

**INITIAL STUDY AND  
MITIGATED NEGATIVE DECLARATION**

**CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS  
FOR GRAZING OPERATIONS IN THE  
NAPA RIVER AND SONOMA CREEK WATERSHEDS**

PREPARED BY:

**California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
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**SEPTEMBER 5, 2011**

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## SUMMARY

### Introduction

This summary provides a synopsis of the Initial Study and proposed Mitigated Negative Declaration, which have been prepared pursuant to the California Environmental Quality Act of 1970 (CEQA) and State CEQA Guidelines. The Lead Agency for the project, as defined by CEQA, is the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board).

The proposed project consists of establishing a conditional waiver of Waste Discharge Requirements (waiver of WDRs) for both existing and potential future grazing operations in the Napa River and Sonoma Creek watersheds. The project is consistent with the State Water Resources Control Board's *2004 Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (NPS Policy), which requires that all sources of nonpoint source pollution be regulated through Waste Discharge Requirements (WDRs), through waivers of WDRs, or through prohibitions.

Up to this time, potential water quality degradation from grazing activities in the Napa and Sonoma Creek watersheds has not been regulated. If improperly managed, grazing operations can pose a threat to surface water and groundwater, irrespective of herd size. Animal waste discharges, including contaminated stormwater, may contribute pathogens, ammonia, salts, and excess sediment to nearby streams. It is the intent of this waiver of WDRs to set conditions for implementation of grazing operation management practices (MPs) that will result in improved water quality in receiving waters.

The conditional waiver of WDRs is limited to those grazing operations expanding 100 acres or more in size. Those grazing operations that are smaller than this 100 acre threshold are still expected to effectively manage their facilities, and may be required to obtain Waste Discharge Requirements on a case-by-case basis, if the potential for water quality impacts are found.

### Project Objectives

The objectives of the proposed project are to:

- Improve and protect water quality;
- Benefit, enhance, restore and protect biological resources, including fish, wildlife, and rare and endangered species;
- Control and reduce sedimentation in surface waters and improve soil conservation;
- Promote sustainable grazing;
- Trap bacteria and other pathogens that cause waterborne illnesses in people;
- Stabilize stream banks; and,
- Protect the capacity of riparian areas to filter and trap contaminants and shade aquatic habitats.

## Project Description

This conditional waiver of WDRs for grazing operations in the Napa River and Sonoma Creek watersheds is prompted in part, by four Total Maximum Daily Loads (TMDLs) adopted by the Water Board:

- 1) Napa River pathogens TMDL  
Adopted by the Water Board on November 15, 2006 and approved by USEPA on February 29, 2008
- 2) Napa River sediment TMDL  
Adopted by the Water Board on September 9, 2009 and approval by USEPA on January 21, 2011
- 3) Sonoma Creek pathogens TMDL  
Adopted by the Water Board on June 21, 2006, and approved by USEPA on February 29, 2008
- 4) Sonoma Creek sediment TMDL  
Adopted by the Water Board on December 10, 2008 and approved by USEPA on September 8, 2010

In these TMDLs, the Water Board considers that the discharge of nonpoint source pollution from agricultural grazing operations within the Napa River and Sonoma Creek watersheds is a discharge of waste that could affect the quality of waters of the State, as defined in Section 13260 of the California Water Code (CWC). Furthermore, these TMDLs require management actions for grazing operations to protect water quality and restore beneficial uses.

Specifically, enrollees in the waiver of WDRs program will be required to:

- Prepare and implement a comprehensive land management plan (“Ranch Water Quality Plan”) that addresses nonpoint source pollution in a manner that ultimately achieves and maintains water quality objectives and beneficial uses. Ranch Water Quality Plans will not routinely be submitted to the Water Board, but instead be held at the facility and be made available for inspection by Water Board staff;
- Prepare and implement Management Practices (MPs) to ensure attainment of the NPS pollution control implementation program’s stated objectives. This includes identification of the process to be used to select and/or develop MPs, and the process to be used to ensure and verify proper MP implementation, operation and maintenance;
- Prepare a time schedule with quantifiable milestones designed to measure progress toward reaching the specified program’s objectives;
- Conduct compliance monitoring to verify that selected MPs are being implemented and that the Waiver Standards are being met. Waiver Standards include minimizing the delivery of sediment, pathogens, and nutrients from ranching lands, including roads and animal crossings, to surface waters. Compliance monitoring involves visual inspection of

the grazing facility, MPs, and closest receiving water, both upstream and downstream of the facility; and,

- Report to the Water Board annually on the status of the selected MPs, problems observed on the ranch, and planned implementation actions for the upcoming year.

### **Community Participation**

A project scoping meeting was held on January 12, 2011, at the Schell-Vista Fire Station in Sonoma to seek early input from potentially regulated ranchers, local agencies, nearby residents, and other interested parties.

The following issues were identified during project scoping and are addressed in this Initial Study:

- Consideration of potential erosion from roads and stream crossings due to increased vehicle and machinery traffic during construction;
- Potential for fencing to impede movement of wildlife; and,
- Measures to ensure successful re-vegetation.

**INITIAL STUDY / DRAFT MITIGATED NEGATIVE DECLARATION**  
*pursuant to the California Environmental Quality Act, as amended*

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**A. PROJECT DESCRIPTION**

- 1. Project title:** Conditional waiver of Waste Discharge Requirements for Grazing Operations in the Napa River and Sonoma Creek Watersheds
- 2. Lead agency name & address:** California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612
- 3. Contact person & phone number:** Rico Duazo, WRCE,  
(510) 622-2340  
RDuazo@waterboards.ca.gov
- 4. Project location:** Napa River and Sonoma Creek Watersheds,  
San Francisco Bay Region
- 5. Project sponsor's name & address:** California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612
- 6. General plan designation:** Not Applicable
- 7. Zoning:** Not Applicable
- 8. Description of project:**

The Water Board will consider adoption of a conditional waiver of Waste Discharge Requirements (waiver of WDRs) for existing grazing operations in the Napa River and Sonoma Creek watersheds to comply with the Napa River Pathogens and Sediment TMDLs, and the Sonoma Creek Pathogen and Sediment TMDL Implementation Plans. The waiver of WDRs specifies the types of actions necessary to protect and restore beneficial uses to the Napa River and Sonoma Creek watersheds. These actions shall be consistent with the requirements of the NPS Policy. The purpose of the waiver of WDRs is to set conditions for implementation of grazing operation management practices (MPs) which result in water quality improvements.

The objectives of the proposed project include:

- Improve and protect water quality;
- Benefit, enhance, restore and protect biological resources, including fish, wildlife, and rare and endangered species;

- Control and reduce sedimentation in surface waters and improve soil conservation;
- Promote sustainable grazing;
- Trap bacteria and other pathogens that cause waterborne illnesses in people;
- Stabilize stream banks; and,
- Protect the capacity of riparian areas to filter and trap contaminants and shade aquatic habitats.

The waiver of WDRs would apply to about 37,000 acres of grazing lands in the Napa River and Sonoma Creek watersheds and would require:

- Enrollment in the waiver program;
- Development of a Ranch Water Quality Plan;
- Implementation of MPs;
- Site inspection and compliance monitoring; and,
- Annual Reporting.

Other regulatory options to achieve project objectives include imposition of individual, or general Waste Discharge Requirements (WDRs) or enforcement of Basin Plan prohibitions.

The waiver of WDRs normally has a five-year term. The Water Board can rescind this waiver of WDRs and issue individual or general WDRs at any time should follow-up site inspections and/or compliance monitoring indicate or demonstrate that the program is failing to achieve its stated objectives.

## **9. Setting and surrounding land uses:**

The waiver of WDRs for grazing operations will cover existing grazing and potential future operations in the Napa River and Sonoma Creek watersheds, which are located in the northern portion of San Francisco Bay in Napa and Sonoma counties.

### Napa River Watershed

The Napa River watershed is located in the California Coast Ranges north of San Pablo Bay, covering an area of approximately 426 square miles (Figure 2). The main stem of the Napa River flows approximately 55 miles in a southeasterly direction through the Napa Valley before discharging to San Pablo Bay. Numerous tributaries enter the main stem from the mountains that rise abruptly on both sides of the valley.

Major land cover types in the Napa River watershed are forest (approximately 35%), grassland/rangeland (23%), agriculture (19%), and developed land—residential, industrial, or commercial (8%). Beneficial Uses, as defined by the Basin Plan include: agricultural supply; cold freshwater habitat; warm freshwater habitat; water contact recreation; noncontact water recreation; fish migration; municipal and domestic supply; preservation of rare and endangered species; fish spawning; warm freshwater habitat; and wildlife habitat. The Napa River watershed provides habitat for several aquatic species of concern, including steelhead trout and Chinook salmon.



### Sonoma Creek Watershed

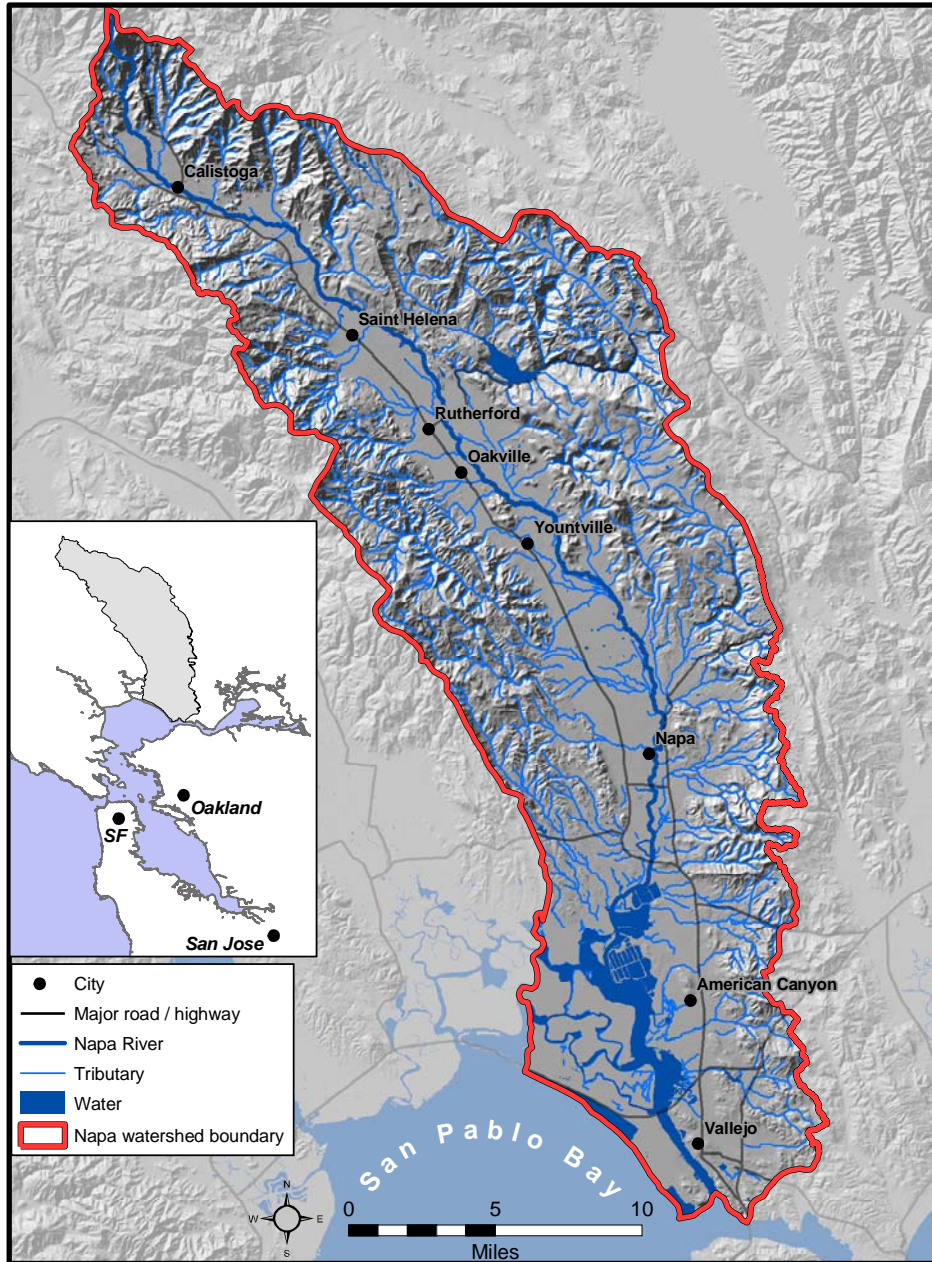
The Sonoma Creek watershed is located in the California Coast Ranges north of San Pablo Bay, covering an area of approximately 166 square miles (Figure 2). The mainstem of Sonoma Creek flows in a southeasterly direction from headwaters on Sugarloaf Ridge through the Sonoma Valley before discharging to San Pablo Bay. Numerous tributaries enter the main stem from the mountains that rise on both sides of the valley.

Major land cover types in the Sonoma Creek watershed are forest (approximately 30 %), grassland/rangeland (20 %), agriculture (30 %), wetlands and sparsely vegetated-land (5 %), and developed land—residential, industrial, or commercial (15 %). Beneficial Uses, as defined by the Basin Plan include: cold freshwater habitat; warm freshwater habitat; water contact recreation; noncontact water recreation; fish migration; preservation of rare and endangered species; fish spawning; warm freshwater habitat; and wildlife habitat. The Sonoma Creek watershed provides habitat for several aquatic special status species of concern, including steelhead trout, Chinook salmon, and California freshwater shrimp.

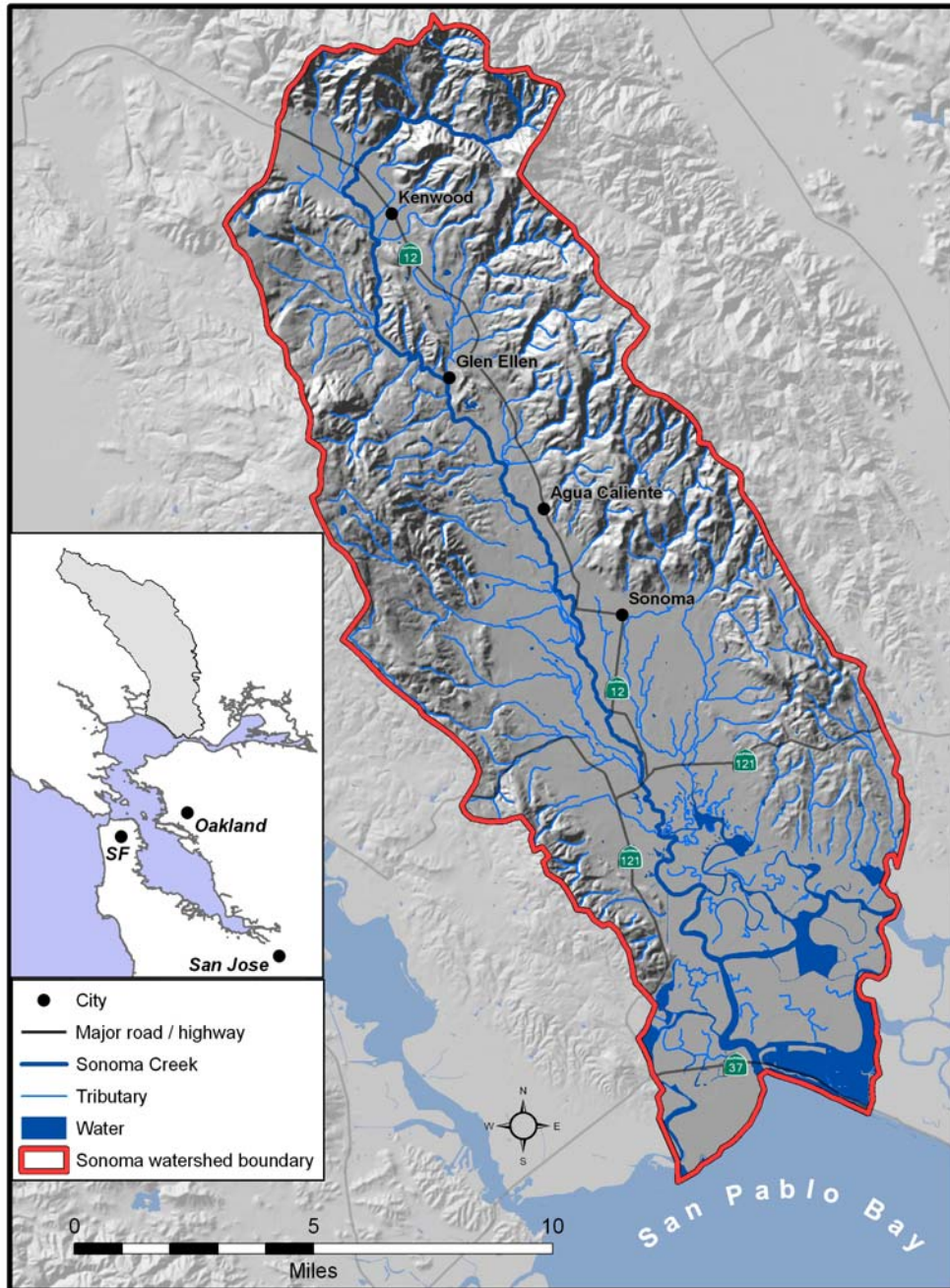
#### **10. Other public agencies whose approval is required:**

No other public agency approvals are required.

**Figure 1**  
**Location of the Napa River Watershed**



**Figure 2**  
**Location of the Sonoma Creek Watershed**



**B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Less Than Significant With Mitigation” as indicated by the checklist on the following pages.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                          | <input type="checkbox"/> Agriculture and Forest Resources | <input checked="" type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources               | <input checked="" type="checkbox"/> Geology/Soils                      |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials      | <input checked="" type="checkbox"/> Hydrology/Water Quality            |
| <input type="checkbox"/> Land Use/Planning                   | <input type="checkbox"/> Mineral Resources                | <input type="checkbox"/> Noise   |
| <input type="checkbox"/> Population/Housing                  | <input type="checkbox"/> Public Services                  | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Transportation/Traffic              | <input type="checkbox"/> Utilities/Service Systems        | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

**C. LEAD AGENCY DETERMINATION**

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.

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Signature  
 Bruce H. Wolfe  
 Executive Officer

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Date

## D. EVALUATION OF ENVIRONMENTAL EFFECTS

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 16 different broad environmental categories, such as air quality, cultural resources, land use, and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. Each question in the Checklist essentially requires a “yes” or “no” reply as to whether or not the project will have a potentially significant environmental impact of a certain type, and, following a Checklist table with all of the questions in each major environmental heading, citations, information and/or discussion that supports that determination. The Checklist table provides, in addition to a clear “yes” reply and a clear “no” reply, two possible “in-between” replies, including one that is equivalent to “yes, but with changes to the project that the proponent and the Lead Agency have agreed to, no”, and another “no” reply that requires a greater degree of discussion, supported by citations and analysis of existing conditions, threshold(s) of significance used and project effects than required for a simple “no” reply. Each possible answer to the questions in the Checklist, and the different type of discussion required is discussed below:

Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.

Less Than Significant With Mitigation. Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with citations of relevant research or documents, determine that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project, that the project applicant or proponent has agreed to, such impacts will be avoided or reduced to less-than-significant levels.

Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g. the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

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?  |  | X |   |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? |  | X |   |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  |  | X |   |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                    |  |   | X |

*Background:*

Ranchland that would be subject to the waiver of WDRs is typically located in rural areas. These lands are visible from roads and neighboring properties and may also be partially visible from open space areas. Ranchlands tend to consist of large open, grassland areas. Trees may be present, particularly along riparian corridors. Ranch structures typically include one or more residences, barns, equipment sheds, fences, watering and feeding areas, roads, and road crossings.

Several highways that are eligible for State Scenic Designation are located in Napa and Sonoma counties including all or portions of highways 1, 12, 29, 37, and 121. Of these only Highway 12 is officially designated as a State Scenic Highway.

*Discussion of Impacts:*

**a) Have a substantial adverse effect on a scenic vista.**

**Less than Significant Impact.** Facilities constructed to comply with the waiver of WDRs would typically be small in scale and construction of buildings would not be required. Fences would be low, typically less than 6 feet high, and would be constructed of materials similar to existing ranch fencing, and would therefore blend in with the existing landscape. Implementation of the waiver of WDRs would require minor grading that could result in temporary clearing of land followed by revegetation. Grading and road erosion control activities would be short-term and could result in minor impacts to views in some places. Exposed soils would be visible along with earth-moving equipment. However, bare areas would be replanted to blend into the landscape within weeks or months after construction is complete and the vegetation becomes established. Therefore impacts to scenic vistas would be less than

significant.

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

**Less than Significant Impact.** While some unique trees or rock outcroppings may be present on some ranchlands, these features would be recorded in the individual Ranch Water Quality Plans and construction in these areas would be avoided. The main purpose of the waiver of WDRs is to preserve riparian areas, including large trees, and to prevent erosion, both of soil and rock outcrops.

Grazing management actions associated with the waiver of WDRs may affect land adjacent to Highway 12, a designated state scenic highway; however these actions would typically be small in scale. Such compliance actions would not require the construction of facilities that could substantially damage scenic resources within this corridor. Therefore, the proposed project would not result in significant impacts to scenic resources.

- c) Substantially degrade the existing visual character or quality of the site and its surroundings.**

**Less than Significant Impact.** As described above, the waiver of WDRs would be implemented on grazing land in rural areas. The visual character of the area is generally open and grassland is the dominant vegetation. The project could result in local changes in vegetation such as an increase in riparian vegetation and minor changes in topography to modify steep slopes or reconstruct roads. Implementation of grazing management practices would generally result in small scale, temporary alteration in views and would not result in the degradation or change in the visual character of ranchland. Therefore, the impacts to scenic resources would be less than significant.

- d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.**

**No Impact.** The project would not include any lighting or structures. Therefore it would have no impact to light and glare.

<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**II. AGRICULTURE AND FOREST**

**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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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? |  |  | X |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   |  |  | X |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?   |  |  | X |
| d) Resulting in the loss of forest land or conversion of forest land to non-forest use?  |  |  | X |
| e) Involve other changes in the existing environment which, due to their location or   |  |  | X |



<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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nature, could result in conversion of Farmland, to non-agricultural use.

*Background:*

Napa and Sonoma counties first agricultural industry was cattle, grown to support the needs of the Sonoma Mission in the 1800s. Since then, the Southwest part of Sonoma County, continues to support cattle grazing and dairy farms, though much of this land is now dedicated to vineyards and winery operations.

Napa County is one of the premier wine-making regions of the world, with most of its agricultural land dedicated to vineyards and winery operations while still supporting a viable cattle grazing industry. The waiver of WDRs will apply to about 37,000 acres of grazing lands in the Napa River and the Sonoma Creek watersheds.

The waiver of WDRs calls for the implementation of grazing management practices and will result in the reduction of erosion, sedimentation and pathogens and in the improvement of water quality and the promotion of sustainable grazing. Implementation of the waiver of WDRs is consistent with Napa County’s agricultural preservation goals and policies (Napa County General Plan) and Sonoma County’s Policy and Goals for Reduction of Soil Erosion (Sonoma County General Plan) - i.e., that encourages and supports farms and ranches seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil (refer to Section X, Land Use and Planning).

*Discussion of Impacts:*

- 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.**

**No Impact.** Implementation of grazing management practices will not result in the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agricultural use.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract.**

**No Impact.** Implementation of grazing management practices will not affect existing agricultural zoning or any aspect of a Williamson Act contract.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?**

**No Impact.** Implementation of grazing management practices will not cause rezoning of forest

land or timberland.

**d) Result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** The project would not result in any direct loss of forest land.

**e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.**

**No Impact.** Implementation of the Waiver would not result in conversion of Farmland to non-agricultural use.

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?  |   |   | X |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   | X |   |   |
| 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 that exceed quantitative thresholds for ozone precursors)? |   | X |   |
| d) Expose sensitive receptors to substantial pollutant concentrations?   |   | X |   |
| e) Create objectionable odors affecting a substantial number of people?  |   | X |   |

*Background:*

Napa and Sonoma counties are located in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). These counties are situated in the northern part of the greater San Francisco Bay area and are bound on the west by Marin County, to the south by San Pablo Bay, and to the east by the Central Valley (Figures 1 and 2). The prevailing wind directions at the Napa County Airport are generally from the south to southwest and average wind speeds are about nine miles per hour. Average high temperatures are usually in the 50's in the winter and the 70's in the summer. The warmest months are August and September. Climate conditions in Sonoma Valley are similar to those in the adjacent Napa Valley.

*Discussion of Impacts:*

**a) Conflict with or obstruct implementation of the applicable air quality plan.**

**No impact.** The Bay Area is currently designated as a nonattainment area for State and national

ozone standards and as a nonattainment area for the State particulate matter (PM10 and PM2.5) standards. As required by federal and State air quality laws, the 2001 Bay Area Ozone Attainment Plan and the 2000 Bay Area Clean Air Plan have been prepared to address ozone nonattainment issues. In addition, the BAAQMD, in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), prepared the Bay Area 2005 Ozone Strategy. This report describes the Bay Area's strategy for compliance with State one-hour ozone standard planning requirements and how to improve air quality in the region and reduce transport of air emissions to neighboring air basins. No PM10 plan has been prepared nor is one currently required under State air quality planning law.

A project would conflict with or obstruct implementation of the regional air quality plans if it would be inconsistent with the growth assumptions, in terms of population, employment or regional growth in vehicle miles traveled. The growth assumptions used for the regional air quality plans are based upon the growth assumptions provided in local general plans. The waiver of WDRs would have a less than significant impact on any of the growth assumptions made in the preparation of the clean air plans (no housing is proposed), and would not obstruct implementation of any of the proposed control measures contained in these plans.

Implementation of grazing management actions as required by the waiver of WDRs would not result in new land uses that would generate traffic or other operational air emissions. Temporary increase in traffic could occur at individual ranches during construction and installation of best management practices (BMPs), however, these impacts are expected to be limited in numbers and types of vehicles used, miles driven, duration, and air resultant emissions. Minor impacts would be mitigated by implementation of standard construction BMPs as described in item III b), below.

**b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

**Less than significant impact with mitigation.** Implementation of grazing management actions as required to comply with the waiver of WDRs that involve large scale grading and construction projects, or involve a large number of construction vehicles and equipment (e.g., construction or rehabilitation of a ranch road network), could generate increased short-term, localized dust and/or vehicle emissions that violate air quality standards. Such projects would be subject to regulation by the BAAQMD.

**Mitigation Measure III-1:**

For grading and construction projects that may violate air quality standards, landowners must implement abatement measures as required by BAAQMD.

**c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

**Less than significant impact.** In accordance with BAAQMD CEQA Guidelines, for any project that does not individually have significant operational air quality impacts, the

determination of significant cumulative impact should be based on an evaluation of the consistency of the project with the local general plan and of the general plan with the regional air quality plan. The waiver of WDRs would not result in new land uses and would be consistent with the current land use designation in the Sonoma County and Napa County general plans (refer to Section X, Land Use and Planning, below), the project would be consistent with the 2001 Bay Area Ozone Attainment Plan and the 2000 Bay Area Clean Air Plan. Therefore, the project would not be cumulatively considerable. This would be a less than significant impact.

**d) Expose sensitive receptors to substantial pollutant concentrations.**

**Less than significant impact.** Ranchland facilities regulated by the waiver of WDRs are 100 acres in size or greater. These facilities are located in rural areas, away from schools, hospitals, and other sensitive land uses. Residential uses in agriculturally zoned districts are very low density, typically only a few residences on each of the large grazing land parcels. Minor construction undertaken to comply with the waiver of WDRs could result in increases in particulates in the air in the immediate area of grading and construction but would not expose sensitive receptors, likely to be located substantial distances from ranchlands, to substantial pollutant concentrations.

**e) Create objectionable odors affecting a substantial number of people.**

**Less than significant impact.** The BAAQMD defines public exposure to offensive odors as a potentially significant impact. In general, the types of land uses that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. No such uses are proposed by the waiver of WDRs.

Diesel engines would be used for some construction equipment. Odors generated by construction equipment would be variable, depending on the location and duration of use. Diesel odors may be noticeable to some individuals at certain times, but would not affect a substantial number of people. The impact of the project with regard to odors is considered to be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**IV. BIOLOGICAL RESOURCES --**

Would the project:

- |  |  |   |   |   |
|--|--|---|---|---|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a 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? |  | X |   |   |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?   |  | X |   |   |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   |  | X |   |   |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   |  |   | X |   |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  |  |   |   | X |
| 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?   |  |   |   | X |

## *Background*

The Napa River and Sonoma Creek watersheds support a wide diversity of plant and animal species, including a high number of special status species and sensitive natural communities. These communities include mixed evergreen forests, oak woodlands and savanna, native and nonnative grasslands, chaparral, and riparian scrub and woodland. The watersheds provide habitat for several aquatic species of concern, including steelhead trout (*Oncorhynchus mykiss*), Chinook salmon (*Oncorhynchus tshawytscha*), and California freshwater shrimp (*Syncaris pacifica*).

It is possible that in order to comply with the waiver of WDRs, specific projects involving construction, the installation of water wells and associated water routing piping and storage (tanks), property fencing, and rehabilitation of roads and cattle crossings, could potentially affect biological resources either directly or indirectly through habitat modifications.

## *Discussion of Impacts:*

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a 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 impact with mitigation.** The waiver of WDRs is designed to benefit, enhance, restore and protect biological resources, including fish, wildlife, and rare and endangered species. Specific projects proposed to comply with waiver of WDRs that could affect sensitive species would be subject to review and/or approval by the Water Board and/or other resource agencies such as Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) (in consultation with the Water Board).

### **Mitigation Measure IV-1:**

Projects proposed, that could affect sensitive species, to comply with the waiver of WDRs would be subject to review and approval by the Water Board and/or other resource agencies. Landowners shall apply for permits from the Water Board, USFWS, and/or CDFG for approval. These agencies will either:

- a. not approve compliance projects with significant adverse impacts on sensitive/special status species; or,
- b. require mitigation measures to reduce impacts to less-than-significant levels.

If, however, impacts to special status species and their habitats occur outside the Water Board's jurisdiction (e.g., in areas with no proximity or relation to waters of the state), then impacts must be addressed through other local, state, and federal programs. For example, for projects that fill Clean Water Act 404 wetlands, the Army Corps of Engineers explicitly conditions its permits to require that impacts to federally listed species be less than significant.

In Napa County, county staff examines the location of a proposed project, and if it overlaps with potential habitat for one-or-more special status species as identified on the county's GIS-based biological database, then the county requires a biological resource evaluation and avoidance of impacts to the extent feasible ) Policy Con-13, Napa County General Plan, 2008; County Code, Chapter 18.108.100). In cases where full avoidance not feasible, effective mitigation measures are required to address impacts (Policies CON-16, 17, Napa County General Plan, 2008).

- 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 California Department of Fish and Game or US Fish and Wildlife.**

**Less than significant impact with mitigation.** As indicated in section IV a), above, the waiver of WDRs is designed to benefit biological resources, particularly riparian habitat and other sensitive natural communities. Compliance projects proposed to comply with the waiver of WDRs that involve grading or construction in the riparian corridor are subject to review and/or approval by the Water Board.

The Water Board will work with California Department of Fish and Game, U.S. Fish and Wildlife Service, and proponents of specific compliance projects to come up with actions that not only meet but further the waiver of WDRs' requirements and goals, but also have minimal impacts.

**Mitigation Measure IV-2:**

Landowners shall apply for permits from the Water Board, USFWS, and/or CDFG for approval. These agencies will either:

- a. not approve compliance projects with significant adverse impacts on sensitive/special status species; or,
  - b. require mitigation measures to reduce impacts to less-than-significant levels.
- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

**Less than significant impact with mitigation.** Adverse impacts on wetlands would not be significant. Proposed grazing management actions/ projects that could have the potential to disturb wetlands would be subject to the Water Board's review and approval under Section 401 of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act (Porter-Cologne). The Water Board must, consistent with its Basin Plan, require mitigation measures to avoid, minimize, and mitigate impacts to less-than-significant levels. As specified in the Basin Plan, the Water Board uses the USEPA Section 404(b)(1) Guidelines for dredge and fill material in determining the circumstances under which the filling of wetlands may be permitted. This policy requires that avoidance and minimization be emphasized and demonstrated prior to



consideration of mitigation. Wetlands not subject to protection under Sections 404 and 401 of the CWA are still subject to regulation, and protection under Porter-Cologne.

**Mitigation Measure IV-3:**

Landowners shall apply for permits from the Water Board and/or the US Army Corps of Engineers for approval. The permits will specify conditions to reduce impact to less than significant levels, including:

- a. Demonstrating that avoidance, minimization, and mitigation of impacts has occurred to the maximum extent practicable;
  - b. for all potential projects where wetland losses would exceed 0.1 acres, responsible parties are required to provide compensatory mitigation at a ratio that is greater than or equal to 1:1; and,
  - c. For projects where wetland losses are less than 0.1 acre, on a case by case basis, the District Engineer may require compensatory mitigation.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.**

**Less than significant impact.** Grazing management actions proposed to comply with the waiver of WDRs would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. It is possible, however, that projects could be proposed to comply with the waiver of WDRs that involve construction or earthmoving activities that could temporarily interfere with wildlife movement, migratory corridors, or nurseries (e.g., fencing, road improvements, etc.). Equipment that would cause such surface disturbance would be limited to what would be needed to develop or improve dirt ranch roads, install or repair fences, provide off-stream water, etc. and not result in a sustained project-site presence by workers, vibration, noise, and/or dust nor would such projects substantially interfere with migratory or native wildlife movement. Any additional boundary, exclosure or enclosure fencing that might be installed to comply with the waiver of WDRs will be in keeping with commonly used fencing designs in the watershed and deemed appropriate for the kind and class of livestock being grazed/managed.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

**No impact.** Projects proposed to comply with the waiver of WDRs requirements would be consistent with the goals of the TMDLs to retain riparian vegetation and would not conflict with local policies 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.**

**No impact.** The waiver of WDRs does not conflict with any adopted Habitat Conservation Plan,

Natural Community Plan, or other approved local, regional or state habitat conservation plan.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**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?

X  
X  
X  
X

*Background:*

Before the European settlement, the Sonoma and Napa valleys were inhabited by the Pomo, Miwok, and other tribes. With the arrival of the Spaniards in the 1800's, the area's agricultural industry became cattle, grown to support the needs of the Sonoma Mission. Historic and archaeological remnants of these counties' past include sacred sites, burial grounds, cemeteries, ceremonial sites, barns, farmsteads, vineyards and walls, among others.

*Discussion of Impacts:*

- a) **Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

**Less than Significant Impact.** Implementation of the waiver of WDRs could involve minor grading and construction. Construction would generally be small in scale, and would be limited to shallow excavation for minor road repairs, grading, and installation of fence posts, etc. that would be installed in areas already disturbed by recent human activity, not at or in areas containing historical resources as defined by section 15064.5 of the CEQA guidelines.. Therefore, impacts to historical resources would not be significant.

- b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

**Less than Significant Impact.** Implementation of the waiver of WDRs could involve minor grading and construction. Construction would generally be small in scale, and would be limited to

shallow excavation for minor road repairs, grading, and installation of fence posts, etc. that would be installed in areas already disturbed by recent human activity, not at or in areas containing archaeological resources as defined by section 15064.5 of the CEQA guidelines (Determining the Significance of Impacts on Historical and Unique Archeological Resources). Therefore, impacts to archaeological resources would not be significant.

**c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?**

**Less than Significant Impact.** Implementation of the waiver of WDRs could involve earthmoving and construction. Construction would generally be small in scale and would likely occur in areas already disturbed by recent human activity, not in areas of known paleontological resource or areas containing unique geologic features. Therefore, implementation of the waiver of WDRs would have less than significant paleontological impacts.

**d) Disturb any human remains, including those interred outside of formal cemeteries?**

**Less than Significant Impact.** Implementation of the waiver of WDRs could involve earthmoving and construction. Construction would generally be small in scale and would likely occur in areas already disturbed by recent human activity, not at or in areas of human remains as defined by section 15064.5 of the CEQA Guidelines (Determining the Significance of Impacts on Historical and Unique Archeological Resources). Therefore, implementation of the waiver of WDRs would not adversely affect human remains, and its impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**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:   |  |   |  | X |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. |  |   |  | X |
| ii) Strong seismic ground shaking?   |  |   |  | X |
| iii) Seismic-related ground failure, including liquefaction?   |  |   |  | X |
| iv) Landslides?  |  |   |  | X |
| b) Result in substantial soil erosion or the loss of topsoil?  |  | X |  |   |
| 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?   |  |   |  | X |
| 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?   |  |   |  | X |
| 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?   |  |   |  | X |

*Background:*

**Napa River Watershed**

The Napa Valley consists of Mesozoic and Cenozoic volcanic rocks with younger sedimentary rocks in the valley floor area. The watershed is located at the southern end of the northern California Coast Range province. This area is an active zone of tectonic deformation associated with the San Andreas Fault. The San Andreas Fault is located about 35 miles (56 km) southwest of the watershed. The local deformation zone is bounded by two major faults: the north-west striking Green Valley Fault in the east (about 7 miles [11 km] to the northeast of the watershed boundary), and northwest striking Healdsburg-Rodgers Fault in the west (about 15 miles to the southwest of the watershed boundary).

**Sonoma Creek Watershed**

The Sonoma Valley is part of the Coast Range Physiographic province. The west side of the valley consists of young sedimentary rocks and the east side is predominantly older volcanic rocks of the Mayacama Mountains.

Several notable faults are aligned roughly southeast – northwest influencing the Sonoma Creek watershed. Rogers Creek Fault passes through the headwaters of the creeks that flow into Sonoma Valley on the southwestern side of the watershed, and Tolay Fault runs down Tolay Creek and enters the Marshlands a few miles west of the entrance to Sonoma Creek. Numerous other potentially active faults in Sonoma County as a whole include Burdell Mountain Fault, Chianti Fault, Healdsburg Fault, Macama Fault, and the San Andreas Fault. There are also a few others that are “possibly active” including Black Mountain Fault, Dianna Rock Fault, Tombs Creek Fault, and Mt. Jackson Fault.

*Discussion of Impacts:*

**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 issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

**No impact.** The waiver of WDRs would not involve the construction of habitable structures; therefore, it would not result in any human safety risks related to fault rupture, seismic ground-shaking, ground failure, or landslides.

**ii) Strong seismic shaking?**

**No impact.** Refer to response to Item VI i), above.

**iii) Seismic-related ground failure?**

**No impact.** Refer to response to Item VI i), above

**iv) Landslides?**

**No impact.** Refer to response to Item VI i), above

**b) Result in substantial soil erosion or the loss of topsoil?**

**Less than significant with mitigation.** Specific projects involving earthmoving or construction activities to comply with requirements of the waiver of WDRs are reasonably foreseeable. Such activities (e.g., fence installation, localized benching of a slope to allow placement of an off-stream water trough, etc.) would not result in substantial soil erosion or the loss of topsoil because they would be limited in size and scope. The purpose of the waiver of WDRs is to reduce erosion, not increase it. To meet the proposed waiver of WDRs conditions, construction would be designed to reduce overall soil erosion. However, large-scale earthmoving operations (e.g., ranch road installation and rehabilitation) could result in short-term, limited erosion. Large-scale compliance projects that disturb one acre or more would be required to obtain coverage under the State Water Boards's Construction General Permit Order No. 2009-0009-DWQ and implement a storm water pollution prevention plan to control pollutant runoff such as sediment. Other smaller grading projects would be subject to non-discretionary requirements of the Napa or Sonoma County grading ordinance, which would reduce potential impacts from grading.

Routine property maintenance of original line and grade, hydraulic capacity, or disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation, are not construction activities covered by the Construction General Permit.

**Mitigation Measure VI-1:**

During large scale earthmoving and construction, landowners must implement erosion control practices per the Construction General Permit:

**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?**

**No impact.** The purpose of the waiver of WDRs is to reduce erosion, not increase it. Because the waiver of WDRs includes actions to stabilize existing sources of sediment, some construction could occur in these unstable areas. The waiver of WDRs could result in projects involving improvements to roads and creek crossings, and other projects located on unstable terrain. These projects would be designed to increase stability, both on-site and off-site, to reduce erosion and sedimentation. Grading would be designed to minimize any potential for landslides, 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?**

**No impact.** The waiver of WDRs would not involve construction of buildings (as defined in the Uniform Building Code) or any habitable structures. Minor grading and construction could occur in areas with expansive soils but this activity would not create a substantial risk 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?**

**No impact.** The waiver of WDRs would not require wastewater disposal systems; therefore, affected soils need not be capable of supporting the use of septic tanks or alternative wastewater disposal systems.



	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**VII. GREENHOUSE GAS EMISSIONS –**

Would the project:

- |  |  |   |  |   |
|--|--|---|--|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?      |  | X |  |   |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? |  |   |  | X |

*Background:*

In 2006, California passed the California Global Warming Solutions Act of 2006, which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas (GHG) emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions).

State law requires local agencies to analyze the environmental impact of GHG emissions under CEQA. The Natural Resources Agency adopted the CEQA Guidelines Amendments in 2009. The BAAQMD adopted CEQA thresholds for GHG emissions in the Bay Area in 2010. BAAQMD evaluates GHG through qualified climate actions plans. Sonoma County adopted a Climate Action Plan before the BAAQMD adopted its thresholds and that Plan is not “qualified” by the BAAQMD. Napa County has prepared a Draft Climate Action Plan that is currently being evaluated by the BAAQMD. These plans address project that would result in long-term, operation increases in GHG emissions.

*Discussion of Impacts:*

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less than significant with mitigation.** The waiver of WDRs would not result in changes in land use nor would it result in changes in the numbers of grazing animals at facilities regulated under the waiver of WDRs . Construction related emissions associated with implementation of the waiver of WDRs would be generated by operation of heavy equipment used to construct necessary erosion controls and watering facilities (e.g., ground water wells and piping). These construction-related emissions would be small, temporary in nature, and would not be concentrated in one location, and their total contribution to county-wide greenhouse gas emissions would be less than significant.

BAAQMD has not established greenhouse gas thresholds for construction activities but recommends best management practices, as described in Mitigation Measure III-1 to reduce potential impacts.

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**No Impact.** The waiver of WDRs would not conflict with any State, BAAQMD, or county plan, policy or regulation adopted for the purpose of reducing the emissions of GHG and no impact would occur.

<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:**

- |  |  |  |   |
|--|--|--|---|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  |  |  | X |
| 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?  |  |  | X |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  |  |  | X |
| 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?                                   |  |  | X |
| 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? |  |  | X |
| 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?  |  |  | X |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  |  |  | X |
| h) Expose people or structures to a significant  |  |  | X |

risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

***Background:***

Grazing operations in Napa and Sonoma counties currently have some amount of fencing along property borders, fencing to separate livestock paddocks, water troughs, etc., as well as other agricultural management practices implemented on-site.

Construction associated with implementing grazing management practices (e.g., installation of fencing, off-stream watering troughs, groundwater supply wells, and conveyance piping) will not involve the use or transport of any hazardous materials, aside from fuels and lubricants used for construction equipment.

Furthermore, groundwater supply well placement, installation and construction is permitted and regulated by the Sonoma County Permit and Resource Management Department and Napa County Department of Environmental Management. Applications are reviewed for setback distances, proximity to Hazmat sites, and proposed use.

***Discussion of Impacts:***

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**No impact:** This waiver of WDRs would not affect the transportation or potential release of hazardous materials, nor create a significant public safety or environmental hazard beyond any hazards currently in existence. Waiver of WDRs implementation actions would not interfere with any emergency response plans or emergency evacuation plans and would not affect the potential for wild-land fires.

- 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?**

**No Impact.** Refer to response to Item VIII a), above.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**No Impact.** Refer to response to Item VIII a), above.

- 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?**

**No Impact.** Refer to response to Item VIII a), above.

- 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?**

**No Impact.** Refer to response to Item VIII a), above.

- 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?**

**No Impact.** Refer to response to Item VIII a), above.

- g) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** Refer to response to Item VIII a), above.

- 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?**

**No Impact.** Refer to response to Item VIII a), above.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**IX. HYDROLOGY AND WATER QUALITY --** Would the project:

a) Violate any water quality standards or waste discharge requirements?				X
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)?			X	
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?		X		
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?			X	
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?				X
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood				X

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? X

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? X

j) Inundation by seiche, tsunami, or  
mudflow? X

*Background:*

**Napa River**

The Napa River watershed encompasses approximately 425 square miles (Figure 1). The Napa River and its tributaries drain the western part of the county. The Napa River flows southward from north of Calistoga into San Pablo Bay. The northeastern part of the county drains into Lake Berryessa by way of Putah Creek and its tributaries. These tributaries drain Snell, Pope, and Cappel Valleys and part of Chiles Valley.

Flows from the Napa River vary markedly between dry and wet years. The long-term average discharge of the Napa River is approximately 66,000 acre feet (af); however, the minimum recorded annual discharge (~5,000 af) occurred in 1931, and the maximum recorded annual discharge (in excess of 200,000 af) occurred in 1986 (U.S. Geological Survey 2001).

**Sonoma Creek**

The Sonoma Creek watershed encompasses approximately 160 square miles (Figure 2). The watershed is commonly divided into three subbasins: Fowler Creek and the smaller creeks west of Sonoma; Nathanson Creek and the creeks east of Schellville; and the mainstem of Sonoma Creek. The headwaters of the western tributaries lie in the Sonoma Mountains; most of the small creeks are collected by Fowler Creek, which eventually drains to Sonoma Creek near the town of Sonoma. The eastern tributaries drain the hills to the north and east of Sonoma and join Schell Creek just south of town. Schell Creek flows for 5 miles before entering a network of channels and sloughs that interconnect with Sonoma Creek.

Sonoma Creek flows into San Pablo Bay via a number of circular sloughs and channels that have been highly modified over the last 150 years by dredging, levees, and realignment. Flows from Sonoma Creek also vary markedly between dry and wet years. The long-term average discharge of Sonoma Creek is approximately 43,000 af; however, the minimum recorded annual discharge (~3,000 af) occurred in 1939, and the maximum recorded annual discharge (in excess of 115,000 af) occurred in 1956 (U.S. Geological Survey 2001).

Pursuant to the Basin Plan, the existing and potential beneficial uses of San Pablo Bay and its tributary creeks, Napa River, and Sonoma Creek, include:

Table 1. Beneficial Uses

Beneficial Use	San Pablo Bay	Napa River	Sonoma Creek
Agricultural Supply (AGR)		X	
Cold Freshwater Habitat (COLD)		X	X
Ocean, Commercial, and Sport Fishing (COMM)	X		
Estuarine Habitat (EST)	X		
Industrial Service Supply (IND)	X		
Fish Migration (MIGR)	X	X	X
Municipal and Domestic Supply (MUN)		X	
Navigation ( NAV)	X	X	
Preservation of Rare and Endangered Species (RARE)	X	X	X
Water Contact Recreation (REC-1)	X	X	X
Non-contact Recreation (REC-2)	X	X	X
Shellfish Harvesting (SHELL)	X		
Fish Spawning (SPWN)	X	X	X
Warm Freshwater Habitat (WARM)		X	X
Wildlife Habitat (WILD)	X	X	X

*Discussion of Impacts:*

**a) Violate any water quality standards or waste discharge requirements?**

**Less than significant..** The waiver of WDRs would implement recently adopted TMDLs and the Basin Plan, which articulates applicable water quality standards; therefore, it would not violate standards or waste discharge requirements, and no adverse impacts to water quality would result.

**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)?**

**Less than significant impact.** The purpose of the waiver of WDRs is to specify conditions for implementation of grazing management practices which will result in water quality improvements in the Napa River and Sonoma Creek watersheds. Implementation of improved grazing management practices may include installation of off-stream livestock groundwater supply wells, watering troughs, installation of water distribution conveyance piping, etc.

Groundwater supply well placement, installation and construction is permitted and regulated by the Sonoma County Permit and Resource Management Department and Napa County Department of Environmental Management. Applications are routinely reviewed for setback distances, and proposed use. Given these required county approvals, the waiver of WDRs would not include projects that would interfere with local groundwater recharge and supply.



- 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 that would result in substantial erosion or siltation on- or off-site?**

**Less than significant impact with mitigation:** Specific projects involving earthmoving or construction activities to comply with waiver of WDRs requirements could affect existing drainages patterns and are reasonably foreseeable. Although they would be designed to reduce overall soil erosion, not increase it, there remains the chance based on the size and location of the project that temporary earthmoving operations could result in short-term, limited erosion. Large-scale projects (e.g., road rehabilitation or construction, etc.) that disturb one acre or more of land would be required to obtain coverage under the Construction General Permit, and be required to implement routine and standard erosion control best management practices and proper construction site management. Routine property maintenance of original line and grade, hydraulic capacity, or disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation, are not construction activities covered by the Construction General Permit.

Furthermore, specific projects to comply with the waiver of WDRs requirements that involve construction in or adjacent to waters of the state shall be required to comply with standard permit conditions in the U.S. Army Corps of Engineers' Nationwide Permit nos. 13 (Bank Stabilization) and 27 (Stream and Wetland Restoration Activities). U.S. Army Corps of Engineers' final approval and issuance of a permit is only valid with Clean Water Act 401 certification of the proposed activity, which is made by the Water Board. Section 401 requires the Water Board to certify that such projects comply with water quality standards, and as such, Section 401 certifications often include conditions that are more stringent than the federal requirements.

**Mitigation Measure IX-1:**

The landowner shall obtain all applicable and necessary permits from the Water Board, U.S. Army Corps of Engineers, and/or California Department of Fish and Game. Landowners/Operators shall comply with the specified conditions and mitigation requirements set forth in the respective permits to mitigate for any identified significant environmental impacts to biology, hydrology, and water quality.

- 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.** As stated in the previous response, compliance with the waiver of WDRs could involve earthmoving that could affect existing drainage patterns. Furthermore, compliance with waiver of WDRs could contribute to increases in the amount of riparian vegetation in stream channels and thus enhance habitat conditions. These actions should reduce flooding hazards.

Specific projects involving earthmoving or construction activities to comply with waiver of WDRs would be designed to avoid and minimize the alteration of the course of a stream or river,

and to reduce the rate or amount of surface runoff. Specific compliance projects involving stream or creek work would be subject to the review and/or approval of the Water Board, which would require implementation of routine and standard erosion control best management practices and proper construction site management. In addition, construction projects over one acre in size would require coverage under the Construction General Permit and implementation of a storm water pollution prevention plan. Actions under taken to comply with the waiver of WDRs would not substantially increase impervious surfaces, or peak flow releases from dams in any part of the watershed. The purpose of the waiver of WDRs is to reduce sedimentation in streams.

Also as noted above, specific projects to comply with the waiver of WDRs requirements must comply with standard permit conditions in the U.S. Army Corps of Engineers' Nationwide Permit nos. 13 (Bank Stabilization) and 27 (Stream and Wetland Restoration Activities). U.S. Army Corps of Engineers' final approval and issuance of a permit is only valid with Clean Water Act 401 certification of the proposed activity, which is made by the Water Board. Section 401 requires the Water Board to certify that such projects comply with water quality standards, and as such, Section 401 certifications often include conditions that are more stringent than the federal requirements.

- 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?**

**No impact.** Actions undertaken to comply with the waiver of WDRs are, by design, intended to reduce erosion from upland land uses, as needed to reduce fine sediment inputs from hillslopes to channels and channel erosion. Therefore, compliance with the waiver of WDRs would not increase the rate or amount of runoff or exceed the capacity of storm water drainage system.

- f) **Otherwise substantially degrade water quality?**

**No impact.** Actions undertaken to comply with the waiver of WDRs are intended to reduce fine sediment input to channels and improve water quality. Therefore, the waiver of WDRs would not degrade water quality and no adverse water quality impacts would occur.

- 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?**

**No impact.** Compliance with the waiver of WDRs would not result in construction of housing.

- h) **Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?**

**No impact.** Compliance with the waiver of WDRs would not result in construction of structures that could impede or redirect flood flows within a 100-year flood hazard zone and no adverse flooding impacts would occur.

- 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?**

**No impact.** Compliance with the waiver of WDRs would not result in construction or modification of dams or levees or activities that would expose people to significant damage from dam or levee failure and no adverse impacts would occur.

**j) Inundation by seiche, tsunami, or mudflow?**

**No impact.** Compliance with the waiver of WDRs would occur upstream of the tidally influenced stream channel and would not be subject to substantial risks due to inundation by seiche, tsunami, or mudflow, and no impact would occur.

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**X. LAND USE AND PLANNING** - Would the project:

- |   |  |  |   |
|---|--|--|---|
| a) Physically divide an established community?  |  |  | X |
| 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? |  |  | X |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   |  |  | X |

*Background:*

Compliance with the waiver of WDRs would affect grazing lands in the Napa and Sonoma valleys. The zoning ordinances for these counties stipulate requirements for agricultural land uses, including livestock grazing. The waiver of WDRs applies only to grazing operations of 100 acres or greater. The General Plans polices relevant to livestock grazing activities and water quality for Napa and Sonoma counties are summarized in Tables 1 and 2, respectively.

*Discussion of Impacts:*

**a) Physically divide an established community?**

**No impact.** Compliance actions driven by the waiver of WDRs would be located on grazing land in rural areas and would not change land use or alter an established community. Therefore it would not 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?**

**No Impact.** Compliance actions driven by the waiver of WDRs would not affect land use designations or uses and therefore would not conflict with any zoning ordinances. The Sonoma

County General Plan includes a number of policies relevant to the Water Board that articulate support for TMDL compliance.

These policies are summarized in Tables 2 and 3 below, along with an assessment of the waiver of WDRs' compliance with general plans. As the table shows, the waiver of WDRs would comply with, and in some cases, augment general plan goals and policies for both Sonoma and Napa counties.

c) **Conflict with any applicable habitat conservation plan or natural community conservation plan?**

**No impact.** Compliance actions driven by the waiver of WDRs would not conflict with any Habitat Conservation Plans or natural community plans in Sonoma or Napa counties.

**Table 2. Napa County Water-Related General Plan Policies**

<b>POLICY</b>	<b>PROJECT COMPLIANCE</b>
<p><b>Policy CON-47:</b> The County shall comply with applicable Water Quality Control/Basin Plans as amended through the Total Maximum Daily Load (TMDL) process to improve water quality. In its efforts to comply, the following may be undertaken:</p> <ul style="list-style-type: none"> <li>a) Monitoring water quality in impaired waterbodies identified by the Regional Water Quality Control Boards (RWQCBs).</li> <li>b) Addressing failing septic systems in the vicinity of Murphy, Browns Valley, and Salvador Creeks and throughout the County, should they be found to exist.</li> <li>c) Retrofitting County-maintained roads to reduce sediment caused by runoff.</li> <li>d) Supporting voluntary habitat restoration and bank stabilization efforts, with particular focus on the main stem and main tributaries of the Napa River.</li> <li>e) Ensuring continued effectiveness of the National Pollution Discharge Elimination System (NPDES) program and storm water pollution prevention.</li> <li>f) Ensuring continued effectiveness of the County’s Conservation Regulations related to vineyard projects and other earth-disturbing activities.</li> <li>g) Addressing effects related to past and current mining, grazing, and other activities to the extent feasible.</li> <li>h) Amending the County’s Conservation Regulations or County Code to address excessive sediment delivered to waterways as required by state law, particularly as it relates to private roads and rural unimproved (i.e., dirt or gravel) roads.</li> <li>i) Developing outreach and education programs to inform land owners and managers about improving surface water quality (e.g., rural and private road maintenance, soil and vegetation retention, construction site management, runoff control, etc.) and cooperating with other governmental and non-governmental agencies seeking to establish waiver or certification programs.</li> </ul>	<p>One main purpose of the waiver of WDRs is to implement the Napa River sediment and pathogen TMDLs and therefore the waiver of WDRs would be consistent with this policy.</p>
<p><b>Policy CON-49:</b> The County shall develop and implement a water quality monitoring program (or programs) to track the</p>	<p>The waiver of WDRs would support the Water Board’s efforts to implement</p>

<p>effectiveness of temporary and permanent Best Management Practices (BMPs) to control soil erosion and sedimentation within watershed areas and employ corrective actions for identified water quality issues (in violation of Basin Plans and/or associated TMDLs) identified during monitoring.</p>	<p>BMPs to control soil erosion and sedimentation and is consistent with this policy.</p>
<p><b>Policy CON-50:</b> The County will take appropriate steps to protect surface water quality and quantity, including the following:</p> <ul style="list-style-type: none"> <li>a) Preserve riparian areas through adequate buffering and pursue retention, maintenance, and enhancement of existing native vegetation along all intermittent and perennial streams through existing stream setbacks in the County’s Conservation Regulations</li> <li>b) Encourage flood control reduction projects to give full consideration to scenic, fish, wildlife, and other environmental benefits when computing costs of alternative methods of flood control.</li> <li>c) The County shall require discretionary projects to meet performance standards designed to ensure peak runoff in 2-, 10-, 50-, and 100-year events following development is not greater than predevelopment conditions.</li> <li>d) Maintain minimum lot sizes of not less than 160 acres in Agriculture, Watershed, and Open Space (AWOS) designated areas to reflect desirable densities based on access, slope, productive capabilities for agriculture and forestry, sewage disposal, water supply, wildlife habitat, and other environmental considerations.</li> <li>e) In conformance with National Pollution Discharge Elimination System (NPDES) requirements, prohibit grading and excavation unless it can be demonstrated that such activities will not result in significant soil erosion, silting of lower slopes or waterways, slide damage, flooding problems, or damage to wildlife and fishery habitats.</li> <li>h) Require replanting and/or restoration of riparian vegetation to the extent feasible as part of any discretionary permit or erosion control plan approved by the County, understanding that replanting or restoration that enhances the potential for Pierce’s Disease or other vectors is considered infeasible.</li> </ul>	<p>Compliance actions driven by the waiver of WDRs would support the Water Board’s efforts to reduce erosion from grazing lands and is consistent with this policy.</p>

**Table 3. Sonoma County Water-related General Plan Policies**

POLICY	PROJECT COMPLIANCE
<p><b>Policy WR-1a:</b> Coordinate with the RWQCB, public water suppliers, Cities, Resource Conservation Districts (RCDs), watershed groups, stakeholders and other interested parties to develop and implement public education programs and water quality enhancement activities and provide technical assistance to minimize stormwater pollution, support RWQCB requirements and manage related County programs. Where appropriate, utilize watershed planning approaches to resolve water quality problems.</p>	<p>Compliance actions driven by the waiver of WDRs would support the Water Board’s efforts to reduce erosion from grazing lands and is consistent with this policy.</p>
<p><b>Policy WR-1e:</b> Assist in the development of Total Maximum Daily Loads (TMDLs) for the impaired water bodies and pollutants of concern identified by the RWQCBs to achieve compliance with adopted TMDLs. Work with the RWQCB to develop and implement measures consistent with the adopted TMDLs.</p>	<p>One main purposes of the waiver of WDRs is to implement the Sonoma Creek sediment and pathogen TMDLs and therefore the waiver of WDRs would be consistent with this policy.</p>
<p><b>Policy WR-1g:</b> Minimize deposition and discharge of sediment, debris, waste and other pollutants into surface runoff, drainage systems, surface water bodies, and groundwater.</p>	<p>Compliance actions driven by the waiver of WDRs would reduce sediment discharge to surface water bodies and would be consistent with Policy WR-1g.</p>
<p><b>Policy WR-1h:</b> Require grading plans to include measures to avoid soil erosion and consider upgrading requirements as needed to avoid sedimentation in stormwater to the maximum extent practicable.</p>	<p>The Waiver would support the Water Board’s would support the Water Board’s efforts to implement BMPs to control soil erosion and sedimentation and is consistent with this policy.</p>
<p><b>Policy WR-1j:</b> Support educational technical assistance programs for agricultural activities and dissemination of best management practices for erosion and sediment control, which include on-site retention of stormwater, maintaining natural sheetflow and drainage patterns, and avoiding concentrated runoff, particularly on slopes greater than 35%.</p>	<p>The waiver of WDRs encourages property owners to work with RCDs, NRCS, and UC Extension to gain educational and technical assistance to develop Ranch Water Quality Plans and implement provision of the waiver of WDRs.</p>



Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**XI. 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?                                | X |
| 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? | X |

**Background:**

The California Surface Mining and Reclamation Act of 1975 (SMARA) required identification of mineral resources in California. SMARA maps identify and classify mineral resources as to their relative value for extraction.

The Napa County General Plan Land Use Map contains a ‘Mineral Resource’ overlay zone that identifies mineral resources in the county and outline resource management policies. Similarly, Sonoma County has adopted the Aggregate Resources Management Plan, a plan for obtaining future supplies of aggregate material. This plan serves as the state-mandated mineral management policy for the county and is intended to accomplish the mandated purposes.

**Discussion of Impacts:**

- 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?**

**No impact:** Compliance actions driven by the waiver of WDRs may include earthmoving (i.e., excavation), groundwater supply well and conveyance piping installation, and construction (e.g., fence installation, improvement of livestock crossing, etc.). These actions would be relatively small in scale and would not result in the loss of availability or physically preclude future mining activities from occurring.

- 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?**

**No Impact.** Refer to response to Item XI a), above.

<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**XII. NOISE** -- 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?   |  |   | X |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   |  | X |   |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  |  |   | X |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  |  | X |   |
| 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? |  |   | X |
| 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?  |  |   | X |

*Background:*

Ranchland that would be subject to the waiver of WDRs is typically located in rural areas and tend to consist of large open, grassland areas. These land uses are generally located away from schools, hospitals, and other sensitive land uses. Residential uses in agriculturally zoning districts are very low density, typically only a few residences on each of the large grazing land parcels. Minor construction undertaken to comply with the waiver of WDRs could result in temporary increases in ambient noise levels in the immediate area of grading and construction site but would not expose sensitive receptors, likely to be located substantial distances from ranchlands , to harmful levels of noise.

*Discussion of Impacts:*

- 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?**

**No Impact.** Implementation of the waiver of WDRs could involve earthmoving and construction. Construction would generally be small in scale, but could temporarily generate noise. Any construction project proposed to implement the waiver of WDRs would have to be consistent with Napa and Sonoma Counties' own noise standards.

- b) **Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

**Less than Significant Impact.** Implementation of the waiver of WDRs could involve earthmoving and construction. Construction would generally be small in scale, and in rural areas where the potential for exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels is less than significant. The Napa County health and safety code has established limits to exterior noise; these limits vary depending on land use and range from 45 decibels for rural residential areas to 75 decibels for industrial areas. The Sonoma County Noise Element describes thresholds for exterior noise during the daytime and nighttime. These standards allow for a maximum exterior noise level of 70 decibels, with the average over a one hour time period not to exceed 50 decibels during the daytime. The nighttime allowable noise ranges from 45 to 65 decibels. Any proposed project to implement the waiver of WDRs would be required to comply with their respective county standards to keep noise levels to less than significant levels. Therefore, Compliance actions driven by the waiver of WDRs will not result in substantial noise, and its impacts would be less than significant.

- c) **A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**No Impact.** Implementation of the waiver of WDRs would not cause any permanent increase in ambient noise levels. Any noise would be short-term in nature.

- 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.** Implementation of the waiver of WDRs could involve earthmoving and construction. Construction would generally be small in scale, but could temporarily generate noise. Noise generating activities would, however have to comply with their respective county standards to keep noise levels to less than significant levels. Therefore, implementation of the waiver of WDRs will not result in substantial noise, and its impacts would be less than significant.

- 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?**

**No impact.** Compliance actions driven by implementation of the waiver of WDRs would not cause any permanent increase in ambient noise levels, including aircraft noise. Therefore, it would not expose people living within and area subject to an airport land use plan to excessive noise and thus, no impact would occur.

- 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?**

**No impact.** Compliance actions driven by the implementation of the waiver of WDRs would not cause any permanent increase in ambient noise levels, including aircraft noise. Therefore, it would not expose people living in the vicinity of a private strip to excessive noise and thus, no impact would occur.

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**XIII. 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)? | X |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | X |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | X |

*Background*

Implementation of the waiver of WDRs will take place in areas where the dominant land is livestock agriculture. Ranch structures typically include one or more residences, barns, equipment sheds, fences, watering and feeding areas, roads and road crossings.

*Discussion of Impacts*

- 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)?**

**No Impact.** Compliance actions driven by the implementation of the waiver of WDRs will not affect the population of the Sonoma Creek and Napa River Watersheds. It will not induce growth through such means as constructing new housing or businesses, or by extending roads or infrastructure. Implementation of the waiver of WDRs will not displace any existing housing or any people that would need replacement housing.

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

**No impact.** Compliance actions driven by the implementation of the waiver of WDRs will not induce growth through such means as constructing new housing or businesses, or by extending roads or infrastructure.

c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No impact.** Compliance actions driven by the implementation of the waiver of WDRs will not displace any existing housing or any people that would need replacement housing.

<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**XIV. 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?	X
Police protection?	X
Schools?	X
Parks?	X
Other public facilities	X

***Background:***

This section characterizes existing and proposed public services in the waiver of WDRs area and evaluates changes that may result from project implementation. Public services include services that address community needs and are usually provided by local or regional government, although they may be provided through private contracts. Public services include fire and emergency response, police protection, airports, schools, libraries, and parks.

**Napa County:**

- The County of Napa contracts with the California Department of Forestry (CAL FIRE) for fire protection services as the Napa County Fire Department. CAL FIRE provides administrative support and coordination with six full-time paid stations and nine volunteer fire companies operating under a County Fire Plan. Napa County contracts with the cities of St. Helena and Calistoga, and Schell-Vista Fire Protection District for the provision of fire protection services to specified unincorporated areas adjoining these agencies. The Napa County Fire Department provides fire and emergency service dispatching for the American Canyon Fire Protection District, City of St. Helena, Calistoga and Napa State Hospital Fire Departments. The Town of Yountville contracts with the County to provide fire services to those jurisdictions.

- The Napa Sheriff's Office maintains several substations in various locations throughout Napa County including the City of Napa, Yountville, St. Helena, Lake Berryessa and Angwin. Within the County limits are several incorporated cities and towns. These include American Canyon, Napa, Yountville, St. Helena and Calistoga. The Sheriff's Office provides police services for American Canyon and Yountville.

Sonoma County:

- Ranches located in the unincorporated Sonoma County are under the jurisdiction of the Sonoma County Department of Emergency Services, Fire Services Division, County Service Area #40. Fifteen volunteer fire companies comprise CSA #40. In addition, 17 Fire Protection Districts are operated by the Fire Division of the Department of Emergency Services. Additional fire protection in the unincorporated areas of the county is provided by the California Department of Forestry and Fire Protection.
- Emergency Medical Service (EMS) systems in Sonoma County is a blend of First Responder agencies, ground and air ambulance providers, EMS – Fire Dispatch Center, and acute care receiving facilities.
- Ranches located in the unincorporated Sonoma County receive police protection and coroner and correctional services from the Sonoma County Sheriff's Department. The Sheriff maintains 24-hour patrol from five substations and a main office. Peace officers work in patrol, administration, the helicopter unit, boating, civil bureau, and investigations. The City of Sonoma provides police services in their jurisdiction.

**Discussion of Impacts:**

- a) **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 following public services:**
- i) **Fire protection**
  - ii) **Police protection**
  - iii) **Schools**
  - iv) **Parks**
  - v) **Other public services**

**No Impact.** Compliance actions driven by implementation of the waiver of WDRs will not result in adverse impact on fire protection or police services or on schools and parks since this waiver of WDRs is not growth inducing nor does it involve construction of substantial new government facilities or the need for physically-altered government facilities. The waiver of WDRs would not affect service ratios, response times, or other performance objectives for any public services.



Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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**XV. RECREATION --**

- |   |   |
|---|---|
| <p>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?</p> | X |
| <p>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?</p>                        | X |

*Background:*

The California Department of Parks and Recreation, Sonoma County Agricultural Preservation and Open Space District, Napa County Regional Park and Open Space District, municipalities, and other private parties own and operation numerous park and recreational facilities in the counties. These facilities provide a variety of outdoor recreational, educational, and sporting opportunities for local residents, Bay Area residents, and visitors for around the world. The ranchlands surrounding these parks and the many vineyards are an integral part of the rural agricultural and open space experience.

*Discussion of Impacts:*

- 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?**

**No Impact.** Compliance with the waiver of WDRs would affect only grazing land facilities and would have no effect on existing neighborhood and regional parks or other recreational facilities, and no impacts would occur.

- 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?**

**No Impact.** Refer to response to Item XV a), above.

**XVI. TRANSPORTATION/TRAFFIC --**

Would the project:

**Potentially  
Significant  
Impact**

**Less Than  
Significant  
with  
Mitigation**

**Less Than  
Significant  
Impact**

**No Impact**

a) Exceed the capacity of the existing circulation system, based on applicable measures of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

X

b) Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures and other standards established by the county congestion management agency for designated roads or highways?

X

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?

X

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

X

e) Result in inadequate emergency access?

X

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

X

*Background:*

Highway 29 is the main highway through the Napa River Watershed. The Silverado Trail, which runs along the east side of the valley, is used mostly by locals to avoid tourist traffic. Two-lane highways lead into Napa County from both the east (Highway 12) and west (Highway 12/121). Highway 12 is the main highway through the Sonoma Creek Watershed. In addition, Sonoma County's highway network includes Highways 116 and 121. Highways 12/121 and 37 connect Sonoma and Napa Counties. Outside of urban areas, most roadways are two-lane rural roads.

*Discussion of Impacts:*

- a) **Exceed the capacity of the existing circulation system, based on applicable measures of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

**No Impact.** Compliance with the waiver of WDRs could result in minor construction that would require the use of heavy equipment and trucks to move soil, logs, or other materials needed for road, and/or stream crossings. Any increase in traffic would be temporary and would be limited to local areas in the vicinity of individual projects and would not create substantial traffic in relation to the existing load and capacity of existing street systems.

- b) **Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures and other standards established by the county congestion management agency for designated roads or highways?**

**No Impact.** See response to Item XVI a), above. Levels of service would be unchanged.

- 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?**

**No impact.** The proposed project would not result in increased air travel or otherwise affect air travel.

- d) **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**No impact.** Although private roads may require erosion control treatment, the waiver of WDRs does not include construction of new roads and no new hazards due to the design or engineering of the road network in the Sonoma Creek and Napa River watersheds would occur. No road design or construction hazards would occur.

- e) **Result in inadequate emergency access?**

**No Impact.** Compliance with the waiver of WDRs would result in grading and erosion control actions on unpaved roads that are not typically used for emergency access. Therefore, the waiver of WDRs would not result in inadequate emergency access and on impacts would occur.

- f) **Result in inadequate parking capacity?**

**No Impact.** Because the waiver of WDRs would not increase population or provide employment, it would not affect parking demand or supply, and no impacts would occur.

- g) **Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

**No impact.** Because the waiver of WDRs would not generate ongoing motor vehicle trips, it would not conflict with adopted policies, plans, or programs supporting alternative transportation.

<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**XVII. UTILITIES AND SERVICE**

**SYSTEMS** - Would the project:

- |   |  |  |   |
|---|--|--|---|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?   |  |  | X |
| 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?                            |  |  | X |
| c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                      |  |  | X |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  |  |  | X |
| 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? |  |  | X |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  |  |  | X |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   |  |  | X |

*Background:*

Napa and Sonoma Counties are fully served by public services including fire and police protection, schools, parks, wastewater treatment plants, and other public facilities (refer to discussion in Section XIV above). In Napa County, water supply is provided by a series of municipal dams and

groundwater wells. In Sonoma County, the Sonoma County Water Agency provides surface and groundwater derived mainly from the Russian River watershed.

*Discussion of Impacts:*

**a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

**No Impact.** The waiver of WDRs would implement the Basin Plan, which is the basis for wastewater treatment requirements to improve water quality and the environment in the Bay Area; therefore, the waiver of WDRs would be consistent with such requirements.

**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?**

**No Impact.** Compliance with the waiver of WDRs does not include changes to wastewater treatment facilities and no impacts would occur.

**c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**No Impact.** Compliance with the waiver of WDRs would not include construction of new or expanded stormwater drainage facilities and no impacts would occur.

**d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

**No Impact.** Because compliance with the waiver of WDRs would not increase population or provide employment, it would not require an ongoing water supply. It would also not require ongoing wastewater treatment services and no impacts would occur.

**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?**

**No Impact.** See response to Item XVII d), above.

**f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

**No Impact.** Compliance with the waiver of WDRs would not substantially affect municipal solid waste generation or landfill capacities and no impacts would occur.

**g) Comply with federal, state, and local statutes and regulations related to solid waste?**

**No Impact.** See response to Item XVII d), above.

<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**XVIII. 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?

X

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)?

X

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

X

*Discussion of Impacts:*

- 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?**

**Less than significant impact.** Improved grazing management required under the waiver of WDRs would result in indirect, less than significant impacts discussed in this initial study. Anticipated types of less than significant impacts are short-term in nature such as minor soil disturbance related to construction of trenches associated with pipes connecting to off-stream livestock watering facilities, post holes for new livestock exclusion fencing, re-grading of roads, installation of grassed

filter strips, etc. It is anticipated that long-term indirect impacts and cumulative impacts will likely be positive rather than adverse (e.g., improved local and downstream water quality, reduced soil erosion, pathogen and nutrient control, etc.).

- 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)?**

**Less than significant impact.** Refer to response to Item XVIII a), above.

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

**No impact.** The waiver of WDRs would not cause any substantial adverse effects to human beings, either directly or indirectly. The waiver of WDRs is intended to benefit human beings through implementation of actions designed to enhance fish populations, aesthetic attributes, recreational opportunities, and contribute to a reduction in property damage in and/or nearby to stream channels in the Napa River and Sonoma Creek watersheds.



## ECONOMIC CONSIDERATIONS

### Introduction

The California Environmental Quality Act requires that whenever one of California's nine Regional Water Quality Control Boards, such as the San Francisco Bay Regional Water Quality Control Board (Water Board), adopts a rule that requires the installation of pollution control equipment or establishes a performance standard or treatment requirement, it must conduct an environmental analysis for reasonably foreseeable methods of compliance (Public Resource Code 2759 [a][3][c]). This analysis must take into account a reasonable range of factors, including economics. Furthermore, if the rule includes an agricultural control plan, then the total cost of the program must be estimated and potential sources of funding must be identified (Water Code 13141).

The proposed waiver of WDRs includes requirements for enrollees (grazing operators) to prepare and execute a non-point source pollution control implementation program (Ranch Water Quality Plan) that:

- States that the purpose of the plan is such that nonpoint source pollution is addressed in a manner that ultimately achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.
- Includes a narrative of the Management Practices (MPs) and other program elements that are expected to be implemented to ensure attainment of the NPS pollution control implementation program's stated purpose(s), the process to be used to select or develop MPs, and the process to be used to ensure and verify proper MP implementation.
- Includes a time schedule to achieve water quality objectives, and corresponding quantifiable milestones designed to measure progress toward reaching the specified objectives. CWC 13242 (b) and 13263 (c), and the NPS Policy recognize that there are instances where it will take time to achieve water quality objectives. The effort may involve all or some of various processes, including: identification of measurable long-term and interim water quality goals; a timeline for achieving these goals; identification and implementation of pollution control MPs; provision(s) for maintenance of the implementation actions, provision(s) for additional actions if initial actions are inadequate; and, in the case of third-party organizations, identification of a responsible third party to lead the efforts.

Since the waiver of WDRs proposes activities for grazing operators the total cost of the implementation effort is estimated and potential funding sources must be identified. Furthermore, the Water Board must also analyze the reasonably foreseeable methods of compliance with proposed performance standards and treatment requirements (Pub. Resources Code §21000 et seq.). This analysis must include economic factors, but does not require a cost-benefit analysis.

Lastly, in accordance with the Porter-Cologne Water Quality Control Act, it is the policy of the state to protect the quality of all waters of the state. Waters of the state include "any surface water or groundwater, including saline waters, within the boundaries of the state" (CWC §13050). When adopting the Porter-Cologne Act, the Legislature declared that all values of the water should be considered, but then went on to provide only broad, non-specific direction for considering economics in the regulation of water quality.

“The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible” (CWC §13000).

The Porter-Cologne Act directed regulatory agencies to pursue the highest water quality that is reasonable, and *one* of the factors used to determine what is reasonable is economics. It is clear, though, that economic factors cannot be used to justify a result that would be inconsistent with the federal Clean Water Act or the Porter-Cologne Act. The Water Board is obligated to restore and protect water quality and beneficial uses.

Cost estimates for the total cost of the program and potential sources of funding are provided below.

### **Cost Estimates**

There are currently approximately 23,000 acres of grazing land in the Napa River watershed (Regional Water Board, 2009). Communication with National Resource Conservation Service (NRCS), U.C. Cooperative Extension, and Napa Farm Bureau staff, indicate that there are about 20 grazing operations above the 100 acre threshold in the watershed that would be covered under the waiver of WDRs.

Staff estimates about 14,000 acres of land are grazed in the Sonoma Creek watershed, based on land cover information and the assumption that one-half of potential grazing land is actually grazed. Communications with Sonoma County Farm Bureau staff indicate there are approximately 10 grazing operations in the watershed that fall under the 100 acre threshold. Below we provide estimates making conservative assumptions to arrive at a “high range” cost of compliance for both watersheds. “low range” costs are also provided. These costs are summarized for each County in Tables 4 and 5.

#### Technical Assistance/Stewardship:

We assumed that all facilities would require an initial visit from technical assistance staff, with annual visits thereafter. Initial visits were assumed to be full-day (roughly \$1000), with half-day (\$500) annual visits.

#### Management Measures Implementation:

Based on conversations with NRCS and Farm Bureau staff, we estimate that approximately 75% of grazing lands in the Sonoma Creek and Napa River watersheds currently have adequate MPs in place. This assumption is consistent with water quality data, which indicate moderate and relatively localized impairment.

The specific implementation measures will vary with the geography, pattern of animal use, and management practices. In the absence of information regarding specific grazing practices or the geography of individual ranches, we assume that typical MP measures to eliminate livestock contact with creek water will include livestock rotation through pastures, fencing animals out of the waterways, and installing off-stream water troughs. Since fencing is likely to be the most costly MP option for achieving the waiver objectives, this was used as a conservative cost estimate. However, the Water Board acknowledges that there may be less costly methods for managing livestock access to streams. Cost estimate are provided below:

- Fence installation (39 inches high with barb wire and galvanized posts) is estimated to cost approximately \$4.80 per linear foot to install.
- Water troughs (224 gallon capacity, 2x2x8 feet) are estimated to cost \$163/trough.

**Napa River Watershed:** As a high-range cost estimate, we assumed that 25% of the blue-line streams (as determined using GIS) within grazed lands would be fenced. Using GIS, we calculated 500,000 linear feet of blue-line streams. With \$4.80/foot to install and 500,000 x 25% (x2) linear feet of stream to be fenced, and assuming that 25% of blue-line streams would require fencing, the high-range cost for fencing is \$1,200,000. The high-range cost for water troughs (one water trough per 20 acres for 25% of total grazing acreage) is approximately \$46,863. Low range cost estimates for these costs are assumed to be one fifth of the high range estimates. For both high- and low-range estimates, annual maintenance costs equal to one-tenth of initial capital costs are assumed.

**Sonoma Creek Watershed:** As a high-range cost estimate, we assumed that 25% of the blue-line streams (as determined using GIS) within grazed lands would be fenced. Using GIS, we calculated approximately 260,000 linear feet of blue-line streams within grazed lands. With \$4.80/foot to install and 260,000 x 25% (x2 for both sides) linear feet of stream to be fenced, the high-range cost estimate for fencing is \$623,000. The high-range cost for water troughs (one water trough per 20 acres for 25% of the grazed acreage) is approximately \$29,000. Low range estimates for these costs are assumed to be one-fifth of the high range estimates. For both high- and low-range estimates, annual maintenance costs equal to one-tenth of initial capital costs are assumed.

It is possible that fencing the creeks may reduce the amount of forage available to livestock, resulting in a decline in livestock productivity and/or causing a reduction in herd size. The extent and cost of these losses are considered too speculative to estimate, and therefore not considered in this analysis.

Reporting:

We assumed that Water Board staff would inspect each of the grazing facilities. Both high- and low-range estimates assume that each facility will be inspected once every five years at \$500 per inspection.

Implementation Action	Responsible Party		One-Time Cost		Annual Cost		10-Year Program Cost	
	Name	No.	Low	High	Low	High	Low	High
<b>Grazing Lands</b>								
1. Technical Assistance/ Stewardship	Ranchers	20	\$20,000	\$20,000	\$10,000	\$10,000	\$110,000	\$110,000
2. Implement Management Measures	Ranchers	20	\$249,373	\$1,246,863	\$24,937	\$124,686	\$473,809	\$2,369,040
3. Reporting	Ranchers	20	\$0	\$0	\$10,000	\$10,000	\$100,000	\$100,000
	<b>Total</b>		\$269,373	\$1,266,863	\$39,937	\$144,686	\$683,809	\$2,579,040

Implementation Action	Responsible Party		One-Time Cost		Annual Cost		10-Year Program Cost	
	Name	No.	Low	High	Low	High	Low	High
<b>Grazing Lands</b>								
1. Technical Assistance/Stewardship	Ranchers	10	\$10,000	\$10,000	\$5,000	\$5,000	\$55,000	\$55,000
2. Implement Management Measures	Ranchers	10	\$130,376	\$651,882	\$13,038	\$65,188	\$247,715	\$1,238,576
3. Reporting	Ranchers	10	\$0	\$0	\$5,000	\$5,000	\$50,000	\$50,000
	<b>Total</b>		\$140,376	\$661,882	\$23,038	\$75,188	\$352,715	\$1,343,576

**SOURCES OF FUNDING**

Potential sources of funding include monies from private and public sources. Public financing includes, but is not limited to grants, as described below, single-purpose appropriations from federal, state, and/or local legislative bodies, and bond indebtedness and loans from government institutions. There are several potential sources of public financing through grant and funding programs administered, at least in part, by the Regional Water Board and the State Water Board. These programs vary over time depending upon federal and state budgets and ballot propositions approved by voters. Regional and State Water Board grant and funding programs that are pertinent to the Napa River and Sonoma Creek TMDLs, and are currently available at the time of this writing or will be available in the near future are summarized and described below.

Federal Clean Water Act Section 319 Nonpoint Source Implementation Program

This program is an annual federally funded nonpoint source pollution control program that is focused on controlling activities that impair beneficial uses and on limiting pollutant effects caused by those activities. States must establish priority rankings for waters on lists of impaired waters and develop action plans, known as TMDLs, to improve water quality. Project proposals that address TMDL implementation and those that address problems in impaired waters are favored in the selection process. There is also a focus on implementing management activities that lead to reduction and/or prevention of pollutants that threaten or impair surface and ground waters.

In 2010, the Marin Resource Conservation District was awarded an \$800,000 grant, *Conserving Our Watersheds II: Grazing Waiver Compliance*, to implement the Water Board’s conditional Waiver of WDRs for Grazing Activities in Tomales Bay Watershed. We expect similar grants to be awarded after this waiver of WDRs has been adopted.

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