

Northern Spotted Owl  
(*Strix occidentalis caurina*)

Terra Springs  
Habitat Conservation Plan

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<b>Subject</b>	<b>Index</b>	<b>Page</b>
1. Overview		3
2. Covered Species		5
3. Covered Activities		7
5. Permit Duration		8
8. Measures to avoid adverse effects		10
11. Evaluation of issuance criteria		18
12. Performance and success criteria		21
16. Alternative actions considered		22
17. Conclusion		23
Appendix 1. NSO survey results		24
Project area map		25
THP map		26
Watershed units map		27
THP Post Harvest Habitat map		28
NSO Habitat map		29
Response to TA request		30
Map of deed restriction area		31
Aerial Photo		32
Erosion Control Plan with maps		33
Restrictive Covenant Limiting Timber Harvest		1-C

## 1. BACKGROUND INFORMATION

### Overview:

The Terra Springs Habitat Conservation Plan (HCP) is located in Napa County near the Napa/Sonoma counties border approximately 3 1/2 miles north of Mt. Hood, Sonoma County in Township 8 North, Range 6 West, Section 28 (APN 022-014-33 and 022-014-32). The landowner Terra Springs LLC is proposing a conversion of timberland to vineyard. The purpose of this HCP is to allow the approval of the Timberland Conversion and Timber Harvest Plan (THP) presently being prepared by a Registered Professional Forester (RPF).

The THP is located within the known range of the Northern Spotted Owl (*Strix occidentalis caurina*), which is listed as threatened under the Endangered Species Act of 1973, as amended (ESA). Northern Spotted Owl (NSO) surveys associated with the proposed THP have located a nest and associated activity center between 1.1 and 1.3 miles of the proposed conversion. Survey records provided by Mr. Ted Wooster, indicate continued activity by NSO at this site (NSO NP033) since 1995 (see appendix). Presently the amount of Northern Spotted Owl habitat within 0.7 mile and 1.3 mile radius of the activity center does not meet the habitat retention guidelines of 500 acres at 0.7 and 1,336 acres at 1.3 mile. The proposed conversion of forest to vineyard will reduce the, already limited amount of habitat for NSO NP033 by an additional 22 acres. As such this reduction requires an incidental take permit under Section 10 of the ESA. An incidental take permit is now being requested to allow the Conversion and THP to be completed. This HCP is being proposed to the US Fish & Wildlife Service (USFWS) to minimize project impacts on the Northern Spotted Owl and to fulfill Section 10(a)(1)(B) requirements under the ESA for issuance of an incidental take permit.

### Regulatory framework:

The federal ESA and its implementing regulations prohibits "take" of any fish or wildlife species that is federally listed as threatened or endangered without the prior approval of the USFWS or the National Marine Fisheries Service (NMFS) under either Section 7 or Section 10(a)(1)(B) of the ESA. Take is defined as "to harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, collect or engage in any such conduct". Federal regulation 50 CFR 17.3 further defines Harm as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering".

Section 10(a) of the ESA establishes a process for non-federal entities such as private landowners, to obtain an incidental take permit, which authorizes take of federally listed wildlife or fish species subject to certain conditions. Incidental take is defined by the act as take that is incidental to, and not the purpose of the carrying out of an otherwise lawful activity. Preparation of an HCP for federally listed species proposed for coverage is required for all Section 10(a)(1)(B) permit applications. The Section 10 process for obtaining an incidental take permit has three primary phases; (1) the HCP development phase, (2) the formal permit processing phase, & (3) the post-issuance phase.

Section 7 of the ESA requires all federal agencies to ensure that any action that they authorize, fund, or carry out, not jeopardize the continued existence of any fish or wildlife species listed under the ESA or result in the destruction or adverse modification of said species critical habitat areas. This is done via an internal consultation on the proposed HCP after the document is developed and submitted by a non-federal entity for review and processing.

Provisions in Section 7 & Section 10 are similar, but Section 7 requires consideration of additional factors such as indirect effects of a project on federally listed or proposed species or critical habitat areas which is not explicitly required of Section 10 applicants.

The USFWS has established a special category of HCP called a Low Effect HCP for smaller projects with low impacts to listed species (USFWS, NMFS 1996). Low Effect HCPs are considered appropriate for projects with minor or negligible effects on federally listed, proposed, or candidate species or their habitats. They are appropriate where the USFWS has determined that despite some small level of authorized incidental take, individually and cumulatively the project will have a minor or negligible effect on the species covered in the HCP. The purpose of the Low-Effect HCP is to expedite handling of HCPs by the USFWS for activities with inherently low impacts. The determination of whether an HCP qualifies for the low-effect category is based on the anticipated impacts of the project prior to implementation of the mitigation plan. Per language contained within the species Habitat Conservation Planning Handbook, Low-Effect HCPs are categorically excluded from compliance with the National Environmental Policy Act (NEPA).

A Section 10 incidental take permit is issued upon a written determination by the USFWS that all requirements for permit issuance have been met. Statutory criteria for issuance of said permit are as follows:

- The taking of the species covered by the HCP will be incidental to an otherwise legal activity.
- The impacts of incidental take will be minimized and mitigated to the maximum extent practicable.
- Adequate funding to carry out the conservation measures and applicable monitoring in the HCP, as well as procedures to handle changed and unforeseen circumstances will be provided.
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild.
- The applicant will provide additional measures that the USFWS deems necessary or appropriate.
- The USFWS has received assurances as may be required that the HCP will be implemented.

The USFWS must publish a Notice of Receipt of a Permit Application in the Federal Register, prepare a Section 7 Biological Opinion, and prepare an Environmental Action Statement, a brief document that serves as the USFWS record of compliance with NEPA for categorically excluded actions.

During the post-issuance phase, the landowner and other responsible entities implement the HCP and the USFWS monitors the landowner's compliance with the HCP and the long-term success of the HCP. The public is notified of the permit issuance through the publication of a Notice of Availability in the federal register.

## 2. COVERED SPECIES.

### Covered species:

The species covered by the incidental take permit shall be the Northern Spotted Owl (*Strix occidentalis caurina*). No other federally listed species or species proposed to be listed are known to occur within or adjacent to the plan area.

### Other federally listed species:

Federally listed Salmonids exist in York Creek below the impassable dam and reservoir 1.9 miles downstream of the proposed project. The California Department of Fish and Game is presently working with the City of Saint Helena to remove the dam and rehabilitate the stream habitat above the dam. Adverse effects to salmonids will be avoided by implementation of the erosion control plan, therefore no incidental take authorization is required (see Item 8 on page 4).

Potential California Red-legged frog (*Rana aurora aurora*) breeding habitat does exist on the covered lands. Protocol surveys were conducted in 2001 at this site, and bull frogs were the only frog species present. Therefore, no authorization for incidental take of red-legged frogs is being requested. See attached Biological survey by Ted Wooster.

### Official status:

The Northern Spotted Owl was listed as a threatened species under the ESA on June 26, 1990 (55 FR 26114-26194). The historic range of the Northern Spotted Owl in North America includes California, Oregon, Washington, and British Columbia.

### Status of the species:

As of July 1, 1994, there were 4,600 known location or site centers of Northern Spotted Owl pairs or resident single owls in California, Oregon, and Washington (USDA / USDI 1994). Seventy-eight percent of all known populations of Northern Spotted Owl are located range-wide on Federal lands (USDI, 1992). Since the northern spotted owl was listed, additional surveys have been conducted in areas not previously surveyed. Data provided by numerous studies of Northern Spotted Owl on commercial timberland in all three states since that time strongly suggests that the actual number of Northern Spotted Owl pairs may be substantially higher than earlier estimates. Recent compilations of data indicate that since 1989, 1,395 Northern Spotted Owls pairs and territorial singles are known to occur in coastal counties of Marin, Napa, Sonoma, Mendocino, Humboldt, and Del Norte, California, (California Dept. of Fish and Game 2000, unpublished data).

The range of the Northern Spotted Owl has been divided into 12 physiographic provinces: Eastern & Western Cascades, Western Lowlands and Olympic Peninsula Provinces in Washington, the Eastern & Western Cascade, Coast Range, Willamette Valley, and Klamath Provinces in Oregon, and the Klamath, Coast, and Cascades Provinces in California (USDI 1992). The Terra Springs THP site lies within the Coast Province of Northern California.

Northern Spotted Owls have large home ranges and inhabit lands containing older forest types or the ecological equivalent to meet their biological needs. The minimum size of the home range for Northern Spotted Owl that meets their biological needs varies from province to province. For management purposes, in the Klamath and Coast Provinces of California, a 1.3 mile radius is considered representative of the home range for Northern Spotted Owl (USFWS 1991).

### Habitat Description:

In general terms, suitable habitat for Northern Spotted Owl means those areas that contain suitable structure and functional composition to support a territorial single or breeding pair of spotted owls. Based on studies of owl habitat preferences, including habitat structure and use and prey preferences throughout the range of the Northern Spotted Owl, preferred owl habitat consists of three components: (1) Nesting, (2) Roosting, and (3) Foraging. Although the vegetative makeup of these three habitat components varies throughout the range of the Northern Spotted Owl, some general attributes are common to the owl's life-history requirements throughout the owl's range.

The age of a forest type is not as important in determining habitat suitability for Northern Spotted Owl as is the structure and composition of the forest. While older forest types typically contain nesting and roosting habitat attributes, characteristics of nesting and roosting habitat may also be found in younger forest with a significant amount of remnant trees from earlier late-successional stands. This situation often occurs on private timberlands within California.

The USDI/USDA (1994) estimated that there were 7,400,000 million acres of suitable habitat throughout the range of the NSO on Federal lands in 1994. As of June, 2001, this has been reduced to 7,265,000 million acres of suitable habitat on federal lands. Availability of suitable nesting and roosting habitat appears to be a limiting factor for the NSO. Important attributes of superior nesting and roosting habitat typically include a moderate to high canopy closure (60 to 80 percent) multiple canopy layers, large overstory trees and a high incidence of larger trees with various deformities (e.g., large cavities, broken tops, mistletoe infections, and debris/platform accumulations). Such areas will also contain sufficient open space below the primary canopy layer for owls to fly.

#### Recovery plans and critical habitat:

A Draft Recovery Plan for the Northern Spotted Owl was published in 1992 (USDI Fish and Wildlife Service 1992c). The conservation strategy for the species on Federal lands is outlined in the Northwest Forest Plan, and includes maintenance of northern spotted owl habitat in late successional reserves distributed across three States. On private lands, conservation is expected to be achieved by employing a combination of take avoidance strategies and development of Habitat Conservation Plans. Demographic support from private lands is necessary in physiographic provinces such as Coastal Province of California where there is little public land suitable for the northern spotted owl available. There is no critical habitat designated within the covered lands.

### **3. COVERED ACTIVITIES**

The incidental take permit covers the conversion of 22 acres of Douglas-fir forest to vineyard, and any subsequent removal of trees from the remainder of the covered lands. This includes all activities required to fall, skid, load and haul commercial conifers. The harvest area is identified by the attached maps.

The use of heavy equipment to clear vegetation, install erosion control structures and prepare the site for establishment of the vineyard are also considered covered activities.

#### **4. COVERED LANDS**

The covered lands consists of 76 acres located within parcel #022-140-032 & #022-140-033, Napa County, California. These parcels are located in the SW quarter of the NW quarter and the NW quarter of the SW quarter of Section 28, Township 8 N, Range 6 W; Mount Diablo Baseline and Meridian. See attached maps for location. An existing vineyard, winery, and 3 houses are present on the covered lands, and about 13 of the 76 acres are currently non-habitat for the NSO.

The site is located four air miles west of the city of St. Helena in Napa County California, on the western edge of the Napa Valley, and lies between 1,800 and 2,000 feet above sea level. The THP area lies on the eastern edge of a prominent ridge between inland foothill and coastal influenced habitat types. As a result, a great variety of wildlife habitat types occur in the area. Vegetative types found in and around the THP site include hardwood stands, mixed conifer/hardwood stands, and conifer stands occurring mostly as clumps of Douglas-fir. Some Redwood is found in the lower drainages where moisture is abundant. Conifer stands in the surrounding areas were logged early during the last century. In recent decades, subdivision, agriculture and fire have had a major impact in creating a mosaic, and wide variety of habitat types. This mosaic has had a significant impact on the amount of habitat available for NSO NP033. NSO NP033 activity center, located about 1.1 miles from the covered lands, is limited to a cool deeply incised canyon with 90% plus canopy of large 2<sup>nd</sup> growth Redwood and Douglas -fir. It is habitat that is surrounded by non-habit areas comprised of vineyards, orchards, grazing lands and rural residences.

The Terra Springs Conversion and THP is composed of 22 acres of mature 80 to 120 year old Douglas-fir trees in a highly fragmented landscape of forests, vineyards, scattered residences, wineries and bed & breakfast facilities. The area is hot and dry in summer and fall. The harvest area lies at the head of an un-named seasonal watercourse, 1.4 miles upstream from York Creek. York Creek flows 3.5 miles into the Napa River near St. Helena. The existing reservoir and dam approximately 1.9 miles downstream of the project area, on York Creek, is presently impassable to salmonids. Plans exist to remove this dam in the foreseeable future. Soils in the area are primarily of volcanic origin, and surface water is uncommon outside the winter rainy season. The erosion hazard rating of the proposed harvest area is moderate.

#### **5. PERMIT DURATION**

The incidental take permit shall remain in effect for a period of 30 years. The deed restriction will be in perpetuity, or will terminate when the US Fish and Wildlife Service provides written notice to Owner that the terms of the permit have been fulfilled. See attached Deed Restriction.

#### **6. BIOLOGICAL OBJECTIVES**

The biological objectives of this low-effect HCP are to maintain 41 acres of suitable roosting/foraging habitat within the covered lands in perpetuity while accomplishing the economic objectives of the applicant.

## 7. MEASURES TO MINIMIZE EFFECTS OF INCIDENTAL TAKING

There are 52 acres of nesting/roosting habitat, 11 acres of foraging habitat and 13 acres of non-habitat on the covered lands. Habitat removal will be limited to 22 acres of Douglas-fir forest located 1.1 miles from the nearest northern spotted owl activity center (NP033). The following measures will be implemented to minimize impacts to the covered species:

- 30 acres shall be retained as suitable nesting/roosting habitat and the 11 acres of foraging habitat shall be managed to attain and then retain the characteristics of nesting/roosting habitat. Prior to initiating timber operations, a deed restriction (attached) will be placed on these 41 acres which provides for their management in perpetuity as Northern Spotted Owl habitat.
- Habitat modification of NSO habitat to be retained throughout the permit term shall be limited to the following:
  - 1) removal of small diameter (<6 inches dbh) conifers and hardwoods.
  - 2) felling of trees which constitute a safety hazard to existing buildings and roads identified in the attached erosion control plan.
  - 3) hand piling of slash and downed wood within 40 feet of roads identified in the attached erosion control plan.
  - 4) Selection silviculture approved by the California Department of Forestry and the US Fish & Wildlife Service and consistent with the goal of maintaining nesting/roosting habitat.
  - 5) Following operations, a minimum of 60-75% canopy closure will be retained throughout the entire operating area. Trees from all size classes will be retained, from saplings and poles to greater than 36" dbh.
  - 6) All snags that do not constitute an operational safety hazard shall be retained
  - 7) At least 2 down logs per acres greater than 15 inches in diameter and over 20 feet long shall be retained following operations.
- No timber operations will occur within a 1000-foot radius of a northern spotted owl activity center during the breeding season (February 1 through August 31).

## 8. MEASURES TO AVOID ADVERSE EFFECTS TO LISTED SALMONIDS

Several watercourse protection measures, which follow, are being incorporated to ensure that the harvest does not adversely affect listed species of salmonids that may occur in portions of the watershed approximately 1 mile below the project area. Based on the incorporation of these measures the proposed activities are not likely to adversely affect listed salmonids. The retention standards for vegetation in the project area will minimize effects of the harvest to the Northern Spotted Owl as well as to salmonids.

All harvesting and conversion activities have been kept out of the watercourses and their associated protection zones. This has been done to mitigate the modification of habitat and to act as a buffer to the potential production of sediment to anadromous streams down stream of the proposed project. No Class I, II or III watercourses are proposed to be crossed with this project.

### Class I Watercourse

None present on or adjacent to the proposed THP/Conversion.

### Class II Watercourse

None present on or adjacent to the proposed THP/Conversion. The Class II watercourse protection is limited to the Class II pond in the SE corner of the THP/Conversion. This pond is outside of the area proposed to be harvested and converted. The edge of the conversion unit is 100 feet above the pond. All flagging was done by the RPF or his designee. This pond is in a natural depression and has no outflow nor any impact to anadromous fisheries that could exist downstream. 14 CCR 916 applies to the class II pond and its WLPZ of 50 feet as required by 916.5. the WLPZ has been flagged at 100 feet to provide additional protection below the conversion area. Section 916.9 does not apply since no threatened or impaired values exist within this site specific watershed due to the lack of an outflow from the pond.

No harvest activity is proposed with in the WLPZ except use of the existing road for water access. Use of heavy equipment in the WLPZ shall not be allowed.

### CLASS III Watercourses

All harvest units have been located 50 feet above any Class III watercourse, as such a 50 foot WLPZ exists around all Class III's. All flagging was done by the RPF or his designee. Two Class III watercourses enter the NE corner of the property (See attached watershed map showing 4 small watershed units on the subject property).

**Unit A**, 13 acres. This Class III enters the property for approximately 200 feet. The proposed project is 100' + above the watercourse. Above the end of the Class III the water drainage is in a gentle swale. No sediment nor defined channel exists above the Class III. Through the conversion area the swale will be protected by installation of a grassy waterway. To prevent sediment transport the grassy waterway will be planted with a non till cover crop and at grade rock weirs. (See the Erosion Control Plan)

**Unit B**, 35 acres. This Class III enters the property for approximately 100 feet. Above this point the water drainage is in a gentle swale. No sediment nor defined channel exist above the Class III. Through the conversion area the swale will be protected by installation of a grassy waterway. To prevent sediment transport the grassy waterway will be planted with a non till cover crop and at grade rock weirs. Since Unit B carries water from a larger

watershed and potentially has a larger area for sediment production a sediment basin will be placed at the head of the Class III. The Class III watercourse has a 50' no vegetation disturbance buffer adjacent to the watercourse, no activity will take place in this buffer. An additional 50 foot no till no strip spray will be placed above the no disturbance buffer. Vines will be planted in the second 50 foot buffer but the vegetative cover will be maintained at all times.

**Unit C**, 21 acres. This area drains into the Class II pond. This pond is located in a natural depression (the result of an ancient land slide & approximately 40 feet deep) and has no outflow. As such no sediment can be transported to any down stream anadromous streams. All water flow into this pond is from overland flow and through swales, no Class III enters the pond. The pond has no outflow at any time of the year. The natural Class II spring to the west of the pond runs all year. No activity is planned nor will equipment be in the area of the spring, except for transportation on existing road surfaces. Through the conversion area the swale will be protected by installation of a grassy waterway. To prevent sediment transport the grassy waterway will be planted with a non till cover crop and at grade rock weirs.

**Unit D**, 5 acres. This area drains off the property by overland flow. No swale or Class III exists on the property. Approximately 2/10's of an acre of the ridge top will be converted in this watershed. Potential sediment production is addressed by a cover crop and the retained vegetative buffer between the conversion area and the property line.

No in stream water diversion is proposed.

The Erosion Control Plan, Timberland Conversion and Timber Harvest Plan will incorporate these erosion control measures to reduce and avoid sediment delivery. These measures will minimize and avoid delivery of sediment to water courses within the plan area.

In addition Salmonids exist below an impassable dam and reservoir 1.9 miles downstream of the proposed project. The California Department of Fish and Game is presently working with the City of Saint Helena to remove the dam and rehabilitate the stream habitat above the dam. It is estimated, due to stream gradient, that this could raise the potential habitat for salmonids up to a location 1 mile below the project site. Due to erosion control measures proposed in the ECP, all soils disturbed during the propose project will be stabilized and will have minimal risk of transporting sediment into the watercourses that feed this downstream salmonid habitat. Adverse effects to salmonids and their critical habitat will be avoided, therefore no incidental take authorization is required (see Item 8 on page 4).

#### Roads

All roads are existing and have rocked or paved surfaces. No new roads will be constructed. These road surfaces may be upgraded as needed to maintain the road surface free from the potential to produce sediment. The existing road network does not cross any Class I, II or III watercourses and is hydrologically disconnected from all watercourses.

### Soil stabilization

Soil stabilization will take place as required by the Forest Practice Rules up to the completion of the logging operation. After logging and slash control has been completed the Erosion Control Plan (ECP) will direct soil stabilization procedures.

All, landing surfaces will be straw mulched and grass seeded, non-rocked road surfaces will be grass seeded upon completion.

If the implementation of the full Erosion Control Plan can not be completed prior to the first winter following harvest, all areas of exposed soils will be straw mulched and grass seeded prior to the onset of the winter period. Seeding shall be 30 lbs per acre of grass seed. Mulching shall cover at least 90% of the surface area coverage to a depth of two inches. A three year erosion control maintenance period applies to all roads and skid trails within this project area, until implementation of the erosion control plan.

It should be pointed out that no operations will take place in a WLPZ.

### Protective Measures Provided Under the Forest Practice Rules

In addition to other measures described in this plan, the following protective measures will apply to timber harvest and conversion activities under the Forest Practice Rules:

All tractor roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following yarding and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within a Watercourse and Lake Protection Zone (WLPZ) or within any Equipment Limitation Zone (ELZ) or Equipment Exclusions Zone (EEZ) designated for watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

Within the WLPZ, and within any ELZ or EEZ designated for watercourse or lake protection, treatments to stabilize soils, minimize soil erosion, and prevent the discharge of sediment into waters in amounts deleterious to aquatic species or the quality and beneficial uses of water, or that threaten to violate applicable water quality requirements, shall be applied in accordance with the following standards:

- (1) The following requirements shall apply to all such treatments.
  - (A) They shall be described in the plan.
  - (B) For areas disturbed from May 1 through October 15, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface.
  - (C) For areas disturbed from October 16 through April 30, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days, whichever is earlier.
- (2) The traveled surface of logging roads shall be treated to prevent waterborne transport of sediment and concentration of runoff that results from timber operations. All road surfaces will be watered and treated for dust abatement during periods of truck haul. Water will be drafted from the existing pond or purchased on the open market.
- (3) The treatment for other disturbed areas, including: (A) areas exceeding 100 contiguous square feet where timber operations have exposed bare soil, (B) approaches to tractor

road watercourse crossings between the drainage facilities closest to the crossing, (C) road cut banks and fills, and (D) any other area of disturbed soil that threatens to discharge sediment into waters in amounts deleterious to the quality and beneficial uses of water, may include, but need not be limited to, mulching, rip-rapping, grass seeding, or chemical soil stabilizers. Where straw, mulch, or slash is used, the minimum coverage shall be 90%, and any treated area that has been subject to reuse or has less than 90% surface cover shall be treated again prior to the end of timber operations. The RPF may propose alternative treatments that will achieve the same level of erosion control and sediment discharge prevention.

- (4) Where the undisturbed natural ground cover cannot effectively protect beneficial uses of water from timber operations, the ground shall be treated by measures including, but not limited to seeding, mulching or replanting, in order to retain and improve its natural ability to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.

Ground based equipment operations will be suspended during periods when the following conditions exist due as a result of measurable precipitation:

- Whenever exposed soil resulting from tractor operations can be transported in solution
- in areas exhibiting overland transport of water from springs, seeps, or wet areas,
- in areas where saturated soil conditions exist. "Saturated soil conditions" (14CCR 895.1) means: "that site conditions are sufficiently wet that timber operations displace soils in yarding or mechanical site preparation areas or displace road and landing surface materials in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, or in downstream Class I, II, III, or IV waters that is visible or would violate applicable water quality requirements.
- The LTO will be responsible for log hauling during wet weather conditions.

#### Wet-weather operations:

Under the Forest Practice Rules, the wet weather operating period is defined as April 1<sup>st</sup> through November 15<sup>th</sup>. Operations between November 15<sup>th</sup> and April 1<sup>st</sup> are considered winter operations and are not proposed. Operations will be limited to April 1 through October 15 (See the Erosion Control Plan. Operations during this period will not be conducted within 24 hours after measurable precipitation. Waterbars shall be installed if the National Weather Service Forecasts a chance of rain (30% or more) within 24 hours or over a weekend. The registered professional forester will provide a phone number and local radio station where the timber operator can get this information.

Routine and or emergency corrective work that will prevent diversion of water from a watercourse or ditch (e.g., repair to inside ditches, cross drains, waterbars, road surface, unblocking of culverts, etc.) will be performed as soon as conditions permit, consistent with federal and state law, regardless of the time of year. During this corrective work, erosion control material of sufficient quantity shall be stockpiled onsite and utilized to prevent an increase in turbidity in any drainage facility which drains directly or indirectly into Class I, II or III waters.

#### Winter operations:

Operations are not proposed during the winter period. All roads within the proposed project are existing. The main road providing access to the winery and house are paved. All other roads are rocked for all weather agricultural use.

### Notice to National Marine Fisheries Service (NMFS)

Twenty four hours (24 hr) notice shall be provided to the NMFS prior to the start of the following. This notice is to allow review and comments on active operations. An active inspection may or may not take place. The call shall be placed to Charlotte Ambrose at NMFS (707) 576-6050.

- Startup of operations on the Timber Harvest Plan and Timber Conversion Plan.
- Implementation of the Erosion Control Plan.

If upon inspection NMFS determines that activities are not being conducted in accordance with the THP, Timber Conversion Plan, or Erosion Control Plan, NMFS may call for a cessation of activities until corrections are made. In this event, and with notice, staff from NMFS shall be given access to the project site for the purposes of conducting follow-up visits.

### Implementation of Erosion Control Plan

The following measures are adapted from Napa County Ordinance number 1219.

**Installation oversight.** The qualified professional who prepared the erosion control plan shall oversee its implementation. Prior to the first winter rains after construction begins and each year thereafter until the project has received a final inspection from the County or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the County that all of the erosion control measures required at that stage of development have been installed in conformance with the plan and related specifications.

**Maintenance.** The property owner will insure that the erosion control measures installed operate properly and are effective in reducing to a minimum erosion and related sedimentation. The property owner shall either personally or have personnel inspect and repair/clean as necessary the erosion control measures installed at least weekly during the period between October 1st and April 1st of each year. Moreover, the property owner shall either be onsite him/herself or have personnel on site as required when it is raining to inspect the erosion control measures present and take those actions necessary to keep them functioning properly.

**Monitoring.** The property owner shall implement, prior to the first winter rains after installation of the planned facilities is commenced, a permanent, on-going program of self-monitoring of groundcover condition, and erosion control facility operation. The groundcover monitoring shall follow the procedures promulgated by the National Resource Conservation Service (NRCS, formerly the SCS) for determining rangeland condition for hydrologic assessment.

**Inspection.** Each project requiring an erosion control plan that has not received a final inspection and been found complete by the County shall be inspected by the County or its agent after the first major storm event of each winter until the project has been completed and stable for three years. If it is found that the erosion control program implemented is not functioning properly or is ineffective the property owner shall take such remedial measures as the County deems necessary to reduce erosion and related sedimentation to minimal levels.

## **9. RESPONSIBILITIES**

As specified in the USFWS Habitat Conservation Planning Handbook (USFWS, NMFS 1996), an Implementing Agreement (IA) is not required for a low-effect HCP unless requested by the permit applicant. An IA is not being prepared in conjunction with this HCP.

Terra Springs LLC understands that they are responsible for implementation of this HCP in accordance with the specifications for mitigation, monitoring, reporting, and funding outlined within this document and will perform all obligations assigned to it within the incidental take permit and HCP.

## **10. CHANGED AND UNFORESEEN CIRCUMSTANCES**

Section 10 regulations [50CFR 17.22(b)(2)(iii)] require that an HCP specify the procedures to be used for dealing with unforeseen circumstances that may arise during the implementation of an HCP. In addition, the Habitat Conservation Plan Assurances (“No Surprises”) Rule (50 CFR 17.21 (b)(5)-(6); 63 F.R.8859) defines “unforeseen circumstances” and “changed circumstances” and describes the obligations of the landowner and the USFWS.

The purpose of the Assurances Rule is to provide assurances to non-Federal landowners participating in habitat conservation planning under the ESA that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP in light of unforeseen circumstances, without the consent of the landowner. The policy defines “unforeseen circumstances” as changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and the USFWS at the time of the plans negotiation and development and that may result in a substantial and adverse change in status of the covered species.

In determining whether any event constitutes an unforeseen circumstance the USFWS shall consider, but is not limited to, the following factors: size of the current range of the affected species; percentage of the range adversely affected by the HCP; percentage of the range conserved by the HCP; ecological significance of that portion of the range affected by the HCP, current level of knowledge about the affected species and the degree of specificity of the species conservation program under the HCP; and whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

If the USFWS determines that the unforeseen circumstance will affect the outcome of the HCP, additional conservation and mitigation measures may be necessary. Where the HCP is being properly implemented and an unforeseen circumstance has occurred, the additional measures required of the landowner must be as close as possible to the terms of the original HCP and must be limited to modifications within any conserved habitat area or to adjustment to lands or waters that are already set aside in the HCPs operating conservation program. Additional conservation and mitigation measures shall not involve the commitment or additional land or financial compensation or restrictions on the use of land or other natural resources otherwise available for development or use under the original terms of the HCP without the consent of the landowner. Letters between the USFWS and the landowner shall document resolution of the situation. Thus, in the event that unforeseen circumstances adversely affecting the Northern Spotted Owl occur during the term of the incidental take permit, the landowner would not be required to provide additional financial mitigation or additional land use restrictions above those measures specified in the HCP, provided that the HCP is being properly implemented, and the continued implementation of the Plan’s measures would not result in jeopardy to any listed species.

Measures implemented if harvest activities are not promptly completed:

Delay of the conversion activities until after November 15, 2004, shall constitute a changed circumstance. In this event, Northern Spotted Owl surveys will be conducted to protocol (USDI Fish and Wildlife Service 1992b) in each calendar year that the permit remains in effect. If the nest site remains in the same location as in 2000, the measures of the HCP shall remain in effect. If, prior to harvest activities, the nest location or primary activity center of the Northern Spotted Owls is found to have changed significantly from the 2000 location, landowners' representatives and the USFWS will meet to evaluate the need to adjust the plan prior to carrying out the harvest. Objectives of such adjustment will be equivalent protection for the Northern Spotted Owl and equivalent economic return for the landowner. The modified plan will be carried out after a written finding by the USFWS that all criteria under the ESA and the NEPA Categorical Exclusion remain satisfied, and that effects to the Northern Spotted Owl and all other resources are commensurate with those evaluated under the original permit issuance.

Fires are a common occurrence in the dry summer months in this region of California, and shall constitute a changed circumstance. If a stand replacing wildland fire destroys more than 5 acres of suitable northern spotted owl habitat on covered lands, the timber will be salvaged and the area restocked with Douglas-fir seedlings within two years after the fire.

Changes in biological status of the Northern Spotted Owl:

The short term duration of the HCP (i.e. thirty years) makes it unlikely that any unforeseen event will occur that will adversely affect the overall Northern Spotted Owl population or this HCPs relative contribution to the species conservation and recovery. Any change in the range-wide status of the Northern Spotted Owl so great as to result in a revised determination by the USFWS that this action would result in jeopardy and therefore require modification of the mitigation measures would be an unforeseen circumstance.

### Federal listing of a plant or animal species not covered by the HCP:

In the event that a non-covered plant or animal species, or critical habitat for such species, (which may be affected by the Covered Activities) becomes formally proposed by the USFWS for listing under the ESA during the duration of the Terra Springs HCP and permit, the landowners representatives will work cooperatively with the USFWS to develop and apply measures as needed to avoid jeopardy to the species. Jeopardy of a species shall be defined as engaging in an action that would reasonably be expected directly or indirectly to reduce the likelihood of both the survival and recovery of a species in the wild by reducing the species reproduction, population, or distribution. Should additional protection measures be deemed necessary by the USFWS, the full value of the Terra Springs HCPs existing measures shall be considered and incorporated into any new measures required.

In the event that a non-covered plant or animal species (that may be affected by Covered Activities) becomes listed by the USFWS under the ESA during the duration of the permit, the landowners representatives will cooperatively work with any effort initiated by the USFWS to develop and apply measures designed to avoid take or avoid jeopardy to the species or adverse modification of said species critical habitat, as those terms are defined in the ESA and implementing regulations. Specifically, plants that might become listed will be evaluated under a jeopardy standard, per the ESA and implementing regulations. The full value of the HCPs existing measures shall be considered and incorporated into any new measures necessary. The landowner will agree to implement any such measures prescribed by the USFWS until either the affected permit is amended to include such species, or until the USFWS notifies the landowner that such measures are no longer needed to avoid jeopardy, or adverse modification of the critical habitat of, the non-covered species.

### Requirement for mitigation if the permit is relinquished prior to completion of the action:

If the landowner relinquishes the incidental take permit at any time following initiation of harvesting all mitigation and monitoring activities shall be entirely carried out per the terms of the HCP.

### Changes in ownership:

Should the landowner transfer ownership of the covered lands to another party during the period in which responsibilities remain to be carried out under the HCP, responsibilities for the remaining measures shall be transferred to the new owners. Should the landowner acquire other lands in the project vicinity, incidental take coverage shall only be applied upon amendment to the existing permit.

## 11. EVALUATION OF ISSUANCE CRITERIA:

### Impact of the taking:

The timber harvest conducted in compliance with a THP approved by the California Dept. of Forestry is a lawful activity. The applicant will comply with all other federal, state, and local laws, ordinances, and regulations. Any take of northern spotted owls that may result from the lawful implementation of the Terra Springs THP / HCP after a permit is issued would be incidental.

The following chart shows NSO habitat within the home range of NSO NP033

<b>Northern Spotted Owl Habitat NP033 (Acres)</b>									
		500 feet		1000 feet		.7 miles		1.3 miles	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
<b>N</b>	Nesting	17	17	40	40	115	115	224	224
<b>R</b>	Roosting					86	86	207	198
<b>F</b>	Foraging					120	120	545	532
	<b>NR&amp;F Totals</b>					<b>321</b>	<b>321</b>	<b>976</b>	<b>954</b>
<b>O</b>	Non-Habitat	1	1	32	32	664	664	2,424	2,446
<b>Totals</b>		18		72		985		3,400	

All acreages are estimates based on review of aerial photos taken 4-14-99

### **Present Situation:**

NSO NP033 activity center is currently located within 1.1 miles of the propose project. Continued use of this site by owls has been recorded since 1995, see attached survey records. The amount of suitable habitat currently available within 1.3 miles of the closest activity center (NP033) is below the threshold which is likely to support a reproducing pair of owls. See chart listed above. The conversion of an additional 22 acres from roosting and foraging habitat to vineyard has prompted the need for this HCP.

### **Proposal:**

Modify the present roosting and foraging habitat on 22 acres to open non-habitat. Retain surrounding forest habitat as nesting/roosting and foraging. Install erosion control structures to minimize sediment transfer from disturbed areas.

**Justification:**

The mosaic land use management patterns in the area have significantly impacted the connectivity of suitable nesting, roosting and foraging habitat for this NSO. This land use pattern has resulted in increased vulnerability to predation by raptors in this area.

The location of the proposed conversion is at the outer edge of the 1.3 mile home range for NSO NP033. The next nearest northern spotted owl activity center (NP005) is 1.6 miles from the HCP area. Based upon survey records over the past several years, northern spotted owl use of the proposed THP area for nesting or roosting is minimal. Wood rats are the primary food source for the NSO in this area. Although suitable roosting and foraging habitat does exist within the project area, the population of wood rats is minimal. Onsite review and investigation found few wood rat nests within the suitable habitat proposed for conversion.

It is not certain that an incidental take could occur as a result of the completion of the THP. The impact to NSO NP033 as the result of the proposed modification of 22 acres of habitat at the outer edge of the 1.3 mile radius of the activity center is unknown. In the worst case scenario, effects to the pair by the alteration of this habitat would be the loss of a pair of northern spotted owls. A more likely scenario would be the loss of reproductive fitness at the NP033 site. Given the number of Northern Spotted Owl pairs presently known to occur within the coastal province and across the range, the impact, of the taking to the distribution and coastal population of the Northern Spotted Owl is negligible.

**Mitigation and impact minimization:**

The THP is designed to provide adequate financial return to the landowner. The landowner is in the business of growing and processing grapes. Installation of a vineyard on this property will facilitate his business. In order to protect and reduce impact to ESA listed species, 41 acres of suitable nesting/roosting and foraging habitat will be retained as forested habitat. Hand piling of slash within forested areas may increase habitat for small rodents, such as woodrats, which are the primary prey species for northern spotted owls in this area. The retention of forest vegetation will reduce potential sediment transfer into anadromous watercourses downstream. The landowners commitment to the long term maintenance of these forested areas will help preserve future habitat potential.

As discussed elsewhere in the HCP, the impact of the taking on the Northern Spotted Owl is expected to be negligible to the range and distribution of the species. As provided in the USFWS HCP Handbook (USFWS 1996), the measures for minimization and mitigation of the taking should be commensurate with the degree of biological impact. Since the impact is expected to be negligible the incorporated measures are the maximum that are practicable for this landowner to provide.

### Funding:

Terra Springs LLC has adequate funds to fulfill their obligations under the HCP. Funding for the mitigation and monitoring activities described in the HCP will be provided by Terra Springs LLC, P.O. Box 553, Saint Helena, CA 94574. The estimated cost of monitoring the presence of NSO NP033 is approximately \$5000 (\$1000 per year) for 5 years. The cost of and commitment to sediment control is extensive and cannot be covered in this report. Permits for the erosion control plan must pass inspection and approval by the County of Napa, in the form of an Erosion Control Plan. Permits addressing the THP and Conversion Control Permit must pass inspection and approval of the California Regional Water Quality Control Board, California Department of Fish and Game, California Department of Forestry and Fire Protection, California Department of Mines and Geology, National Marine Fisheries Service and the US Fish and Wildlife Service. The person to contact on site is Phil Baxter (707) 963-0121.

### Additional measures deemed necessary or appropriate by the USFWS:

None at this time. Additional measures deemed necessary or appropriate by the USFWS will be added in this location.

### Monitoring and Reporting:

Monitoring of NSO site NP033 shall be conducted for five years subsequent to the timberland conversion. Monitoring will entail site visits to the nest site after February 1<sup>st</sup> of each year until current year status has been established. In the event that Northern Spotted Owls are not detected at the current nest site, surveys shall be conducted in compliance with the USFWS approved protocol (USDI Fish and Wildlife Service 1992b)

Surveys of the covered lands will occur prior to any timber operations in the remaining 41 acres of suitable northern spotted owl habitat. Surveys will be conducted by a qualified Wildlife Biologist and/of Registered Professional Forester experienced in spotted owl surveying and familiar with USFWS approved protocol, to assess the occupancy and reproductive status of the site.

Monitoring of erosion control facilities will take place after installation, as described within section 8 above, under "Implementation of Erosion Control Plan". In addition, monitoring will include pictures documenting post-installation conditions. Pictures and all reports and other documentation described above under "Implementation of Erosion Control Plan" will be made available to the USFWS and NMFS.

### Reporting:

An annual report shall be prepared and submitted to the USFWS (Project Leader, 1655 Heindon Road, Arcata CA 95521) by January 1 of each year for the first 5 years of the permit, and in subsequent years when surveys are conducted for timber operations. This report shall contain information on the dates and degree of the covered activities implementation, as well as results of NSO surveys. The NSO survey report shall be prepared by a qualified wildlife

biologist and/or Registered Professional Forester, and shall describe the following: survey dates, time, weather, stations surveyed and/or area searched, and mousing results if performed. Maps of the area surveyed shall accompany this information and should illustrate all survey stations and owl detections.

## **12. PERFORMANCE AND SUCCESS CRITERIA**

Continued persistence of the NSO pair or future pairs within the home range of NSO NP033 area over time is the best measure of success of this HCP. Since Northern Spotted Owls can and do occasionally switch nest sites to alternate areas from year to year, it is important to monitor nest site use over time. If the nest site is not occupied in any given year, however, it does not necessarily mean the Terra Springs HCP has not been a success. The home range area will still provide a NSO nest site that may be re-occupied in coming years by the same NSO pair, or a new or dispersing NSO pair.

## **13. ACCESS BY USFWS**

Upon request, biologists from the USFWS, or their representatives, shall be given access to the project site in a timely manor for purposes of monitoring compliance with the HCP and incidental take permit.

## **14. PERMIT AMENDMENT**

Amendment of Section 10(a)1(B) permit would be required for any change in the following: (a) significant revision of the permit area boundary; (b) the listing under the ESA of a new species not currently addressed in the HCP that may be taken by project activities; (c) modification of any important project action or mitigation component under the HCP, including funding that may significantly affect the project or the nature or scope of the designed mitigation programs; and (d) any other modifications of the project likely to result in significant adverse effects to Northern Spotted Owl not addressed in the original HCP and incidental take permit.

Amendment of the Section 10(a)1(B) permit would be treated in the same manner as the original permit application. Permit amendments typically require a revised HCP, a permit application form and application fee, an implementing agreement, a NEPA document, and a 30 day public comment period. However, the specific documentation needed in support of a permit amendment may vary, depending on the nature of the amendment. If the permit amendment qualifies as a low-effect HCP, an implementing agreement and NEPA document would not be necessary.

## 16. ALTERNATIVE ACTIONS CONSIDERED

To comply with the requirements for an HCP under Section 10(a)1(B) of the ESA, four alternative strategies to the HCP that would avoid take of listed species are listed below:

### Alternative 1: Proposed, preferred alternative:

The proposed alternative suggests minimal if any impact to NSO NP033 as a result of implementing this HCP. Justification and mitigation of ESA species are proposed in this HCP. Additional mitigation or consideration of less economical alternatives are not justified considering the minimal impact, on NSO NP033, associated with this HCP. This alternative has been chosen as that most appropriate for this landowner after consideration of economic and environmental constraints.

### Alternative 2: No action alternative:

The ESA guidelines require that the No Project Alternative be evaluated. In accordance with these guidelines, the existing conditions have been considered, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved. The No Project Alternative would avoid the risk of potential environmental impacts that might occur in connection with the proposed THP and conversion. However, the No Project Alternative has the potential to result in long-term loss of suitable NSO habitat in the entire HCP. The present landowner's objective of economic profit from grape production necessitates the procurement of additional acreage of vineyards. If he is unable to operate the winery, sale of the property would be required. The most likely potential for the property would be increased residential density. This impact may pose greater potential environmental impacts than the present proposal. The land is presently zoned Agriculture and Winery. This alternative was rejected because of its incompatibility with the landowner's economic interests.

### Alternative 3: Off-site mitigation:

Under this alternative, roosting and foraging habitat on an adjacent parcel would be purchased and used to replace the habitat affected by the proposed harvest. Off-site mitigation in the form of purchase of an alternate parcel of suitable northern spotted habitat or funding of other mitigation banking schemes is economically unfeasible for the landowner. Currently there are no mitigation banks established for the purchase of northern spotted owl habitat. This alternative is therefore also rejected.

#### Alternative 4: Higher intensive use:

Under this alternative a higher intensive use of the property would be sought in order to justify the economics of long term property ownership. Loss of revenue to the landowner along with the loss of grapes needed for the existing permitted winery would need to be replaced. This higher intensive use and retained ownership of the property could involve alternative agricultural crops and or increased housing for tourists or local residences. Although slope conditions could have some limitations on some of the property more acreage could be used than is planned with the present proposal. This increased use would impact more NSO habitat than is presently being proposed and have higher costs associated with its implementation. This alternative has been rejected as to costly and having more environmental impact than is necessary.

### 17. CONCLUSION

Based on all available information both biological and economic, the landowners preferred alternative is that which protects the potential reproductive effort of Northern Spotted Owls, and allows reasonable economic gain for the landowner without undue financial burden or hardships. This HCP meets the needs of both the Northern Spotted Owl and the landowner and avoids impact to listed salmonids downstream of the covered lands.

### 18. REFERENCES

California Department of Fish and Game, 2000. Unpublished Northern Spotted Owl database.

USFWS & NMFS, Endangered Species Habitat Conservation Planning Handbook, November 1996.

USDI, USFWS. 1992. Revised protocol for surveying proposed management activities that may impact Northern Spotted Owls.

USDI, USFWS. 1994. Biological opinion for the preferred alternative (Alternative 9) of the supplemental EIS on management of habitat for late successional and old growth forest related species on federal lands within the range of the Northern Spotted Owl. February 10, 1994.

USFWS request for Northern Spotted Owl technical assistance letter dated 8-31-00 from Ted Wooster, Designated Biologist, CDF&G Retired.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM, California Department of Fish & Game.

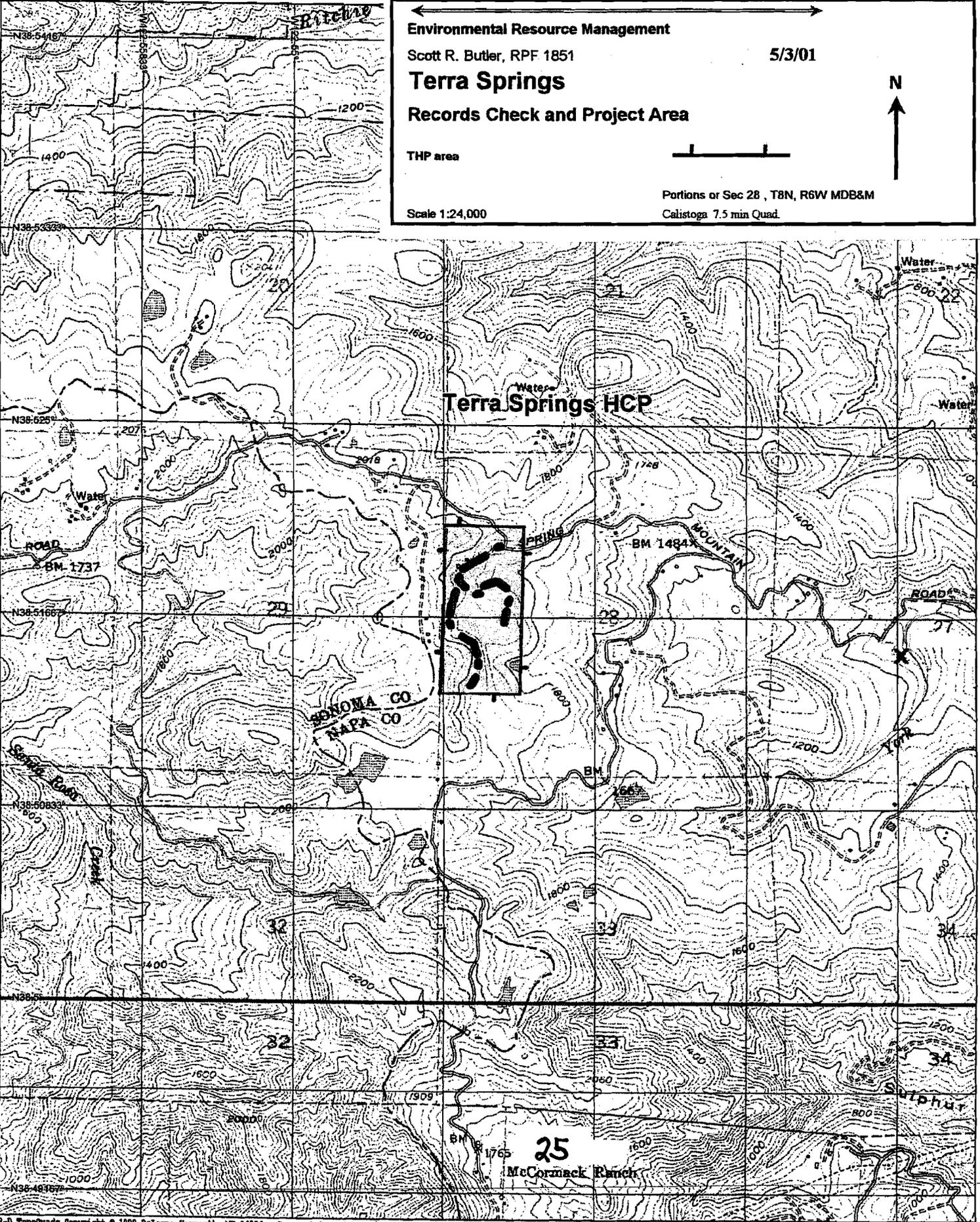
Moyle, P. B. 1973. Effects of introduced bullfrogs, *Rana catesbeiana*, on the native frogs of the San Joaquin Valley, California. *Copeia* 1973:18-22.

Appendix #1

**2000, 2001, and 2002 Northern Spotted Owl Surveys**  
**of York Creek Drainage, NP033**  
(See \*\*\*\*\*1 below)

- 06/18/2000 - No Responses
- 06/29/2000 - 3443 Spring Mountain Road - Male Northern Spotted Owl
- 02/01/2001 - No Responses
- 02/08/2001 - No Responses
- 02/16/2001 - No Responses
- 03/02/2001 - 3443 Spring Mountain Road - Great Horned Owl to north
- 03/16/2001 - 3443 Spring Mountain Road - Male Northern Spotted Owl
- 02/02/2002 - No Responses
- 02/15/2002 - No Responses
- 02/26/2002 - 3443 Spring Mountain Road - Pygmy Owl
- 04/07/2002 - 3443 Spring Mountain Road - Male Northern Spotted Owl
- 05/21/2002 - No Responses
- 06/10/2002 - 3443 Spring Mountain Road - Great Horned Owl

\*\*\*\*\*1} detailed Data sheets maintained by Wooster, Butler and/or Gould with California Department of Fish and Game, Sacramento, CA.



Environmental Resource Management

Scott R. Butler, RPF 1851

5/3/01

**Terra Springs**

Records Check and Project Area

THP area



Scale 1:24,000

Portions of Sec 28, T8N, R6W MDB&M

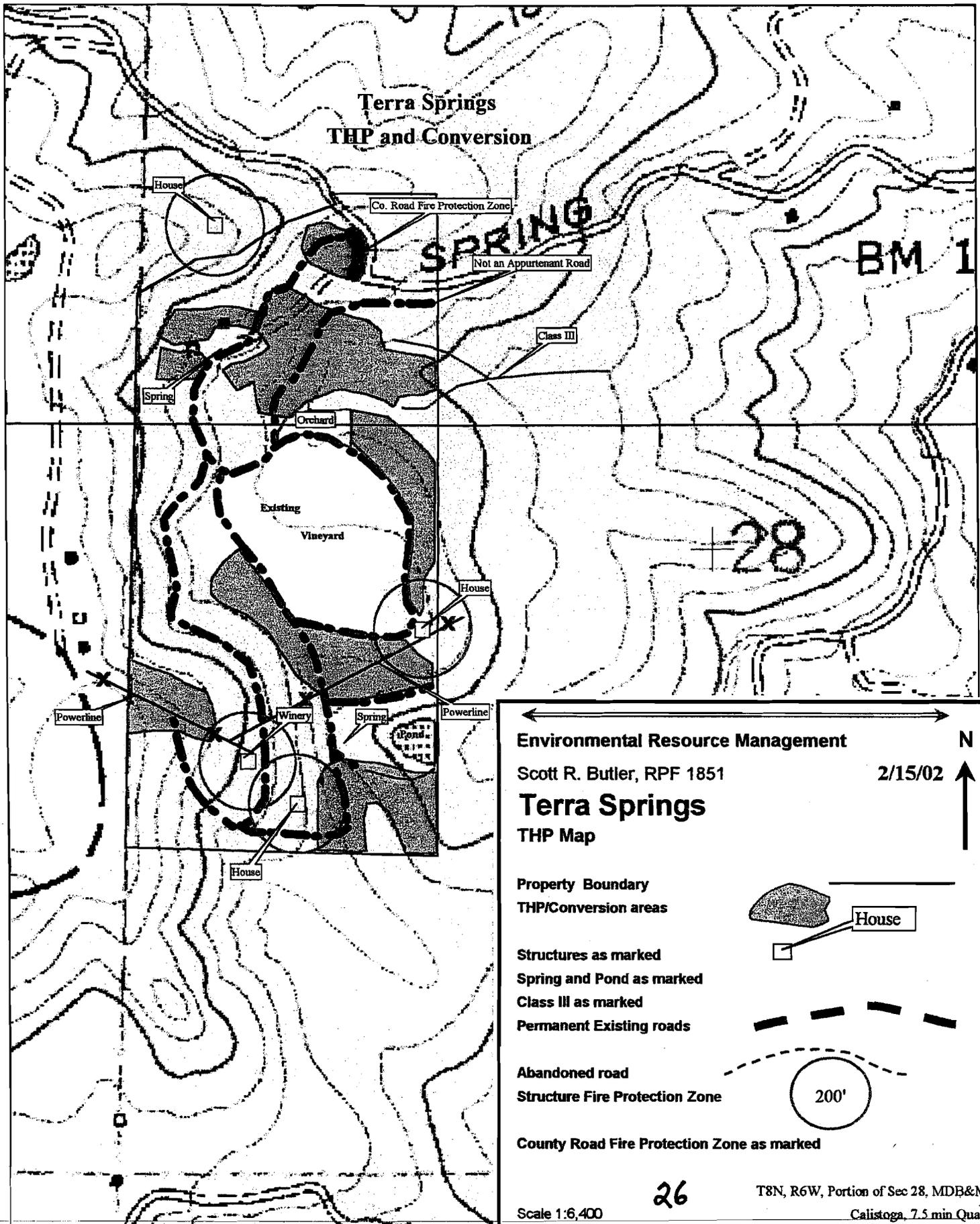
Calistoga 7.5 min Quad

Terra Springs HCP

SONOMA CO  
NAPA CO

25

McCormack Ranch



← Environmental Resource Management →

Scott R. Butler, RPF 1851 2/15/02

## Terra Springs

### THP Map

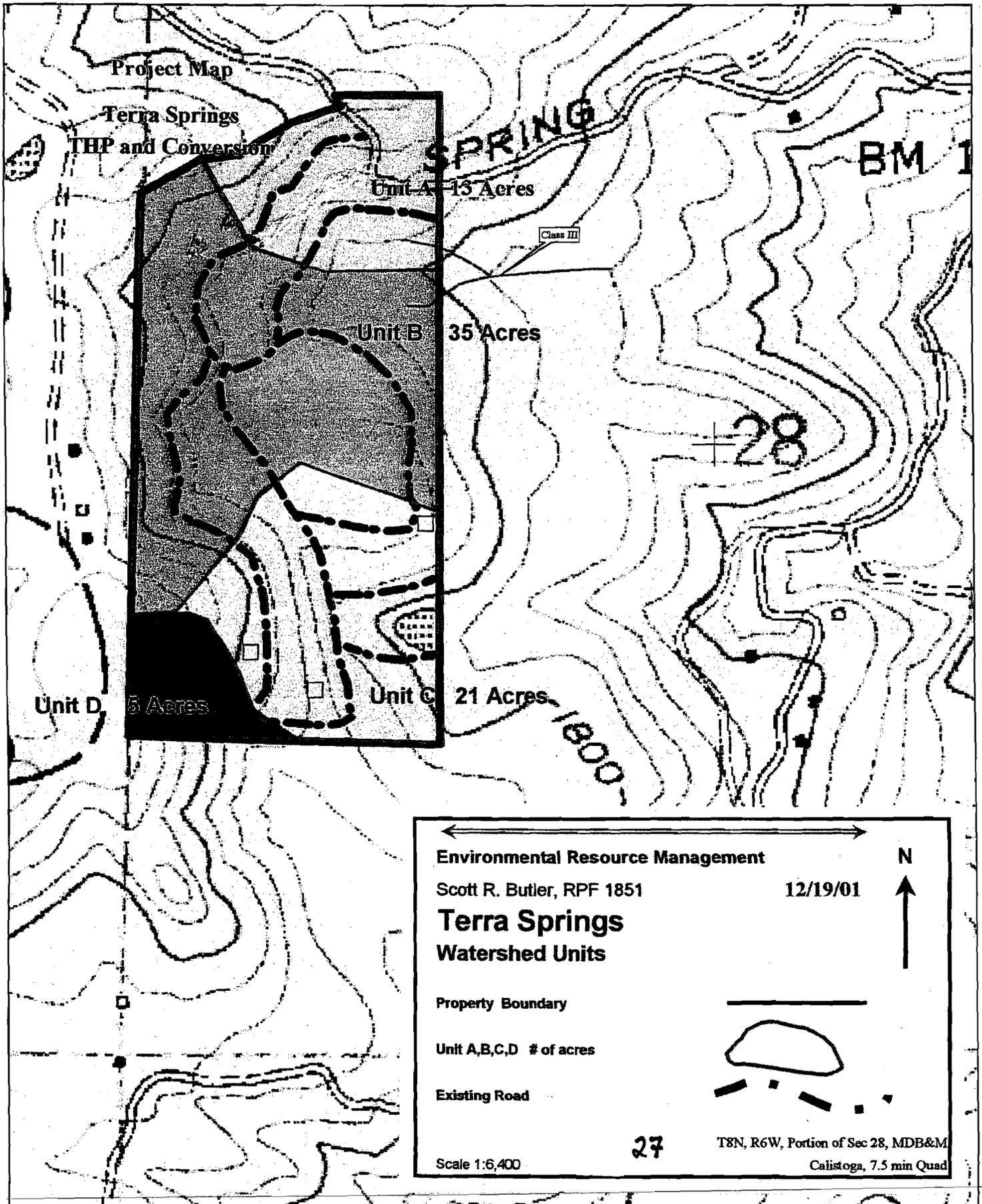
N ↑

- Property Boundary
- THP/Conversion areas
- Structures as marked
- Spring and Pond as marked
- Class III as marked
- Permanent Existing roads
- Abandoned road
- Structure Fire Protection Zone
- County Road Fire Protection Zone as marked

**26**

Scale 1:6,400

T8N, R6W, Portion of Sec 28, MDB&M  
Calistoga, 7.5 min Quad



**Environmental Resource Management**  
 Scott R. Butler, RPF 1851  
 12/19/01

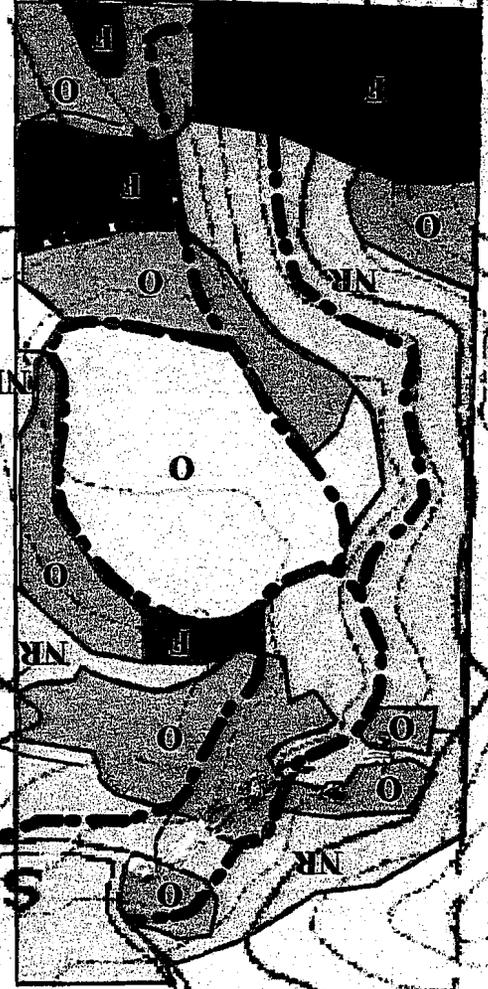
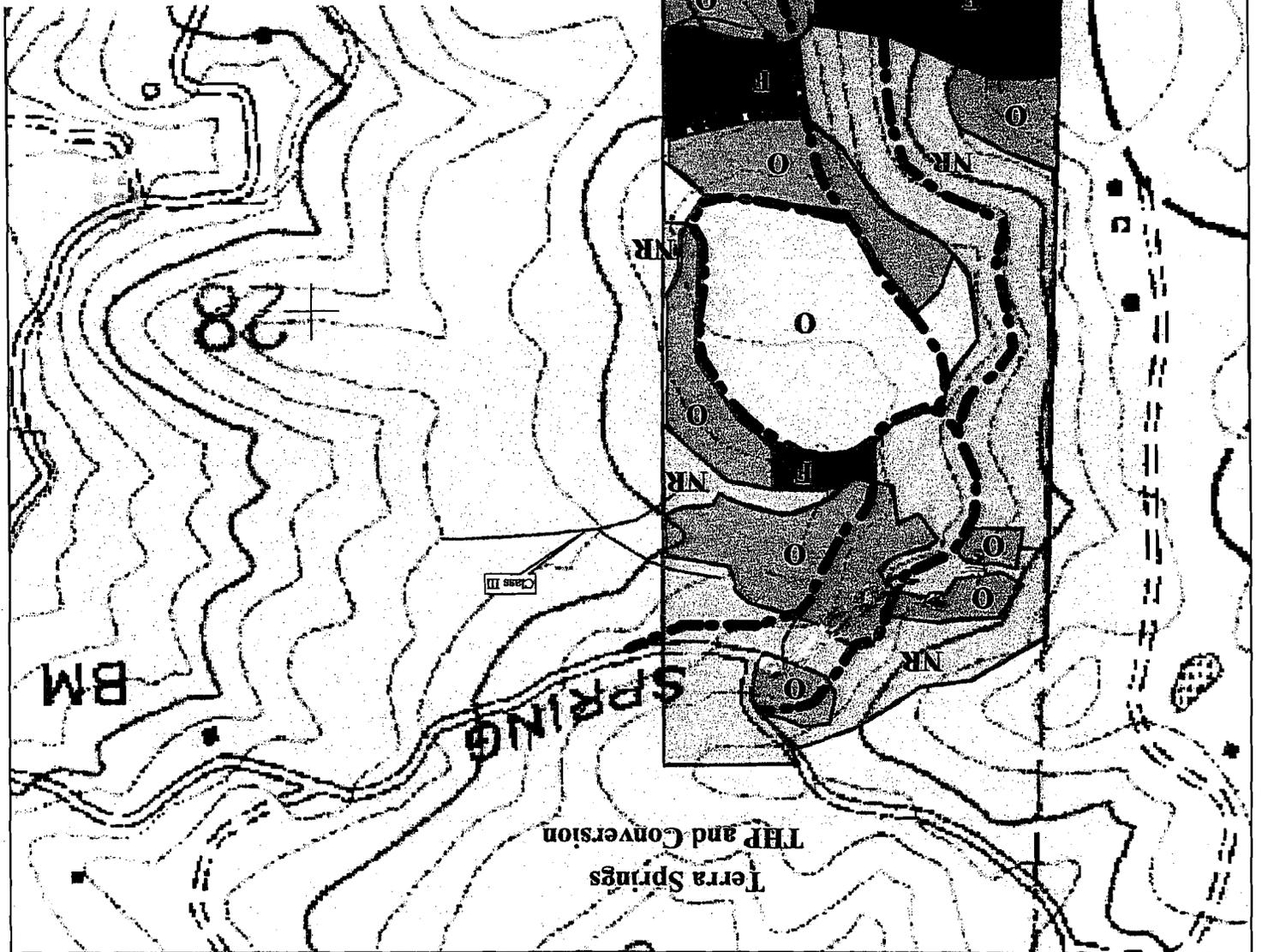
**Terra Springs**  
 NSO Post Harvest Habitat Map

Property Boundary  
 THP/Conversion areas  
 Open, non habitat  
 Foraging  
 Nesting Roosting  
 Existing roads  
 Abandoned road

Scale 1:6,400

28

T8N, R6W, Portion of Sec 28, MDB&M  
 Callisoga, 7.5 min Quad



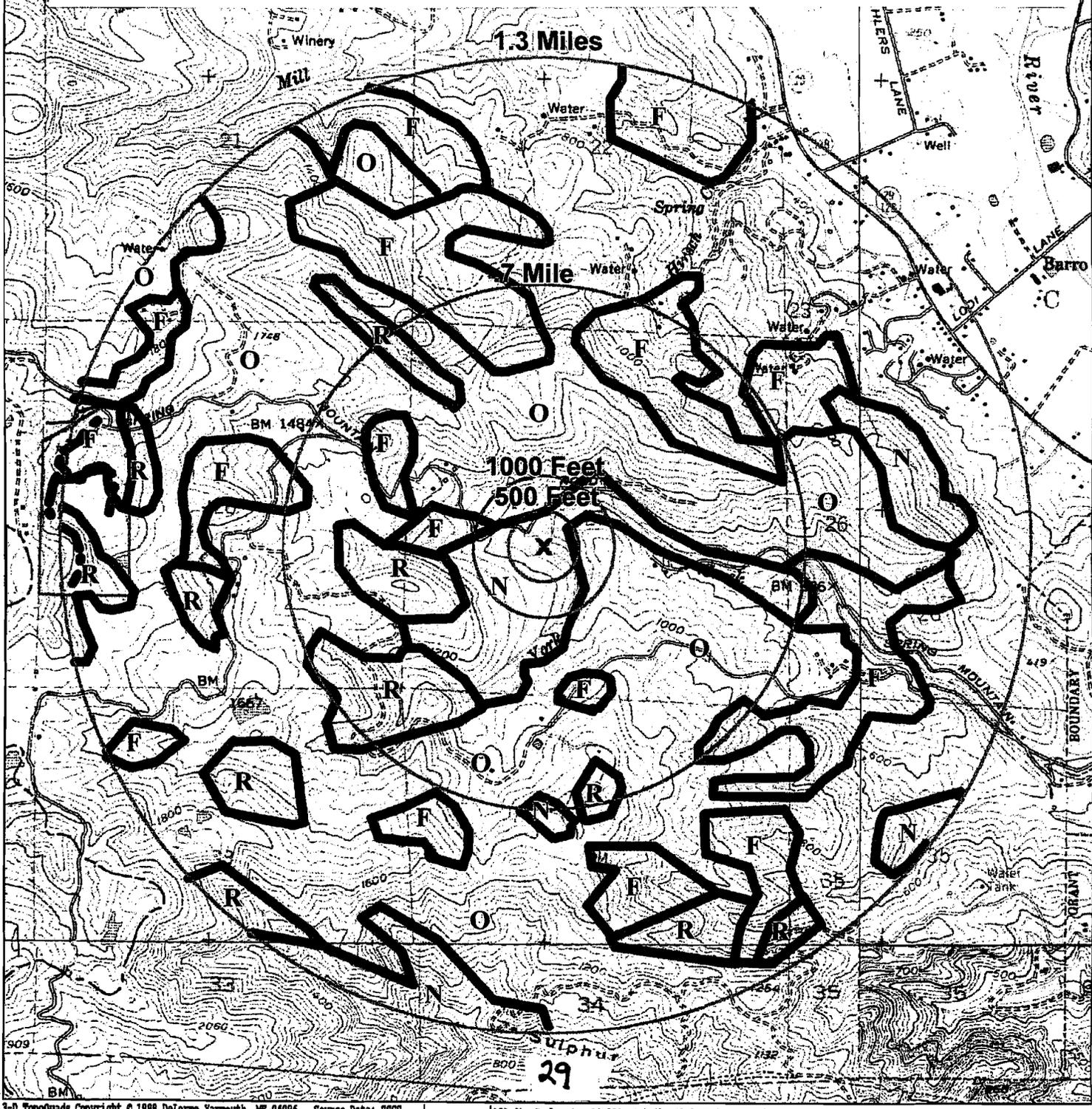
Environmental Resource Management 12-Dec-00  
 Scott R. Butler, RPF #1851 (707) 468-8466 N  
**Terra Springs NSO Habitat Map**  
 Radius around NSO Activity Center



T8N R6W MDB&M  
 Calistoga Quad.

Scale 1:24,000

		Northern Spotted Owl Habitat (Acres)							
		500 feet		1000 feet		.7 miles		1.3 miles	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
N	Nesting	17	17	40	40	115	115	224	224
R	Roosting					86	86	207	198
F	Foraging					120	120	545	532
O	Non Habitat	1	1	32	32	664	664	2424	2446





# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
ARCATA FISH AND WILDLIFE OFFICE  
1655 HEINDON ROAD  
ARCATA, CA 95521  
(707) 822-7201  
FAX (707) 822-8411

December 20, 2000

In Reply Refer To:  
1-14-2001-TA-66

Mr. Scott Butler  
Registered Professional Forester #1851  
1420 Knobhill Road  
Ukiah, CA 95482

**Subject:** Response to Request for Technical Assistance Regarding the Proposed Terra Springs Timber Harvest Plan and Conversion, Napa County, California

Dear Mr. Butler:

This responds to your request for U.S. Fish and Wildlife Service (Service) technical assistance, received in our office on December 15, 2000, on the above proposed timber harvest plan (THP) and conversion located in Section 28, Township 8 North, Range 6 West, M.D.B. & M. in Napa County. At issue in the request is the potential for incidental take of the Federally listed northern spotted owl (*Strix occidentalis caurina*) as a result of operations conducted on the above THP and conversion. After review of the information pertaining to this request, the Service provides the following technical assistance.

The proposed project is located within 1.3 miles of a known northern spotted owl activity center (NP33). The proposed action includes the conversion of approximately 35 acres of currently suitable northern spotted owl habitat to a condition of unsuitability. Information provided with your request for technical assistance indicates there are only 854 acres of suitable habitat located within 1.3 miles of this known site prior to the proposed operations. The Service has determined that further reduction of the available suitable habitat within 1.3 miles of this site would be likely to incidentally take northern spotted owls. We suggest that the landowners seek an incidental take permit from the Service if they wish to proceed with the proposed project.

All maps and data used to provide this technical assistance are on file at this office. If you have questions regarding this response, please contact Mr. Ken Hoffman at the Arcata Fish and Wildlife Office at (707) 822-7201.

Sincerely,

Phil Detrich  
HCP Team Project Leader

cc:  
CDF: R. Thompson, 135 Ridgeway Avenue, Santa Rosa, CA 95402

**NSO and Surrounding Habitat**



EROSION CONTROL PLAN

TERRA SPRINGS LLC  
3787 Spring Mountain Road  
St. Helena, CA 94574

CONVERSION FROM TIMBER TO VINEYARD

November 2001  
Revised November 22, 2002  
Revised December 18, 2002  
Revised January 28, 2003

Napa Valley Vineyard Engineering, Inc.  
176 Main St., Suite B  
St. Helena, CA 94574

## NARRATIVE

This project consists of the development of approximately 21.1 acres of new vineyard with APN 022-140-033 a parcel of ± 73 acres located at 3787 Spring Mountain Road. The existing ground slope within the project area range from 7 to 25%. Vineyard rows shall be planted 6' apart and will run generally perpendicular to the contours with the exception of Block L which will be planted cross slope with rows 8' apart. Blocks A, B, C, D, H & L will be hand farmed without the use of motorized vehicles. A drip irrigation system will be installed throughout the vineyard and water will be from an existing well. It is expected that the vineyard will use ±10 AF per annum. Minimal grading will be required to construct the sediment basin and grassy waterways.

No Blueline or County definition streams occur within the project area. There are drainage swales through Blocks F, I and A which will be planted as grassy waterways. The east end of Blocks F and G are adjacent to Class III streams. A 50 foot setback will be provided. In addition to the setback, the first 50 feet of the vineyard will be maintained as a "no strip spray" area. The permanent no-till cover crop shall be mowed and spot sprayed only. Optimally, a ground cover of 80-85% or greater will be obtained each winter. The first year after clearing, the waterways shall be seeded and irrigated by September 1<sup>st</sup>.

**Vegetation Removal** is in accordance with the Timber Harvest Plan/Conversion. All organic material to be burned shall be stacked at strategic locations within the cleared areas. Burning of the organic material only shall take place after obtaining approval from all the governing agencies.

**Soils** within the block boundaries have been classified in the USDA Soil Conservation Service's, Napa County Soil Survey, including the hazard of erosion as follows:

SCS#	Soil Type	% Slope	Hazard of Erosion
107	Boomer loam	2 to 15%	Slight
139	Forward gravelly loam	9 to 30%	Slight to moderate
140	Forward gravelly loam	30 to 75%	High to very high

Although soil mapping includes SCS# 140, no slopes within the project areas exceed 30%. Soils on the project site are stable. There is a large scarp to the west of the project. No active landslides occur within 500' of the project boundaries.

**Temporary Erosion Control Measures** consist of the installation of silt fencing, straw bale dikes and the application of straw mulch. The installation of all silt fencing and straw bale dikes shall be completed in accordance with the

appropriate Detail and at all locations as shown on the Plan Sheet. A straw mulch cover shall be applied over all open and/or disturbed and seeded areas at the rate specified in the seeding requirements. If the brush is not burned and is to be stockpiled for burning the following spring, it shall be windrowed along contours at strategic points in the fields to be used as a filter.

**Permanent Erosion Control Measures** consist of the following:

- 1) Construction of rock checks and placement of Rock Slope Protection in accordance with Detail 4, Sheet 2 and Special Note, Sheet 2 at the locations shown on the Plan.
- 2) Grading of diversion ditches shall conform with Detail 3, Sheet 2 at the locations shown on the Plan.
- 3) Construction of a sediment basin at the location shown on the Plan and in accordance with Detail 5, Sheet 2. The outlet pipe of the sediment basin shall be graded to daylight onto a rock apron that shall extend a minimum 8 feet downgradient to a rock check with RSP placed a minimum 15 feet downgradient from the rock check. All rock shall extend the full width of the channel and to the top of bank on both sides.
- 4) Grassy waterways shall be planted and maintained where shown on the Plan in accordance with Detail 6, Sheet 3.
- 5) A 12" pipe and 24" bubbler shall be installed at the bottom of Block A as shown on the Plan, and shall be constructed in accordance with Detail 7, Sheet 2.
- 6) A permanent no-till cover crop shall be planted within the entire vineyard area. The cover crop shall be mowed and may be strip sprayed to a maximum width of 12", centered on the vine row except that Block C shall be spot sprayed only. No disking, ripping or other tillage shall take place within these areas after the vineyard has been planted. Optimally, a ground cover of 70% or greater will be obtained each winter.

**Cost:** The total of all erosion control measures is estimated to be \$30,000.00 including materials, labor, engineering and agency fees.

appropriate Detail and at all locations as shown on the Plan Sheet. A straw mulch cover shall be applied over all open and/or disturbed and seeded areas at the rate specified in the seeding requirements. If the brush is not burned and is to be stockpiled for burning the following spring, it shall be windrowed along contours at strategic points in the fields to be used as a filter.

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- 1) Construction of rock checks and placement of Rock Slope Protection in accordance with Detail 4, Sheet 2 and Special Note, Sheet 2 at the locations shown on the Plan.
- 2) Grading of diversion ditches shall conform with Detail 3, Sheet 2 at the locations shown on the Plan.
- 3) Construction of a sediment basin at the location shown on the Plan and in accordance with Detail 5, Sheet 2. The outlet pipe of the sediment basin shall be graded to daylight onto a rock apron that shall extend a minimum 8 feet downgradient to a rock check with RSP placed a minimum 15 feet downgradient from the rock check. All rock shall extend the full width of the channel and to the top of bank on both sides.
- 4) Grassy waterways shall be planted and maintained where shown on the Plan in accordance with Detail 6, Sheet 3.
- 5) A 12" pipe and 24" bubbler shall be installed at the bottom of Block A as shown on the Plan, and shall be constructed in accordance with Detail 7, Sheet 2.
- 6) A permanent no-till cover crop shall be planted within the entire vineyard area. The cover crop shall be mowed and may be strip sprayed to a maximum width of 12", centered on the vine row except that Block C shall be spot sprayed only. No disking, ripping or other tillage shall take place within these areas after the vineyard has been planted. Optimally, a ground cover of 70% or greater will be obtained each winter.

**Cost:** The total of all erosion control measures is estimated to be \$30,000.00 including materials, labor, engineering and agency fees.

PROJECT NOTES

APN: 022-140-033

Owner: Terra Springs LLC

Contact: Phil Baxter  
PO Box 426  
St. Helena, CA 94574  
(707) 963-0121

Site Address: 3787 Spring Mountain Road

Implementation Schedule: The work shall be scheduled as follows:

Thru October 15, 2003/4 <sup>SRB</sup>

**PREPLANT SEASON OPERATIONS**

Tree, brush and rock removal; burn brush and other vegetative materials; ripping and disking; staking; installation of irrigation system; other cultural practices. Installation of permanent and temporary erosion control measures.

Rainy Season 2003-2004/5 <sup>SRB</sup>

Maintain all erosion control measures

April 1 thru October 15, 2004/5 <sup>SRB</sup>

**PLANTING SEASON OPERATIONS**

Complete unfinished preplant operations, plant vineyard, begin cultural practices, maintain erosion control practices.

Rainy Season 2004- Forward

Maintain all erosion control measures

**Seeding Requirements:** All exposed or disturbed soils, including terraces and avenues shall be seeded. Seed and fertilizer shall be applied hydraulically or broadcast at the rates specified below:

Item		Pounds/Acre
Seed	"Blando" brome	15
	Zorro Fescue	6
	Crimson Clover	3
	Rose Clover	6
Fertilizer	Ammonium phosphate sulfate (16-20-0)	200-240

On all vineyard avenues "Fawn" tall fescue shall be added to the seed mix @ 5 lbs/ac.

An alternate seed mix and/or fertilizer may be used with Engineer's approval.

**Straw Mulch** shall be spread over all disturbed and seeded areas. The mulch shall be spread mechanically or by hand at the rate of 2 tons/acre.

**Diversion Ditches** shall be constructed at the locations shown on the Plan and in accordance with Details, Sheet 2. Ditch flowline shall be sloped to drain at 2 to 4%.

**Rock Checks** shall be constructed of locally gathered fieldstone at the locations shown on the Plan and in accordance with Details, Sheet 2. Rock checks shall remain in place as permanent structures.

**Rock Slope Protection (R.S.P.)** shall be locally gathered fieldstone, or class light as defined in Caltrans Standard Specifications, Sec 72-2.02. A non-woven filter fabric (Mirafi 140N, or equal) shall be placed between all R.S.P. and earthen material.

**Sediment Retention Basins** shall be constructed in accordance with Details, Sheet 2 at the locations shown on the Plan.

**Silt Fence** shall be installed along contours at locations shown on the Plan in accordance with Details, Sheet 2. Silt fencing shall be maintained through the winter after planting, after which it may be removed.

**Straw Bale Dikes** shall be installed where shown on the Plan in accordance with Details, Sheet 2. Straw bale dikes shall be maintained through the winter after planting, after which they may be removed.

**Grassy Waterways** shall be planted and maintained where shown on the plan. The grassy waterways shall be planted as a non-till cover crop with minimum 80% ground cover. At grade rock weirs shall be constructed every  $\pm$  150 feet. The first year after clearing, the waterways shall be seeded and irrigated by September 1<sup>st</sup>. Once the vineyard and cover crop is established, late summer irrigation patterns should be adequate for re-germination. Additional seeding, fertilization and irrigation shall be provided as necessary to establish a heavy cover prior to October 15<sup>th</sup>.

**Maintenance:** A permanent cover crop shall be planted prior to October 15, 2007. <sup>4</sup> This cover crop may be mowed each spring after the seed has fully matured (hard dough stage) to ensure annual grass species regeneration for the following year. Minimum mowing height of 4" shall be maintained for establishing annual and perennial grasses. No ripping or other tillage shall take place within these areas after the vineyard is planted. The vineyard may be strip sprayed or spot sprayed as described in the Narrative under **Permanent Erosion Control Measures**. Optimally, a ground cover of 70% or greater will be obtained with the owner being responsible for reseeding and maintenance in order to reach the desired degree of cover.

All erosion control measures and facilities shall be inspected after each storm event, and repairs shall be promptly performed.

Construction contractor agrees that in accordance with generally accepted construction practices, construction contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to normal working hours, and construction contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of design professional



PORTION OF THE CALISTOGA QUAD  
Vicinity Map  
Scale: 1"=1000'

OWNER: TERRA SPRINGS LLC  
 CONTACT: PHIL BAUTER (707) 469 0121  
 PO BOX 426  
 ST. HELENA, CA 94574  
 NAPA CO APN: 023-140-029  
 SITE ADDRESS: 3781 SPRINGS MOUNTAIN ROAD  
 ST. HELENA, CA

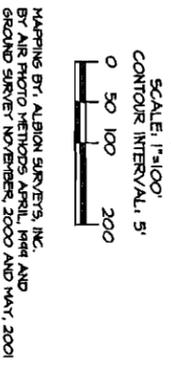
PROVIDE A 50' NO DISTURBANCE BUFFER ALONG CLASS II STREAM WITH AN ADDITIONAL 50' BUFFER FOR CLASS III STREAMS. BUFFER SHALL BE PLACED FROM TO STREAM OR ROCK.

ROCK CHECK (Type 2)  
20 square

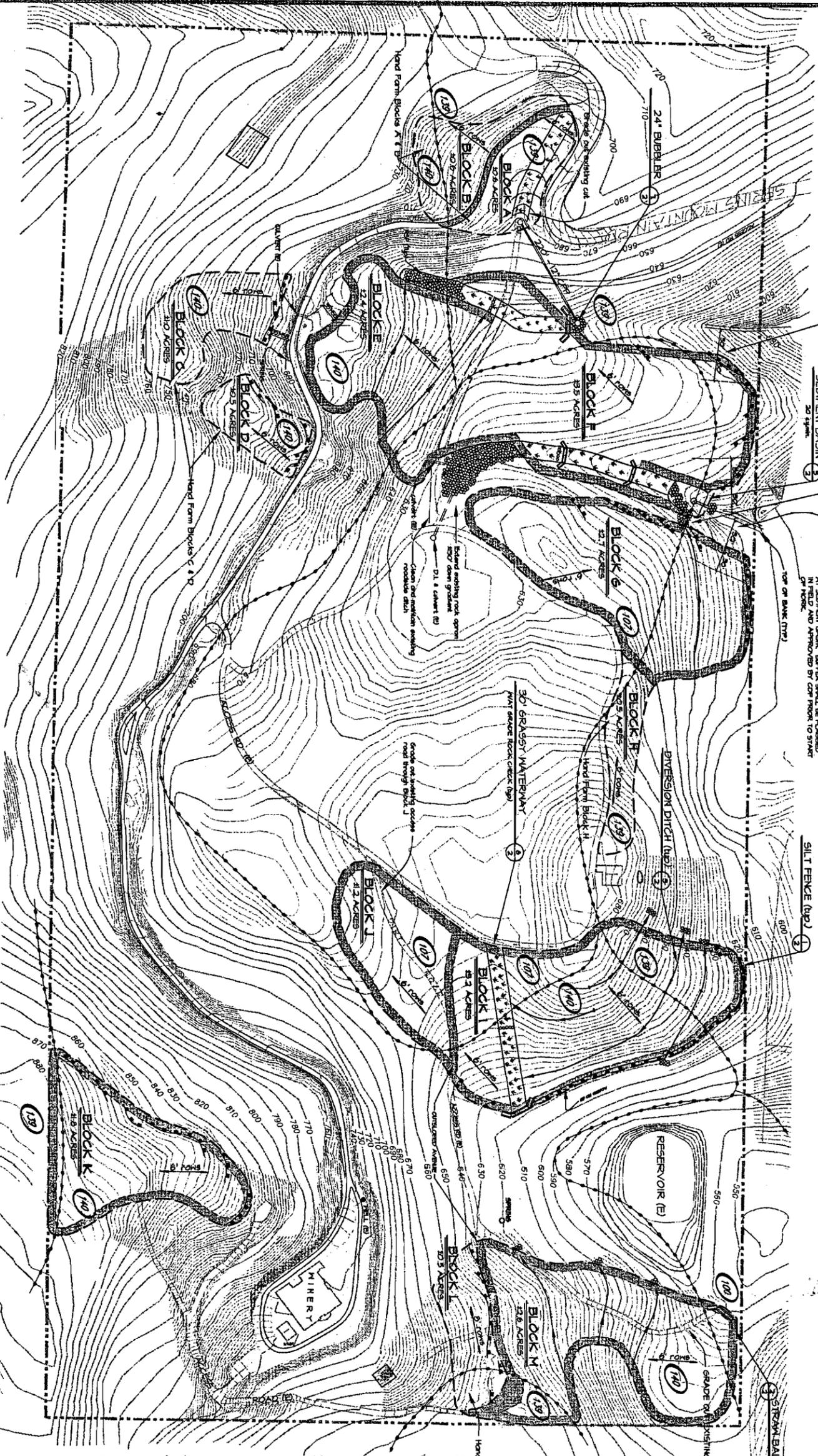
PROVIDE A 50' NO DISTURBANCE BUFFER ALONG CLASS II STREAM WITH AN ADDITIONAL 50' BUFFER FOR CLASS III STREAMS. BUFFER SHALL BE PLACED FROM TO STREAM OR ROCK. APPROVED BY CON FROM TO STREAM.

SILT FENCE (Type 2)

STREAM BALE DIKE (Type 2)



MAPPING BY: ALBION SURVEYS, INC.  
 BY AIR PHOTO METHODS APRIL 1994 AND  
 GROUND SURVEY NOVEMBER 2000 AND MAY, 2001



NOTE: All Vineyard Avenues shall be outlepped.

**Legend**

- DIVERSION DITCH
- EXISTING ROAD
- GRASSY WATERWAY
- MINIMUM SETBACK
- PROJECT BOUNDARY
- PROPERTY LINE
- ROCK SLOPE PROTECTION
- SCS SOIL MAPPING UNIT
- SCS SOIL TYPE BOUNDARY
- SALT FENCE
- STREAM BALE DIKE  
DETAIL 5, SHEET 2
- VINEYARD AVENUE  
TURNSPACE

REV.	DESCRIPTION	BY	DATE
1	ADD 50' BUFFER FOR 1/4 MILE BLOCK	DJM	11-23-02

This document and the ideas and designs herein are the property of Terra Springs LLC. The information contained herein is for the use of the professional services of Terra Springs LLC and are not to be used in whole or part for any other project without written authorization from Terra Springs LLC. Engineering, Inc.

Napa Valley Vineyard Engineering, Inc.  
 176 Main St., Suite B  
 St. Helena, CA 94574  
 (707) 963 4927



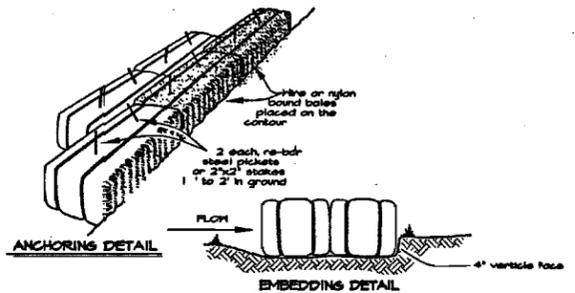
DATE	SCALE	AS SHOWN
11-19-01	AS SHOWN	
11-23-02	AS SHOWN	

**EROSION CONTROL PLAN**

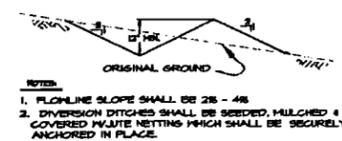
**TERRA SPRINGS  
VINEYARD DEVELOPMENT**



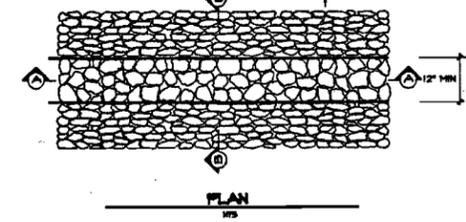
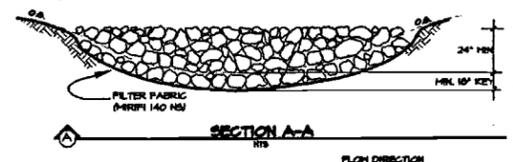
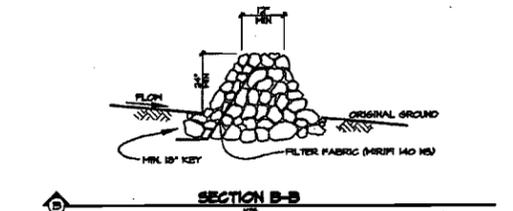
1  
2 **SILT FENCE DETAIL**  
N.T.S.



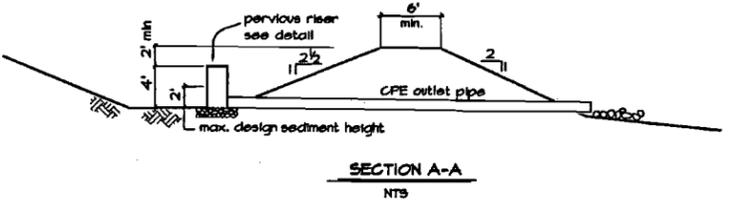
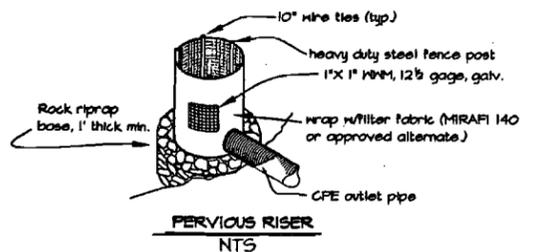
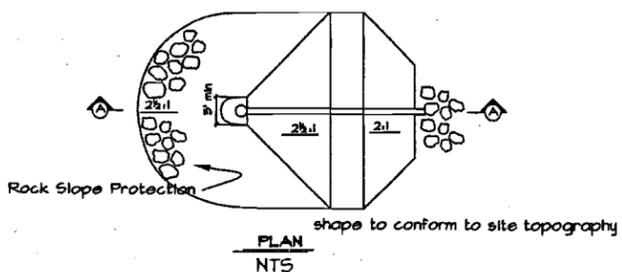
2  
2 **STRAW BALE DIKE**  
N.T.S.



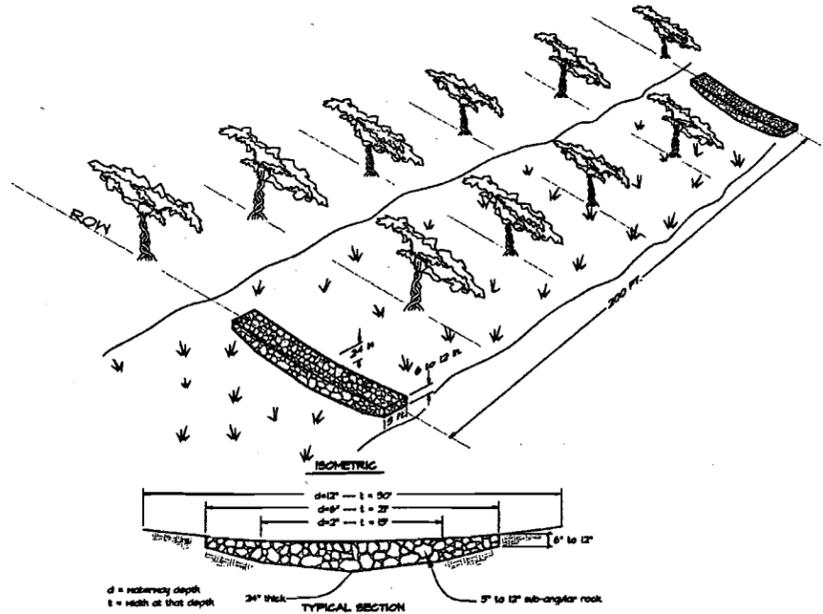
3  
2 **DIVERSION DITCH**  
N.T.S.



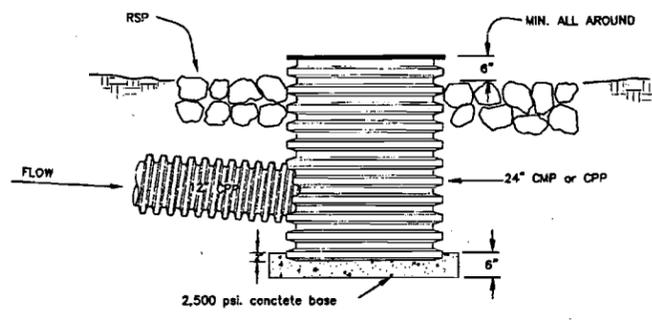
4  
2 **ROCK CHECK DETAIL**  
N.T.S.



5  
2 **SEDIMENT BASIN**  
N.T.S.



6  
2 **GRASSY WATERWAY WITH AT-GRADE ROCK CHECK**  
N.T.S.



7  
2 **24" BUBBLER**  
N.T.S.

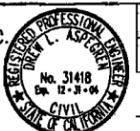
**SPECIAL NOTES**

Rock Slope Protection (RSP) shall be locally gathered field stone (25, 63), or close light, as defined in California Standard Specifications, Sec. 712-2.02. A non woven filter fabric (MIRAFI 140 N, or equal) shall be placed between all RSP and earthen material.

REV.	DESCRIPTION	BY	DATE

This document and the ideas and designs incorporated herein, as an instrument of professional service, are the property of Napa Valley Vineyard Engineering, Inc., and are not to be used, in whole or part, for any other project without written authorization from Napa Valley Vineyard Engineering, Inc.

Napa Valley Vineyard Engineering, Inc.  
 176 Main St., Suite B  
 St. Helena, CA 94574  
 (707) 963 4927



DATE 11-15-01 SCALE AS SHOWN  
 DRAWN JLC CHECKED DLK  
 APPROVED  
 DREN L. ADPESSEN PE R.C.S. 0418

**EROSION CONTROL PLAN**  
**DETAILS**

**TERRA SPRINGS**  
**VINEYARD DEVELOPMENT**

NAPA VALLEY VINEYARD ENGINEERING, INC.  
176 MAIN STREET, SUITE B  
ST. HELENA, NAPA VALLEY, CALIFORNIA 94574  
(707) 963-4927 FAX (707) 963-1297

DREW L. ASPEGREN, P.E.  
CIVIL ENGINEER

May 8, 2002

Mr. Scott Butler  
1420 T Knobhill Road  
Ukiah, CA 95482

Re: Terra Springs ECP

Dear Mr. Butler:

This letter is in response to the comments made by Dave Steiner of Napa County Resource Conservation District. A copy of his March 11, 2002 letter is attached.

**Block A** We agree that the swale in this block should be protected, and have added a grassy waterway with a Drop Inlet and piping at the bottom to direct flows to the drainage running along the north side of Block F. The outlet of the 12" CPP will be a 24" bubbler (see detail sheet). The access road between Blocks A and E will be maintained as a vineyard avenue as specified in the project notes.

**Block B & C** We recommend hand farming these blocks as well as the other small Blocks A, D, H & L.

**Block D** It is our understanding that the road cut will remain vegetated and no treatment of the bank will be necessary. There is a gentle slope in the south corner of this block which provides access.

**Block E & F** We believe that the 35' setback from the spring is adequate. If excessive groundwater is encountered during vineyard development it can be dealt with at that time. It is important not to turn around in the grassy waterways, and we have shown the turn spaces outside of the waterways. We have extended the rock in both of these waterways to provide extra protection, and added straw bale dikes as suggested. The first year after clearing the waterways should be seeded and irrigated mid to late summer. Once the vineyard and cover crop is established, late summer irrigation patterns should be adequate for re-germination. Additional seeding, fertilization and irrigation should be provided as necessary to establish a heavy cover prior to the rainy season. We will modify the narrative accordingly.

**Block G** We have extended the rock slope protection down to the sediment basin.

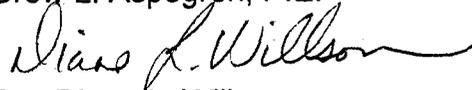
**Block I, J & L** We have staggered the rock checks to minimize concentrated flows. All vineyard avenues and turn spaces will be outsloped.

**Block K** This block was ground surveyed in November, 2000. Contours are accurate and there are no slopes over 30%.

**General** We recommend farming with ATV's to avoid cutting turn around benches. The avenues with steeper slopes have diversion ditches cut across them which will be constructed as water bars.

Once we have received your comments and Phil Baxter's comments we will finalize this revision and revise the narrative accordingly. Call if there are questions.

Sincerely,  
NAPA VALLEY VINEYARD ENGINEERING, INC.  
Drew L. Aspegren, P.E.



By: Diane L. Willson

DLW:jw

cc: Bill Pease  
Phil Baxter



RECEIVED

MAR 16 2002

NAME

Napa County Resource Conservation District  
1303 Jefferson Street, Suite 500B  
Napa, CA 94559

### Interoffice Memorandum

**Date:** March 11, 2002  
**To:** Brian Bordona, Napa County CDPD  
**From:** Dave Steiner, Soil Conservationist  
**Re:** Timberland Conversion to Vineyard, Terra Springs  
**cc:** Phil Baxter, Terra Valentine  
Patrick Lowe, CDPD  
Napa Valley Vineyard Engineering

---

At your request I have conducted a review of the referenced project, to determine the adequacy of the proposed, temporary and permanent vineyard erosion control measures. My understanding is that the California Department of Forestry (the proposal's lead agency) has requested your agency's comments, and that you need RCD's technical input in order to best respond to CDF's request. Accordingly, I have analyzed the vineyard erosion control plan as if it were being processed under the Conservation Regulations. The following comments, developed following my office analysis and a site visit with Patrick Lowe and the applicant's representative Phil Baxter, are comparable to comments I would normally direct to the applicant's plan preparer.

- **Block A.** In the center of this proposed block there is an old road cut that is concentrating flows, creating two gullies. After repair of the cut and gullies, the plan should provide for protection (piping or armor) of the swale from concentrated flows. If the existing access road between Blocks A and E is to be used, surfacing and/or maintenance specifications should be provided.
- **Block B.** The "panhandle" of this proposed block is not wide enough to accommodate the specified row direction, unless hand farming is specified.
- **Block C.** The bottom of this proposed block will require a turnaround bench, unless hand farming is specified.

- **Block D.** It appears from the marked block boundaries (blue flags) that the trees will be cleared from the road bank at the bottom of the block. This steep bank should be cut back to a stable gradient and revegetated.
- **Blocks E and F.** Areas affected by the spring drainage at the top of the block should either be drained, or marked in the field and avoided. The upper end (+/-125 feet) of the grassy waterway along the north side of the block is too steep for a grassed waterway, especially since it will be constantly disturbed by tractor turnaround traffic. Flows here should be piped or the swale armored. Similarly, the steeper, upper portions (+/- 200 feet) of the grassy waterway along the south side of Block F should be armored, or its flows piped. In addition, strawbale dikes should be installed across the unarmored (lower) portions of this waterway at approximately 75-100 foot intervals, as a temporary sediment retention measure.

RCD recommends that top priority be given to early seeding and irrigation of the non-armored portions of all grassy waterways (**Blocks E, F, G, and I**). These structures must be covered with heavy sod by the onset of winter rains, or deep incision and heavy sedimentation will almost certainly result. Germination by the October 15 deadline will not be adequate to protect these waterways. Irrigation should begin in mid-summer at the latest, as the relatively high elevation, cooler climate and short photoperiod of these sites will severely limit cover crop growth during the fall and winter months. The plan implementation schedule should be modified to accommodate these constraints.

- **Block G.** The rock apron ("rock check") at the outfall of the diversion near the east end of this block should be extended downhill, into the sediment basin.
- **Block I.** The diversion outfalls along the northeast boundary of this block should be staggered along their respective contours north of the block, so that their flows do not reconcentrate and create a gully. There will need to be a turnaround bench along the south and east boundaries of the block. Typical cross-sections should specify inslope or outslope, as appropriate.
- **Block J.** Is the access road along the east side of the block to be outsloped to retain sheet flows, or insloped to divert flows to the perimeter ditch along the existing vineyard? If insloped, appropriate cross-sections and outfall details need to be specified.
- **Block K.** Heavy understory canopy reduces sight distance and makes slope determinations difficult in this proposed block; however the topo appears to underestimate ground slopes near the block's northern boundary. This block boundary (in particular) should be marked in the field prior to earth-disturbing activity, to assure that cleared areas do not exceed 30% slope. The lower boundaries of this block will need turnaround benches.
- **Block L.** The access road along the lower (eastern) boundary of this block needs to be specified as insloped or outsloped, and any diverted, concentrated flows accounted for in protected outlets.
- **Block M.** This block needs tractor turnaround benches.
- **General.** Waterbars should be specified, with appropriate details, for all vineyard avenues with slopes greater than 10%.

Please let me know if you have any questions or if I may otherwise be of assistance.



Napa County Resource Conservation District  
1303 Jefferson Street, Suite 500B  
Napa, CA 94559

5/6/03  
Scott Butler  
467-9484 fax  
1 page

**Interoffice Memorandum**

**Date:** March 11, 2003  
**To:** Napa County CDPD  
**From:** Dave Steiner, Soil Conservationist  
**Re:** Erosion Control Plan for Terra Springs, new vineyard development, file #02558-ECPA, AP #022-140-033  
**cc:** Terra Springs, LLC  
Napa Valley Vineyard Engineering  
Scott Butler, RPF

---

RCD recommends approval of the referenced Plan. Please let me know if you have any questions or if I may otherwise be of assistance.

**Note:** this recommendation does not constitute Plan approval, authority for which rests with the Napa County Conservation, Development and Planning Department.

## RESTRICTIVE COVENANT LIMITING TIMBER HARVEST

This Restrictive Covenant is made by Terra Springs LLC (herein referred as "Owner").

### RECITALS

- A Owner is the sole owner in fee simple of real property ("Real Property"), which is legally described as follows:

76 acres within the York Creek Calwater 2.2 planning watershed, Napa County, Mount Diablo Baseline and Meridian, Township 8 North, Range 6 West, Section 28 Calistoga 7.5' U.S. Geological Survey quadrangle.  
APN 022-014-33 and 022-014-32

- B The Real Property possesses significant ecological values, including species listed under the Endangered Species Act and their habitats, which are of aesthetic, ecological, historical, recreational, educational and scientific value to the Nation and its people. Owner has proposed a timber harvest on the Real Property. To harvest the timber, it is necessary for Owner to obtain an Incidental Take Permit from the U.S. Fish and Wildlife Service to take listed species. As a condition of obtaining the Incidental Take Permit, the real property is to become subject to a Habitat Conservation Plan ("HCP") that minimizes and mitigates the taking of northern spotted owls while conducting otherwise legal timber harvest on the Real Property. The Terra Springs Low Effect HCP, dated (\_\_\_\_\_), is on file at the U.S. Fish and Wildlife Service Office, Sacramento, California.

C. The HCP and Incidental Take Permit require that the Owner, after completion of 22 acres of timberland conversion, manage in perpetuity 41 acres of Northern Spotted Owl habitat on the Real Property in conformance with the measures described in the HCP.

Now, therefore, Owner, Terra Springs LLC, in consideration of obtaining Incidental Take Permit No. \_\_\_\_\_, covenants and agrees as follows:

1. The terms of the HCP which are incorporated as terms and conditions of Incidental Take Permit No. \_\_\_\_\_ are incorporated by this reference into this Restrictive Covenant and shall be binding on all owners of the Real Property, and any portion thereof, and their heirs, successors and assigns. Notwithstanding the immediately preceding sentence, the incidental take authorized by Incidental Take Permit No. \_\_\_\_\_ is exclusive to Owner and may not be conducted by any future owner or other third party that to the Owner's interest in the Real Property, or any portion thereof, until and unless Incidental Take Permit No. \_\_\_\_\_ is transferred to such new Owner or third party in accordance with applicable U.S. Fish and Wildlife Service regulation. This covenant will last in perpetuity or terminate when U.S. Fish and Wildlife Service provides written notice to Owner that the terms of the covenant have been fulfilled.
2. Except for timber land conversion by Owner in accordance with Incidental Take Permit No. \_\_\_\_\_, any removal of trees from the areas controlled by section 7 of the HCP, by Owner or by any successor in interest, may not be done without the express written consent of the U.S. Fish and Wildlife Service Office in Sacramento, California.
3. The above restrictions on land management shall run with the land and shall be binding on the Owner and all future owners of the Real Property, or any portion thereof, their heirs, successors and assigns and Owner shall incorporate this Restrictive Covenant in any deed or other legal instrument by which Owner divests itself of any interest in all or any portion of the Real Property, including, without limitation, a leasehold interest.
4. In the event the Real Property, or any portion thereof, shall be transferred or conveyed, the transferor, and all future transferors, must give the transferee a minimum of 30 days prior written notice of these restrictions; and further give a minimum of 30 days prior written notice to the U.S. Fish and Wildlife Service Office, Sacramento, California, of the transfer.

5. Owner acknowledges that execution of the Restrictive Covenant is a term and condition of Incidental Take Permit No. \_\_\_\_\_ issued to Owner by the U.S. Fish and Wildlife Service and that therefore the U.S. Fish and Wildlife Service is an interested third party with a perpetual right of access with reasonable notification to the Real Property and right to enforce the terms and conditions of the Restrictive Covenant.
  
6. The Restrictive Covenant will not become effective and binding until the approval and commencement of the timber conversion and harvest plan.

DATED this 26 day of June, 2002

Terra Springs LLC

By C. Angus Wurtels  
C. Angus Wurtels, Owner