

CHAPTER 11 CEQA SUBSTITUTE ENVIRONMENTAL ANALYSIS

Staff from the Regional Water Board has developed a proposed amendment to the Basin Plan that would incorporate the *Action Plan for the Russian River Watershed Pathogen Indicator Bacteria TMDL* (Action Plan) into the Basin Plan. The proposed Action Plan consists of a description of the TMDL pathogen indicator bacteria-related load allocations, numeric targets, and implementation actions necessary to comply with the TMDL. The proposed Action Plan also includes the following prohibition:

Discharges of waste containing fecal waste material from humans or domestic animals to waters of the state within the Russian River Watershed that cause or contribute to an exceedance of the bacteria water quality objectives not authorized by waste discharge requirements or other order or action of the Regional or State Water Board are prohibited.

The proposed Action Plan is necessary to comply with existing federal and State laws, regulations, plans and policies.

The Regional Water Board is the lead agency for evaluating the environmental impacts of a Basin Plan amendment pursuant to the California Environmental Quality Act (CEQA). Although subject to CEQA, the Regional Water Board basin planning process is certified by the Secretary for Natural Resources as “functionally equivalent” to CEQA, and therefore exempt from the requirement for preparation of an environmental impact report or negative declaration and initial study¹. The State Water Board CEQA Implementation Regulations for Certified Regulatory Programs² require the development of Substitute Environmental Documentation (SED) which shall include, at a minimum, all of the following:

1. Provide a brief description of the proposed project (Chapter 11.1; Details described in Chapters 1-10).
2. Identify any significant or potentially significant adverse environmental impacts of the proposed project. (Chapter 11.4)
3. Provide a discussion of the reasonably foreseeable alternatives to the proposed project. (Chapter 11.2)
4. Provide an analysis of mitigation measures needed to avoid or minimize any significant adverse environmental impacts of the proposed project. (Chapter 11.4)

¹ Cal. Code Regs., tit. 14, § 15251(g); Cal. Code Regs., tit. 23, § 3777.

² Cal. Code Regs., tit. 23, § 3777.

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5. Provide an analysis of the reasonable foreseeable methods of compliance. (Chapters 9 and 11.4)

The SED shall contain an environmental analysis of reasonably foreseeable methods of compliance (compliance measures) for the project that include the following components:³

1. An analysis of the environmental impacts from the reasonably foreseeable methods of compliance. The reasonably foreseeable methods of compliance (hereinafter compliance measures) are the potential actions that responsible parties may employ to comply with the TMDL load allocations, numeric targets and the implementation measures in the proposed Action Plan. (Chapter 11.4)
2. An analysis of the reasonably foreseeable feasible mitigation measures relating to the identified environmental impacts of the compliance measures. (Chapter 11.4)
3. An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate any identified impacts. (Chapter 11.2)

The SED must take into account a reasonable range of:⁴

1. Environmental, economic, and technical factors. (Chapters 1-12)
2. Population and geographic areas. (Chapters 1 & 2 & 11)
3. Specific sites (Chapters 9 & 11)

While the regulations require consideration of a “reasonable range” of the factors listed above, an examination of every site is not required.⁵ The statute specifically states that the agency shall not conduct a “project-level analysis⁶.” Rather, in most circumstances, the site-specific analysis will be performed by the responsible party or the agency with jurisdiction when an activity is conducted in conformance with the Basin Plan amendments.

Notably, the Regional Water Board is prohibited from specifying the manner of compliance with its regulations⁷, and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by the responsible party.

³ Cal. Code Regs., tit. 23 § 3777(b)(4); Cal. Code Regs., tit. 14 § 15187(c); Cal. Pub. Resources Code, § 21159 (c).

⁴ Cal. Code Regs., tit. 23 § 3777(c); Cal. Code Regs., tit. 14 § 15187(d); Cal. Pub. Resources Code, § 21159 (c).

⁵ Cal. Code Regs., tit. 23 § 3777(c);

⁶ Public Resources Code § 21159(d)⁷ Cal. Water Code § 13360

⁷ Cal. Water Code § 13360

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The *Staff Report for the Action Plan for the Russian River Watershed Pathogen Indicator Bacteria TMDL* (Staff Report), which includes the CEQA checklist, along with the Action Plan, public comments and responses to comments, and the resolution approving the Action Plan, fulfill the requirements of California Code of Regulations, title 23, section 3777, and the Regional Water Board's substantive CEQA obligations.

Any potential environmental impacts associated with implementation of the Action Plan depend upon the specific compliance projects selected by the responsible parties, many of whom are public agencies subject to their own CEQA obligations⁸. Consistent with CEQA, the SED does not engage in speculation or conjecture but rather considers the reasonably foreseeable feasible mitigation measures, and the reasonably foreseeable methods of compliance, which would avoid, or minimize the identified impacts.

The Regional Water Board recognizes that there may be project-level impacts that the local public agencies may determine cannot be avoided or minimized to have less than significant adverse impacts. To the extent there are unavoidable adverse environmental effects, the necessity of implementing the federally required TMDL via the Action Plan and removing the water quality impairment from the Russian River Watershed (an action required to achieve the national policy of the Clean Water Act) outweigh the unavoidable adverse environmental effects.

11.1 SUMMARY OF PROPOSED ACTION PLAN

The proposed Action Plan is described in detail in chapters 1-10 of this staff report. In summary, the Action Plan is proposed to include the following elements.

- 1.** An analysis of the sources of pathogenic contamination within the Russian River Watershed.
- 2.** The Total Maximum Daily Load (TMDL) of pathogenic waste that can be discharged to the Russian River Watershed and still attain water quality objectives.
- 3.** Waste load and load allocations for pathogenic waste applicable to all controllable factors identified within the Russian River Watershed.
- 4.** A new Waste Discharge Prohibition specific to unauthorized discharges to the Russian River Watershed.
- 5.** Requirement of responsible parties to develop:
 - a.** *Bacteria Load Reduction Plan* for wastewater holding ponds discharging to surface water, recreational uses, homeless and farmworker encampments, and Caltrans;
 - b.** *Sanitary Sewer Management Plan*;
 - c.** *Erosion Control Plan* for land disposal of biosolids;

⁸ Public Resources Code § 21159.2

- d.** *Non-Storm Water BMP Plan* for recycled water projects;
 - e.** *Water Quality Management Plan, Waste Management Plan, or Nutrient Management Plan* for dairies;
 - f.** *Report of Waste Discharge or Bacteria Load Reduction Plan* for large private OWTS, OWTS not meeting conditions of the Conditional Waiver of Waste Discharge Requirements, and perhaps municipal storm water.
- 6.** A discussion of permitting, implementation of the prohibition, and enforcement.
- 7.** A discussion of monitoring and adaptive management.

11.2 ALTERNATIVES ANALYSIS

Regional Water Board staff has identified two approaches (or alternatives) to address the pathogen indicator bacteria impairment in the Russian River Watershed. The following sections discuss the two alternatives: 1) Adoption of the Action Plan (i.e., adoption of the proposed Basin Plan amendment), and 2) No Action.

11.2.1 ALTERNATIVE 1 - ADOPTION OF THE ACTION PLAN (PREFERRED ALTERNATIVE)

The Preferred Alternative is adoption of the Action Plan, including establishment of the human and domestic animal waste discharge prohibition for the Russian River Watershed. The Action Plan includes the source assessment, waste load allocations and load allocations for each of the identified sources, and an implementation program describing the actions likely necessary to achieve the TMDL allocations and numeric targets. Regional Water Board staff will conduct reviews to evaluate the success of implementation actions aimed at reducing loading to achieve the allocations. A coordinated monitoring program will be required to provide data and information about whether the implementation actions are working and if the TMDL is being achieved. The Action Plan requirements will be implemented through updates to existing permits and through existing Regional Water Board authorities. Staff have determined that this alternative is the most likely to result in attainment of water quality standards in a reasonable period of time and that most of the impacts resulting from this action are generally less than significant or can be mitigated. Therefore, this is the preferred alternative.

11.2.2 ALTERNATIVE 2 - NO ACTION

Under the No Action alternative, no amendment to the Basin Plan would occur (no Action Plan adopted) and staff would continue to implement existing Regional and State Water Board programs and permits. The Regional Water Board would not require specific load reductions from each source and the proposed prohibition would not be enacted.

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Under the No Action alternative, the Regional Water Board would not adopt a TMDL for the Russian River Watershed. Under this scenario, all existing OWTS in the Russian River Watershed would continue to comply with the Basin Plan requirements for onsite wastewater treatment systems (OWTS). If the Regional Water Board does not adopt a TMDL within two years of the TMDL completion date specified in Attachment 2 of the statewide OWTS Policy (i.e., by the end of 2018), coverage under the OWTS Policy's conditional waiver of WDRs will expire for any OWTS that has any part of its dispersal system within 600 feet of the water bodies listed in Attachment 2 for pathogens. These reaches include:

- Lower Russian HA, Guerneville HAS, mainstem Russian River from Fife Creek to Dutch Bill Creek
- Lower Russian HA, Guerneville HAS, Green Valley Creek Watershed
- Middle Russian River HA, Geyserville HAS, mainstem Russian River at Healdsburg memorial beach and unnamed tributary at Fitch mountain
- Middle Russian River HA, Mainstem Laguna de Santa Rosa
- Middle Russian River HA, Mainstem Santa Rosa Creek

Beginning in 2019, for all existing OWTS within these geographic areas, the Regional Water Board would have to issue WDRs, waivers of WDRs, or require corrective action to comply to meet siting, design, or operational standards that would be protective of bacteria water quality objectives. New and replacement OWTS within 600 feet of the water bodies listed in Attachment 2 would have to meet applicable specific Tier 3 requirements of Basin Plan OWTS Policy adopted by the Regional Water Board on June 19, 2014, or other special provisions established for these water bodies.

Additionally, opportunities for owners of OWTS to obtain public funding assistance for required upgrades their OWTS may be reduced because standards federal and state implementation grants and other funding sources are typically only available for projects located in watersheds that have an approved TMDL Action Plan or some other effective watershed-scale management plan in place.

It should be noted that environmental impacts associated with the no project alternative are likely to be the same as the preferred project alternative, as the preferred alternative essentially requires actions to be implemented through updates to existing permits and under the Regional Water Boards existing authorities. Therefore, this no action alternative will likely result in some improvement in water quality, but it does not provide a framework for watershed-wide implementation and monitoring efforts, a timeline by which implementation must occur, and reasonable assurance that water quality objectives will be attained within the shortest, reasonable period of time.

11.3 REASONABLY FORESEEABLE MEANS OF COMPLIANCE

The following sections present an analysis of the potential environmental impacts associated with the reasonably foreseeable methods of compliance with the Action Plan (preferred alternative). Public input was solicited to help Regional Water Board staff identify reasonably foreseeable compliance measures, and many of the measures listed below were identified by members of the public and agency staff during the CEQA scoping process. The current impairment created by elevated pathogen indicator bacteria densities are detrimental to the environment and exceed of water quality objectives. The Action Plan provides a program for addressing the adverse impacts of non-compliance with water quality objectives through a progressive reduction in the loading of pathogen indicator bacteria to the Russian River Watershed and a schedule that is reasonable and as short as practicable.

The compliance measures and pollution controls necessary to comply with the Action Plan will depend on a number of site-specific conditions and factors. The following examples are not meant to be exhaustive of the suitable suite of compliance measures, but rather provide a reasonable range of measures that may be implemented. Many of the compliance measures listed below are often interchangeable as mitigation measures for potentially adverse environmental impacts associated with specific project activities. Additionally, though not listed below, public commenters encouraged the use of Low Impact Development (LID), including the construction of smaller homes, as possible mitigation measures.

11.3.1 NON-STRUCTURAL CONTROLS

Non-structural controls are typically aimed at controlling sources of a pollutant and do not involve construction or other earth moving/landscape manipulations. Non-structural controls are those activities that are primarily planning or outreach in nature. Most of the non-structural controls identified are unlikely to have an environmental impact because they are not physical in nature; however, where they were found to have less than significant impacts or where they could be mitigated to less than significant, they are discussed in Section 10.3. No potentially significant impacts on the environment were identified for these controls. Some of the possible non-structural controls that could be implemented as a method of compliance include:

- **Education and Outreach:** Conduct education and outreach about proper maintenance and upkeep for OWTS, water conservation, recycled water and graywater use, preventing illegal camping along waterbodies, proper human and domestic animal waste disposal and sanitation, and the effects of improper pet waste disposal. Publicize the locations of restrooms found at recreational beaches along the mainstem Russian River.

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- **Inspection and Maintenance:** Require preventative maintenance and upkeep of OWTS. Inspect and perform routine maintenance of sewer laterals. Perform inspections and routine maintenance of sanitary sewer infrastructure and existing public restroom facilities at beaches along the Russian River. Perform regular beach clean-up to dispose of waste left on beaches. Manage irrigation to ensure that overwatering and runoff do not occur.
- **Municipal Wastewater Program Establishment, Evaluation, and Enforcement:** Revise design standards for new and replacement sewer systems to add enhanced protection against overflows and exfiltration. Establish procedures and standards for the use of off-site easements, which include proper appropriate conditions, covenants, and deed restrictions, to facilitate OWTS serving multiple dwellings. Establish a local ordinance to require property owners to inspect their private sewer lateral upon property transfer, in response to chronic sanitary sewer overflows, or after change in property use. Establish a program and funding assistance to homeowners to promote voluntary inspections and repairs of private laterals. Develop an OWTS management program. Provide and/or improve options for shelters and transitional housing or other homeless services. Establish a hotline for reporting homeless/illegal encampments and facilitate their removal along stream corridors. Evaluate and if necessary improve management practices to prevent recycled water overspray, spills, and runoff. Implement programs to discourage or prevent illegal dumping. Explore expanding recycled water use to prevent discharge into surface waters. Enforce permit requirements, including water recycling requirements.
- **Manure Management Plan:** Require Best Management Practices (BMPs) for manure handling through the development of Manure Management Plans. BMPs for manure handling could include regular cleanup of manure and soiled bedding in animal habitation areas, locating manure storage areas away from water courses and off slopes (i.e., prevent storm water discharge), practicing onsite composting and reuse of manure, and storing manure on impermeable surfaces (i.e., prevent groundwater discharge).
- **Limitation of Access to Waterbodies Without Restroom Facilities:** Limit public access to locations on the Russian River with limited or no public restroom - facilities by restricting street parking near beaches and boat launching locations.

11.3.2 STRUCTURAL CONTROLS

Structural controls for non-point sources divert, store, treat, and/or infiltrate storm water so as to prevent the discharge of waste material to the river as a result of runoff. Structural controls for point sources can be implemented to treat waste before discharge and/or prevent the direct discharge of waste into a waterbody. Structural

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controls can involve activities that create potentially significant environmental impacts. Structural controls that were found to have impacts, both potentially significant and less than significant, are discussed in Section 10.3.

- Straw Waddles: Use straw waddles inoculated with mushrooms (i.e. mycofiltration) to filter bacteria from runoff.
- Buffer Strips, Vegetated Swales, and Bioretention: Construct and maintain vegetative buffers along roadsides and next to waterbodies to slow runoff velocity, increase filtration of pollutants, and increase storm water infiltration. Construct and maintain bioretention BMPs to provide onsite removal of pollutants from storm water runoff through landscaping features.
- Green Roofs and Rain Gardens: Replace existing roofs and gardens with “green” infrastructure such as green roofs and rain gardens to prevent or reduce clean storm water from coming into contact with fecal wastes.
- Exclusion: Construct fencing, hedgerows, livestock trails, and walkways to exclude animals from streams and riparian areas to prevent direct deposition of feces into surface waters. Construct fencing, shrubs, or other barriers to prevent camping & habitation under bridges and overpasses.
- Waste Storage and Disposal: Install pet waste collection systems, which provide plastic bags to be used in the collection of domestic pet waste, throughout the watershed. Provide garbage cans, recycling bins, and diaper changing stations at public beaches.
- Municipal Composting of Biosolids: Ensure the elimination of pathogens from biosolids by upgrading treatment through the use of composting.
- Waterless Waste Treatment: Utilize waterless technology such as composting and incinerating toilets.
- Restroom Facilities: Provide and/or upgrade permanent or temporary restroom facilities at recreation beaches and at locations frequented by homeless and transient people.
- Sewer Lateral Replacement: Fix or replace private sewer laterals that have inflow and infiltration issues.
- Increase Wastewater Storage Capacity: Enlarge wastewater holding ponds to prevent discharge to the Russian River and its tributaries.

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- Wastewater Treatment Plant Expansion and/or New Treatment Plant Construction: Expand or construct wastewater treatment plants to allow for new connections.
- Connect OWTS to a Centralized Wastewater Treatment Plant or Decentralized Community System: Connect individual wastewater treatment and disposal systems to a centralized treatment plant or decentralized community wastewater treatment system and discontinue use of individual OWTS.
- Treatment Plant Wastewater Disinfection: Upgrade treatment plant wastewater disinfection systems and disinfect holding pond effluent through the use of ozone, heat sterilization or ultrafiltration.
- OWTS Supplemental Treatment: Utilize supplemental treatment such as ultraviolet (UV) light disinfection or chlorine to ensure adequate treatment of effluent from OWTS.
- MS4 Sand Filters: Install and maintain sand filters, which are effective for pollutant removal from storm water. Sand filters may be a good option in densely developed urban areas with little pervious surface since the filters occupy minimal space.
- Replacement and/or Improvement of OWTS: Replace/upgrade leaking and poorly sited OWTS with OWTS that are correctly designed, sited, constructed, installed, operated and maintained.

11.4 ENVIRONMENTAL CHECKLIST

As stated previously, the environmental analysis must include an evaluation of the reasonably foreseeable environmental impacts of the methods of compliance and the reasonably foreseeable mitigation measures relating to those impacts. This section, consisting of the CEQA checklist and answers to the questions in the checklist, discusses the reasonably foreseeable compliance measures and alternatives and mitigation measures of those compliance methods.

In formulating the checklist answers, the impacts of implementing the non-structural and structural controls were evaluated. At this time, the exact compliance measures that might be implemented to comply with the Action Plan are unknown, and therefore this analysis considers a range of non-structural and structural measures that might be used. When specific measures are selected for implementation, a project-level/site-specific CEQA analysis will be performed by the responsible party, as necessary.

This evaluation considers whether the construction or implementation of the reasonably foreseeable compliance measures has the potential to cause a substantial,

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adverse change in any of the physical conditions within the area affected by the project. In addition, the evaluation considers environmental effects in proportion to their severity and probability of occurrence. In this analysis, the level of significance is based on the existing conditions of both the physical environment and regulatory baseline requirements. A significant effect on the environment is defined in regulation as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. An economic or social change related to a physical change may be considered in determining whether the physical change is significant⁹.”

Potential reasonably foreseeable impacts of the reasonably foreseeable compliance measures were evaluated with respect to each of the factors on the checklist. Additionally, mandatory findings of significance regarding short-term, long-term, cumulative and substantial impacts were evaluated. In this analysis, the level of significance was based on baseline conditions (i.e., current conditions). Based on this review, it has been concluded that there may be some potentially significant impacts associated with some of the reasonably foreseeable methods of compliance with the Action Plan. Reasonably foreseeable structural and non-structural controls that were found to have impacts, both potentially significant and less than significant, or require mitigation are discussed in detail below.

Table 11.1 Environmental Checklist				
	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?		✓		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		✓		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		✓		

⁹ 14 CCR section 15382

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Table 11.1 Environmental Checklist				
	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	✓			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	✓			
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
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?	✓			
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. -- Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	

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Table 11.1 Environmental Checklist				
	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				✓
d) Expose sensitive receptors to substantial pollutant concentrations?				✓
e) Create objectionable odors affecting a substantial number of people?		✓		
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?		✓		
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 Wildlife or US Fish and Wildlife Service?		✓		
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?		✓		
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?		✓		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		✓		

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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?		✓		
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map 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.		✓		
ii) Strong seismic ground shaking?		✓		
iii) Seismic-related ground failure, including liquefaction?		✓		
iv) Landslides?		✓		
b) Result in substantial soil erosion or the loss of topsoil?		✓		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		✓		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		✓		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste- water disposal systems where sewers are not available for the disposal of waste water?		✓		
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?		✓		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓

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VII. 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?		✓		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		✓		
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		✓		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?		✓		
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?		✓		
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?		✓		
b) Substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		✓		

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d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		✓		
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?		✓		
f) Otherwise substantially degrade water quality?		✓		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		✓		
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Inundation by seiche, tsunami, or mudflow?				✓
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally – important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓
XI. 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?		✓		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				✓

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c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	✓			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	✓			
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?		✓		
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?				✓
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	

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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?				✓
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			✓	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
e) Result in inadequate emergency access?				✓
f) Result in inadequate parking capacity?			✓	
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			✓	
XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	✓			
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	✓			

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f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				✓
g) Comply with federal, state, and local statute and regulations related to solid waste?				✓
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	✓			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✓			

I. AESTHETICS -- Would the project:

(a) – Have a substantial adverse effect on a scenic vista?

Answer: Less than significant.

The creation of buffer strips and vegetated swales may include planting of trees and shrubs. The addition of these types of vegetation to the landscape is generally regarded as having positive aesthetic effects. In some cases the planting or retention of large woody vegetation could reduce visibility of an adjacent waterbody or of the surrounding landscape and therefore could alter the scenic vista. Although the creation of buffer strips and vegetated swales will modify the appearance of an area, the aesthetic effects are expected to be positive and will not likely result in a substantial adverse effect on the scenic vista and are considered less than significant.

(b) – Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

(c) – Substantially degrade the existing visual character or quality of the site and its surroundings?

(d) – Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Answer: Less than significant with mitigation.

The changes to the visual character of a site due to the construction of wastewater treatment ponds and buildings associated with significantly expanded or new centralized or decentralized wastewater treatment facilities can be mitigated by building facility structures to house equipment and fences to provide a visual screen for equipment and materials used in the everyday operations of the facility. Planting vegetation such as native trees, grasses, and wildflowers can provide a vegetative screen and result in an aesthetic that more closely reflects the surrounding landscape. Strategic siting of the facility structures on the landscape can also allow for the structures to be placed in locations that will have the least possible effect on the existing visual character of the surrounding area and allow them to avoid damaging scenic resources. Additionally, where scenic resources are identified at a site along a scenic highway, the use of standard construction techniques and sediment and erosion control practices would require revegetation and would not result in permanent alteration to the vegetation of scenic resources. The potential glare that could result from the construction of new wastewater treatment and effluent storage ponds could be mitigated by proper siting and the planting of vegetation screens around the ponds.

The construction of new restroom facilities at public beaches or other locations throughout the watershed could result in adverse aesthetic affects to the visual quality of the surroundings; however this effect can be mitigated through strategic siting of the restroom facility in a location that minimizes the effect on the visual character of the surrounding site. Additionally, the planting of trees, shrubs, and native plants can be used to screen the restroom from view and result in an aesthetic that more closely reflects the surrounding

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landscape. For restrooms constructed in urban locations, the selection of materials used to construct the exterior of the restroom should reflect the aesthetic and character of the surrounding location, which will allow it to blend it better with neighboring structures.

Increasing wastewater storage capacity, adding supplemental treatment to OWTS, composting biosolids, and installing pet waste collection systems, and garbage and recycling cans would result in less than significant impacts to the visual character and quality of the site and its surroundings. The enlarging of wastewater holding ponds would result in minimal changes from the existing baseline and therefore will have a less than significant impact on the visual character surrounding site. The composting of biosolids and addition of supplemental treatment to OWTS would result in minimal changes to the visual landscape as they can be housed in existing structures and the mechanisms to house supplemental treatment could even be placed underground with a cover for access. Pet waste collection systems are small and can be painted to blend with the surrounding environment. The presence of garbage and recycling cans will not substantially degrade the surrounding area and is expected to improve the aesthetics of the surroundings by preventing trash from being deposited on the ground.

II. AGRICULTURE AND FOREST RESOURCES: --Would the project:

(a) – Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

(b) – Conflict with existing zoning for agricultural use, or a Williamson Act contract?

(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 or conversion of forest land to nonforest use?

Answer: Potentially significant.

The creation of riparian buffers and exclusion of animals from riparian zones could cause incidental loss of agricultural use. These losses would affect only a very narrow band of land on either side of a watercourse. Additionally, some agricultural areas that are mapped as prime, unique or important may already have riparian buffers or exclusion fencing in place. Although there are many factors that affect this determination, it can be assumed that agricultural lands with a potential to discharge waste that contains pathogenic microorganisms to waters of the state and that implement riparian protection actions or compliance measures to comply with the Action Plan could be taking land out of production. While avoidance and minimization measures can be used to lessen impacts, and experience suggests that some modified management of riparian zones is often appropriate, there is no mitigation for loss of land where that occurs. Therefore, this is a potentially significant and unavoidable impact.

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

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section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

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

Answer: No Impact.

None of the reasonably foreseeable structural or non-structural compliance measures will rezone or force the rezoning of Timberlands Production or result in the conversion of forested land to non-forested land. Therefore, there will be no impact on the classification or conversion of timberlands.

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?

(c) – Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is not attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

(d) – Expose sensitive receptors to substantial pollutant concentrations?

Answer: No impact.

None of the structural or non-structural compliance measures would result in a violation of air quality plans, result in a cumulatively considerable increase in criteria pollutants, or expose sensitive receptors to substantial pollutant concentrations.

(b) – Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Answer: Less than significant impact.

Construction activities can generate dust and combustion exhaust emissions that will be emitted into the atmosphere from construction equipment associated with wastewater treatment plant expansion and/or construction, treatment plant wastewater disinfection system upgrades, connecting OWTS to a centralized or decentralized wastewater treatment plant, adding supplemental treatment to OWTS, replacing or upgrading existing OWTS, increasing wastewater storage capacity, construction of new restroom facilities, creation of sand filters for storm water, sewer lateral replacement, and creation of green roofs and rain gardens. Air pollutants will be emitted from construction worker commutes.

However, because of the temporary nature of construction activities, the proposed project is not likely to result in construction-related emissions that will result in significant impacts or require mitigation for any of the regionally significant pollutants.

(e) – Create objectionable odors affecting a substantial number of people?

Answer: Less than significant with mitigation.

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The repair and replacement of sewer laterals and upgrade, maintenance, and/or replacement of OWTS will decrease the potential for illicit discharges which would result in objectionable odors. Therefore, there would be no impact from those activities. The composting of biosolids can result in objectionable odors, however through the use of indoor composting or the thoughtful siting and design of composting locations odors can be minimized. Other mechanisms that could be considered to mitigate composting odors include use of aeration and biofiltration, mixing with coarse dry bulking agents, and placing an aerobic biofilter layer over the biosolids. Therefore, the application of mitigation measures will result in less than significant impacts to air quality.

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?

(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 Service?

(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?

(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?

(e) – Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

(f) – Conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Answer: Less than significant impact with mitigation.

There are numerous aquatic and terrestrial Federal and State listed endangered and threatened animals which are known to be present in the Russian River Watershed. Such species could potentially be adversely impacted by measures implemented to comply with the proposed Action Plan, if only temporarily. The location of sensitive species and habitat must be assessed on a project by project basis. When installing structural compliance measures that involve substantial earth moving or riparian restoration activities that have the potential to affect candidate, sensitive, or special status species, project proponents are required to consult with federal, state and local agencies, including but not limited to, the county, CDFW, Regional Water Board, and USFWS. Project proponents must ensure project actions avoid, minimize and/or mitigate for impacts to rare, threatened or endangered species.

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Actions to limit the input of pathogen indicator bacteria into water ways, such as riparian buffers, the use of straw waddles, and exclusion from riparian areas may conflict with the habitat requirements of certain flora or fauna and some could impede migration. Specific examples include non-native species out competing natives in constructed riparian buffers. Mitigation measures to reduce this potential impact include use of certified weed-free grass and project specific seed mixes to prevent the introduction of non-native or invasive species. Fencing can be selected that won't ensnare animals and migration corridors can be left to allow movement of fauna. Alternatively, rotational grazing practices and hotwire fences could be used where exclusionary fencing has the potential to affect wildlife and impede migration. The netting used in some straw waddles may ensnare small terrestrial fauna, and can be mitigated by the use of biodegradable, natural fiber netting. In most cases, impacts could be avoided by adjusting the timing and/or location of the actions to take into account candidate, sensitive, or special status species or their habitats. The process for designing, permitting, and implementing mitigation measures includes collaboration between Regional Water Board staff and CDFW and USFWS staff to reach agreement on the most appropriate approach to protecting sensitive beneficial uses.

Construction activities may have a potential impact upon species identified as a candidate, sensitive, or special status, may conflict with a local policies or ordinances protecting biological resources, may fill federally protected wetlands as defined by Section 404 of the Clean Water Act, and may conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP) or other approved local, regional, or state habitat conservation plan. Construction has the potential to cause adverse effects in several ways: filling of federally protected wetlands, short-term habitat destruction during construction, permanent displacement of sensitive species due to new structures, and, "take" of endangered species. It is likely that when an entity is choosing possible locations for the construction of a new centralized or decentralized wastewater treatment plant, new restroom, new sewer lines, or significant expansion of a wastewater treatment plant they would give preference to sites that did not fill federally protected wetlands or adversely affect biological resources. If a site containing endangered or threatened species was selected for new construction, the entity would be required to consult with federal, state, and local agencies to mitigate potential impacts. If a site were selected that would result in the fill of federally protected wetlands, the responsible party would be required to obtain a Clean Water Act (CWA) Section 404 permit from the Army Corps of Engineers and a CWA Section 401 Water Quality Certification from the Regional Water Board. If a direct fill of a stream or wetland is absolutely necessary, then adequate compensatory mitigation in accordance with federal and state regulatory programs will be required to replace the loss of functions and values in compliance with the State's No Net Loss Policy¹⁰.

During project level construction activities to implement compliance measures, both structural and non-structural mitigation measures can be implemented to avoid, minimize

¹² Executive Order W-59-93

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or mitigate potentially significant impacts to sensitive species. Once a project plan is prepared and construction areas are delineated, measures must be implemented prior to and during construction to avoid, minimize, and mitigate impacts to sensitive animals and their habitat, and vegetation communities such as wetlands. For example, wetlands within 100 feet of any ground disturbance and construction-related activities (including staging and access roads) would be clearly marked and/or fenced to avoid impacts from construction equipment and vehicles. If new or temporary access roads are required, grading would be conducted such that existing hydrology would be maintained. In addition, water pollution control measures such as erosion control, sediment control, and waste management would be implemented to avoid and minimize potential water quality impacts from polluted storm water runoff to streams, wetlands and riparian areas. Other potential mitigation measures could include only constructing during the time of year where the species are not present or are at less vulnerable life stages, or fencing off areas that contain sensitive species or their habitat so that they are not disturbed during construction.

Based on the information provided above and the variety of avoidance, minimization and mitigation measures available, the impacts to Biological Resources from compliance measures to address pathogen indicator bacteria impairment are less than significant with mitigation incorporated.

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?
- Answer: Less than significant with mitigation.

For the majority of potential compliance measures, it is unlikely that their implementation will cause a substantial adverse change to cultural resources. Most of the reasonably foreseeable compliance measures will take place in areas that are already disturbed and are in highly urbanized areas, contain sewer laterals, septic systems, and/or other pipes. Implementation strategies that involve digging of a hole, such as for a fence post to contain livestock, may disturb previously unexcavated soil; however, the volume of soil excavated for post-holes is not significant and, therefore, does not pose a significant threat to cultural resources. Additionally, it is more probable that livestock owners will choose methods of compliance that are less costly than fencing a great length of ground, e.g. moving food and water sources away from riparian areas, which of course results in minimal excavation, if any. In the event cultural resources are discovered, implementation is not expected to have substantial adverse change in significance of the resources, destruction of unique cultural resources or sites with cultural value, or the disturbance of human remains.

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Implementation of the Action Plan is not expected to have a substantial adverse change in significance of tribal cultural resources. The digging of new fence post holes is a small-scale operation and the fence post could be relocated if cultural resources are found.

In cases where the installation of compliance measures may involve large scale excavations or earth disturbing activities, such as centralized or decentralized wastewater treatment plant construction, restroom construction, placing new sewer lines, or expanding a wastewater treatment plant or pond, a cultural resources investigation should be conducted before any substantial disturbance. The cultural resources investigation will include, at a minimum, a records search for previously identified cultural resources, including sites, features, places, cultural landscapes, sacred places, and objects with cultural value pursuant to the California Register of Historical Resources or included in a local register of historical resources. Additionally, the lead agency will consider the impact of the project on tribal cultural resources and follow consultation requirements pursuant to Public Resources Code sections 21080.3.1, 21080.3.2, and 21082.3. Previously conducted cultural resources investigations of the project parcel and vicinity will also be identified and utilized.

All future actions must comply with the CEQA process and investigate, evaluate, and treat impacted significant cultural resources. A record search should be conducted that also includes contacting the appropriate information center of the California Historical Resources Information System, operated under the auspices of the California Office of Historic Preservation, and the relevant Regional Archaeological Information Center. In coordination with the information center or a qualified archaeologist, a determination regarding whether identified cultural resources will be affected by the proposed project must be made and if investigations were performed to satisfy the requirements of CEQA. If not, a cultural resources survey may need to be conducted. The purpose of this investigation would be to identify resources before they are affected by a proposed project and avoid the impact. If resources are identified, site-specific implementation will minimize impacts. This can include actions such as avoidance through relocation, changes in design, site capping and protection through barriers, fencing, and covering of the cultural resources.

In addition, in the event that the ground disturbances uncover previously undiscovered or documented resources, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains. (Health & Safety Code, Section 7050.5; Public Resource Code, Section 5097.9 et seq).

VI. GEOLOGY AND SOILS -- Would the project:

- (a) – Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-

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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.

ii. Strong seismic ground shaking

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

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

(c) – Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

(d) – Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

(e) – Have soils incapable of adequately supporting the use of septic tanks or alternative waste-water disposal systems where sewers are not available for the disposal of waste water?

Answer: Less than significant with mitigation.

It is possible that some soils in areas of the Russian River Watershed considered for the construction of new structures, including centralized or decentralized wastewater treatment facilities, community OWTS, and restrooms, could be unstable, be located on expansive soil, or result in ruptured faults, seismic ground shaking, liquefaction, or landslides if construction were to occur on certain sites. The first step in preventing this possibility is to properly site such construction so as to avoid these potential outcomes.

If it were determined that construction would take place on a site with areas of unstable or expansive soils or in areas with fault zones, seismic shaking, or where liquefaction could occur it would be up to the project proponents to offer mitigation measures to reduce the impact to less than significant. Mitigation measures could include abstaining from constructing in areas with unsuitable or unstable geology, minimizing the disturbance of the areas of concern, anchoring the soils, adding structural piles, building a thicker foundation, deepening the footings of the foundation, and ensuring proper drainage so that rain-induced landslides do not occur. A site-specific CEQA evaluation would need to be completed for the project to outline any potential environmental effects. Additionally, a site-specific work plan and health and safety plan would be developed by a licensed geologist or engineer prior to implementation of the project. Such plans ensure conditions are assessed and impacts appropriately avoided prior to initiation of the project. The site manager must also be made aware of potential risks and management measures associated with any structures, soil instability, expansive soils, or other features associated with the unique nature of the project setting, with specific attention to potential risks to life or property and appropriate protections.

Construction activities may result in soil erosion of disturbed topsoil. Implementation of compliance measures such as expansion of restroom facilities, construction of centralized or decentralized wastewater treatment systems, green roofing, or wastewater storage

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ponds will result in temporary ground disturbances. These activities could result in erosion and sedimentation. However, construction related erosion impacts will be temporary and should cease with the cessation of construction activities. Standard best management practices (BMPs) to address erosion, sediment, and pollution prevention should be used during small and large scale construction activities to mitigate potential erosion issues. Facility pollution prevention plans should be developed to ensure that the correct BMPs are selected for the construction of wastewater treatment facilities, wastewater storage ponds, and of other treatment measures. For example, excavated soil should be covered or seeded prior to precipitation and replanted as soon as practicable to avoid contaminating storm water runoff and to prevent soil erosion. For construction activities that are greater than one acre, enrollment under the National Pollutant Discharge Elimination System (NPDES) construction storm water general permit will be necessary and the development of a storm water pollution prevention plan (SWPPP) required.

The proper implementation of mitigation measures, including those discussed above, will result in a less than significant impact to soil stability and erosion.

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?

Answer: Less than significant with mitigation.

Implementation of compliance measures at the project level could result in a temporary increase in greenhouse gases related to exhaust from equipment and vehicles used during construction activities. However, these emissions will be limited to a finite period of time and would result in less than significant impacts overall.

Greenhouse gases may be generated from wastewater treatment plant alterations or new construction, installation of new sewer lines, replacement of OWTS, and improvements, repair, and maintenance of OWTS, sewer laterals, and wastewater treatment facilities, as compared to the current baseline.

The daily operations of a new centralized or decentralized wastewater treatment plant, or significantly expanded plant, could result in increased greenhouse gas emissions as a result of greater power needs at the plant itself, as well as at lift stations to move a larger volume of waste. Possible mitigation measures include the use of ecofriendly power, including wind and solar power, and implementation of water and power conservation measures. Impacts associated with individual projects implemented to comply with the Action Plan will be evaluated for their potential to increase greenhouse gases by the parties responsible for implementing the compliance measures and appropriate mitigation implemented to reduce that potential.

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

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Answer: No Impact

All structural or non-structural implementation measures would need to be implemented in a manner consistent with plans, policies or regulations to reduce greenhouse gas emissions including those mentioned here. Any water quality control effort must be consistent with the State Water Board Resolution No. 2008-0030 which directs Water Board staffs to “require...climate change considerations, in all future policies, guidelines, and regulatory actions.” Also, the proposed project is intended to be implemented in a manner which conforms with the goals of Assembly Bill (AB) 32 (States, 2005, ch 488). AB 32 requires that greenhouse gas emissions be reduced to 1990 levels by 2020. This requirement relates to anthropogenic sources of greenhouse gases.

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?
- (b) – Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- (c) – Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- (d) – Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- (e) – For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- (f) – For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Answer: Less than significant with mitigation.

The existing regulatory baseline includes numerous federal, state and local laws regarding the designation, handling, transportation and disposal of hazardous substance. Nothing in the proposed TMDL Basin Plan amendment alters this existing regulatory baseline. However, the manner in which hazardous materials are handled and controlled can have environmental impacts as highlighted here.

Specifically, in any action involving chemicals or toxic pollutants, there is a potential for release of pollutants due to an accident or upset condition. The potential for such releases can be greatly reduced by proper planning. Measures to prevent releases of pollutants include such things as pollution prevention technology (e.g., automatic sensors and shut-off valves, pressure and vacuum relief valves, secondary containment, air pollution control devices, double walled tanks and piping), access restrictions, fire controls, emergency power supplies, contingency planning for potential spills and releases, pollution prevention training and other types of mitigation measures. Before implementing structural

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compliance measures, it is important to consider site geology, hydrology, surrounding land uses and potential receptors, costs, and air quality control plans (including monitoring and contingency plans) if necessary.

Fuels, lubricating oils, and other petroleum products will be used during construction activities. Well established techniques for controlling spills, leaks, and drips should be incorporated in work plans, remedial action plans, treatment plans and site health and safety plans to assure the control of petroleum products and any other chemicals used during the cleanup activity. In order to mitigate the potential adverse effects, pollution prevention plans and waste management BMPs should be used in conjunction with the implementation of compliance measures.

Existing regulations require the proper storage, handling and use of these types of materials. In the event of an accident, responsible parties must comply with the requirements of the California Emergency Management Agency (CalEMA) Hazardous Materials Spill reporting process. Any significant release or threatened release of a hazardous material requires immediate reporting by the responsible person to the Cal EMA State Warning Center (800) 852-7550 and the Certified Unified Program Agency (CUPA) or 911.

The mitigation measures discussed above will likely reduce impacts to a less than significant level.

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

(h)– Expose people or structures to a significant risk of loss injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Answer: No Impact

Much of the Russian River valley includes rural residential dwellings and a loosely-defined urban/wildland boundary. The California Department of Forestry and Fire Protection (CalFire) has identified at least 3 communities in the Russian River valley as existing in a Very High Fire Hazard Severity Zone, including: Cloverdale, Santa Rosa, Ukiah. The proposed structural and non-structural compliance measures will not hinder emergency response plans or expose people or structures to wildfires above and beyond that which already exists as the baseline.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:

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

(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?

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(d) – Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

(e) – Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

(f) – Otherwise substantially degrade water quality?

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

Answer: Less than significant impact with mitigation.

When replacing or repairing private sewer laterals and OWTS, and operating a centralized or decentralized wastewater treatment plant, it is possible that sewage could be released to surface waters and violate water quality standards and degrade water quality. Mitigation measures such as containment structures and absorption materials are available to reduce transfer of these substances to surface waters. Fuels, lubricating oils, and other petroleum products will be used during construction activities and could be accidentally discharged to surface waters. Well established techniques for controlling spills, leaks, and drips should be incorporated in work plans, remedial action plans, treatment plans and site health and safety plans to assure the control of petroleum products and any other chemicals used during the activity. In order to mitigate the potential adverse effects, pollution prevention plans and waste management BMPs should be used in conjunction with the implementation of permit compliance measures. Mitigation measures such as containment structures, absorption materials, and drip pans are available to reduce the transfer of these substances to surface waters. The possibility that composted biosolids could reach surface waters can be mitigated by siting compost piles away from water courses, covering the piles during storm events, using straw waddles around the piles to filter runoff, build storm water containment, and placing the piles indoors. Pet waste collection systems which provide plastic bags for pet waste cleanup, may cause violations of water quality standards if they are improperly discarded and enter waterbodies. This can be mitigated by providing waste receptacles near the pet waste collection systems to provide a location for people to place the used and unused bags.

Compliance measures related to construction activities could potentially cause an alteration of the existing drainage pattern of a site. In most cases however, these compliance measures would be installed with appropriately designed mitigation measures so as to limit any alteration of the existing drainage pattern, unless beneficial to the environment. In general, compliance measures could be constructed or installed without resulting in substantial erosion or siltation on- or offsite. For example, implementing BMPs such as using straw mulch and hydroseed on exposed areas, placing silt fencing and straw waddle to filter runoff, drip protection and vehicle cleaning for construction equipment, maintenance and site inspections are all methods that can be employed. Entities are commonly required to install and maintain erosion control measures (e.g. mulch, straw

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waddles, silt fencing) to prevent discharge of excess sediment from soil disturbing activities.

Construction of a new centralized or decentralized wastewater treatment plant, restroom facility, or significant expansion of a wastewater treatment plant, may increase the amount of impervious surface and therefore could result in flooding or polluted runoff. Additionally, these structures may be placed within the 100-year flood hazard area. The possibility of flooding and polluted runoff can be mitigated through the use of Low Impact Development (LID). LID is utilized to infiltrate storm water and reduce changes in drainage patterns due to impervious surfaces and to filter storm water runoff. LID strategies integrate green space, native landscaping, natural hydrologic functions, and various other techniques to generate less runoff from developed land. Examples of LID that could be used are bio swales, green roofs, rain gardens, and sand filters.

(b) – Substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water 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)?

(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?

(i) – Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

(j) – Inundation by seiche, tsunami, or mudflow?

Answer: No impact.

The structural and non-structural reasonably foreseeable compliance measure identified would not deplete groundwater supplies and should not substantially increase the chances of risk of loss, injury, or death involving flooding, or increase the chance of tsunami or mudflow. No housing development is proposed as a result of this proposed Basin Plan amendment and therefore none will be placed within a 100-year flood hazard area or place housing in the 100-year flood plain.

X. LAND USE AND PLANNING-- Would the project:

(a) – Physically divide an established community?

(b) – Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

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

Answer: No impact.

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The reasonable foreseeable structural and non-structural compliance measures should not divide a community, conflict with land use, policy, or regulation of an agency with jurisdiction over the project, adopted for mitigation purposes, or conflict with any applicable habitat conservation plan or natural community conservation plan. All compliance measures would have to work within the existing regulatory baseline and comply with existing plans, policies, and regulations.

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?

(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?

Answer: No impact.

None of the reasonably foreseeable structural or non-structural compliance measures would result in the loss of availability of a known mineral resource. Based upon a search of the internet in July 2015, including the California Geologic Survey website, water board staff did not find any evidence of current mineral mining practices taking place in the Russian River Watershed. Furthermore, reasonable foreseeable structural and non-structural compliance measures should not preclude the mining of mineral resources.

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?

Answer: Less than significant with mitigation.

Temporary increases in noise levels would likely be associated with construction activities, including construction of structural compliance measures. Activities might include the use of heavy machinery and the movement of earth and debris, both of which can create noise and ground vibrations. Mitigation measures include the use of standard construction BMPs and operation of equipment according to a time schedule to prevent cumulative noise impacts resulting in further increased noise levels. The majority of the activities that would produce noise are not typically expected to exceed existing standards. Therefore, the temporary noise impacts from construction activities are considered less than significant with mitigation.

(b) – Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

(e) – For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

(f) – For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Answer: No impact.

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None of the reasonably foreseeable structural or non-structural compliance measures would result in excessive noise levels. Groundborne vibration from construction would be at an extremely low level would be temporary and would not be notable above the existing baseline.

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

Answer: Potentially significant.

The every-day running of a new centralized or decentralized wastewater treatment plant may result in increased ambient noise levels above baseline levels for those within the project vicinity. To a large extent, these increases in noise may be mitigated by housing motors, pumps, generators, and other mechanisms that may make noise indoors. Additionally, sound walls and other sound barriers can be constructed if necessary to lessen the noise impacts of the running of the facility. Given that it may be impossible to minimize to less than significant all ambient noise impacts associated with the running of a wastewater treatment plant, the substantial permanent increase in ambient noise levels in the project vicinity may be a potentially significant impact.

(d) – A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Answer: Less than significant with mitigation.

During construction activities there may be a brief period when the noise level is increased due to earth moving or construction machinery. Noise may also increase as a result of an increase in traffic due to installation of, or work on collection system lines under roadways. Temporary impacts can be mitigated to a less than significant level by implementing noise abatement procedures, for example, standard construction techniques such as sound barriers, mufflers, and restricted hours of operation. Appropriate mitigation measures should be evaluated on a case-by-case basis when specific projects are determined.

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)?

Answer: Potentially significant.

The construction of a new centralized or decentralized wastewater treatment plant, or significant expansion of an existing plant, may have a potentially significant impact on population growth in the project area, as people who were considering constructing new homes but were not able to install OWTS due to space, soil, other limitations would potentially be able to connect their homes to the wastewater treatment plant. Where a decentralized wastewater treatment system is used or where upgrades for new or existing OWTS are authorized on existing parcels, larger homes or construction of new homes may

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be possible on parcels that did not meet minimum site standards prior to the TMDL. The construction of these new homes would have potential environmental impacts that would need to be investigated through a project level CEQA evaluation before construction began. It is acknowledged that other services and infrastructure would need to be established before new development could occur, such as electric lines and roads, and therefore construction or expansion of a wastewater treatment plant would be one of several factors that may indirectly influence population growth. It is also possible that a new wastewater treatment plant or plant expansion could be done so it only served the existing population. All things considered, there may be potentially significant impacts from population growth associated with the construction or significant expansion of a wastewater treatment plant.

(b) – Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Answer: Less than significant with mitigation.

Displacement of people from existing housing due to failing OWTS could be mitigated by connecting to a centralized or decentralized wastewater treatment plant, upgrading the OWTS to meet standards, or other efforts that would remedy the effects of the failing OWTS. A very limited number of systems may not be able to remedy their failing OWTS but the number is expected to be very low, will not necessitate the construction of replacement housing, and therefore does not rise to the level of significance.

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

Answer: No impact.

None of the reasonably foreseeable structural and non-structural methods of compliance would displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. Therefore, there would be no impact.

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?

Police protection?

Schools?

Parks?

Other public facilities?

Answer: No impact.

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There are no reasonably foreseeable compliance measures that would cause environmental impacts, impeding acceptable service ratios and response times. Limiting parking near areas of the river without adequate restroom facilities would cause a negligible need for increased parking enforcement as compared to the existing baseline as the existing parking capacity at many areas along the river is already highly limited or is located on private property. Reasonably foreseeable compliance measures should not impede services. If roadway access is restricted due to construction equipment associated with the building of a restroom facility or if a roadway must be excavated for collection system maintenance, for example, access to and through that roadway for emergency vehicles should be maintained. Fences, if installed, will likely be constructed in areas that are not currently used as access for fire or police protection or that are not part of a park or school. If a fence is constructed at a park, it would likely surround the park and not impede its use as a park. Therefore, there would be no impact in terms of Public Services.

XV. RECREATION:

(a) – Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Answer: Less than significant.

Publicizing the location of public beaches with restroom facilities and limiting parking near areas of the river without adequate restrooms would have a minimal impact on the existing public beaches and facilities compared to the existing baseline. The Russian River Watershed is currently a highly recreated area and the small increase in users at particular public beaches is not expected to cause substantial physical deterioration of the restroom facilities at those locations. Therefore, there would be a less than significant impact.

(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?

Answer: No impact.

Reasonably foreseeable compliance measures do not include the construction of recreational facilities. Thus, there will be no impact in terms of recreation.

XVI. TRANSPORTATION/TRAFFIC -- Would the project:

(a) – Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

(f) – Result in inadequate parking capacity?

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

Answer: Less than significant impact.

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During construction-related activities, there may be a brief period when traffic congestion will increase due to the presence of earth moving equipment and other construction equipment. Potential impacts would be temporary and less than significant because potential impacts could be reduced by limiting or restricting hours of construction so as to avoid peak traffic times and by providing temporary traffic signals and flagging to facilitate traffic movement. Additionally, a parking lot, street parking, or the alternate transportation infrastructure could potentially be temporarily blocked due to compliance measures that involve construction, particularly construction occurring in roadways and in urban areas. However, the blockage would be temporary and is likely negligible as compared to the existing traffic baseline. Additionally, limiting parking near areas of the river without adequate restroom facilities would be negligible as compared to the existing baseline as the existing parking capacity at many areas along the river is already highly limited or is located on private property. Therefore, these impacts would be less than significant.

- (b) – Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
- (c) – Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- (d) – Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- (e) – Result in inadequate emergency access?

Answer: No impact.

None of the reasonably foreseeable structural or non-structural compliance measures will affect a level of service standard, air traffic patterns, increase hazards, or result in inadequate emergency access. Changes in traffic due to construction-related activities to install compliance measures should not exceed the service standard level established by the county as these types of activities currently occur, are part of the baseline, and the County's level of service standard should allow for the activities. There should be no change in air traffic patterns due to the reasonably foreseeable compliance measures. This is because the compliance measures in no way increase or decrease air traffic; and, structures should not be tall enough to have an effect on the flight of an airplane. Traffic hazards will not substantially increase, as the reasonably foreseeable compliance measures do not require redesign of roads or incompatible uses. Reasonably foreseeable compliance measures should not impede emergency access and if roadways must be excavated for new sewer line installation or collection system maintenance, access to and through that roadway for emergency vehicles should be maintained. Fences will likely be constructed in areas that are not currently used as access for fire or police protection or that are not part of a park or school.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:

- (a) – Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

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Answer: No impact.

Any reasonably foreseeable compliance measure requiring compliance with wastewater treatment requirements of the North Coast Regional Water Board, will be controlled via a permit adopted through a public process by the North Coast Regional Water Board, and will include appropriate controls, limitations, and compliance schedules.

(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?

(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?

Answer: Potentially significant.

The proposed Basin Plan Amendment could result in an existing wastewater treatment plant determining it doesn't have the capacity to serve the projects projected demand and thus result in the construction of a new centralized or decentralized wastewater treatment plant or expansion of an existing plant, as a reasonably foreseeable compliance measure. The environmental effects associated with this type of construction, and of construction in general, have been discussed throughout this checklist, as appropriate. Potentially significant effects were identified and discussed in sections XI. Noise (c) and XII. Population and Housing (a).

(c) – Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Answer: Less than significant.

Storm water infrastructure is already in place and it is not anticipated that large-scale construction will occur (such as a new subdivision). The expansion or construction of a new centralized or decentralized wastewater treatment facility will not result in significant environmental effects related to storm water drainage as storm water discharges from a wastewater treatment facility may be subject to NPDES industrial storm water general permit requirements that require protection of water quality and prevention of nuisance. Therefore, the effect will be less than significant.

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

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

Answer: No impact.

Reasonably foreseeable compliance measures should not require an increase in water supply. The solid waste from a new wastewater treatment plant, construction activities, or

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pet waste from collection receptacles is not expected to have any impact on landfills over current baseline conditions. Any actions related to solid waste must be in compliance with all existing federal, state, and local statutes and regulations related to solid waste. None of the reasonably foreseeable compliance measures would violate existing statutes and regulations.

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?

Answer: Less than significant with mitigation.

Reasonably foreseeable non-structural compliance measures will not result in the substantial degradation of the environment for fish, wildlife, and threatened/rare plant and animal species because none of the measures would introduce any new physical effects above the baseline that could impact these characteristics.

Some of the reasonably foreseeable structural compliance measures, however, do have the potential to cause significant degradation of the environment for fish, wildlife, and threatened/rare plant and animal species if not mitigated. As discussed in section IV above, plant and animal species could potentially be adversely affected by construction related activities, creation of riparian buffers, installation of straw waddles, and by exclusion fencing. The mitigation measures discussed in that section, as well as others, could be implemented to ensure that unique, rare or endangered plant and/or animal species and their habitats are not taken or destroyed. When specific projects are developed and sites identified, a focused protocol plant and/or animal survey and/or a search of the California Natural Diversity Database should be performed to confirm that any potentially sensitive or special status plant and/or animal species in the site area are properly identified and protected as necessary. If sensitive plant and/or animal species occur on the project site, mitigation is required in accordance with the Endangered Species Act. Mitigation measures should be developed in consultation with CDFW and USFWS.

The adoption of the proposed Basin Plan amendment should result in improved surface water quality in the Russian River Watershed and will have a significant beneficial effect on the environment over the long-term. However, it should be noted that some of the structural compliance measures do have the potential to adversely impact the environment. In many cases, the impacts of the installation of the structural compliance measures will be temporary, and many of the effects caused by permanent structures can be avoided by adjusting the timing and/or location so as to take into account any candidate,

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sensitive, or special status species or their habitats. Therefore, with correctly implemented mitigation measures these impacts are considered less than significant.

(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)?

Answer: Potentially significant.

Cumulative impacts, defined in section 15355 of the California Code of Regulations, refer to two or more individual effects, that when considered together, are considerable or increase other environmental impacts. Cumulative impact assessment must consider not only the impacts of the proposed Basin Plan amendment, but also the impacts from other Basin Plan amendments, municipal and private projects which have occurred in the past, are presently occurring, and may occur in the future in the watershed during the period of implementation.

Impacts associated with implementation of the non-structural measures and most of the structural measures will be short-term, temporary, amenable to mitigation, and spatially distributed across the watershed, and will not contribute to significant adverse effects or cumulative impacts on the environment. However, structural compliance measures that involve substantial earth movement could have potentially significant cumulative impacts to traffic, greenhouse gas emissions, and noise when considered in conjunction with other past, present, and future construction; including but not limited to construction and repair of infrastructure (such as roads and the Sonoma-Marin Area Rail Transit project), housing construction, commercial construction activities, and restoration projects involving earth moving and construction equipment. Regional Water Board staff’s oversight of construction activities through permits, regulatory programs, and other authorities will provide an opportunity to limit the potential for cumulative impacts by ensuring that multiple projects proposing various compliance measures and implementation of BMPs with the potential to cause short-term impacts are phased appropriately to limit potential cumulative impacts.

Based on a review of the available information, and as a result of implementing various compliance measures including creating riparian buffers, exclusion fencing, construction and daily operations of a new wastewater treatment plant and expansion of an existing wastewater treatment plant, it has been determined that significant and unavoidable impacts to the environment have the potential to occur. Cumulative impacts are especially significant in areas that are already listed as impaired or otherwise degraded since the system or species has already lost resilience to external stressors. Due to the fact that many streams in the region are impaired and several rare, threatened and endangered are present throughout the region any adverse impact that has the potential to occur in multiple instances could be considered significant and unavoidable. Many of the potential impacts discussed throughout this CEQA analysis can be reduced through proper

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implementation of mitigation measures; however, cumulatively these impacts do have the potential for significant adverse effects on the environment.

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

Answer: Potentially significant.

The purpose of the proposed TMDL Action Plan is to improve water quality conditions to protect human health as well as aquatic ecosystem health. Most of the potentially significant impacts to human beings, such as air quality, aesthetics, biological resources, greenhouse gas emissions, etc., are either short-term in nature, or can be mitigated to less than significant levels as previously discussed. However, some impacts were identified as being potentially significant including impacts to agricultural resources, noise levels, population growth, and utilities as detailed in those sections above. It is possible that when implemented at the project level, some of the reasonably foreseeable compliance measures identified as having potentially significant impacts could be mitigated so as to reduce the impacts to less than significant or that proposed projects could identify additional compliance measures that have less than significant impacts or impacts that can be mitigated. The overall effects of implementing the proposed TMDL Action Plan will be to improve water quality conditions and therefore are seen as a benefit for human beings and the environment.