roost, which is often in buildings, caves, or cracks in rocks. Pallid bats are susceptible to mild disturbance which cause them to abandon their roost. Pallid bats will eat a variety of prey items. These can include crickets, scorpions, centipedes, ground beetles, grasshoppers, cicadas, praying mantis and long-horned beetles. They have been known to eat lizards and rodents. What is unique to the pallid bat is that it catches its food almost exclusively on the ground as opposed to while in flight. Maternity colonies are rather small in size, ranging from 20-100 animals. Mating takes place in the fall resulting in usually two babies being born in the late spring.

Pallid bat has been recorded in the project area (CNDDB 2014), however the species is uncommon on the San Mateo coast and has only a low likelihood to occur on site. Pallid bats are sensitive to disturbance and are therefore unlikely to roost in a small barn where there is regular human activity, including school group activity. There is no suitable pallid bat roosting habitat that would be impacted by proposed construction activities.

San Francisco Dusky-footed Woodrat

The San Francisco dusky-footed woodrat occurs from the Golden Gate Bridge to just inside the Santa Cruz County line and also in the East Bay. It is associated with riparian, oak woodland and redwood forest. San Francisco dusky-footed woodrat is a medium-sized rodent with a body around 7 inches long, nose to rump, and a furred tail. Dusky-footed woodrats are relatively common and widespread in California, but their complex social structure makes them particularly vulnerable to disturbance. San Francisco dusky-footed woodrat build mounded stick houses that may range in size from 3 to 8 feet across at the base and as much as 6 feet tall, and they tend to live in colonies of 3 to 15 or more houses. The houses can be quite complex inside, with multiple chambers for general living, nesting, latrine use, food storage, and other activities. The availability of suitably-sized sticks may limit the number of woodrat houses. Each house is occupied by a single adult; adult females share the house with their litters for a few months until the young disperse to nearby nests. Adult females live in the same house until they die, when the house is taken over by one of the female offspring. In this manner houses may be occupied and maintained by the same family for decades. Individual houses may persist for 20 to 30 years.

San Francisco dusky-footed woodrats occur on site, with houses found only within the woody riparian corridor. No woodrat houses occur or would occur in the non-native grassland areas where construction activities are proposed and no adverse impact to San Francisco dusky-footed woodrat is anticipated.

Nesting Birds

Nesting birds, including raptors, are protected by State Fish and Game code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Passerines and non-passerine land birds are further protected under the federal Migratory Bird Treaty Act (MBTA). The avian nesting season is from February 1 to August 15.

With the project site's close proximity to San Gregorio Creek, trees and shrubs found on the property offer attractive nesting habitat for a variety of birds. Some birds such as house finch may also nest on buildings found on site, including the barn. Some species of birds nest on the ground, however ground-nesting birds are unlikely to utilize the mowed, non-native grassland that surrounds the farm and residential facilities where the project is proposed. Construction of the barn could impact nesting birds if conducted during the nesting season. If vegetation is trimmed or removed as part of project activities, this could also impact nesting birds.

Roosting Bats

Although pallid bat is unlikely to roost in the barn, other species of bats that are not special-status but that are still protected by Fish and Game Code may roost in the barn. No evidence of roosting bats was observed during the site visit, but bats may escape detection and could be present. Bats may have day roosts in crevices under the roof. Construction of the second level of the barn could impact day roosting bats. Bats disturbed from their day roost get disoriented and may be unable to locate a new roost or suffer predation.

11. Tabulate by significant impact all feasible mitigation measures proposed to reduce the level of impact and explain how such measures will be successful.

Impact	Mitigation Measure	Impact after Mitigation	Implementation
Earthwork could negatively impact creek water quality if dirt or contaminants are allowed to enter the stream.	Best Management Practices (BMPs) described in San Mateo County's Watershed Protection and Maintenance Standards will be incorporated into project design (San Mateo County 2004). These may include BMPs for containment, equipment fueling, and timing of work, among others. How construction will proceed will determine what BMPs are relevant to the project. BMPs can be found on the County's website at https://publicworks.smcgov.org/watershed-protection-and-maintenance-standards.	None. Water quality within San Gregorio Creek will not be negatively impacted by project activities.	Project construction contractor, with oversight from Vida Verde.
If conducted during the avian nesting season, barn modification and removal or	To avoid impacts to nesting birds, barn construction and vegetation trimming or removal shall be scheduled to take place outside of the breeding season (February 1 to August 15). However, if these activities will occur during the breeding season, a qualified biologist shall	None. Nesting birds protected by the Migratory Bird Treaty Act and Fish	Vida Verde, coordinating with the construction contractor and biological

Impact	Mitigation Measure	Impact after Mitigation	Implementation
trimming of vegetation may negatively impact nesting birds.	conduct a survey for nesting birds within five days prior to the proposed start of construction. An active nest is defined as a nest having eggs or chicks present, or a nest that adult birds have staked a territory and are displaying, constructing a nest, or are repairing an old nest. If active nests are not present, construction can take place as scheduled. If more than 5 days elapses between the initial nest search and the start of vegetation removal or barn construction, it is possible for new birds to move onto the barn or into vegetation and begin building a nest. If there is such a delay, another nest survey shall be conducted. If an active nest(s) is detected on the barn, barn construction shall be delayed until the young have fully fledged, are no longer being fed by the parents, and have left the nest site, as determined by a qualified biologist. If an active nest(s) is detected, work will be delayed and a buffer will be established around the nest. California Department of Fish and Wildlife usually accepts a 250-foot radius buffer around passerine and small raptor nests, and up to a 1,000-foot radius for large raptors. A qualified biologist shall monitor the behavior of the birds (adults and young, when present) at the nest site to ensure that they are not disturbed by project-related activities. Nest monitoring shall continue during project-related construction work until the young have fully fledged, are no longer being fed by the parents and have left the nest site. The nest buffer may be removed and work may commence.	and Game Code will be protected from adverse impact.	monitor.
Construction of the barn could negatively impact day roosting bats that may be present in crevices under the roof.	The roof and trim should be carefully removed with hand tools, with particular care taken around cracks and crevices. Removal should be conducted at dusk, which is close to the time bats naturally emerge from day roosts.	The potential of impact to day-roosting bats will be significantly reduced.	Project construction contractor, with oversight from Vida Verde.
Heavy equipment and other machinery and construction materials can be	All construction vehicles entering the site that may have entered weed-infested areas (such as at other construction sites) prior to arriving at Vida Verde shall first wash the tires and undercarriage of the vehicles before entering the project site. If fill is	The potential for non-native plant introduction will be	Project construction contractor, with oversight from Vida Verde.

Impact	Mitigation Measure	Impact after Mitigation	Implementation
a source of non-native plant introduction to the site.	needed, native soil will be used. All rock, aggregate, fiber rolls, or other construction material, if needed, will be certified weed-free.	significantly reduced.	

12. Certification. I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

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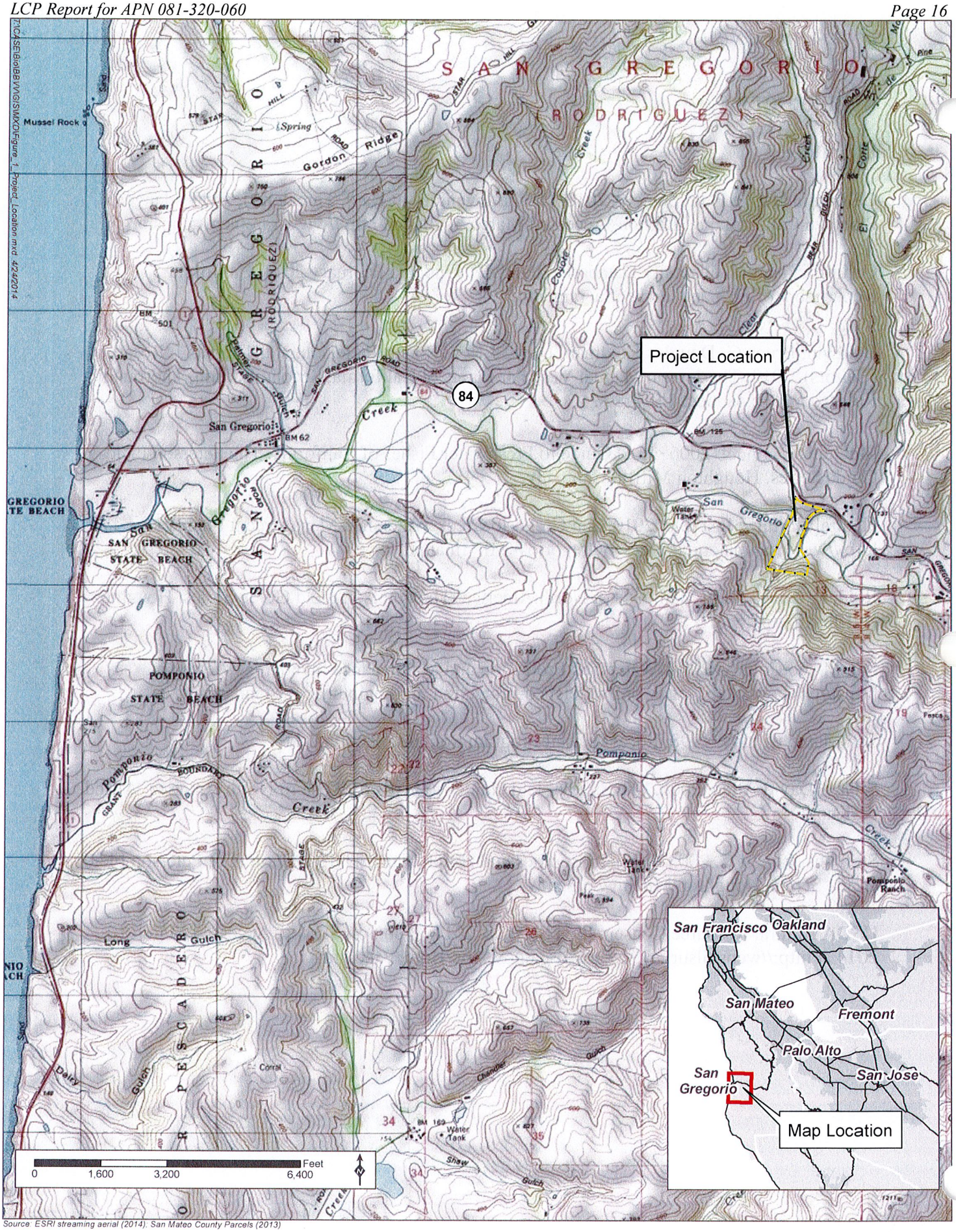


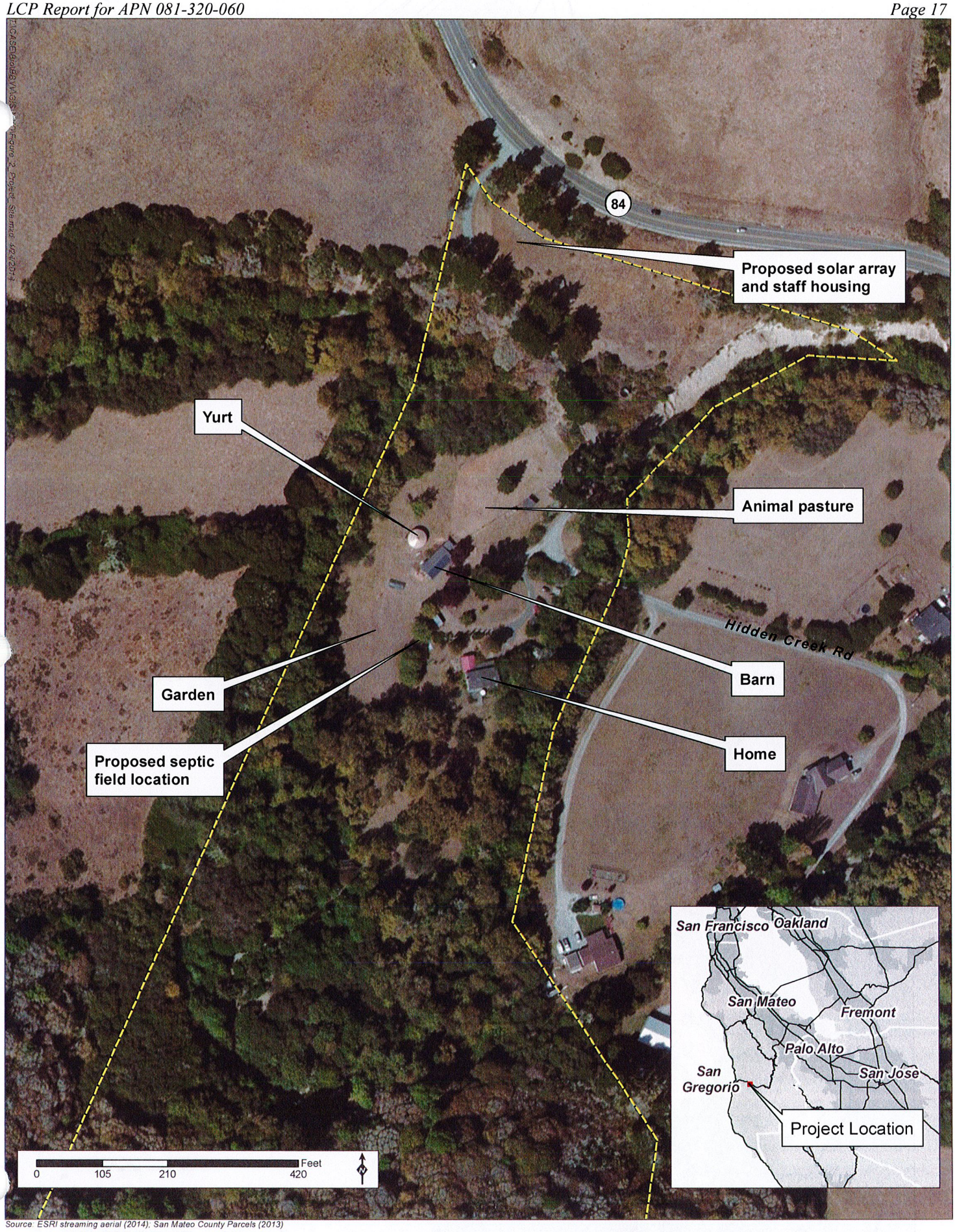
Source: ESRI streaming aerial (2014); San Mateo County Parcels (2013)

Study Area

Figure 1 Project Location

3540 La Honda Rd, San Gregorio, CA

TRA ENVIRONMENTAL SCIENCES, Inc.



Source: ESRI streaming aerial (2014); San Mateo County Parcels (2013)

Study Area

Figure 2 Project Site

3540 La Honda Rd, San Gregorio, CA

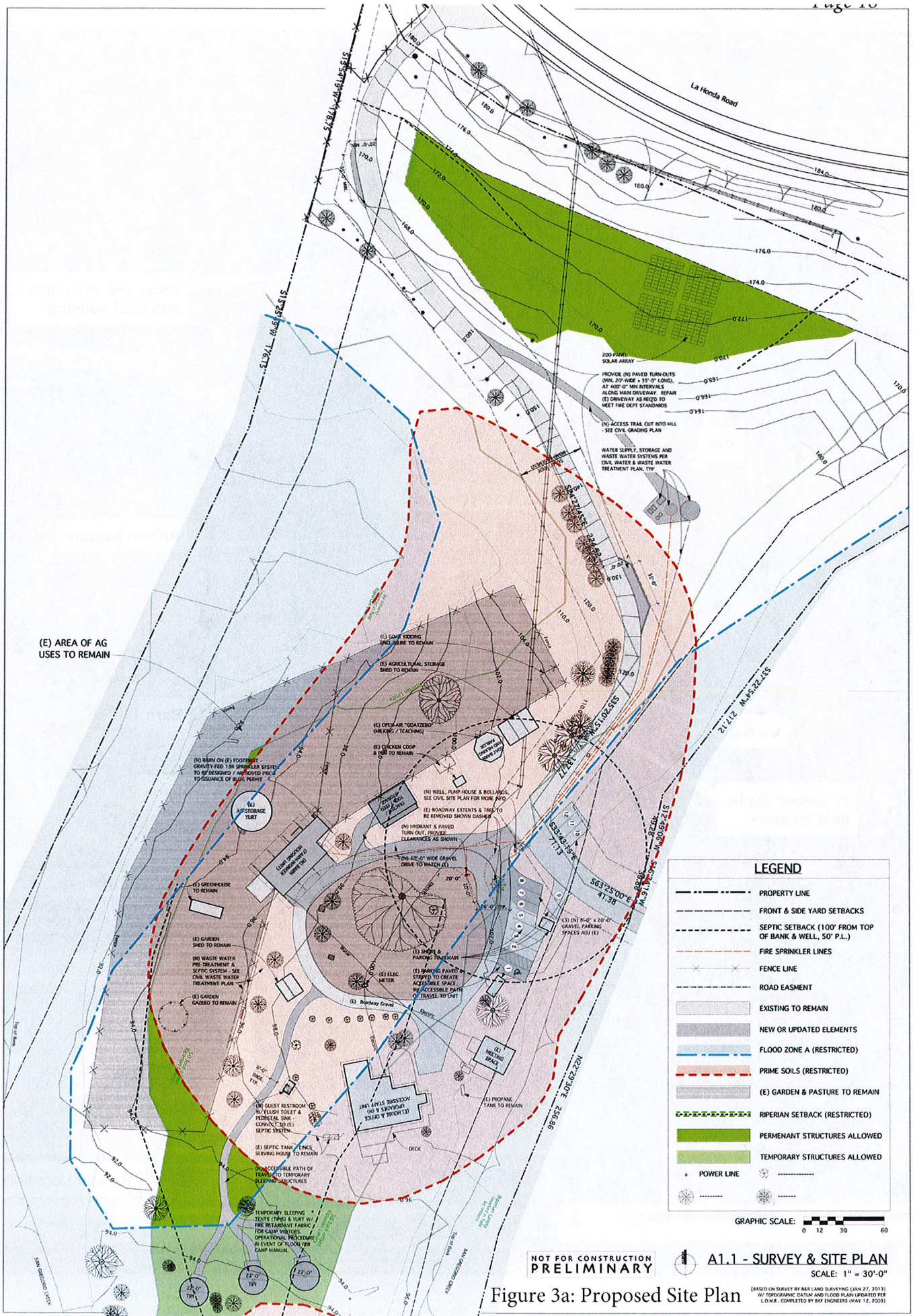


Figure 3a: Proposed Site Plan

Appendix A. Principle Investigator Qualifications

AUTUMN MEISEL, SENIOR BIOLOGIST

Autumn Meisel is an ecologist specialized in habitat assessment and management, with a focus on sensitive species conservation. She joined TRA as a staff biologist in 2005 and is competent in overall site and habitat assessment, biological monitoring, Endangered Species Act consultation, and landscape level planning and management. She has worked with numerous local, public municipalities, providing biological consultation services for improvement projects such as roads, pipelines, and bridges, park management plans, habitat restoration plans, and development projects.

Ms. Meisel has worked as project manager for a variety of clients on projects ranging from small, single-family home developments to capital improvement projects and the implementation of Habitat Conservation Plans. Ms. Meisel has a working relationship with the regulatory agencies and provides clients with guidance in regulatory compliance. She is skilled in her understanding of the regulations with respect to the Clean Water Act, Endangered Species Act, Migratory Bird Treaty Act, Fish and Game Code, Local Coastal Policy Programs, and CEQA significance. She excels in her ability to creatively find solutions to complex issues while ensuring that regulations are met and sensitive resources are protected.

In the field, Ms. Meisel has experience in plant and wildlife identification, reconnaissance-level site surveys, wetland delineations, construction monitoring, mitigation monitoring, and vegetation and wildlife monitoring. Ms. Meisel has experience surveying for and providing management recommendations for rare plants, nesting birds, bats, and a variety of special-status species including California red-legged frog, California tiger salamander, listed butterflies, burrowing owl, western pond turtle, and San Francisco dusky-footed wood rat, among others. Ms. Meisel has a background in fire ecology and has worked with CalFire on vegetation management planning.

Ms. Meisel also has expertise in habitat restoration at degraded sites and has overseen invasive weed control efforts, native out-planting, and plant establishment maintenance. She has lead volunteer groups in restoration work and provided education to others about ecology and resource management. Ms. Meisel has aided in prioritizing restoration needs when resources were limited and has designed experimental vegetation management methods to better understand how to best meet desired goals so that resources may be put to the greatest use.

Educational Background

San Francisco State University, San Francisco

Master of Conservation Ecology

U.C. San Diego, La Jolla

Bachelor of Science, Ecology, Behavior, and Evolution

SARAH DANIELS, BIOLOGIST III, GIS ANALYST

Sarah Daniels joined TRA as an environmental analyst and biologist, bringing her seven years of experience in NEPA analysis, biological assessments, and planning documentation. She has been the project manager for city-wide planning projects, reconnaissance biological evaluations, and environmental assessments. Ms. Daniels utilizes GIS analysis in environmental and resource management planning to find optimal solutions and to create exemplary graphics. She brings a diverse set of ecological and planning skills and natural resources knowledge to her work. She has participated in numerous public meetings and thoroughly encourages outreach in all of her projects.

At TRA, she has been contributing to the GIS analysis of biological resources, recreational resources, land use and zoning, as well as producing figures for CEQA documentation. Prior to joining TRA, Ms. Daniels participated in wetland delineations, rare plant surveys, recreation and visual resource planning, biological resources field work, and military planning working as an environmental planner.

Educational Background

Duke University, Nicholas School of the Environment, Durham, NC

Master of Environmental Management

Certificate in Geospatial Analysis

Duke University, Durham, NC

Bachelor of Science, Biology

Appendix B. Representative Photos of the Site Taken April 14, 2014

Photo 1. View of animal pasture and barn from the property's driveway. Dense and mature riparian corridor shown wrapping around the property.

Photo 2. Grey barn would gain a second level. Yurt located behind the barn and the animal pasture is adjacent to the barn.

Photo 3. Existing vegetable garden.

Photo 4. Location of proposed septic field

Photo 5. Flat and grassy opening at the top of the property near La Honda Road that is proposed for development of a solar array.

Photo 6. View of San Gregorio Creek