Gold Ridge Resource Conservation District

Notice of Intent to Adopt a Mitigated Negative Declaration

Gold Ridge Resource Conservation District plans erosion control and riparian restoration at seven ranches in the Salmon Creek watershed. Notice is hereby given, in accordance with §15072(a) of the CEQA Guidelines, that the Gold Ridge Resource Conservation District will consider adoption of a Mitigated Negative Declaration for the described project. A Mitigated Negative Declaration is a statement that the project will not result in a significant adverse effect on the environment.

Salmon Creek Ranch Restoration Program

PROJECT LOCATION: The proposed project includes seven sites in and around the hamlet of Bodega, Salmon Creek watershed, Sonoma County, California.

PROJECT DESCRIPTION: The project will use a combination of techniques including grading, erosion control structures, fencing, removal of invasive plants and planting of native species to achieve the project purposes.

PROJECT PURPOSES: To improve aquatic habitat by reducing sedimentation to Salmon Creek and its tributaries; to improve riparian habitat by repair of degraded or eroding banks and planting of diverse native riparian vegetation; and to enhance agricultural sustainability by preservation of agricultural land.

COMMENT PERIOD: The Proposed Mitigated Negative Declaration is available for review and comment, along with the Initial Study, on the Gold Ridge Resource Conservation District website at: http://www.sonomamarinrcds.org/district-gr/index.html

The posting and review period for the Proposed Mitigated Negative Declaration is **June 29 – August 1, 2006.** Comments on the Proposed Mitigated Negative Declaration should be sent to:

Lisa Hulette, Natural Resource Coordinator.
Gold Ridge Resource Conservation District
PO Box 1064
Occidental, CA 95465

PROJECT APPROVAL: The Gold Ridge Resource Conservation District Board is the decision-making body responsible for adopting the Proposed Mitigated Negative Declaration of Environmental Impact and approving the proposed project. The Board will meet on:

August 17, 2006, beginning at 7:00 pm.
4008 Bohemian Highway, Suite 3
Occidental, CA 95465

Salmon Creek Ranch Restoration Program

Proposed Mitigated Negative Declaration

Lead Agency:
Gold Ridge Resource Conservation District
P.O. Box 1064
Occidental, CA 95465
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ATTACHMENTS

Project Description

Gold Ridge Resource Conservation District proposes erosion control and riparian restoration at seven ranches in the Salmon Creek watershed. The project has three main purposes:

- To improve aquatic habitat by reducing sedimentation to Salmon Creek and its tributaries;
- To improve riparian habitat by repair of degraded or eroding banks and planting of diverse native riparian vegetation;
- To enhance agricultural sustainability by preservation of agricultural land.

The particular restoration sites have been selected based on the amount of erosion, the viability for repair, and the impact to the ranching operation.

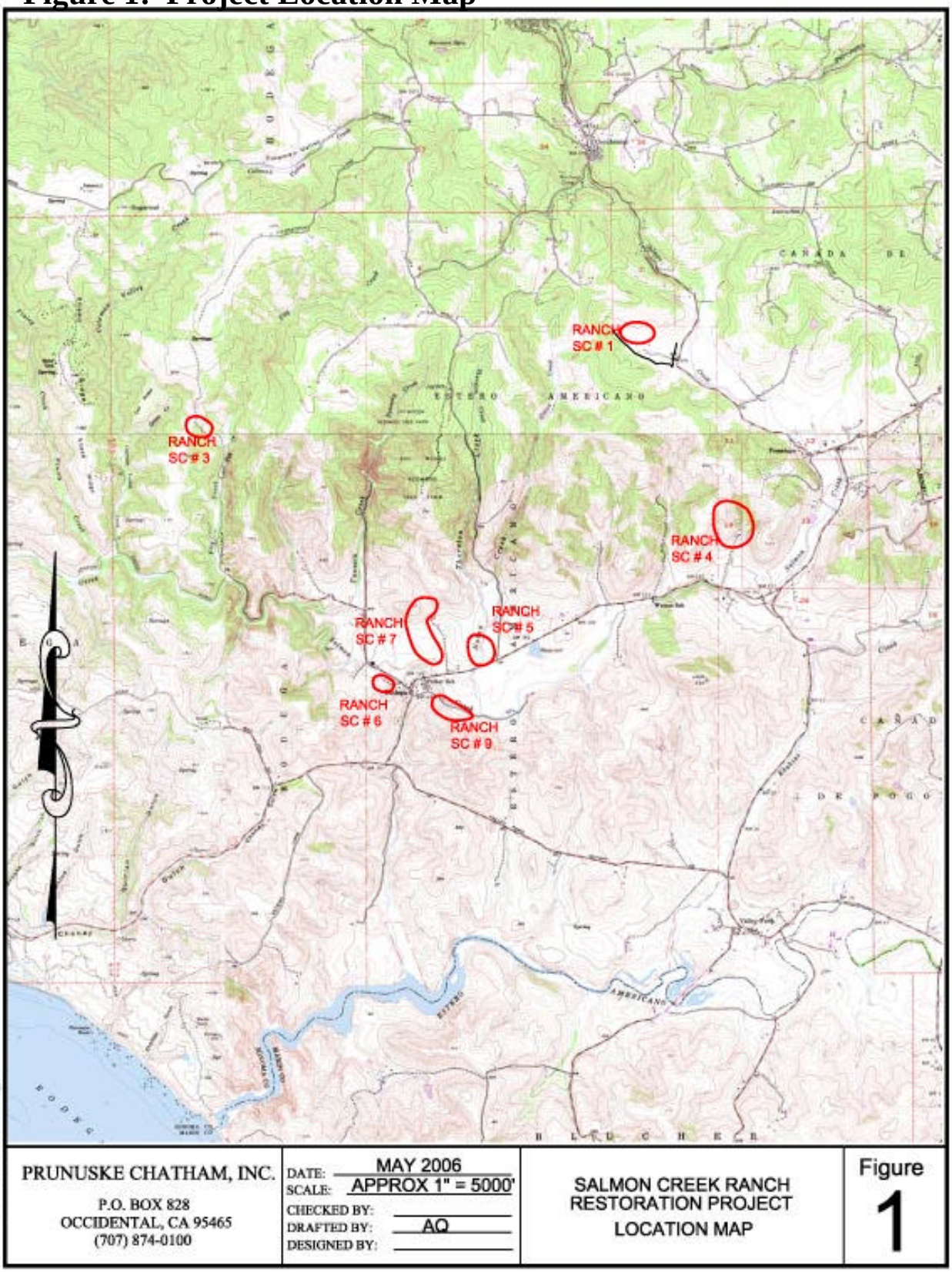
Project sites are located along creeks and in hills on ranch land. Many of the sites have highly erosive soils. Gully erosion, bank erosion, and headcuts will be stabilized at these sites by grading and stabilization structures. Where feasible, biotechnical techniques will be used. In other areas, rock stabilization structures will be installed. Projects are designed with roughening and energy dissipation features to slow storm water runoff. Invasive plant species will be removed. Disturbed areas will be planted with native plants, grass mix or multi-story, riparian vegetation as appropriate to the area.

Detailed site-by-site project descriptions are attached to the Initial Study in Section 5.

Project Location

The project is located in northern California, Sonoma County, township 6 north, range 10 west, Mt. Diablo base and meridian. The project sites are located in the Salmon Creek watershed in and near the hamlet of Bodega. Project sites are directly on Salmon Creek and on tributaries. See Figure 1.

Figure 1: Project Location Map



Proposed Finding: No Significant Effect as Mitigated

After an Initial Study investigation, Gold Ridge Resource Conservation District finds that the project, as mitigated, will have no significant adverse effect on the environment. The complete Initial Study, including site-by-site project descriptions, is in Section 5.

The Initial Study identified environmental effects requiring mitigation as described below. Mitigation and avoidance measures for these impacts are described in Section 4.

Aesthetics

The wider project area is a beautiful rural community. It consists of ranches set among rolling hills. It is largely grasslands with interspersed woodland and riparian corridors. In the long term, the Salmon Creek Ranch Restoration Program will enhance the scenic nature of the area by clarifying the streams and replacing eroding banks with riparian corridor. The project will also help protect the scenic nature of the area by allowing landowners to maintain the existing ranching land use. In the short term, however, construction is not attractive.

Biological Resources

The Salmon Creek watershed was selected for restoration because of its many important biological resources. Improving the condition of riparian habitat and special status species are primary purposes of the project. The following special status species may occur at or near project sites:

Species	Status
California freshwater shrimp	federally listed as endangered and state listed as endangered
Coho salmon, central coast ESU	federally listed as endangered
steelhead	federally listed as threatened
western pond turtle	California special concern species
California red-legged frog	California special concern species and federally listed as threatened elsewhere in California
tri-colored blackbird	federal species of concern and California special concern species
red tree vole	federal species of concern and California special concern species
Hemizonia congesta spp. leucocephala	California Native Plant Society, list 3

In addition, the project must avoid impacts to migratory songbirds.

Cultural Resources

Western Sonoma County has a high incidence of Native American archaeological artifacts. Archaeological resources have been identified at or near areas originally included in the project.

Geology and Soils

A primary purpose of the project is to eliminate erosion and sedimentation to Salmon Creek and its tributaries. In the long term, the project will stabilize slopes and reduce erosion at every site. However, construction will include grading, which has the potential to result in erosion. Many project soils are highly erosive.

Mitigation and Avoidance Measures Included in the Project

CEQA provides a hierarchy of mitigation measures:

1. Avoid the impact.
2. Minimize the impact by altering the way the project is implemented.
3. Rectify the impact as part of project implementation.
4. Compensate for the impact onsite.
5. Compensate for the impact offsite.

While all of these mitigation techniques may be adequate, it is environmentally preferable to work as high on the mitigation list as possible. All mitigation must be feasible, and descriptions of mitigation must include information on what will be done, who will do it, and when it will happen so that decision makers and the public can assess the effectiveness of the mitigation measure for the impact it is designed to correct.

Together with a description of what mitigation measures will be used, it is necessary to have a monitoring plan to assess the effectiveness of the mitigation over time and to initiate corrective action when necessary. For the Salmon Creek Ranch Restoration Program, most of the impacts to be mitigated are short-term impacts from construction. There are also possible impacts that would be instantaneous, for example, a cultural resource is either damaged or not damaged. Therefore, on-going monitoring for most of the mitigation measures included here will not be necessary because the potential for impact and the mitigation of the impact will both be complete at the end of construction. Monitoring for long-term success of the riparian habitat restoration is described in the Biological Resources section below.

Aesthetics

Construction activities at Ranch SC5 may impact a publicly visible scenic vista. While the construction area is a relatively small part of the entire scenic vista, it is on a road that tourists take out to coast. This may be in conflict with the Sonoma County General Plan

statement, "Preservation of these scenic resources is important to . . . tourists and the agricultural economy." Therefore, the impact to tourism will be minimized by not performing construction work at this ranch on the weekends when most tourists are present. Construction equipment will be parked away from the road.

Biological Resources

This project is self-mitigating for damage to the riparian corridor. Although riparian habitat will need to be disturbed at Ranch SC1, the area to be disturbed is quite small compared to the total area of restored riparian habitat to be established. Additionally, the area at Ranch SC1 will be rectified as part of the project. Riparian plantings will be monitored by the landowners for successful establishment. Landowners will also provide establishment period watering as needed. At sites where the plantings are not establishing successfully, the landowner will report to the Resource Conservation District to obtain remediative direction.

The project will avoid impacts to special status species by:

Controlling project timing to avoid critical life cycle events

- At Ranch SC9, project activities will only occur between June 15 and October 15 to avoid impacts to California freshwater shrimp.
- At Ranches SC1, SC4, SC5 and SC8, project activities will begin after July 1 to avoid impacts to breeding California red-legged frogs.
- At Ranch SC1, project activities will avoid migratory bird nesting season between March 15-August 15.

Avoiding critical habitat areas

- Where possible, work will not be performed in creeks that are perennial or have not dried for the summer.
- At Ranch SC9, the project has been designed to avoid work in the water of Salmon Creek.
- Overhanging banks with potential shrimp habitat will be left undisturbed.
- If it is necessary to work during nesting season at sites other than Ranch SC1, a qualified biologist will perform a preconstruction survey. If nesting birds are found, a 50-foot buffer will be established around the nesting sites during construction.

Direct protection of affected species

- Preconstruction surveys will be performed at Ranches SC1, SC4, SC5 and SC9. A qualified biologist will verify the absence of California red-legged frogs. If frogs are found, they will be moved to appropriate, safe habitat immediately upstream or downstream of the construction area.
- At sites where dewatering is necessary, the work area shall be isolated, and flowing water shall be temporarily diverted around the work site. Fish shall not be trapped by the diversion structure. A qualified, NOAA fisheries

approved biologist shall be present at establishment and removal of the dewatering structure to make sure no impacts occur to special status species.

Cultural Resources

One site that contains important archaeological resources was removed from the program in order to avoid potentially adverse impacts. Other impacts to archaeological resources will be avoided by training construction crews to recognize potentially significant resources. If discovered, construction crews will not disturb the resource, and construction will be halted until a qualified archaeologist can evaluate the site and determine appropriate measures.

Geology and Soils

Short-term erosion effects from construction will be minimized by the use of best management practices including, but not limited to:

- Rough-grade, seed and straw mulch all disturbed areas.
- Stabilize stream banks with erosion control blankets or mats.
- Install silt fence at downstream end of project reach.
- Straw wattles as necessary.
- Tarping/covering of spoils piles.

Preparers

This document was prepared by

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Work was performed by the following staff members:

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Environmental Checklist Form

Attached is an Initial Study Checklist for the Salmon Creek Ranch Restoration Program. Following the checklist are references, a zoning list, and site-by-site project descriptions.

Environmental Checklist Form

1. Project title: Salmon Creek Ranch Restoration Program

2. Lead agency name and address:

   Gold Ridge Resource Conservation District
   PO Box 1064
   Occidental, CA 95465

3. Contact person and phone number: Lisa Hulette
   Natural Resource Coordinator, (707) 874-2907

4. Project location: Salmon Creek watershed, Sonoma County

5. Project sponsor's name and address:

   Gold Ridge Resource Conservation District
   PO Box 1064
   Occidental, CA 95465

6. General plan designation: N/A

7. Zoning: see attached list

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   Gold Ridge RCD is planning erosion control and stream restoration projects at seven ranches in the Salmon Creek watershed. The purpose of these projects is to enhance aquatic and riparian habitat by reducing erosion and sedimentation and restoring native riparian vegetation. They will also preserve ranch land. Techniques to achieve these results include: bank stabilization with grading, bioengineered structures, and rock structures; energy dissipation with boulder step pools; stabilization of gullies to achieve erosion control; fencing and development of alternative water options to keep livestock out of waterways; construction of livestock wet

crossings; and planting of native vegetation in multistory riparian assemblages. Site specific project descriptions are attached.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:
The project takes place on ranches and grazing lands in rural, agricultural communities in western Sonoma County in the Salmon Creek watershed (see Project Location Map, attached). Salmon Creek is a perennial stream that drains directly to the Pacific Ocean just north of Bodega Bay. It supports several special status species including steelhead, California freshwater shrimp and western pond turtle.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)
California Department of Fish and Game
US Army Corps of Engineers (some sites)
North Coast Regional Water Quality Control Board
Sonoma County Permits and Resource Management

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

_____ _____

Signature Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

Issues:

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion of Aesthetics

The program will improve area aesthetics by enhancing and restoring native California vegetation along riparian corridors and wetlands at project sites. Any potential negative aesthetic impacts will be short-term, during construction.

a) degrade a scenic vista**: less than significant impact with mitigation**.

The project sites are located in agricultural western Sonoma County. Ranches SC4, SC5, and SC7 are in Sonoma County designated scenic resource areas with high aesthetic value (Sonoma County General Plan, OS2). At most of the ranches, the projects will not be visible from the road or interfere with a scenic vista. Project activities could have short-term adverse impacts on the visual setting during construction at ranches SC5 and SC7. These impacts will result from extra construction equipment on-site and disturbed ground.

- At SC5, construction activities will be immediately adjacent to Bodega Highway. The kind of equipment used to accomplish the grading is similar to that used for normal farming operations in this agricultural area, however, the amount of equipment and disturbance to the creek, which is a scenic feature, could constitute a significant aesthetic impact. According to the Sonoma County General Plan, "Preservation of these scenic resources is important to the quality of life of County residents and the tourists and agricultural economy." (OS Element, 2.2). Because the construction will be very short-term, no impacts to the agricultural economy are expected. Because of the short-term nature of the construction, and the very small part of the general vista that will be affected, the aesthetic impact to residents should not be significant. In order to avoid aesthetic impacts to tourism, construction will be implemented during the work week when fewer tourists are present.
- SC7 is also located on Bodega Highway, however, the project area is far enough from the road that project activities, while visible, should not be substantively aesthetically different from normal agricultural activities, creating a less than significant impact.

b) damage scenic resources within a state scenic highway: **No impact**

None of the ranches are located on or near a designated scenic highway.

c) degrade the existing visual character of the site: **less than significant impact with mitigation.**

See the discussion for item 1.a) above.

d) create light or glare which would degrade a nighttime view: **No impact**

The project work will be carried out during the day. No additional lighting or glare will be produced.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Discussion of Agricultural Resources

a, b & c) Conversion of Farmland or Conflict with Agricultural Use**: no impact**

Implementation of the ranch restoration projects will not adversely impact agricultural values and will not result in alteration in the present or planned land use of the area or a reduction in the acres devoted to agriculture. One purpose of the project is to improve agricultural sustainability and operations in the watersheds through stabilization of eroding soils and control of sediment discharges from agricultural land to watercourses.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion of Air Quality

Coarse particulate matter is measured as PM10 (Particulate matter greater than 10 microns in diameter). Project activities may involve short-term PM10 emissions from construction equipment and dust. These are very small scale construction projects with low total emissions. Short-term impacts from construction will be less than significant. There will not be long-term impacts.

a) Conflict with or obstruct the implementation of any air quality plan: **no impact.**
The projects are located in the jurisdiction of the Northern Sonoma County Air Pollution Control District (NSCAPCD). As part of the plan to address excess PM10 levels, the NSCAPCD has adopted rule 430, reducing fugitive dust emissions. Construction for this project will comply with that rule (section b3) by using water sprinkling to reduce construction dust. (Air Resources Board).

b) Violate any air quality standard or contribute to an existing violation: **less than significant impact**.
The Federal and State governments have set standards for ambient air quality. Monitoring is performed at a variety of locations to check whether those standards are attained. Criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, and fine and coarse particulate matter.

The project will produce coarse particulate matter. Coarse particulate matter may be composed of particles of soot, dust, smoke, fumes, and aerosols in either solid or liquid form (Bay Area Air Quality Management District). For this project, sources of coarse particulate matter are diesel fumes and air-borne dust. Only air borne dust of construction could be generated in sufficient quantity to have an impact. Best management practices will be used to keep air-borne dust to a minimum.

The project is located within the Northern Sonoma County Air Pollution Control District (NSCAPCD) which is the southern most part of the North Coast Air Basin. The North Coast Basin, as a whole, is listed as non-attainment but the NSCAPCD is not, as shown in Table 1. Santa Rosa is a nearby monitoring station for the Bay Area Air Quality Management Board (BAAQMD).

Table 1. Area Coarse Particulate Matter (as PM10)

Monitoring Station Location / Air Management Area		Highest 24-hour Measurement Designation Values (2003-2005)	Annual Average Designation Value (2003-2004)
Cloverdale	NSCAPCD	25	13
Guerneville	NSCAPCD	34	16
Healdsburg	NSCAPCD	27	14
Santa Rosa	BAAQMD	48	18
Northern Sonoma County APCD		34	16
North Coast Air Basin		71	22
San Francisco Bay Area Air Basin		65	26
California Attainment Standard		**50**	**20**
National Attainment Standard		**150**	**50**

This table was constructed using data from the California Air Resources Board (CARB) and the NSCAPCD. All measurements are in $\mu g/m^3$. *Designation is the highest recorded value for the statistic during the time frame.*

The closest monitoring station to the project is in Guerneville. This monitoring station is well below both the 24-hour average attainment standard and the annual average attainment standard for PM10. The dust from these construction projects will be insufficient to cause any air quality violations

c) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment: **less than significant impact**.
Guerneville, as the closest to the ocean, with the most similar topography and geographically nearest monitoring station, is the station most representative of the project area. This station has shown a decline in 24-hour and annual average PM10 values over the last 15 years (Air Resources Board, 2006). The last time Guerneville showed a 24-hour average over 50microg/m was in 2001. Although the data for annual averages is not complete, it appears that the last time the annual average was over 20 was in 1991. These improvements in air quality may be contributed to by improved fireplace efficiency and better construction dust management techniques. The west Sonoma County area currently meets attainment standards. This project will not add enough PM10 to exceed the standards. There will not be a cumulatively significant net increase of PM10.

d) Expose sensitive receptors to substantial pollutant concentrations? **No impact**. All of the project sites are on private land. None of them are close to sensitive receptors such as hospitals or schools. The project will not generate substantial pollution concentrations.

e) Create objectionable odors affecting a substantial number of people? **Less than significant impact.**
The projects will have no long-term odor effects. During construction, the construction workers may be exposed to objectionable odors from the construction equipment. This is a known hazard of the profession. For this project the effect will be less than for most construction, because the cumulative impacts of an urban environment are not present.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, on any species identified as a candidate, sensitive, or special status species in locally or by the CDFG or U.S. FWS?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or US FWS?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion of Biological Resources

Implementation and maintenance of the ranch restoration projects may result in temporary and minor impacts to biological resources. Project activities that have potential to result in short-term impacts include soil excavation, grading, preparation of the ground for seeding and mulching, grade and stream stabilization, channel excavation, placement of fill, vegetation removal and burial, and trampling or crushing of vegetation from equipment and foot traffic. In certain cases, impacts to individual plants or animals in the form of mortality may occur after consultation with and approval from the appropriate regulatory agencies. Avoidance measures are included below that will ensure that potential disturbances to biological resources result in less than significant impacts.

On a long-term basis, all the project sites provide for improved aquatic, riparian, and/or upland habitat and decreased sedimentation into water bodies that benefit fish, amphibians, reptiles, resident and migratory birds, and many other species. Enhancing riparian vegetation will provide shelter from predators and breeding, rearing, foraging, and basking sites for special status species known to occur in the watershed. Control of erosion will improve the quantity and quality of freshwater input into the creeks, streams, and ponds. Removal and control of non-native plant species will reduce the extent to which exotics invade habitat and displace native flora. The net conservation benefits that will result from implementation and maintenance of the ranch restoration project for species include high quality aquatic, riparian, and upland habitat values.

a) Have a substantial impact on species identified as Candidate, Sensitive, or Special Status Species in Local or Regional Plans, Policies, or Regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? **Less than significant with mitigation**

Special status species with potential to occur in the program area are shown in Table 2. Results of biological assessments to determine the presence of special status species, potential impacts, and specific mitigation measures to avoid or minimize impacts to protected species follow.

Table 2: Listed Animal and Plant Species with Potential to Occur in the Salmon Creek Watershed Enhancement Project Area

Common Name	Scientific Name	Status
steelhead	*Oncorhynchus mykiss*	federally listed as Threatened
coho salmon, central coast ESU	*O. kisutch*	federally listed as endangered
western pond turtle	*Emys marmorata marmorata*	CA special concern species
California red-legged frog	*Rana aurora draytonii*	CA special concern species, federally listed as threatened

		elsewhere in the state
California freshwater shrimp	*Syncaris pacifica*	federally listed as endangered state listed as endangered
tri-colored blackbird	*Ageblaius tricolor*	federal species of concern CA special concern species
red tree vole	*Arborimus pomo*	federal species of concern CA special concern species
showy Indian clover	*Trifolium amoenum*	federally listed as endangered
Franciscan onion	*Allium peninsulare var. franciscanum*	CNPS rare, threatened or endangered
swamp harebell	*Campanula californica*	CNPS rare, threatened or endangered
bristly sedge	*Carex camosa*	CNPS rare, threatened or endangered in CA
deceiving sedge	*C. saliniformis*	CNPS rare, threatened or endangered
Baker's larkspur	*D. bakeri*	federally listed as threatened state listed as rare CNPS rare, threatened or endangered
western leatherwood	*Dirca occidentalis*	CNPS rare, threatened or endangered
hayfield tarplant	*Hemizonia congesta ssp. Leucocephala*	CNPS: list 3
thin-lobed horkelia	*Horkelia tenuiloba*	CNPS rare, threatened or endangered
Sebastopol meadowfoam	*Limnanthes vinculans*	federally listed as endangered state listed as endangered CNPS rare, threatened or endangered
marsh microseris	*Microseris paludosa*	CNPS rare, threatened or endangered; CA: eligible for listing
robust monardella	*Monardella villosa ssp. Golbosa*	CNPS rare, threatened, or endangered
Sonoma alopecurus	*Alopecurus aequalis var. sonomomensis*	federally listed as endangered CNPS rare, threatened or

		endangered

Ranches SC1, SC3, SC4, SC5, SC6, and SC7 were evaluated for potential biological impacts on August 11 and 12, 2004. Ranch SC9 was evaluated for potential biological impacts on March 18, 2005. The California Department of Fish and Game Natural Diversity Data Base and California Native Plant Society lists were consulted and on-site assessments at the six ranches were performed by a wildlife biologist and a senior botanist. Further focused botanical studies were recommended at Ranch SC9. These further focused studies were conducted during the blooming season for species of interest on June 8, 2005.

Work at SC1 has the potential to impact migratory songbirds. Riparian trees will have to be removed at this site to accommodate grading activities. CDFG requires avoidance of all nesting sites (B.Cox, personal communication, May 2005), therefore, work at this site will take place outside the nesting season from March 15- August 15.

Red tree vole sightings have occurred within one mile of Ranch SC4. The field study did not find evidence of red tree voles or their nests, however, there is marginally suitable habitat. The biological evaluation recommends precautions to minimize disturbance to any large trees within, or adjacent to, the project area. The project design includes protection of the large bay tree at SC4 site A. The other sites at this ranch do not have large trees.

The northwestern pond turtle (*Emys marmorata marmorata*), a California Species of Concern, has a low to moderate potential of occurring at Ranches SC4, SC5 and SC6. No pond turtles were detected during the field surveys. Preconstruction reconnaisance will be performed at these sites to make sure that no pond turtles are affected.

California red-legged frog (*Rana aurora* sp. *Draytonii*), a California Species of Concern in this part of its range, could potentially be affected by construction activities at Ranches SC1, SC5, and SC9. In order to avoid impacts from construction, a qualified wildlife biologist will survey the project area before construction begins. If frogs are found, they will be moved by the biologist to a safe alternate location near the project. In the long term, this project will benefit California red-legged frog by reducing sedimentation and improving habitat.

Ranch SC5 has hayfield tarplant, *Hemizonia congesta ssp. leucocephala*, which is on the California Native Plant Society List 3. This plant is a small, annual, flowering herb. Prior to construction, seeds will be collected from any plants that are in the project area and be used as part of the native revegetation mix.

Table 3: Likelihood of Special Status Species Presence by Ranch

Ranch	Species	Likelihood	Avoidance/Mitigation Measures
SC1	California red-legged frog, *Rana aurora draytonii*	low	Pre-construction survey for CRLF
	migratory birds	high	Avoid work during nesting season, March 15 -August 15.
SC3	migratory birds	high	Avoid work during nesting season, March 15 -August 15.
SC4	red tree vole, *Arborimus pomo*	moderate	Minimize disturbance to any large trees; avoid tree removal.
	California red-legged frog, *Rana aurora draytonii*	low	Pre-construction survey for CRLF
	migratory birds	high	Avoid work during nesting season, March 15 -August 15.
SC5	hayfield tarplant, *Hemizonia congesta ssp. leucocephala*	present	Gather seeds from plants within the project area before construction and use to replant after construction.
	California red-legged frog, *Rana aurora draytonii*	moderate	Pre-construction survey for CRLF
SC6	California freshwater shrimp, *Syncaris pacifica*	low	Avoid working on the bank of Salmon Creek. Conduct a preconstruction avoidance methods training meeting. Provide construction supervision by a qualified biologist. (See methods to avoid impact to aquatic species below).
	California red-legged frog, *Rana aurora draytonii*	low	
	steelhead, *Oncorhynchus mykiss*	low	
SC7	Not likely to impact special status species at this ranch		
SC9	California freshwater shrimp, *Syncaris pacifica*	moderate-high	Design to avoid dewatering. Perform preconstruction surveys for special status species in the project area. Conduct a preconstruction avoidance methods training meeting. Provide construction supervision by a qualified biologist. (See
	California red-legged frog, *Rana aurora draytonii*	moderate-high	
	steelhead, *Oncorhynchus mykiss*	moderate-high	

	western pond turtle, *Emys marmorata*	moderate-high	methods to avoid impact to aquatic species below).
	migratory birds	high	Avoid work during nesting season, March 15 -August 15.

Methods to Avoid Impacts to Special Status Species

At Ranches SC6 and SC9, the work to be performed is immediately adjacent to, or on the banks of, Salmon Creek. At all the sites, local drainages lead, directly or via tributaries, to Salmon Creek. Salmon Creek has steelhead, California freshwater shrimp, western pond turtle, and California red-legged frog. All of these species will benefit from reduced sediment run-off in the watershed. There is the potential for short-term impacts from construction for all of them. Potential impacts from construction erosion will be avoided by use of best management practices described in section VI. b). Other impacts to special status species will be avoided by the following actions:

Specific actions to avoid or minimize impacts to the California freshwater shrimp

- Overhanging banks within potential shrimp habitat will remain undisturbed.
- Project activities requiring heavy equipment will occur only between June 15 and October 15 and will not occur during rainfall.
- No rock structures will be constructed in channel bottoms that may interfere with shrimp migration between in-channel pools; this includes rip-rap for bank stabilization.

Specific actions to avoid or minimize impacts to the California red-legged frog

- At Ranches SC1, SC4, SC5 and SC9, a qualified wildlife biologist will conduct a pre-construction survey no more than 48 hours before the start of construction activities. The biologist will look for species, evaluate the likelihood of usage, and determine if additional biological monitoring is needed during construction to ensure that individuals present will be removed or avoided.
- If CRLF are observed within the project area during pre-construction surveys, a qualified wildlife biologist will move the individuals to nearby, suitable sites up- or downstream of the project site.
- Projects within potential CRLF habitat have been designed to minimize disturbance to vegetation near or in permanent and seasonal pools of streams, marshes, ponds, or shorelines with extensive emergent or weedy vegetation.
- All construction within stream channels will take place during daylight hours.
- At Ranches SC1, SC4, SC5 and SC8, project activities will begin after July 1 to avoid potential impacts to breeding CRLF adults or egg masses.

- If monitoring during construction is needed, a qualified biologist will have the authority to halt work activities that may adversely affect CRLF until they can be moved out of the project area.

Specific actions to avoid or minimize impacts to steelhead

- When possible, work will not be performed in creeks that are perennial or have not dried up for the summer. In specific cases where it is deemed necessary to work in a flowing stream or creek, the work area shall be isolated, and all flowing water temporarily diverted around the work site to maintain downstream flows during construction. When construction is completed, the flow diversion structure shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate. Fish shall not be trapped or isolated by the diversion structure.
- A qualified, NOAA Fisheries permitted biologist will be present on site during dewatering and removal or decommissioning of the temporary diversion and as needed to protect sensitive aquatic resources during project construction.
- If unforeseen circumstances arise in project implementation that may lead to adverse effects to steelhead, coho salmon, or their habitat, operations will cease immediately and DFG and NOAA Fisheries will be contacted.

Specific actions to avoid or minimize impacts to nesting migratory birds

- All construction personnel shall be advised that birds are protected by the U.S. Fish and Wildlife Service pursuant to the Migratory Bird Treaty Act (MBTA) of 1918, and impacts to birds will be avoided.
- At Ranches SC1, SC3, SC4, SC6, and SC9, construction will take place outside the breeding season, March 15 to August 15, if at all possible.
- If project construction must occur during the breeding season, areas to be disturbed and a 50-foot buffer area around the area of impact will be surveyed by a qualified biologist to ensure that nesting birds are not present. If any active nests or nesting behavior are found (for species other than starlings and house sparrows), an exclusion zone of 50 feet shall be established to protect the nesting riparian birds. The area will be left undisturbed until the nesting is complete or terminated. If any listed or sensitive bird species are identified, CDFG will be notified prior to further action.
- During construction, the project site will be routinely monitored by a qualified biologist to ensure that no birds have moved into the construction area and are being impacted by construction activities.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community? **Less than significant impact with mitigation.**

Restoration of riparian habitats is central to the purpose of the program. The erosion control, bank stabilization, and restoration projects will improve both the quantity and quality of riparian habitat. This program improves the quality of riparian habitat by stabilizing eroding soils, managing sources of erosion that can occur in riparian areas, preventing cattle from grazing in riparian areas, and planting of native canopy vegetation.

The ranch restoration projects are designed to avoid and/or minimize disturbance to riparian areas. Trees and mature riparian vegetation are preserved to the maximum extent possible. Any area cleared of vegetation shall be revegetated with native plant species. Non-invasive, non-persistent grass species (i.e., barley grass) may be used in conjunction with native species to provide fast establishing, temporary cover for erosion control. In most cases, revegetation will be with multi-story, native, riparian vegetation. Construction routes shall be planned to minimize disturbance to riparian vegetation.

Ranch SC1 will have temporal loss of riparian habitat. The amount of riparian habitat that must be disturbed is very small compared to the amount available at the site. It will be mitigated by project implementation. At Ranches SC4, SC6, and SC9, riparian habitat will be preserved during construction. At Ranches SC3 and SC7, riparian habitat will be created/enhanced creating immediate benefits.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means? **Less than significant impact.**

At Ranch SC7, existing wetland habitat at the bottom of the south gully is being gradually degraded by excessive sedimentation from the gully. Stabilization of the gully will protect this wetland. No construction activity will occur within the wetland area. The gully itself has some wetland vegetation, but this will be immediately replaced with the construction of the wetland swale, resulting in larger, more densely populated, more diverse wetland area along the length of the project. No other ranch has wetlands in or near the project area.

d) Interfere substantially with the movement of any native species or with … wildlife corridors? **Less than significant impact**.

The project sites are all located on ranching grasslands. In all cases, they represent a small disturbed area within a large pasture area. There will be plenty of room for wildlife to avoid the grassland project areas. Work on waterways at Ranches SC1, SC3, SC4, SC6 and SC9 will not obstruct them entirely because the work is only along the banks. It will, therefore, not affect migration. Some animals won't go past loud construction equipment. This is the reason avoidance measures to prevent impacts to CRLF include not working at night when the frogs are active and would be using migration corridors.

At Ranch SC7, work will temporarily eliminate the corridor benefits of the 1200' gully. While there are no listed species, that gully does have a large population of Pacific tree frogs, *Pseudacris regilla*. The breeding season for Pacific tree frogs is from November to July, depending on the area (Forest Service). As frogs metamorphose, they move out into the surrounding grasslands. Once the gully is dry, any breeding there is complete. Therefore, impacts to movement of this species can be avoided by waiting until the gully is dry or the beginning of August, whichever comes first. Since this is not a protected species, they may be moved to the wetlands area if construction timing requires beginning sooner.

At SC5, the project may require dewatering Tannery Creek through the project reach, which is an area that does not support listed salmonids. To avoid impacts to aquatic species and wildlife movement, the work area shall be isolated, and all flowing water temporarily diverted around the work site to maintain downstream flows during construction. When construction is completed, the flow diversion structure shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate. Fish shall not be trapped or isolated by the diversion structure.

A qualified biologist will be present on site during dewatering and removal or decommissioning of the temporary diversion and as needed to protect sensitive aquatic resources during project construction. The GRRCD, in consultation with FWS, NOAA Fisheries, and/or DFG, will determine the expertise needed by the monitor. For some projects, a qualified individual approved by FWS, NOAA Fisheries, and/or DFG shall work with the species in question.

This program seeks to improve habitat for migrating fish, specifically coho salmon and steelhead trout, which are listed as threatened by NOAA Fisheries. By reducing the contribution of sediments to the waterways and improving aquatic and riparian habitat, the project program is designed to have an overall net benefit to movement of native and migratory fish. By increasing habitat connectivity, the program will result in improved aquatic, riparian, and upland movement opportunities for many species.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? **Less than significant impact**.
Designation as a scenic resource is addressed elsewhere in this document. Some of the sites are in valley oak protection areas. No valley oaks will be affected by the project. Most of the sites have biotic resource combining districts that protect the riparian corridors. While work needs to be performed in riparian corridors, sometimes with short-term impacts, it is the overall purpose of the project to enhance and restore riparian and aquatic environments.

Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? **No impact.**
No such plans are in place for these project sites.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion of Cultural Resources

Potential impacts to cultural resources were investigated using the services of the Northwest Information Center (NWIC). Because the western Sonoma County area generally has a high incidence of Native American sites, an inquiry describing the project locations was sent to the Native American Heritage Commission (NAHC). At the suggestion of NAHC, letters were also sent to the Federated Indians of Graton Rancheria, Cloverdale Rancheria, Dry Creek Rancheria, the Lytton Band and Stewarts Point Rancheria. No additional information on Native American sites, beyond that already on file with NWIC, was generated by these inquiries. No sacred or burial sites were identified.

a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5: **No impact**.

There is a high possibility of historic structures at Ranch SC1, and moderate possibility of historic structures at Ranches SC4, SC5, SC6, and SC9. However, the project sites are well away from buildings and other potential historical resources. No structures will be affected by this program.

b) adverse change in archaeological resource: **Less than significant impact with mitigation**.
Archeological resources in western Sonoma County are largely prehistoric Native American sites including village or camp sites, middens, or lithic scatters. A lithic scatter is a scattering of artifacts across a broad area not necessarily associated with any particular use. Lithic scatters may occur at a place where Native Americans were using them or in downstream sediment banks where they accumulated from stream deposition. Information from one of the investigated sites showed a possibility of Native American village sites being disturbed by project activities. That site has consequently been removed from the project.

Although the likelihood of Native American sites in western Sonoma County in the kinds of terrain where the projects will take place is generally high, there are two factors that make it unlikely that disturbance to archeological resources will occur. First, a very small proportion of ground is disturbed by the restoration practices of the project. Second, and more significantly, the project areas are either eroding stream banks or highly used grazing land. In either case, it is unlikely that any artifacts remain that may once have been there.

In order to be certain that no archeological resources are affected, the following precautions will be taken. A pre-construction meeting will be held to acquaint project personnel with the possibility of encountering sensitive cultural resources. If cultural resources are encountered during construction, project personnel will avoid altering the materials and their context until a cultural resources consultant has evaluated the situation. Project personnel will not collect cultural resources. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls, structures and remains with square nails, and refuse deposits, often in old wells and privies.

c) Destroy a unique paleontological or geologic feature**: No impact**.
There are no unique geologic features at any of the project sites. Paleontological resources were not identified at the project sites.

d) Disturb any human remains: **No impact**.
None of the sites has been used as a formal or informal cemetery in historical times, and there is no evidence of Native American remains at the sites. However, if remains are found, construction will be halted, and the county coroner will be contacted.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are	☐	☐	☐	☒

not available for the disposal of waste water?

Discussion of Geology and Soils

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault: **Less than significant impact**
Everything in Sonoma County is relatively near a major earthquake fault because the main line of the San Andreas and the Rodgers' Creek Fault both run through the county. However, this project will not create structures that add to the hazards of a rupture along one of those faults. Only one ranch will have a structure that could possibly fail in a strong earthquake, the ranch trail access at SC4. However, this feature will be substantively more stable after the project than it is currently. There are agricultural and stock ponds included in the project for off-stream water and sediment basins. In addition to being small, these structures are in the ground and do not pose a risk of dam failure.

ii. Strong seismic ground shaking: **Less than significant impact**
Most of the sites are in the area expected to have shaking intensity VIII (Mercalli) in the event of a serious rupture on the San Andreas, which is the closest major fault (ABAG). Project activities will have no effect on earthquake activity.

iii. Seismic-related ground failure, including liquefaction: **No impact.**
Ranches SC5, SC6 and SC9 are subject to liquefaction (ABAG). However, project activities will have no effect on liquefaction and erosion repairs will not be vulnerable to liquefaction damage.

iv. Landslides: **Less than significant impact**
Some of the sites in the Salmon Creek Ranch Restoration Program have highly erosive soils (Sonoma County Soil Survey, 1973). Some of the sites are in landslide prone areas. In no case will project activities exacerbate these situations, and in some cases the area may be more stable versus slides than before the project.

The conservation projects are designed to minimize impacts during construction. Thus, any contributions of sediments from construction are offset within the first year by the functioning of the restoration.

b) Result in substantial soil erosion or loss of topsoil? **Less than significant with mitigation.**
Projects to be implemented under the Salmon Creek Ranch Restoration Program have the stated purpose of reducing or eliminating soil erosion.. In all cases, projects are designed to limit or end erosion. Therefore, the long-term effects on erosion will be beneficial. Construction will have temporary impacts increasing erosion. Best management practices will be utilized during construction to prevent soil loss and polluted runoff. For example, when implementing or maintaining a critical area planting above the high water line, a filter fabric fence, fiber rolls and/or hay bales shall be utilized, if needed, to keep sediment from flowing into the adjacent waterbody.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? **Less than significant impact.**
Several of the project sites have highly erosive soils, as shown in the Table 4 below.

Table 4. Soil Types at Ranch Restoration Sites

Site	Soil type	Soil name	description
SC1	GgF	Goulding Clay Loam, 30-50% slopes	well-drained clay loams, underlain @ 16-20" with weathered igneous, mainly used for grazing, runoff is rapid, erosion is high.
SC3	HeF or KvE	Hely Silt Loam, 30-50%slopes Kneeland Rocky Sandy Loam, sandy variant, 9-30% slopes	well- drained silt over sandstone and siltstone. Timber and grazing. Run-off rapid, erosion moderate.
SC4	SnD	Steinbeck Loam, 9-15% slopes	moderately well-drained, underlayer of mainly clay loam, then weakly to moderately consolidated sandstone and shale. On old marine terrace. For grazing, hay and silage. Run-off and erosion hazard both medium
SC5	SnC, BhB	Steinbeck Loam, 2-9% slopes Blucher Loam, 2-5% slopes	somewhat poorly drained loam, underlain by stratified silt and clay layers. Stream bottoms and alluvial fans. Run-off slow to medium, fast drying. Oats, vetch, hay and sillage.
SC6	BhB	Blucher Loam, 2-5% slopes	somewhat poorly drained loam, underlain by stratified silt and clay layers. Stream bottoms and alluvial fans. Run-off slow to medium, fast drying. Oats, vetch, hay and sillage.
SC7	BhB, KsD, SnL	Blucher Loam, 2-5% slopes Kneeland Rocky Sandy Loam, sandy variant, 2-15% slopes Steinbeck loam	well-drained coarse sandy loam, underlain by sandstone at 15-36 inches. Mostly grazing land.run-off medium, erosion hazard high.
SC9	BhB	Blucher Loam, 2-5% slopes	somewhat poorly drained loam, underlain by stratified silt and clay layers. Stream bottoms and alluvial fans. Run-off slow to medium, fast drying. Oats, vetch, hay and sillage.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? **No impact**.
Although the some of the soils are highly erosive, they are not expansive.

e) Have soils incapable of adequately supporting the use of septic tanks … where sewers are not available for the disposal of waste water? **No impact**.

The question is not applicable as no sewers or septic systems are involved in the project.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS B Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a	☐	☐	☐	☒

private airstrip, would the project result in a safety hazard for people residing or working in the project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion of Hazards and Hazardous Materials

a-h) Create hazards through the use of hazardous materials, or interfere with an emergency plan? **No impact.**

No part of this project changes emergency access, fire danger or other hazard issues. None of the sites involves use of hazardous materials except the common ones used in all vehicle operation. Some use and storage of construction equipment will occur during implementation of the ranch restoration project. The RCD shall ensure that adverse impacts do not occur during routine operations by implementing the following limitations on construction equipment and potentially hazardous materials:

- No work will occur in flowing or standing water.
- Work with heavy equipment will be performed from the top of bank.
- When heavy equipment is used, woody debris and vegetation on banks and in the gully will not be disturbed if outside of the project's scope.
- No chemically-treated timbers shall be used for grade or channel stabilization structures, bulkheads, or other in-stream structures.
- The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the potential release of petroleum materials into waters of the state (Fish and Game Code 5650).
- All vehicles and equipment on the site must not leak any type of hazardous materials such as oil, hydraulic fluid, or fuel. Vehicles and equipment must be inspected and approved by the inspector before use. Fueling shall take place outside of the riparian corridor.

- If needed, a contained area located at least 50 feet from a watercourse will be designated for equipment storage, short-term maintenance, and refueling. If possible, these activities will not take place on the project site.
- Vehicles shall be inspected for leaks and repaired immediately.
- Contractor shall have emergency spill clean up gear (spill containment and absorption materials) and fire equipment available on site at all times. These items are to be reviewed by inspector before construction begins.
- Leaks, drips and other spill are cleaned up immediately to avoid soil or groundwater contamination.
- Major vehicle maintenance and washing shall be done off site.
- All spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries shall be collected, stored, and recycled as hazardous waste off site.
- Dry cleanup methods (i.e. absorbent materials, cat litter, and/or rags) shall be used whenever possible. If water is used, the minimal amount required to keep dust levels down shall be used.
- Spilled dry materials shall be swept up immediately.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion of Hydrology and Water Quality
Individual site repairs and restorations in the Salmon Creek watershed are specifically designed to stem and resolve erosion and sediment problems, to minimize polluted runoff from agriculture, including nutrients, fertilizers, and pesticides/herbicides, and to be installed in such a manner that there is low to no risk of causing environmental impacts. Best management practices and erosion control measures are utilized both during construction and in the permanent erosion control measures to avoid adverse impacts to adjacent watercourses, hydrology, and water quality.

a) Violate any water quality standards or waste discharge requirements? **No impact.**
All project work will receive Clean Water Act §401 Certification from the North Coast Regional Water Quality Control Board.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? **No impact.**
Project work will not make impermeable surfaces. Where rock is used to stabilize banks, sufficient space will remain to allow infiltration. Therefore, the project will not result in impacts to groundwater supplies or recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site**? Less than significant impact.**
At some sites, notably Ranches SC1, SC3 and SC6, the project deliberately alters drainage patterns to improve erosion and siltation issues. None of the sites will be negatively impacted for drainage.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? **Less than significant impact**.
See answer c) above.

e) Create or contribute runoff water which would exceed the capacity of … stormwater drainage systems, provide additional sources of polluted runoff ? **No impact**
At all project sites, run-off patterns are in natural waterways. No storm drains are involved. Project activities will not increase run-off at any of the sites and will slow stormwater run-off down at most sites.

f) Otherwise substantially degrade water quality? **Less than significant impact**

One of the stated purposes of the program is improvement in water quality. No project will be implemented that will result in long-term degradation. Construction has a possibility of temporarily increasing erosion run-off and, therefore, sediment to the waterways. However, this project will use best management practices and careful planning to keep construction effects to an absolute minimum. Construction activities for the ranch restoration projects shall not result in increases in turbidity in the stream (as measured by Nephelometric Turbidity Unit (NTU)) of more than 10% of the upstream background and usually considerably less.

g & h) Place housing or structures which would impede or redirect flood flows within a 100-year flood hazard area? **Less than significant impact**
The project creates no housing or substantive structures. The majority of the structures placed in 100-year flood hazard areas are vegetative or rock structures designed to stabilize erosion. Most of these structures run parallel to watercourses and, therefore, do not pose a risk for redirecting flows away from the flood hazard area. Several of the project sites do use fencing to help restore or maintain riparian vegetation. Where this fencing is in the 100-year flood plain, care has been taken to design it in such a way that there will be minimal debris accumulation on the fencing. An example of this is the swinging, chain flood gate at Ranch SC5.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding? **Less than significant impact**
Failure of structures included in the ranch restoration program poses little to no risk to life and property due to their small size and placement in rural agricultural areas. Sediment basins are used to reduce concentrated off-site flow and associated erosion by metering out runoff following large storm events. The project will be more likely to mitigate flood hazards than to increase them. Work along watercourses covered by this program will promote the use of biotechnical streambank protection. These practices increase the roughness of streambanks, thereby slowing the rate of discharge into downstream watercourses. Localized flooding associated with slower discharge will be avoided by increasing the cross-sectional area of the channel or providing for a flood flow terrace as part of the design. Stream channel stabilization that involves sediment removal will increase the capacity of the channel, thereby reducing localized flooding.

j) Create or expand risk of inundation by seiche, tsunami, or mudflow? **No impact**.
No activity or site restoration in this project will have any affect on the likelihood of seiche, tsunami or mudflow.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion of Land Use Planning

a, b & c) Physically divide an established community, Conflict with any applicable land use plan, policy, or regulation or with any applicable habitat conservation plan or natural community conservation plan?

No impact

Not applicable to this project. The project will not alter existing land uses. However, it is anticipated that the project will result in increased agricultural sustainability. Further, water quality improvements are expected to benefit recreation and commercial and recreational fishing.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion of Mineral Resources

a) & b) Result in a loss of availability of known or delineated mineral resources? **No impact.**
This project will not result in any alteration of availability of mineral resources.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XI. NOISE B Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	?	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity	☐	☐	☐	☒

above levels existing without the project?				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion of Noise

Temporary ambient noise levels in the project vicinity will not exceed existing noise generated by common agricultural management. Many ranchers currently use earthmoving equipment to retrieve eroded soil, smooth eroded landscape features, and conduct routine agricultural cultivation. It is expected that many of the project activities will reduce erosion and loss of soil and the need for noisy clean-up operations.

a & b) Exposure of persons to or generation of noise levels in excess of established standards, excessive groundborne vibration or groundborne noise levels? **No impact**

All noise effects of this project are the temporary effects of construction. The persons who may be affected are the ranchers and construction workers. Construction will be performed in accordance with applicable OSHA regulations for noise protection.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? **No impact**.

There will be no permanent noise effects from the ranch restoration projects except a reduction in overall use of farm equipment as mentioned above.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? **Less than significant impact.**

At SC1, SC4, SC5, SC7 and SC9, the project sites are probably too far from adjacent properties to have any effect. At the remaining sites, SC3 and SC6, neighboring ranchers may hear the construction. The noise level, as stated above, is normal to the area. During the course of construction, noise may be more persistent than usual. Because all the construction projects are quite small, each site should be concluded in the space of a few weeks.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion of Housing

a,b & c) induce growth, displace housing or displace people from housing: **No impact**. This project takes place on large properties away from the existing housing on those parcels. The project sites are located in rural, agricultural areas. The Salmon Creek Ranch Restoration Program will not directly or indirectly induce population growth, displace any existing housing or job supply.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion of Public Services

a) Would the project result is substantial adverse impacts associated with . . . new governmental facilities . . .? **no impact**

The Salmon Creek Ranch Restoration Program will not require any additional public services or new governmental facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion of Recreation

a) & b) Increase use of existing recreational facilities or require construction of new facilities: **no impact.** The Salmon Creek Ranch Restoration Program will not increase the use of any recreational facility, nor will it include the construction or expansion of such facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion of Transportation and Traffic

Additional traffic associated with project construction is likely; however, the increase will be minor, temporary, and not exceed the capacity of the road system. The proposed conservation activities will reduce or eliminate many threats to traffic safety such as sediment on roads, plugging of road culverts, and associated localized flooding. By reducing the likelihood of these traffic hazards, there will be less need for county public works crews and equipment to be on the roads to clean up sediment and flooding problems.

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system**: less than significant impact**.

When complete, the project will not impact traffic at all aside from the beneficial effects described above. During construction, any given site is likely to generate no more than a few trucks a day. All the sites have access from Bodega Highway near the town of Bodega. This road usually has a low level of traffic. If all seven sites around Bodega were constructed at the same time, and they all received shipments of rock on the same day, it is possible that there could be a significant increase in the level of truck traffic on that day. This scenario is extremely unlikely for two reasons: it is probable that multiple sites will be constructed by the same contractor who would need to space them out to apportion crews and equipment. Even if all sites were constructed by different contractors, there are very few sources of rock appropriate for good stream restoration projects. It is likely that all the rock will come from the same two suppliers and, therefore, be delivered one truck at a time. In order to be certain of avoiding group impacts, the RCD will have the upland sites where no creek must dry and no birds are nesting constructed before August 15 to avoid overlap with sites where work must happen after August 15.

b) Exceed, either individually or cumulatively, a level of service standard**: Less than significant impact.**

All of the project sites are located off main roads with good access from the existing ranch roads, and all are out-of-sight except Ranch SC5. The Department of Transportation traffic monitoring counts end on Highway 12 (Bodega Highway) at Sebastopol. This stretch of road does not have an individual level of service identification, but rural roads in the unincorporated area around Sebastopol generally have level "C" or better service (Sonoma County General Plan, Circulation and Transit Element). These projects will not escalate that service level. There are three days during which traffic is likely to attain service levels worse than level "C," August 19 – The Big Event and August 26 & 27 – the Bodega Seafood, Art & Wine Festival. In order to make sure that a bad situation does not become worse, construction will not take place on those days.

c) change to air traffic: **No impact**.

This project will not use or influence air traffic.

d) increase hazards: **No impact**.
This project will not change road structure or use patterns.

e) Result in inadequate emergency access: **No impact**.
This project will not affect emergency access.

f) parking capacity**: No impact**.
This project will create neither parking facilities nor parking demand. All the project sites are located on private land in areas without public access.

g) Conflict with adopted policies or programs supporting alternative transportation**: No impact.**
This project will not influence the way the public uses the street and will have no long-term effects on traffic on road use so it cannot affect alternative transportation.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS B Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supply available to				

serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion of Utilities and Service Systems

None of these projects involve in-building water systems or wastewater. They are in upland areas or adjacent to creeks. Generally, they are not involved with utilities and service systems.

a) & b) Exceed wastewater treatment requirements, require construction of new facilities or expansion of existing facilities for water or wastewater: **No impact**. This project will not involve any additional flows to wastewater treatment facilities. It will not require any additional capacity of water systems or expansion of sources. There will be some water used during construction and for establishment period of plantings, but it will be a small portion of existing water uses on each property and will not require any expansion of existing sources. At Ranch #SC6, an existing pump system will need to be reactivated to provide stock water in an above bank trough. The water right for this diversion is already owned by the rancher, and work will happen as part of the project construction.

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c) require construction or expansion of storm drains: **less than significant impact.**

Project activities are designed to alter and improve hydrologic flows by improving channel configuration and increasing riparian vegetation to retain and slow storm waters and reduce erosion and run-off. Storm water retention features in the designs include increased sinuosity, step pools to work down steep slopes, outsloping and placement of rolling dips, inclusion of in-channel flood plains, and creation of grassy swales. All of the project sites drain directly into Salmon Creek or into tributaries of Salmon Creek, except Ranch SC8, which drains from Scotty Creek into the Pacific Ocean. There are no storm

drains involved. Two culverts will need to be replaced at Ranches SC3 and SC4. This will happen as part of project implementation. No other culverts will be affected.

d) require expansion of water entitlements: **less than significant impact**
The project will not require any change in public water systems. To improve water quality by keeping cattle out of the creek, Ranch SC7 will install a stockpond. The required permit from the California Division of Water Rights has been approved by the California Department of Fish and Game and issued to the landowner.

e) require additional wastewater treatment facilities: **no impact**.
The Salmon Creek Ranch Restoration Pro will not create wastewater, nor will it require wastewater treatment facilities.

f) & g) be served by a landfill with sufficient capacity and comply with solid waste regulations**: less than significant impact.**
Some of the ranches require removal of failed culvert pieces or other chunks of non-reusable concrete. Waste materials may be taken to appropriate landfills. Such disposal would constitute a tiny fraction of any landfill capacity and would have no impact on landfill capacity. Restoration construction contractors will comply with all applicable statutes and regulations.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of	☐	☒	☐	☐

the major periods of California history or prehistory?			

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion of Mandatory Findings of Significance

The Salmon Creek Ranch Restoration Program will not degrade the quality of the environment, substantially reduce habitat for fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Such a potential does not exist because the project will be implemented in such a manner as to avoid short-term impacts to sensitive resources. The project will avoid impact to cultural resources. There is no potential for significant impact to human beings. The project does not have the potential for adverse cumulative impacts. The project will result in improvement in water quality, natural habitat functioning, and agricultural sustainability.

Finding: Less than significant impact with mitigations incorporated.

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US Geological Survey. Valley Ford 7.5' Quadrangle.

SALMON CREEK LOCATION AND ZONING INFORMATION

Ranch # SC1
Location: T6N, R10W, S3 **USGS Topo:** Camp Meeker Quad
Zoning: RRD-B6-60 acres/unit-Z

Ranch # SC3
Location: T6N, R10W, S Bodega **USGS Topo:** Duncan Mills Quad
Zoning: LEA-B6-160 acres/unit-Z-BR 100'

Ranch # SC4
Location: T6N, R10W, S14 **USGS Topo:** Valley Ford Quad
Zoning: LEA-B6-160 acres/unit-Z-SR-BR

Ranch # SC5
Location: T6N, R10W, S16 **USGS Topo:** Valley Ford Quad
Zoning: RRDWA-B6-100 acres/unit-SR

Ranch # SC6
Location: T6N, R10W, S Bodega **USGS Topo:** Valley Ford Quad
Zoning: LEA-B6-160 acres/unit-BR 100'

Ranch # SC7
Location: T6N, R10W S16 **USGS Topo:** Valley Ford Quad
Zoning: LEA-B6-160 acres/unit-Z-SR

Ranch # SC9
Location: T6N, R10W, S16 **USGS Topo:** Valley Ford Quad
Zoning: DA-CC-B6-40 acres/unit for SW corner; rest LEA-B6-160 acre/density- BR-VOH

Gold Ridge Resource Conservation District
Salmon Creek Ranch Restoration Program
Individual Ranch Project Descriptions and Photos

Ranch SC1

Property Address: Bohemian Highway, Occidental
Township, Range, Section: T6N, R10W, S3
Project Description:
Ranch SC1 is a working sheep ranch. The project site is in a gently sloping pasture adjacent to an unnamed tributary (locally known as Marimar Creek) to Salmon Creek. There is an intermittent, actively downcutting gully in the pasture. It is currently approximately 5' deep, 15' wide, and 150' long. The upper 75' are highly active. According to the landowner, the entire gully has formed in the last few decades. In heavy rain events, sheet flow across the pasture enters the gully from all around the rim of the headcut, moving substantive sediment into Marimar Creek and downstream.

The gully will be stabilized by laying back the slopes at a 2:1 grade and installing a rock headcut repair, grade stabilization structure and lower rock channel. Each structure will be rough and have an energy dissipation pool at the bottom to slow runoff. Cut from the banks will be used to create a lateral berm across the pasture to redirect sheet flow to the stabilized headcut. Disturbed riparian habitat will be stabilized and replanted with multi-story native vegetation.

Ranch SC3

Property Address: Fitzpatrick Lane, Bodega
Township, Range, Section: T6N, R10W, S Bodega
Project Description:
Ranch SC3 is a working cattle ranch with two intermittent waterways tributary to Fay Creek running directly through the property. Fay Creek is a tributary to Salmon Creek.

A historic ridge crest gravel ranch road has become incised over generations. It concentrates seasonal runoff leading to formation of a hillside gully with ongoing and active growth.

The road will be regraded and frequent rolling dips will be created to reduce or eliminate flow concentration causing the hillside erosion. The existing downslope gully will be shaped and stabilized to minimize further erosion. The shotgun culvert will be resized and replaced.

Ranch SC4

Property Address: Bodega Highway, Bodega
Township, Range, Section: T6N, R10W, S14
Project Description:
Ranch SC4 is a working sheep and cattle ranch. The waterways on the property drain under highway 12 directly to Salmon Creek. There are three repair sites.

Site A: A spring-fed, small watercourse bisects the property. The upper reach has a large-scale, deeply-incised gully system in a mature riparian corridor. The partially vertical banks are slumping in places. An existing low-use ranch access trail has a culverted levee crossing that has nearly failed. The culvert has historically functioned as a grade control structure, impeding growth of the incised gully.

The existing culvert and failing levee will be removed. The road will be regraded and a rocked ford will be installed to restore crossing functionality for low-use vehicle activity. Rock armor will be used to stabilize the steep, eroding section of channel to minimize risk of future failure. Rock armor will also stabilize an eroding section of channel just upstream of the crossing. A mature bay laurel will be preserved by regrading to direct channel flow from the roots of the tree back to the historic, nearby

channel. The 20' long tunnel under the tree will be plugged with imported, hand-filled, compacted clay loam.

Site B: An upland gully system is forming with intermittent downcuts and lateral headcuts. Rock armored sections will be installed at three points of active erosion to provide energy dissipation. Approximately 2 acres will be protected with livestock fencing as a management tool for seasonal regulation of gully access and grazing pressure. A seasonal ford will be rock-armored for livestock and occasional ranch vehicle access. In order to minimize livestock activity in the channel, an off-stream stock watering system will be developed using water pumped from a remote spring to a new storage tank and gravity flow water trough.

Site C: A secondary gully has developed within the highly unstable grassland soils that are pervasive in this watershed. The headcut, formed in part by deep-seated seasonal groundwater seepage, will be isolated from upland overbank flow by installation of a surface runoff collection and discharge pipeline. At this site, the need to control surface drainage is critical because of the vulnerability for gully development in the soils.

Ranch SC5

Property Address: Bodega Highway, Bodega
Township, Range, Section: T6N, R10W, S16
Project Description:
Ranch SC5 is an award-winning dairy ranch located off Bodega Highway near the hamlet of Bodega, CA. Tannery Creek flows through the property, bisecting two cattle pastures. At the project site, Tannery Creek makes a large bend, looping around an eroding promontory. Around the loop, several headcuts are forming where the stream heads directly for the banks at high flow. In addition, there are numerous places immediately upstream of the loop where the cattle walk across the creek, delivering significant amounts of fine-grained sediment directly to the streambed.

Site hydrology will be improved by lowering the elevation of the eroding promontory to create an in-channel floodplain. Additionally, rock headcut repairs will be installed at three bank stress points. One bank upstream at the cattle crossing and the crossing itself will be armored. The area will be fenced to exclude cattle up to the cattle crossing. The upstream portion of the fence will use a flood gate across the channel. The flood gate design has chain sections that swing freely from a top tension cable in order to exclude cattle but allow free passage of water, debris, and aquatic organisms.

Ranch SC6

Property Address: Salmon Creek Road, Bodega, CA
Township, Range, Section: T6N, R10W, S Bodega
Project Description:
Ranch SC6 is a working cattle ranch on the bank of Salmon Creek proper. The project site is in a hay production pasture immediately adjacent to the creek. Several gullies have formed along the bank and are eroding back into the hay field. The field is flood plain for Salmon Creek and composed of unconsolidated alluvial sediments. The erosion may be caused by rapid sheet flow runoff from receding flood waters over poorly vegetated banks.

The unstable, poorly vegetated and eroding upper creek bank and edge of pasture will be regraded to a gentle slope to minimize risk of future slope failures. Spoils will be used to fill existing lateral scour gullies. Top of bank will be treated with erosion control materials and revegetated with sprig or container grown native plants. A diversion ditch will be constructed on the hillside above the field to redirect sheet flow into a vegetated swale along the upstream end of the field. The field will be fenced to seasonally exclude cattle, allowing establishment and growth of riparian vegetation.

Ranch SC7

Property Address: Bodega Highway, Bodega, CA
Township, Range, Section: T6N, R10W, S16
Project Description:
Ranch SC7 is a working cattle ranch located off Bodega Highway near the hamlet of Bodega, CA. The property drains to Salmon Creek. There are three repairs on this ranch.

Site A (south gully): The south gully is approximately 1200' long, 2'wide, and 5' deep. The banks are actively eroding with numerous headcuts. The gully drains to a wetland area adjacent to Salmon Creek.

The gully will be filled and graded to create an 8' wide, 4" deep vegetated swale. Exclusionary fencing will protect 2.75 acres. The area will be extensively planted with diverse, multi-story, native riparian vegetation. One cattle crossing will be installed. A soil borrow pit will be excavated in a flat upland area adjacent to the gully to provide soil for the fill. The excavation will become a pond that the rancher will use for an off-channel water source, permitting the exclusion of livestock from the waterways.

Site B (middle gully): This gully is approximately 800' long and 5' deep. There is an existing culvert halfway down the channel. The rancher has been filling the lower portion of the channel as it erodes with concrete rubble. Downslope of this gully, after crossing a relatively flat area, another 1'-4' deep gully has formed.

The middle, existing, unstable gully will be filled. Stormflows will be diverted to a new vegetated swale stabilized with small rock or an erosion control blanket. Exclusionary fencing, a cattle guard / culvert, and two other cattle crossings are planned for the rancher to use as management tools. The area will be planted with native riparian vegetation.

The upper gully will be planted and have establishment period fencing. The lower portion of the gully will be planted with native, multi-story riparian vegetation. This area will be permanently fenced to protect another 1.5 acres including approximately 250' along the edge of an unnamed tributary to Salmon Creek.

Site C (pond gully): This gully is approximately 350' long, 4' deep and has a slope between 4-10%. It flows to an existing agricultural pond that acts as a sediment retention basin and is now nearly completely filled with soil. Just below the pond is a deep, almost circular headcut.

The gully will be stabilized with rock (in critical locations), soil fill, and vegetation. Exclusionary fencing will be built to protect revegetated areas. The pond will serve as a borrow pit for soil fill and will act as a sediment basin and agricultural water supply after construction. The headcut will be stabilized by grading the slope at 2.5:1 installing rock armor on the steepest portions and erosion control blankets on the upper, shallow slope. There will be an energy dissipation pool at the foot of the headcut repair.

Ranch 9

Property Address: Bodega Lane, Bodega, CA 94923
Township, Range, Section: T6N, R10W, S21
Project Description:
This site is a large cattle ranch bordering on Salmon Creek. It has numerous headcuts forming in the creek channel and an eroding cattle crossing. The project encompasses eight separate bank erosion sites along a 4000' reach of Salmon Creek. An upland gully will also be stabilized.

Sites 1-8 At each site headcuts will be stabilized by laying back the bank (at 1.5:1 except as noted below), installing erosion control blanket and planting. Invasive Himalayan blackberry will be removed. All sites will be extensively planted with multi-story native riparian vegetation. The area will be fenced to create a 25-acre seasonal riparian pasture. In addition to grading and planting at all eight sites, the following specific repairs will be made:

- Site 2 The existing, eroding cattle crossing will be stabilized with a rock and gravel approaches.
- Site 5 An existing, rusting culvert will be replaced.
- Site 6 An existing culvert gully will be graded and planted for stabilization.
- Site 8 This site will be graded at 3:1.

Site 9 An approximately 550' long, upland erosional gully will be stabilized with six rock weirs. Energy dissipation pools will be installed at the foot of each weir.

California Regional Water Quality Control Board
North Coast Region
William R. Massey, Chairman

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Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

July 25, 2006

Ms. Lisa Hulette
Gold Ridge Resource Conservation District
P.O. Box 1064
Occidental, CA 95465

clear 7-25-06 late

Dear Ms. Hulette:

Subject: Request for Comments on the Proposed Salmon Creek Ranch Restoration Program Project (SCH# 2006062126), Salmon Creek Watershed, Sonoma County

File: Salmon Creek Ranch Restoration Program Project, Sonoma County

Thank you for your request for comments on the Proposed Mitigated Negative Declaration. The North Coast Regional Water Quality Control Board (Regional Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA).

The project has several elements that Regional Water Board staff are concerned about. General concerns for the majority of the proposed sites include the use of permanent fill, the use of non-bioengineered stabilization techniques (such as rock riprap), temporal loss issues for habitat, and the lack of exclusionary fencing on working ranches. Bioengineered forms of erosion control are outlined in the California Department of Fish and Game's California Salmonid Stream Habitat Restoration Manual, available at http://www.dfg.ca.gov/nafwb/manual.html.

Site specific concerns, as well as general recommendations, are as follows:

Ranch SC1 Regional Water Board staff support the use of bioengineered stabilization techniques as opposed to the proposed rock headcut repair. Please consider using one or more of the following techniques: willow wattles, log and fabric step falls, and/or straw bale falls. Since the site is a working sheep ranch, we would like to encourage the use of exclusionary fencing around stabilized gully. As a component of the project, all erosive gullies should be revegetated with native plant species, including the berm at this location.

Ranch SC4 We do not support the use of the proposed rock armor within Waters of the State. Regional Water Board staff recommend the use of bioengineered techniques for

stream bank stabilization. Additionally, alternatives to the proposed rocked fords should be considered, such as the installation of crossing structures that span the watercourses.

Ranch SC5 Regional Water Board staff recommend the use of willow baffles as energy dissipaters rather than rock repairs. Bioengineering techniques can help to reduce flow velocity, thereby reducing erosion; whereas rock repairs redirect the velocity to adjacent banks where it may induce further erosion downstream.

Ranch SC6 Please be advised that the use of spoils to fill gullies constitutes permanent fill within Waters of the State. Regional Water Board staff recommend the use of exclusionary fencing along the top of bank, ideally with a set back for a larger protected riparian corridor.

Ranch SC7 The replacement swale length will need to correspond to the loss of gully length at an at least 1:1 ratio.

Permits which may be required for the Salmon Creek Ranch Restoration Program Project are as follows:

Water Quality Certification (401 Certification) – Permit issued for activities resulting in dredge or fill within waters of the United States (including wetlands). All projects must be evaluated for the presence of jurisdictional wetlands and other Waters of the State. Destruction of or impacts to these waters should be avoided. Under the Clean Water Act Section 401 and 404, disturbing wetlands requires a Corp permit and a State 401 permit. To determine whether wetlands may be present on any proposed construction site, please contact Jane Hicks at the U.S. Army Corps of Engineers in San Francisco at (415) 977-8439. If wetlands are present, please contact Stephen Bargsten from our office at (707) 576-2653 for a 401 permit.

Waste Discharge Requirements (WDRs) or a Conditional Waiver of WDRs – Under authority of the California Water Code, the Regional Water Board may issue WDRs for any project, which discharges or threatens to discharge waste to Waters of the State. Projects that cause disturbance to Waters of the State (including any grading activities within stream courses) require permitting by the Regional Water Board. The Regional Water Board may also require permits for discharges of post-construction storm water runoff.

General Construction Activity Storm Water Permit – Land disturbances on proposed projects of 1 acre or more require a construction storm water permit. As the land disturbance will be in excess of 1 acre, the owner of the property will need to apply for a General Construction Activity Storm Water Permit prior to the commencement of activities on site. The owner may call our office to receive a permit package or download it off the Internet at www.waterboards.ca.gov.

Gold Ridge Resource Conservation District
P.O. Box 1064 – Occidental, CA 95465 – Phone (707) 874-2907 – Fax (707) 874-9607

Salmon Creek Ranch Restoration Program
Response to Agency and Public Comments
Proposed Mitigated Negative Declaration
August 2006

Gold Ridge Resource Conservation District (GRRCD) has received one reply to the request for public comments on the Proposed Mitigated Negative Declaration for the Salmon Creek Ranch Restoration Program. The North Coast Regional Water Quality Control Board (NCRWQCB) expressed concern regarding permanent fill, bank stabilization techniques, temporal habitat loss, and insufficient amounts of exclusionary fencing.

Answer: The main goals of both GRRCD and its funders in carrying out this program are to improve aquatic habitat by reducing sedimentation to Salmon Creek and its tributaries, to improve riparian habitat by repair of degraded or eroding banks and planting of diverse native riparian vegetation, and to enhance agricultural sustainability by preservation of agricultural land. GRRCD works in cooperation with private landowners who are voluntarily participating in the program.

GRRCD is in agreement with the goals of the NCRWQCB. The RCD believes that the Salmon Creek Ranch Restoration Program, as described, will meet those goals. In certain cases, fill and rock are required to accommodate site-specific conditions.

At many of these sites, there will be no temporal habitat loss because the current conditions are sufficiently degraded to provide little habitat. At sites such as Ranch SC1, where there will be a temporal loss of habitat, the result of not installing the project would likely be permanent loss of the same habitat due to erosion and excessive sedimentation to Salmon Creek. The RCD's plan for erosion control at Ranch SC1 was specifically selected to minimize temporal habitat loss and to provide maximum long-term environmental benefits.

In order to meet GRRCD's goal of improving agricultural sustainability and to get participation from individual landowners, it is necessary to keep most of the agricultural land in production, including grazing lands. Therefore, GRRCD uses exclusionary fence only where it is important to the environmental outcome and manageable for the landowner. Without landowner participation, there would be no access to these private lands, none of GRRCD's goals could be met, and all of these sites would continue to contribute to the sediment problem in Salmon Creek.

NCRWQCB staff reminds GRRCD of the value of bioengineered bank stabilization as described in the California Department of Fish & Game's Salmonid Stream Habitat Restoration Manual.

Answer: GRRCD agrees that bioengineered bank stabilization is preferable to hard structure whenever technically feasible. The RCD has frequently helped landowners stabilize eroding banks with bioengineering techniques. In the Salmon Creek Ranch Restoration Program, a total of 15 banks will be stabilized among the 7 ranches; of these, 6 require rock solutions to achieve stability.

Ranch-specific Comments:

Ranch 1: NCRWQCB staff support the use of bioengineered stabilization techniques as opposed to the proposed rock headcut repair. Please consider using one or more of the following techniques: willow wattles, log and fabric step falls, and/or straw bale falls. Since the site is a working sheep ranch, we would like to encourage the use of exclusionary fencing around stabilized gully. As a component of the project, all erosive gullies should be revegetated with native plant species, including the berm at this location.

Answer: *The soil at this site is highly erosive. A deep cut has formed in the middle of the pasture over the space of a few years. A strictly bioengineering approach for a large gully such as this has a high probability of partial or complete failure when used alone for armoring purposes. Inherent uncertainty and variability in vegetative growth allow formation of nick points and head cuts within a channel. Willow wattles would not be effective at this site because wattles are a temporary approach to stabilizing barren soil, not long-term gully stabilization. The same applies to fabric step falls and straw bale falls. Although the entire ranch supports sheep, this pasture is little used for grazing and shows no over-grazing stress, so exclusionary fencing is not an important restoration component.*

The RCD advocates the use of native species for revegetation. It is the intention of GRRCD to revegetate all disturbed areas with site-appropriate, native vegetation. The planting plan at Ranch SC1 involves replanting the riparian area with big leaf maple, coast live oak, buckeye, willow, native blackberry, hazelnut, California wild rose, and snowberry. Construction notes specify reseeding the disturbed field areas, including the berm, with a mix of California brome, meadow barley, creeping wild rye, and blue wild rye. The channel bottom will also have Juncus to provide both stability and habitat.

Ranch SC4: NCRWQCB staff reiterates a preference for bioengineered solutions rather than rock in Waters of the State. Additionally, alternatives to the proposed rocked fords should be considered, such as the installation of crossing structures that span the watercourses.

Answer: *As stated above, bioengineering is often insufficient for large gully stabilization. At this particular site, the area to be rocked is nearly vertical, and there is no space to lay back the bank because it is in such a steep canyon.*

The use of a bridge is not recommended because it would be cost prohibitive (these projects are grant funded). Similarly, fords have been recommended for small to medium sized streams where there is a reasonably stable stream bottom and traffic is light. On small, poorly incised, ephemeral or intermittent streams, a ford is the primary choice if there is insufficient depth to install a culvert (Weaver and Hagans, Handbook for Forest and Ranch Roads, 1994). Also per NCRWCB adopted sediment TMDL for the Garcia River, "Roads that are not used or maintained during wet weather shall be constructed or reconstructed to a temporary road status. Spot rocking of the road surface shall be used, where needed, to provide a stable running surface during the period of use." Further, "All watercourse road crossings shall, at a minimum, utilize the standards described on pages 64 - 79 of the Handbook for Forest and Ranch Roads (prepared by Weaver and Hagans, 1994)." The Weaver and Hagans methodologies have now been included as Appendix X to the California Salmonid Stream Habitat Restoration Manual.

Ranch SC5: NCRWQCB staff recommends the use of willow baffles instead of rock as energy dissipators. They suggest bioengineering techniques will reduce flow velocities, whereas rock simply redirects flow at a different bank, causing downstream erosion.

Answer: This repair is being implemented in a reach where Tannery Creek makes a loop that is almost three quarters of a circle. At high flow, bank scour is very strong, especially at three spots where the flow is directly toward the bank. The first design called for rocking most of the channel in an effort to achieve a hydraulically stable solution. Jeremy Sarrow of California Department of Fish & Game and Andrew Jensen of NCRWQCB both had a chance to review the plans and the site. While acknowledging the hydraulic issues, they both requested a design using less rock and other approaches to stabilize the channel. Various solutions were discussed, and the site had two redesigns until a plan was developed that they could approve.

The final design uses rock only at the critical points where the stream heads straight for the bank. The rock is used in combination with willow sprigging and revegetation on the channel banks, a hybrid approach that provides the benefits of both traditional and bioengineering approaches and minimizes the disadvantages of each. The design also includes reshaping the center of the loop to provide a more effective floodplain. The project area will have exclusionary fencing to protect native plantings. GRRCD believes that the resulting repair will provide stable hydraulic conditions, conformance with water quality objectives, long-term stability, and environmental benefits.

Ranch SC6: NCRWQCB staff advises that use of spoils to fill gullies constitutes permanent fill within Waters of the State. They also suggest the use of exclusionary fencing.

Answer: *The engineering analysis shows that these gullies have been formed by sheet flow off the upslope field. They are adjacent to Salmon Creek, but they are not Waters of the State. Basically, they comprise a ragged slash on the edge of the field. The cut and fill are to even out the gullies and mounds into a more gradual, stable configuration. The area will be planted for erosion control, as this is one of the sites where bioengineering solutions should be functional to stabilize most of the bank. There are four narrow strips that need to be rocked, which are the main outflows from the field (comprising less than 40 feet of the approximately 560-foot project reach).*

The project was originally designed without exclusionary fencing because the field is a floodplain for Salmon Creek and will likely have fence maintenance issues. However, Andrew Jensen of NCRWQCB thought that fencing would be an important component at this site. Consequently, fencing was added, as indicated in the project description, "The field will be fenced to seasonally exclude cattle, allowing establishment and growth of riparian vegetation."

Ranch SC7: NCRWQCB comments that the replacement swale length will need to correspond to the loss of gully length at an at least 1:1 ratio.

Answer: *It is possible that the project description was insufficiently clear. The gully to be filled has eroded deeply from a swale into the erosive soils of the pasture, creating an unstable and progressively worsening situation. It is carrying excessive sediment to the wetland area at the downstream end of the gully. The gully, itself, will be partially filled to recreate a stable swale configuration, so it cannot be other than 1:1. After grading and placement of fill, the area will be extensively planted with diverse, native vegetation, further stabilizing the swale and providing diverse habitat. This project site will have extensive exclusionary fencing to protect the restored swale.*