

CITY OF SANTA ROSA

EXHIBIT B

INCREMENTAL RECYCLED WATER PROGRAM

NOVEMBER 2020 MITIGATION MONITORING PROGRAM FOR THE DISINFECTION AND DIVERSION IMPROVEMENTS

NOVEMBER 19, 2020

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MITIGATION AND MONITORING PROGRAM

A Mitigation and Monitoring Program has been prepared for the Disinfection and Diversion Improvements. Some portions of individual project and mitigation measures from the IRWP Certified EIR are not applicable to the Disinfection and Diversion Improvements. If there is a portion of the measure not applicable to the improvements, it is noted in the headings of the measure. The mitigation measures listed herein either are required by law or regulation (Section 3.1); are incorporated by the City into the Project (Section 3.2); or are recommended by the consultant team (Sections 3.3, 3.4, and 3.5).

CATEGORIES

Section 3.1 Compliance with Existing Programs

Section 3.1 of presents the federal, state, regional, county, and local policies and regulations applicable to the IRWP Program EIR with which Disinfection and Diversion must comply.

Section 3.2 Measures Included in Project

This section presents a listing and description of measures and standards that have been incorporated into the Project Description to avoid or minimize potential environmental impacts. These measures represent standard engineering, design, construction, and maintenance practices applicable to Disinfection and Diversion Improvements.

Section 3.3 Planning Measures

This section contains mitigation measures to be implemented during the final planning and detailed design of the project. These measures often require the refinement of the final Project design to accommodate particular environmental constraints.

Section 3.4 Construction Measures

This section contains mitigation measures to be implemented prior to, during, and immediately following Project construction. These measures generally require certain constraints during construction and repair and rehabilitation of impacts resulting from construction.

Section 3.5 Operation and Maintenance Measures

The Disinfection and Diversion Improvements do not require mitigation measures to be implemented during operation.

IMPLEMENTATION AND MONITORING

Implementation

The City shall be responsible for overall implementation and administration of the Mitigation and Monitoring Program. The City shall designate a Coordinator to oversee implementation of the mitigation measures and ensure they are completed to the standards specified in the IRWP

EIR. The Coordinator will also ensure that the mitigation measures are completed in a timely manner and be responsible for preparing and maintaining the Mitigation Monitoring Checklist.

Duties of the Coordinator include the following:

- Coordinate with applicable agencies that have mitigation monitoring and reporting responsibility;
- Coordinate activities with the construction manager;
- Coordinate activities of all in-field monitors;
- Develop work plan and schedule for monitoring activities;
- Coordination of activities of consultants hired by the City when such expertise and qualifications are necessary;
- Perform routine inspections and reporting activities;
- Perform plan checks;
- Assure follow-up and response to citizen inquiries and complaints;
- Develop, maintain, and compile Verification Report form(s);
- Maintain the Mitigation Monitoring Checklist or other suitable mitigation compliance summary; and
- Coordinate and assure implementation of corrective actions or enforcement measures, as needed.

Mitigation Monitoring

The implementation of mitigation measures shall be monitored at two levels. The first level of monitoring is done through the use of a Verification Report. A sample Report is shown at the end of this section. This report is to be completed for each mitigation measure by either the in-field monitor, the responsible agency, or the construction manager (whichever is appropriate for the given action and mitigation measure). Frequency of report completion will vary based on the type of mitigation measure. For example, measures that require modification of final design drawings will only require that the Verification Report be completed at the time the Final drawings are completed and again when they are approved.

Once a mitigation measure has been completed and the measure needs no further monitoring or follow-up, the pertinent in-field monitor, responsible agency, or construction manager shall notify the Coordinator that the measure has been completed. The Coordinator shall be responsible for collecting and maintaining completed Verification Reports.

Upon determining that a measure has not been complied with, the pertinent in-field monitor, responsible agency, or construction manager shall deliver a written notice to the Coordinator describing the non-compliance and steps being taken to achieve compliance within a specified period of time. If non-compliance still exists at the expiration of the specified period of time, construction may be halted and fines may be imposed upon the party responsible for implementation, at the discretion of the City.

The second level of monitoring shall be done through the completion of an annual Mitigation and Monitoring Program summary. The Coordinator shall create the summary by reviewing all of the Verification Reports and contacting all of the in-field monitors, responsible agencies, and the construction manager to review the status of their respective mitigation measures. The summary shall be prepared annually.

Verification Report

Date: _____	Compliance: <input type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable
Location: _____	Mitigation Measure: _____
	Discipline:
	<input type="checkbox"/> Land Use/Agriculture <input type="checkbox"/> Public Health/Services
	<input type="checkbox"/> Geology <input type="checkbox"/> Noise/Air
	<input type="checkbox"/> Water <input type="checkbox"/> Transportation
Construction Sheet No: _____	<input type="checkbox"/> Biology <input type="checkbox"/> Cultural/Paleontology
Activity:	
Observations:	
Recommendations:	
By: _____	Approved By: _____
Copies to: _____	
Anticipated Completion Date: _____	
Method of Compliance: _____	
Date Closed: _____	Authorized By: _____

3.1 COMPLIANCE WITH EXISTING PROGRAMS

This section presents the applicable federal, state, regional, county, and local policies and regulations with which the Disinfection and Diversion Improvements may need to comply. Approvals and regulations which do not apply have been removed from the list.

Federal

Archaeological and Historic Data Preservation Act of 1974, as amended

Federal Water Pollution Control Act, now known as the Clean Water Act of 1977, Section 404, as amended

Code of Federal Regulations, Title 40 Parts 6, 51, and 93

Federal Clean Air Act of 1970, amended 1977 and 1990 as amended

Federal Endangered Species Act of 1973, as amended

State

California Environmental Quality Act

California Endangered Species Act

California Clean Air Act

California Occupational Safety and Health Administration (Cal-OSHA)

California Department of Fish and Game Code Section 1601-1603

California Health and Safety Code, Section 25500 et seq. - Hazardous Materials Release Response Plans and Inventory

California Streets and Highways Code, Section 660, California Department of Transportation requirements for encroachment permits for work conducted on State highways

Native Plant Protection Act (Fish and Game Code Section 1900-1913)

Public Resources Code, Sections 5097.5 and 30244

Public Resources Code, Section 6301 et seq.

Public Resources Code, Section 6501 et seq.

Title 8, California Code of Regulations, Sections 1539 - 1541.1 - Excavations

Title 8, California Code of Regulations, Sections 1509 & 3203 - Injury and Illness Prevention Program

Title 8, California Code of Regulations, Sections 1597 - 1599 - Vehicles, Traffic Control, Flaggers, Barricades, and Warning Signs

Title 8, California Code of Regulations, Section 5194 - Hazard Communication

Title 22, California Code of Regulations, Section 60300 Water Recycling Criteria

Title 22, California Code of Regulations, Section 66260.1 et seq. - California Hazardous Waste Regulations

Regional

Bay Area Clean Air Plan

Bay Area Air Quality Management District Risk Management Policy

Bay Area Air Quality Management District Rules and Regulations

North Coast Regional Water Quality Control Board Basin Plan

County and City

Sonoma County

Sonoma County Regional Climate Action Plan Climate Action 2020 and Beyond

City of Santa Rosa

Building and Grading Regulations

Santa Rosa City Code: Historic and Cultural Preservation

Santa Rosa General Plan

Santa Rosa Zoning Ordinance

Santa Rosa Heritage Tree Ordinance

Community-wide Climate Action Plan

Municipal Climate Action Plan

3.2 MEASURES INCLUDED IN PROJECT

This section presents the mitigation measures and standards incorporated into the Project Description for Disinfection and Diversion Improvements. Project Measures 3.2.1, 3.2.4, 3.2.7, 3.2.8, 3.2.11, 3.2.12, 3.2.13, 3.2.14, 3.2.18, 3.2.19, 3.2.21, and 3.2.22 from the IRWP Certified EIR do not apply to the improvements and have been removed. In addition, Project Measures 3.2.5 and 3.2.6 have already been completed and therefore are not made part of this MMP.

3.2.2 Revegetate Temporarily Disturbed Sites

The City shall revegetate sites disturbed or scarred by construction activities. The Revegetation Program shall include the following, as may be applicable to the site-specific disturbance:

Upland Non-Urban Sites

- Restore pre-project topographic features. In those cases where full restoration is not possible, graded contours shall be rounded to emulate the natural landforms of the adjacent area.
- Use native seed mix and/or drought-tolerant plant species common to the disturbed area.
- Collect seed material of woody and herbaceous plants from the construction corridor and/or adjacent undisturbed vegetation during a suitable season for each group of plants, if feasible. Use potted plant materials to replace woody vegetation (i.e., trees and shrubs).
- Apply dried seed material collected as specified earlier evenly to the finish-graded topsoil surface.

Monitoring

Plant survival shall be monitored and summarized in an annual report. Annual reports shall include recommendations to be implemented to remediate the previous year's failures including replacement planting.

Implementing Agency:	City of Santa Rosa
Timing:	Start: Following completion of construction Complete: Revegetation will be completed within one year of completion of construction. Monitoring will continue for five years.
Monitoring Agency:	City of Santa Rosa
Validation:	Review annual reports beginning with end of first growing season following construction. Conduct field monitoring on yearly basis or as deemed appropriate. Review annual reports and conduct monitoring annually for five years.

3.2.3 Storm Water Pollution Prevention Plan

The City of Santa Rosa shall prepare, or have prepared, a site-specific Storm Water Pollution Prevention Plan for each construction area, and obtain coverage under State Water Resources Control Board for Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities. If special measures are necessary for a site, these measures shall be incorporated into the Plan. The Plan may include the following elements, as applicable:

- Type of construction allowed during the rainy season.
- Method of protection for new cut and fill slopes and soil stockpiles upon completion of permanent or temporary winter slopes.
- Diversion of runoff away from construction areas that have been denuded or otherwise disturbed.
- Retention of sediment on-site by the use of silt fences, hay bales, sedimentation basins, or other structures.
- Inspection and maintenance schedule for erosion and sediment control facilities.
- Reduction of cut and fill along streams through the use of steepened side slopes, retaining walls and extended culverts.
- Cutting vegetation off at ground level, leaving existing root systems intact.
- Implement BMPs as needed to prevent increases in downstream runoff volume.
- Incorporate features (e.g., straw wattles) in temporary stormwater conveyance features to reduce the velocity of stormwater run-off from the construction site to pre-construction levels as a means of preventing off-site erosion.

Implementing Agency: City of Santa Rosa

Timing: **Start:** During the Project design phase.

Complete: At the end of construction.

Monitoring Agency: City of Santa Rosa

Validation: The City of Santa Rosa shall monitor compliance with the Plan throughout construction.

3.2.9 Protect Creeks from Toxic Discharge

During construction, the City of Santa Rosa shall follow pertinent paragraphs of the Caltrans Manual, California Standard Specifications (Caltrans 2018), including Section 13-1, which includes general specifications for preventing, controlling, and abating water pollution within waters of the State. Measures shall include:

- Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into streams and shall be collected and transported to a landfill authorized to accept hazardous wastes.
- No construction vehicles or equipment may be parked within the upland riparian corridor of any stream channel.
- Mobile equipment shall not be refueled or serviced within the riparian corridor.
- Construction material storage areas containing hazardous or potentially toxic materials shall be bermed to prevent the discharge of pollutants to runoff water. These materials shall be stored under cover.
- Utilize good housekeeping practices, safer alternative products where feasible, and employee training programs to prevent or reduce the discharge of pollutants to runoff water from construction activities.
- Construction vehicles and equipment shall be maintained to prevent contamination of soil (from leaking hydraulic fluid, fuel, oil, and grease). Any restrictions on lubricants shall not include lubricants used for tunnel construction which will be permanently encased or isolated from the stream after construction is complete.
- Concrete washout areas shall be designated. Wash-out of concrete vehicles and equipment shall be restricted to designated areas only.
- If dewatering is required, a temporary facility shall be used to reduce the turbidity of the dewatering water prior to discharge back into the river. The temporary facility shall include a portable sedimentation tank to provide initial settling of sediments to produce dewatering water than can be discharged to land or to the creek without water quality violations. Dewatering for improvements implemented under the Laguna Plant Upgrade component may be pumped to the treatment facility at the discretion of the plant operations supervisor.

Implementing Agency: City of Santa Rosa

Timing: **Start:** At the start of construction.

Complete: At the completion of construction.

Monitoring Agency: City of Santa Rosa

Validation: The City of Santa Rosa shall monitor compliance on a schedule consistent with the intensity of construction and the presence of creeks.

3.2.10 Update Existing Hazardous Materials Management Plan and Prepare Additional Plan(s) as Needed

The City of Santa Rosa shall amend the Laguna Treatment Plant's existing Hazardous Materials Management Plan (HMMP) if increased hypochlorite is used. In addition, the City shall prepare a new HMMP for each off-site facility that uses hypochlorite.

Implementing Agency: City of Santa Rosa

Timing: **Start:** Prior to operation of the proposed Project.

Complete: The HMMP shall be updated annually to reflect average annual use of hypochlorite.

Monitoring Agency: City of Santa Rosa

Validation: The Fire Department shall review the amended HMMP prior to operation of the proposed Project. Reviews shall be conducted annually, thereafter.

3.2.15 Standard Traffic Control Procedures

The City of Santa Rosa shall adopt standard traffic control measures to minimize traffic congestion, traffic hazards, and damage to roads to the extent feasible. Construction flagging and signage, use of plates, and other safety measures shall be in conformance with Caltrans “Manual on Uniform Traffic Control Devices (Caltrans 2014). Other measures shall include:

Encroachment Permits

Obtain all necessary Encroachment and Transportation Permits from the appropriate agencies. The City of Santa Rosa shall consult with the County of Sonoma Department of Transportation and Public Works (DTPW) staff and other affected agencies regarding site-specific details of construction prior to the preliminary design stage.

Emergency Response, Transit and School Bus Routes

- If temporary lane or road closures are required, the City shall contact emergency response (hospitals, police, fire, and ambulance), transit, and school bus providers and inventory the locations of their primary routes that may be affected by the construction.
- Where construction necessitates lane or road closures along emergency response routes, the City shall recommend and obtain approval of alternate routes or other means from the affected service providers, at a minimum of one week prior to construction.
- During construction, the City shall notify the service providers on a weekly basis of the timing, location, and duration of construction activities.

Lane and Road Closures

- Consistent with construction requirements, the minimum number of through traffic lanes shall be closed and the duration of such closures shall be minimized. Where construction requires closure of the road, temporary bypass roads may be built within the construction right-of-way allowing temporary access.
- Where temporary road closure is necessary, a temporary road closure plan shall be developed by the construction manager and submitted to, and approved by, the Traffic Engineer of the affected jurisdiction. The temporary road closure plan shall include alternate detour routing and notification of local fire and police departments and emergency service, transit and school bus providers
- Pipelines crossing major freeways shall utilize tunneling methods so as not to disrupt the flow of traffic and commerce.

Access to Businesses and Residences

- The City shall provide public facilities, businesses, and residences within 500 feet of the construction zone with a notification packet that describes the construction activities scheduled for their neighborhood.

- The City shall maintain pedestrian and vehicular access to public facilities, businesses, and residences along the route during commute hours, and shall minimize the closure of pedestrian and vehicular access at other times. Peak commute hours are between 7:00 a.m. and 9:00 a.m. in the morning and 4:00 p.m. and 6:00 p.m. in the evening.

Repair Road Damage

- Prior to construction, the City shall prepare a summary of baseline conditions for roads scheduled to have construction on or adjacent to them. The survey shall identify road name, length, and width; surface type and condition; and shoulder surface type and condition.
- Within one year of completion of construction, roads damaged by construction traffic or pipeline construction shall be repaired to a condition equal to or better than that existing prior to the construction activity.

Park within Construction Easements

The City shall establish construction staging areas. Construction worker vehicles, construction equipment not in use, and stored materials shall be kept within the staging areas. Designated areas within the construction easements shall be designed to accommodate all construction-related activity, and the designated areas shall be maintained for parking throughout the duration of the construction.

Implementing Agency:	City of Santa Rosa
Timing:	Start: During construction Complete: Implementation shall continue throughout construction.
Monitoring Agency:	City of Santa Rosa
Validation:	The City shall comply with this measure prior to starting construction near the affected roadway

3.2.16 Dust Control Program

The City of Santa Rosa shall reduce dust generation during construction, as recommended by the California Air Resources Board, Bay Area Air Quality Management District, as applicable. Measures that the construction contractor shall implement include the following:

Basic Dust Control Program

The construction contractor shall implement the following dust control measures during all construction phases:

- Water active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
- Cover hauling trucks or maintain at least two feet of freeboard. Dust-proof chutes shall be used as appropriate to load debris onto trucks during demolition.
- Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.
- Sweep daily (with water sweepers) paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously-graded areas that are inactive for 10 days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
- Limit traffic speeds on any unpaved roads to 15 mph.
- Replant vegetation in disturbed areas as quickly as possible.

Enhanced Dust Control Program

The construction contractor shall implement the following measures for construction sites larger than 4 acres in size, within 100 feet of sensitive receptors such as residences, or where more than 3 pieces of heavy-duty construction equipment are operating simultaneously:

- At off-road construction sites, install wheel washers for exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- If necessary, install windbreaks, at the windward side(s) of construction areas to prevent blowing dust from impacting sensitive receptors or causing a nuisance.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 20 mph and visible dust emissions cannot be prevented from leaving the construction site(s).
- Limit areas subject to disturbance during excavation, grading, and other construction activity at any one time.

- Prior to disturbance (or removal) of materials suspected to contain asbestos, lead or other toxic air contaminants, contact the BAAQMD's, or Northern Sonoma County APCD's, or Lake County AQMD's Enforcement Division.

Implementing Agency: City of Santa Rosa

Timing: **Start:** With initiation of construction
Complete: At the completion of construction.

Monitoring Agency: City of Santa Rosa

Validation: Annual reports during construction.

3.2.17 Equipment Exhaust Control Program

The City of Santa Rosa shall implement the following equipment emissions control programs for construction larger than 4 acres in size, within 100 feet of sensitive receptors such as residences, or where more than 3 pieces of heavy-duty construction equipment are operating simultaneously. Measures shall include:

- Limit idling time either by shutting equipment off when not in use or reducing the maximum idling time to no more than 5 minutes as required by the California Code of Regulations Title 13, Section 2485.
- Avoid staging equipment within 200 feet of sensitive receptors.
- Where possible, use newer, cleaner burning fueled construction equipment.
- Where diesel-fueled construction equipment is used, require contractors to use equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy-duty diesel engines.
- Properly maintain construction equipment in accordance with manufacturer's specifications.
- Designate a Disturbance Coordinator responsible for ensuring that mitigation measures to reduce air quality impacts from construction are properly implemented.

Implementing Agency: City of Santa Rosa
Timing: **Start:** With initiation of construction
Complete: At the completion of construction.
Monitoring Agency: City of Santa Rosa
Validation: Annual reports during construction.

3.2.20 Control of Light and Glare

The City shall specify installation of shielded low-intensity outdoor lighting at all pump stations, storage, tanks, discharge, Advanced Membrane Treatment facilities, and similar facilities, and shall also install controls which will provide for non-continuous operation of the lighting. Lighting at these facilities shall be turned on only on an “as needed” basis while monitoring and maintenance is being performed and when access to the building is necessary.

Implementing Agency:	City of Santa Rosa
Timing:	Start: At the beginning of design Complete: Throughout the life of the Project or until operation of a facility ceases.
Monitoring Agency:	City of Santa Rosa Public Utilities
Validation:	Report confirming that 90% design plans and/or specifications conform with measure.

SECTION 3.3 PLANNING MEASURES

This section contains mitigation measures applicable to the Disinfection and Diversion Improvements and to be implemented during the final planning and detailed design of the improvements. Mitigation Measures 3.3.1 to 3.3.16 and 3.3.18 from the IRWP Certified EIR do not apply to the project and therefore are not made part of this MMP.

3.3.17 Identification, Evaluation, and Avoidance of Cultural and Paleontological Resources

The City of Santa Rosa shall avoid impacts to cultural resources, to the extent feasible. The treatment of cultural resources to be affected by the Program shall be addressed under applicable cultural resource laws and regulations. Consultation to address potential adverse effects to cultural resources may involve interested parties, and any additional state or federal agencies which assert jurisdiction over the project.

If the project is federally regulated, a Memorandum of Agreement (MOA) among regulatory agencies and the City of Santa Rosa may be submitted to the State Historic Preservation Officer (SHPO). This MOA would set out specific steps for avoiding or reducing impacts to cultural resources which have been determined eligible for listing on the National Register of Historic Places or the California Register of Historical Resources or are otherwise protected. The MOA may provide for a phased resource identification, evaluation, and data recovery program. The MOA should include measures for impact avoidance, minimizing impacts when avoidance is not feasible, and compensating for unavoidable impacts. The City shall comply with Section 7050.5 of the California Health and Safety Code should human remains be encountered during project activities. Measures to minimize impacts may include:

- Designing project actions to conform with the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*;
- Conducting archaeological data recovery in accordance with a research design approved by the relevant regulatory agencies;
- Consulting with regulatory agencies and descendant communities to ensure that any human remains that may be affected by project activities are treated appropriately; and
- Consulting with regulatory agencies and associated communities to ensure the appropriate treatment of any Traditional Cultural Properties which may be impacted by the project; and
- Monitoring culturally sensitive areas.

If the project is not subject to federal regulation, an MOA will not be prepared.

A four-step process will be implemented to address these potential impacts and the requirements of the cultural resource laws and regulations. Once the final Area of Potential Effects (APE) for the preferred alternative is selected, the first step will be identification of cultural resources within the APE. The second step will require that these resources be evaluated under the significance criteria presented in the IRWP EIR Table 4.13-2. If the resources are significant, the third step will be to determine whether they will be affected by the proposed project. Finally, the fourth step will involve avoidance or mitigation of any adverse effects to significant resources. If significant paleontological resources are identified during construction, a qualified paleontologist shall recover the resources and provide for their proper curation.

Implementing Agency: City of Santa Rosa

Timing: **Start:** At onset of design.
Complete: Before commencement of Project construction.

Monitoring Agency: City of Santa Rosa

Validation: Section 106 approval, or completion of recovery if no Section 106 is required, prior to construction.

SECTION 3.4 CONSTRUCTION MEASURES

This section contains mitigation measures applicable to the Disinfection and Diversion Improvements and to be implemented prior to, during, and immediately following construction. Mitigation Measures 3.4.2 and 3.4.4 from the IRWP Certified EIR do not apply to the improvements and therefore are not made part of this MMP.

3.4.1 Protect Active Bird Nests

The City of Santa Rosa shall avoid loss of active bird nests.

Preconstruction surveys shall be conducted by a qualified biologist no more than 30 days prior to the initiation of project activities including but not limited to tree trimming, grading, and excavation. During the preconstruction surveys a qualified wildlife biologist shall locate and map active nests on the project site or within 500 feet of the site for raptors, and 300 feet for other nesting birds. Preconstruction surveys shall be conducted in all suitable habitats of the site during the nesting season (February – August).

If active nests are located within a project site, measures to avoid impacts may include one or more of the following, depending upon site-specific conditions:

- Construction activities may need to be delayed until the end of the nesting season or until the young have fledged. A qualified biologist would monitor the nest to determine when the young have fledged.
- If active nests are observed within 300 to 500 feet of the project site, exclusion zones may be designated as described herein. No construction activities would be allowed within the exclusion zone until the following conditions have been met: a) the young have fledged from the nest, b) the birds abandon the nest on their own, c) the nest fails and the birds do not re-nest. A qualified biologist would determine if and when these conditions are met. Exclusion zones may be established as follows:
 - Nests Located along Public Road Shoulders. An exclusion zone of 100 feet around nest trees located along public roads within or immediately adjacent to the construction corridor. The exclusion zone would be established using orange construction fencing.
 - Nests Located in Open Country. Exclusion zones extending at least 200 feet from the nest tree around any active nest in open country. Only the portion of the exclusion zone that intersects the project site would be fenced using orange construction fencing.
 - Golden Eagle Nests. Active nests identified as belonging to golden eagles need larger exclusion zone due to the sensitivity of this species to disturbance at the nest. For active golden eagle nests, the exclusion zone would be line of sight from the nest or 0.25 miles, whichever is less.
 - Northern Spotted Owl Nests. If a spotted owl is found to be actively nesting within or along the alignment, activity may need to be prevented within 0.25 mile of the nest. If northern spotted owls are observed during the preconstruction surveys, the U.S. Fish and Wildlife Service (USFWS) would need to be contacted immediately regarding specific measures to avoid impacts to the nest.

Implementing Agency: City of Santa Rosa

Timing: **Start:** 14 days prior to the start of construction, during each construction year.

Complete: Monitoring shall be complete when the last young raptor has fledged, during each construction year.

Monitoring Agency: City of Santa Rosa

Validation: During the breeding season of each construction year, reports shall be submitted to the California Department of Fish and Wildlife and the City of Santa Rosa.

3.4.3 Construction Noise Control Measures

The City of Santa Rosa shall ensure that noise disturbances at sensitive receptors during construction activities are reduced per the applicable jurisdiction's noise ordinance, to the extent feasible. Measures may include:

- Newer equipment with improved noise muffling may need to be used and manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators be intact and operational.
- Construction equipment may require weekly inspection to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).
- Wherever possible hydraulic tools may be used instead of pneumatic impact tools.
- Construction activities after 7:00 p.m. or before 7:00 a.m. may need to be restricted near residential units, hotels, hospitals, or convalescent homes. Noise-generating construction may also require restriction on Saturdays, Sundays, and holidays.
- Heavy truck trips may need to be routed over streets that will cause the least noise disturbance to residences or businesses in the vicinity of the Project site.
- Construction staging areas, maintenance yards, and other construction-oriented operations may need to be located more than 1,600 feet from a sensitive receptor.
- Sensitive noise receptors may be specifically identified and notified in advance to keep windows and doors closed during peak construction activity. Sensitive noise receptors may be notified when blasting or pile driving will be conducted and instructed as to actions necessary to reduce noise impacts.
- Where construction would occur within 1,600 feet of schools, the construction manager may need to implement measures to ensure that construction noise does not interfere with the learning activity of the students. The following noise control measures may be implemented:
 - Limit construction to non-school hours or weekends.
 - Utilize temporary noise barriers, as needed, to protect schools from excessive noise levels from construction activities. Noise barriers may be made of heavy plywood, loaded vinyl acoustical curtain (Sound Transmission Coefficient rating of 25 or better), or natural and temporary earth berms.
 - A qualified noise control engineer may design the temporary construction noise barriers used.
 - A qualified noise control engineer may monitor the temporary construction barriers used, to ensure that any gaps or inadequate materials do not increase noise impact by channeling, or fail to result in any noise mitigation.
 - The City may need to offer temporary alternative lodging for the affected occupants during the period of construction, for residences located adjacent to construction areas where nighttime construction (between 7 p.m. and 7 a.m.) would occur and the

occupants would be affected by significant noise levels (as defined in Section 4.11) or unshielded light sources that are construction-related. The City may elect to provide vouchers to the occupants for their use in obtaining lodging or may provide occupants with lodging designated by and paid for directly by the City.

- Limit the size of the explosive charge such that the scaled distance is 60 ft/lb² or greater. This is accomplished by using millisecond delays and multiple charges where scaled distances would otherwise be less than 60 ft/lb².
- Limit blasting to daylight hours.
- Use adequate depth of overburden and proper stemming to minimize blast overpressures.
- For drilling, operation, and maintenance of injection wells: locate wells more than ½ mile from residential areas; use diffusers, water injection, blooie silencer, or rock muffler to attenuate steam venting noise; muffle open bleed lines; use quilted noise control blankets around drill rigs.

Implementing Agency:	City of Santa Rosa
Timing:	Start: During Construction Complete: At the completion of construction.
Monitoring Agency:	City of Santa Rosa
Validation:	The City shall respond to complaints from private citizens regarding construction noise within 24 hours. Construction noise shall be monitored at the nearest noise-sensitive receptor locations(s) outside the Project boundaries, during high noise generating activity to determine compliance with local noise criteria. Blasting noise shall be monitored for all blasts. If monitoring indicates that construction noise is in excess of applicable standards, the City may consider implementing additional measures to abate noise.

SECTION 3.5 OPERATION AND MAINTENANCE MEASURES

Implementation of the Disinfection and Diversion Improvements would not require measures to be implemented during operation. Measures 3.5.1 through 3.5.9 in the IRWP Certified EIR do not apply and therefore are not made part of this MMP.