CITY OF PETALUMA CEQA REVIEW OF AND CEQA FINDINGS FOR CORONA STATION

The City of Petaluma is considering an agreement with SMART to facilitate construction of the Corona Station. As documented further below, SMART previously completed environmental review for its entire (then-proposed) rail system, including the Corona Station, in 2006, in compliance with the California Environmental Quality Act (CEQA). This environmental review included the June 2006 Final Environmental Impact Report for the Sonoma-Marin Area Rail Transit Project. That EIR was subject to various addenda, a supplemental EIR, and a supplemental mitigated negative declaration, though none of those subsequent documents are relevant to the Corona Station. SMART has since constructed most of the rail system project identified in the 2006 EIR and is now operating it, but the Corona Station remains to be developed.

As the City is taking action to facilitate the Corona Station, the City is a "responsible agency" under CEQA, whereas SMART remains the "lead agency." As a responsible agency, the City is obligated to review and consider the 2006 EIR and related CEQA documents, to consider whether its actions to facilitate the Corona Station may result in any significant environmental impacts, and to ensure that all feasible mitigation measures are adopted to the extent necessary to mitigate such impacts. (CEQA Guideline § 15095, subds. (e) through (h).) The City must also review the 2006 EIR to determine whether there have been any changes to the project or in surrounding circumstances, or whether there is any other relevant new information, that warrant subsequent or supplemental environmental review under CEQA Guidelines section 15162.

The City has thus reviewed each of the potentially significant impacts identified in the 2006 EIR in order to assess the extent to which each impact is relevant to the Corona Station, whether necessary measures to mitigate such impacts have been adopted, and whether its analysis and conclusions remain valid today. The City's analysis is reflected in this document in the form of notations and comments on the February 2011 SMART Mitigation Monitoring Plan ("MMP"). This analysis identifies the mitigation measures set forth in the 2006 EIR and related subsequent CEQA documents and specifies which of those measures apply to the Corona Station. Based on this analysis, the City finds that development of the Corona Station will not result in any unmitigated significant unavoidable impacts on the environment, and that SMART has already adopted and committed to implement all identified measures needed to mitigate identified impacts to a less than significant level. The City has no role in the implementation of any of the identified mitigation measures, with the limited exception of one measure the City has already adopted and implemented (Mitigation Measure N-5). The City thus does not need to itself adopt any further mitigation measures for Corona Station in its capacity as a responsible agency.

The 2006 SMART EIR did tentatively identify two impacts as potentially significant and unavoidable, but neither of these impacts apply to the Corona Station and neither warrant the City's adoption of a statement of overriding considerations. They are as follows:

- **Impact T-5 (Implementation of the proposed project may lower the service level of several local streets):** The 2006 EIR found that implementation of the project could result in significant level of service (LOS) impacts at one or more intersections in other jurisdictions. While it identified mitigation measures for all such impacts, it conservatively identified these impacts as potentially significant and unavoidable (SU) in the event any of those measures proved to be infeasible. But it did not identify any such LOS impacts at the Corona Station site. Moreover, in any event, LOS is no longer a metric that CEQA allows for use to measure environmental impacts, and CEQA instead requires consideration of a project's impacts relating to "Vehicle Miles Traveled" (VMT). Of course, the Corona Station will necessarily reduce VMT and thus will not result in significant traffic impacts.
- **Impact N-5 (Train horns would cause a substantial increase in ambient noise levels in the project vicinity):** In order to mitigate the noise impacts on of train horns and other audible warning devices by installing crossing controls, the 2006 EIR proposed mitigation measure N-5, which contemplated that local jurisdictions may apply to the Federal Rail Administration (FRA) for designation as a Quiet Zone, where audible warning devices are not required. The 2006 EIR conservatively identified noise impacts from train

horns as being a potentially significant and unavoidable impact, given the then-uncertainty as to whether such quiet zones would be approved by FRA. However, the City did successfully apply for such a quiet zone designation and the FRA has approved it. The City thus finds that this measure has been implemented and that this impact can and has been mitigated to a level of less than significant.

The City further finds, pursuant to CEQA Guidelines section 15161, that there have been no relevant changes in the SMART Project or surrounding circumstances, and no other relevant new information, warranting any supplemental or subsequent environmental review for the Corona Station project, and that the 2006 EIR adequately addresses the environmental impacts of that station. This finding is based in part on the following separate CEQA analyses:

- The City recently prepared a Mitigated Negative Declaration for development of Corona Station Residential Project adjacent to the Corona Station, and that document includes an updated site-specific analysis of the project area that discloses no new impacts not already analyzed in the 2006 EIR.
- Prior to that, on June 17, 2013, the City Council adopted the Petaluma SMART Rail Station Areas: TOD Master Plan, for which the Council adopted a separate Mitigated Negative Declaration that likewise included analysis of the future development of the Corona Station, finding no significant unmitigated impacts.

The following text is taken verbatim from the February 2011 SMART MMP, with additional annotations provided specific to the Corona Station:

SMART MITIGATION MONITORING PLAN

The original Mitigation Monitoring Plan (MMP) for the SMART project was included in Chapter 5 of the 2006 Final EIR and was adopted by the SMART Board in 2006. The Final Supplemental Environmental Impact Report (FSEIR, Draft SEIR published in March 2008; Final SEIR published in July 2008) and the Final Supplemental Mitigated Negative Declaration for the Todd Road Operations and Maintenance Facility (FSMND, Draft SMND published in October 2010 and Final SMND published in January 2011) address the potential environmental effects of supplemental project components and identify additional mitigation measures for these new or changed project components. An MMP for the FSEIR was adopted by the SMART Board in July 2008. An MMP for the FSMND was adopted by the SMART Board along with the SMND in January 2011. The mitigation measures from the FEIR, FSEIR, and FSMND are all combined in Table 1 and constitute the complete MMP for the SMART project. The MMP also addresses environmental compliance measures (see Table 2). Measures adopted as part of the FSEIR or FSMND are noted as such.

As required by Public Resources Code section 21081.6, subdivision (a)(1), the Sonoma-Marin Area Rail Transit District (SMART), in adopting Findings of Fact pertaining to the environmental commitments and mitigation measures described in the certified Final EIR, also adopts this Mitigation Monitoring, Plan (MMP). The MMP is designed to ensure that, during Project Implementation, SMART and any other responsible parties comply with the feasible mitigation measures adopted by the District and described in this document. Unless otherwise specified in the following descriptions of responsibility for monitoring, the custodian of the documents comprising the record of proceedings for the SMART's decision is the General Manager for the SMART Board of Directors. The location of the record of proceedings is the Sonoma-Marin Area Rail Transit District, 4040 Civic Center Drive, Suite 200, San Rafael, California 94903.

GENERAL MONITORING AND ENFORCEMENT PROCEDURES

SMART, as the lead agency for the project, will retain primary responsibility for ensuring that project activities meet the mitigation program requirements and other permit conditions imposed by participating regulatory agencies. SMART and any monitors it may designate are responsible for mitigation monitoring that will occur during project construction and operation. The contractors selected to construct and operate the project will be responsible for submitting all documentation and reports to SMART in a timely manner to demonstrate compliance with specified mitigation requirements. SMART has the responsibility for implementation of mitigation requirements and will be capable of terminating contractors who do not demonstrate the desire and commitment to comply with adopted mitigation requirements.

In addition to SMART's responsibility for mitigation implementation and monitoring, other agencies also have responsibility for ensuring or guiding implementation of certain measures. Relevant measures relate to regulatory or statutory requirements administered by these agencies. Examples of these shared responsibilities include Streambed Alteration Permits (California Department of Fish and Game [CDFG]), jurisdictional wetlands determinations and mitigation (U.S. Army Corps of Engineers), issues related to special-status species (CDFG and U.S. Fish & Wildlife Service). SMART will coordinate with these agencies to ensure that implementation of mitigation measures meets the appropriate requirements.

MITIGATION MEASURES

Table 1 describes the mitigation measures proposed in the FEIR, FSEIR, and FSMND to offset or reduce significant or potentially significant impacts. For each mitigation measure, the table lists the location where the mitigation is to be implemented, the monitoring and reporting action for the mitigation, the effectiveness criteria of each mitigation measure, which agency is responsible for implementing the mitigation, and the timing for implementation of the mitigation.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
	Geology, Soils and Seismicity	
IMPACT G-1	**Excavations may encounter shallow or perched groundwater, which would require dewatering and potential discharge that could cause erosion of soil.**	
MITIGATION MEASURE	**Mitigation Measure G-1:** Implement erosion control Best Management Practices (BMP) such as settling basins, the covering of soil stockpiles, runoff diversions, silt fences, and dewatering sediment filtersocks. Site-specific measures shall be determined during pre-construction planning.	Applies. As the lead agency responsible for construction of the Corona Station, SMART has committed to implementation of this mitigation measure. The City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Areas of excavation where there is a potential to encounter shallow or perched groundwater	
Monitoring / Reporting Action	Erosion control measures will be monitored by the contractor.	
Effectiveness Criteria	Implementation of appropriate BMPs will limit erosion within the project area.	
Responsible Agency	Sonoma-Marin Area Rail Transit (SMART) District	
Timing	Prior to the start of construction activities.	
IMPACT G-2	**Temporary excavations and dewatering may induce ground failure and settlement to adjacent structures.**	
MITIGATION MEASURE	**Mitigation Measure G-2:** Implement properly designed restraint and shoring systems to avoid unstable excavations. The proper shoring design depends on the soil type, the extent of groundwater seepage, the height or depth of the excavation, the inclination of the excavation and the amount of time that the excavation will remain open. These factors can be developed during the geotechnical investigation and recommendations made to structural engineers responsible for the design. When excavations are made adjacent to sensitive structures (i.e., buildings of historic significance, equipment with little tolerance to settlement, or critical facilities and utilities), monitoring of ground surface and structures shall occur so that the amount of settlement or movement does not exceed acceptable levels.	Applies, presuming railway itself has little tolerance to settlement and is a critical facility. No nearby historic structures. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Areas adjacent sensitive structures where excavations would occur.	
Monitoring / Reporting Action	When excavations are made adjacent to sensitive structures (i.e., buildings of historic significance, equipment with little tolerance to settlement, or critical facilities and utilities), monitoring of ground surface and structures by a qualified geologist shall occur so that the amount of settlement or movement does not exceed acceptable levels.	

Effectiveness Criteria	Adherence to appropriate Uniform Building Code (UBC) foundation design criteria so that structures and facilities can withstand various ground-moving forces which could impact the proposed project.	
Responsible Agency	SMART District	
Timing	Prior to and during project construction.	
IMPACT G-3	**Portions of the rail alignment are susceptible to erosion from surface runoff, particularly sloping areas adjacent to drainage swales and creeks and rivers.**	
MITIGATION MEASURE	**Mitigation Measure G-3:** Implement erosion control measures including hydro seeding or erosion control materials on areas that have been graded or disturbed. Additionally, maintain and repair drainage structures (e.g., culverts, drop inlets, etc.) on cut and fill slopes to minimize long term erosion. Licensed civil engineers shall develop properly designed stormwater runoff collection structures and finished contours for new stations, rail sidings, and earthwork to maximize long-term slope stability.	Applies. Southern portion of station site may overlap with Zone AE, within the 100 year floodplain. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Graded or disturbed areas and those areas that have slopes underlain or covered by loose sandy soils as well as localized areas adjacent to drainage outlets and unprotected abutment shoreline areas subject to wave action, such as the Petaluma River.	
Monitoring / Reporting Action	Erosion control measures will be monitored by the contractor during construction with ongoing monitoring by the SMART District following construction.	
Effectiveness Criteria	Implementation of appropriate erosion control measures and properly designed stormwater collection structures will limit erosion within the project area.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Responsible Agency	SMART District	
Timing	During and following project construction.	
IMPACT G-4	**The entire rail alignment and proposed structures are susceptible to significant groundshaking from earthquakes.**	
MITIGATION MEASURE	**Mitigation Measure G-4:** A site-specific geotechnical Investigation report shall be prepared as part of final project design, and its recommendations for seismic design parameters per UBC code shall be incorporated into the proposed project design. This report shall include an in-depth study of the regional seismicity and site-specific geologic conditions, including a probabilistic seismic hazard analysis that incorporates risk-based evaluations of exceedance of certain peak ground accelerations. Measures to reduce impacts would include ground improvement such as soil mixing, jet grouting, soil densification, pile supported structures, etc. The use of specific measures will depend on soil type and stratigraphy, which will be determined during final design. Implementation of geotechnical design recommendations shall be verified during construction by monitoring of construction activities by a qualified geotechnical consultant. After any significant earthquake in the area resulting in felt shaking (also after major rainstorms), the constructed rail line should be immediately inspected. This inspection would be for possible damage and delineation of areas requiring temporary speed reductions, maintenance or more substantial repair work before resumption of train service.	Applies. Site is located within Zone 8, Very Strong, of Mercalli Intensity Shaking Severity Level. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Project rail alignment from Cloverdale to Larkspur.	
Monitoring / Reporting Action	Implementation of geotechnical design recommendations shall be verified during construction by monitoring of construction activities by a qualified geotechnical consultant.	
Effectiveness Criteria	Seismic design parameters per UBC code shall be incorporated into the proposed project design.	
Responsible Agency	SMART District	
Timing	Part of final engineering design.	
IMPACT G-5	**Fault rupture can cause damage to above ground and underground built structures by horizontal or vertical displacement at the ground surface.**	
MITIGATION MEASURE	**Mitigation Measure G-5:** Evaluation of fault rupture hazard shall be undertaken during subsurface geotechnical investigations as discussed in Mitigation Measure G-3 for this segment using guidelines specified in Special Publication 42 of CGS. The evaluation shall determine the specific design features that will be most appropriate for implementation.	Not Applicable. No known faults traverse the Corona Station Site. Presumed that MM G-4 above will confirm.
Location	Throughout the project corridor.	

Monitoring / Reporting Action	A qualified geologist will evaluate the fault rupture hazard during project design.	
Effectiveness Criteria	Completion of hazard evaluation.	
Responsible Agency	SMART District	
Timing	Part of final engineering design.	
IMPACT G-6	**Segments of the proposed project corridor would be subject to liquefaction during strong groundshaking events.**	
MITIGATION MEASURE	**Mitigation Measure G-6:** Proper subsurface investigation shall be conducted in areas with liquefaction potential prior to construction as detailed in Mitigation Measure G-4. This investigation should include Standard Penetration Test borings, laboratory grain size analysis and liquefaction analysis. The subsurface investigation would identify the potential for liquefaction and identify design features to reduce the potential for liquefaction. Geotechnical design recommendations shall be incorporated into final project designs and verified during construction by monitoring of construction activities by a qualified geotechnical consultant.	Applies. Site has high potential for liquification per site specific Geotechnical Investigation performed for Corona Residential. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Location	Throughout the project corridor. Liquefaction potential is most significant in areas with thicker deposits of granular alluvium (Russian River) and moderately significant near drainages with interbedded granular and cohesive sediments. The CGS has prepared liquefaction susceptibility maps of the San Francisco Bay Area that show relative risks of liquefaction. These areas are generally low-lying stream or drainage courses with high groundwater.	
Monitoring / Reporting Action	A qualified geologist will conduct subsurface investigations in areas with potential for liquefaction and will monitor construction activities to insure geotechnical design recommendations are incorporated into the final project design.	
Effectiveness Criteria	Adherence to appropriate geotechnical design features included as part of the project to protect against geotechnical hazards such as liquefaction.	
Responsible Agency	SMART District	
Timing	Part of final engineering design and during project construction.	
IMPACT G-7	**Portions of rail alignment may be susceptible to landslide and slope movement.**	
MITIGATION MEASURE	**Mitigation Measure G-7:** Minimize slope disturbance by performing scaling of loose rock, and install rock fall netting, soil nails or rock bolts as necessary. Conduct geotechnical evaluations of slope stability, including static and pseudo-static analysis to determine factors of safety and whether mitigation measures such as buttressing, retaining walls slope or rock bolting are appropriate. Implementation of the recommendations for mitigating long-term landslide impacts shall be verified by monitoring of construction activities.	Not Applicable. Site is flat with minimal slope.
Location	Along the proposed alignment, several areas have been identified with these conditions including the slopes immediately adjacent to both portals of Tunnel #3 and #4, which presently exhibit rock falls and shallow slumping.	
Monitoring / Reporting Action	A qualified geologist will conduct geotechnical evaluations of slope stability prior to construction.	
Effectiveness Criteria	Appropriate stabilizing measures will be incorporated to prevent slope movement.	
Responsible Agency	SMART District	
Timing	Before and during project construction.	
IMPACT G-8	**Proposed new stations south of Windsor and north of the Petaluma River would be susceptible to expansive soils and some new structures would be subject to corrosion.**	

MITIGATION MEASURE	**Mitigation Measure G-8:** The project shall incorporate one of the following three measures to reduce the impact of expansive soils: (1) remove expansive soil and replace with select, non-expansive, engineered fill; (2) lime treatment of expansive soil; or (3) placement of structures on drilled piers or foundation elements founded on deeper, non-expansive bearing strata.	Applicable. Site has high to very high plasticity and expansion potential per site specific Geotechnical Investigation performed for Corona Residential. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Corrosive soils, found along tidal flats have a different impact in that they are aggressive only towards steel and concrete. New pilings, bridges and exposed concrete structures would be susceptible to these impacts.	
Monitoring / Reporting Action	During final design a qualified geologist will determine the appropriate measure to be implemented in order to reduce the effect of expansive soils.	
Effectiveness Criteria	New structures will be designed and built with appropriate methods to reduce the impact of expansive soils.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	

	MITIGATION MEASURE	**Mitigation Measure G-9:** Where corrosive soils are encountered, the project shall incorporate one or more of the following measures, as appropriate: epoxy coating of reinforcing steel, use of Type 5 Portland cement in structural concrete, or soil treatment to neutralize pH in the soil or reduce excessive chloride and sulfate concentrations in the soil.	Applies. Presumes that G-4 above will identify corrosive potential. Corona Residential Geotechnical Investigation performed Corrosivity tests and recommendation additional testing may be needed. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Location	Corrosive soils, found along tidal flats have a different impact in that they are aggressive only towards steel and concrete. New pilings, bridges and exposed concrete structures would be susceptible to these impacts.	
	Monitoring / Reporting Action	During final design a qualified geologist will determine the appropriate measure to be implemented in order to reduce the effect of corrosive soils.	
	Effectiveness Criteria	New structures will be designed and built with appropriate methods to reduce the impact of corrosive soils.	
	Responsible Agency	SMART District	
	Timing	Prior to project construction.	
		Water Resources	
	IMPACT WR-1	**Project construction could cause a temporary increase in surface erosion, sedimentation and stream alterations due to the use of earthmoving equipment.**	

	MITIGATION MEASURE	**Mitigation Measure WR-1a:** The proposed project shall comply with the National Pollutant Discharge Elimination System (NPDES) permit process which requires project applicants to file a Notice of Intent (NOI) and prepare and submit a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must contain a detailed mitigation plan for erosion and sediment control, including plans for implementing BMPs for the control of stormwater runoff, erosion and sedimentation. BMPs include structural treatment controls. Structural treatment controls are engineered facilities designed for the treatment of storm water runoff. They use infiltration, retention/detention and biofiltering techniques to remove pollutants. Vegetated swales and buffer strips, infiltration systems, bioretention systems, extended detention basins, ponds and constructed wetlands, media filtration systems, and oil/water separators are examples of structural treatment controls for storm water quality. The type of structural	Applies. Site is greater than 1 acre. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Location	In construction locations where drainage patterns exists.	
	Monitoring / Reporting Action	None	
	Effectiveness Criteria	Adherence to SWPPP and SUSMP.	
	Responsible Agency	SMART District, Regional Water Control Board, City of Santa Rosa, Counties of Sonoma and Marin	
	Timing	Prior to and during project construction	
	MITIGATION MEASURE	**Mitigation Measure WR-1b:** The project shall comply with the requirements for a Streambed Alteration Agreement for those portions of the project that would be completed along the banks of various surface waterbodies. In order for any work to be completed around the various surface waterbodies, Section 401 of the Clean Water Act would be applicable. Section 401 requires any applicant for a federal permit that conducts any activity that may result in a discharge of pollutants to first obtain a Water Quality Certification (WQC) from the State. As a condition of the project, 401 Certifications and Section 404 permits will be obtained. Section 404 of the Clean Water Act establishes programs to regulate the discharge of dredged and fill material in waters of the U.S., including wetlands.	
	Location	Around waterbodies subject to Sections 401 and 404 of the federal Clean Water Act.	
	Monitoring / Reporting Action	None	
	Effectiveness Criteria	Adherence to performance standards included under a Water Quality Certification obtained from the State of California and a Section 404 permit obtained from the US Army Corps of Engineers.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Responsible Agency	SMART District, US Army Corps of Engineers	
Timing	Prior to project construction.	
IMPACT WR-5	**Placement of new structures or fill material within a designated 100-year floodplain could increase flooding upstream of the structures.**	
MITIGATION MEASURE	**Mitigation Measure WR-2:** Design structures and other improvements on the site so as not to raise flood levels. Specific designs shall be based on site-specific hydrologic studies conducted during the final design stage of the proposed project. Said studies will be submitted to the State Water Resources Control Board and the two RWQCBs for review. When feasible, construction within the floodplain shall be avoided or minimized. When construction within the floodplain is unavoidable, efforts will be made to restore the floodplain, as necessary, to restore flood capacity.	Applies. Portion of the site overlaps with Zone AE, within the 100 year floodplain. Northwest most corner is not within Zone AE. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Within designated 100-year floodplains.	
Monitoring / Reporting Action	Site-specific hydrologic studies will be conducted and incorporated into project design.	
Effectiveness Criteria	Site improvements designed to not raise flood levels. Floodplain restoration undertaken in areas where floodplain construction is unavoidable.	
Responsible Agency	SMART District	
Timing	During final engineering design and post-construction.	
	Hazardous Materials	
IMPACT HM-1	**There is the potential for encountering phenol, creosol or ADL during construction.**	

MITIGATION MEASURE	**Mitigation Measure HM-1:** Samples of soil shall be submitted for analysis for phenol and creosol compounds if track shoulder re-grading or excavations associated with bridge improvements are undertaken. Sampling of soil will also be based on available historical information and/or previous sampling data sampling and analysis and will be modified to include other potential contaminants such as metals, petroleum hydrocarbons, polychlorinated biphenyls (PCB) and polynuclear aromatic hydrocarbons (PAH) where warranted. Samples of soil are recommended to be submitted for analysis for lead if improvements to the road crossings are required to determine if these compounds are present and have the potential to impact disposal or release to the environment. If phenol and creosol compounds or ADL are present in the soil, then preparation of a Site Mitigation Plan (SMP) will be required to address potential exposure of workers to impacted soil in order to comply with applicable waste handling and disposal regulations (if offsite disposal of soil is necessary). At a minimum, BMPs in the SMP should include provisions for excavation and grading of impacted soil, stockpiling and testing of contaminated soil, dust and odor control measures and health and safety requirements for working with impacted soil. To comply with AB 939 requirements, which dictate guidance for source reduction, recycling and composting, and environmentally safe transformation and land disposal of solid wastes, railroad ties and steel that are replaced during construction of the project will be recycled or re-used as appropriate.	Applicable. Site was under clean up oversight regulated by RWQCB. Geotracker accessed May 13, 2020 indicates Cleanup Program Site is closed. This measure thus already has been successfully implemented for this site. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Track shoulders, bridges and grade crossings where re-grading or excavations would occur.	
Monitoring / Reporting Action	Analyze soil samples from areas where track shoulder re-grading or excavations associated with bridge improvements are undertaken or where improvements to the road crossings are required. If phenol and creosol compounds or ADL are present in the soil, a Site Mitigation Plan (SMP) will be required to address potential exposure of workers to impacted soil in order to comply with applicable waste handling and disposal regulations (if offsite disposal of soil is necessary). At a minimum, BMPs in the SMP should include provisions for excavation and grading of impacted soil, stockpiling and testing of contaminated soil, dust and odor control measures and health and safety requirements for working with impacted soil.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Effectiveness Criteria	Adherence to the SMP and implementation of best management practices (BMPs) identified in the plan.	
Responsible Agency	SMART District	
Timing	Prior to the start of re-grading or excavation activities.	
IMPACT HM-2	**In areas where soil excavation or excavation to shallow or perched groundwater is anticipated, there is a low to moderate potential to encounter contaminated soil and groundwater.**	
MITIGATION MEASURE	**Mitigation Measure HM-2:** Precautions, including sampling of soil and groundwater prior to work activities in the areas where proposed excavations are planned and preparation of a SMP, shall be implemented, where necessary. If naturally occurring asbestos is encountered, the project shall comply with the CARB Asbestos Airborne Toxic Control Measures regulation (17 CCR, Section 93105), which requires local air district review and approval of an asbestos dust mitigation plan. An Asbestos Dust Mitigation Plan must specify dust mitigation practices which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line. If contaminated materials are encountered during construction activities, the local Fire Certified Unified Program Agency (CUPA) will be notified immediately. A qualified environmental consultant shall monitor soil and air and dust emissions during construction activities in these locations to identify whether potential hazards exist and whether special handling of soil and groundwater is required. Specially trained workers can be utilized to handle contaminated soil/groundwater and SMP implementation measures (i.e., use of personal protective equipment) can be utilized to mitigate potential exposures to contaminated soil/groundwater and additional releases to the environment. Construction-related impacts of soil excavation and groundwater dewatering in contaminated areas can be mitigated through implementation of BMPs, such as conducting daily health and safety meetings to discuss planned work in areas where contaminated soil/groundwater could be encountered. Mitigation measures to protect the public include limiting access (i.e., fencing and site security) to the railroad corridor during construction activities and implementation of BMP measures to prevent offsite migration of contaminated soil and groundwater.	Applicable. Site is was under clean up oversight regulated by RWQCB. Geotracker accessed May 13, 2020 indicates Cleanup Program Site is closed. This measure thus already has been successfully implemented for this site. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Areas where proposed excavations are planned including the following locations: properties with documented releases of petroleum hydrocarbon constituents and solvents to soil and groundwater are present within ¼ mile of the proposed Healdsburg, Santa Rosa Railroad Square, Santa Rosa Jennings Avenue, Rohnert Park, Petaluma – Corona Road, Downtown Petaluma, and Downtown San Rafael Stations. The proposed Windsor maintenance facility is just west of the former Ecodyne Cooling property, which had a release from a gasoline UST and release of wood treatment chemicals to the soil and groundwater.	

Monitoring / Reporting Action	If contaminated materials are encountered during construction activities, the local Fire Certified Unified Program Agency (CUPA) will be notified immediately. A qualified environmental consultant shall monitor soil and air and dust emissions during construction activities in these locations to identify whether potential hazards exist and whether special handling of soil and groundwater is required. Specially trained workers can be utilized to handle contaminated soil/groundwater and SMP implementation measures (i.e., use of personal protective equipment) can be utilized to mitigate potential exposures to contaminated soil/groundwater and additional releases to the environment.
Effectiveness Criteria	Appropriate handling of contaminated materials by trained workers will limit potential impacts.
Responsible Agency	SMART District, Bay Area Air Quality Management District, Counties of Sonoma and Marin
Timing	During project construction, prior to the start of excavation.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT HM-3	**Eleven bridges along the corridor have the potential to contain LBP and/or asbestos.**	
MITIGATION MEASURE	**Mitigation Measure HM-3:** Sampling activities shall be conducted in locations where asbestos containing materials or lead-based paint (LBP) are anticipated to identify whether potential hazards exist and whether special precautions to prevent workers from exposure to LBP or asbestos are necessary during bridge/overcrossing renovation and or/demolition. If friable asbestos materials are identified during bridge inspections, these materials shall be safely removed and properly disposed using procedures established by OSHA and the BAAQMD/NSCAPCD. Bridge workers shall be protected through the use of proper protective equipment. Standard procedures shall be used for capturing LBP during bridge cleaning (e.g., sand blasting) and preventing it from being released into the environment. Proper containment shall be employed for all bridge maintenance activities to prevent LBP from impacting the environment.	Not Applicable. No bridge.
Location	Those bridges that would either be upgraded or replaced as part of the proposed project	
Monitoring / Reporting Action	If friable asbestos materials are identified during bridge inspections, these materials shall be safely removed and properly disposed using procedures established by the Occupational Safety and Health Administration (OSHA) and the Bay Area Air Quality Management District (BAAQMD) / North Sonoma County Air Pollution Control District (NSCAPCD). Bridge workers shall be protected through the use of proper protective equipment. Standard procedures shall be used for capturing LBP during bridge cleaning (e.g., sand blasting) and preventing it from being released into the environment. Proper containment shall be employed for all bridge maintenance activities to prevent LBP from impacting the environment.	
Effectiveness Criteria	Appropriate removal of asbestos by trained workers will limit potential impacts.	
Responsible Agency	SMART District, BAAQMD, NSCAPCD	
Timing	Prior to the start of project construction.	
	Transportation	
IMPACT T-5	**Implementation of the proposed project may lower the service levels on several local streets.**	
MITIGATION MEASURE	**Mitigation Measure T-1:** Mitigation at appropriate locations shall include restriping of existing roadways and traffic control improvements such as signal timing and phasing modifications, where appropriate (see also Mitigation Measure T-2).	Not Applicable. LOS is no longer CEQA impact.
Location	Various locations along the project corridor.	
Monitoring / Reporting Action	Periodic monitoring of local traffic operations where improvements have been made.	
Effectiveness Criteria	With implementation of appropriate mitigation measures, there would be a continuation of existing service levels on local streets.	

Responsible Agency	SMART District and local jurisdictions	
Timing	Concurrent with project implementation.	
MITIGATION MEASURE	**Mitigation Measure T-3 (Hamilton):** SMART shall pay its fair share cost of signalizing the Highway 101 northbound ramp at Nave Drive and the southbound ramp at Alameda del Prado, at such time as signal warrants and/or traffic engineering studies indicate this action would be desirable. Signalization would be subject to Caltrans approval. **[FSEIR]**	Not Applicable to Corona Station.
Location	Near Hamilton station site	
Monitoring / Reporting Action	Conduct signal warrants at identified intersections and monitor local traffic operations where improvements have been identified. When warrants and monitoring determine need for improvements, establish fair share cost for proposed project.	
Effectiveness Criteria	City of Novato determines that SMART has submitted payment for its fair share cost for mitigation measures. With implementation of appropriate mitigation measures, there would be a continuation of acceptable service levels on local streets.	
Responsible Agency	SMART District and local jurisdictions	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Timing	Concurrent with project implementation.	
MITIGATION MEASURE	**Mitigation Measure T-5 (Hamilton)** SMART shall pay its fair share cost of mitigating impacts on the intersection of Main Gate Road and Nave Drive. Mitigation would consist of adding a northbound right turn arrow (known as an "overlap phase") to serve northbound right turn traffic (Nave Drive right turn into Main Gate Road); and lengthening the existing northbound right turn lane to a length appropriate to serve the traffic demand. **[FSEIR]**	Not Applicable to Corona Station.
Location	Near Hamilton station site	
Monitoring / Reporting Action	Conduct signal warrants at identified intersections and monitor local traffic operations where improvements have been identified. When warrants and monitoring determine need for improvements, establish fair share cost for proposed project.	
Effectiveness Criteria	City of Novato determines that SMART has submitted payment for its fair share cost for mitigation measures. With implementation of appropriate mitigation measures, there would be a continuation of acceptable service levels on local streets.	
Responsible Agency	SMART District and local jurisdictions	
Timing	Concurrent with project implementation.	
IMPACT T-8	**Traffic operations and level of service would decline at three intersections during the a.m. peak hour and four intersections during the p.m. peak hour near the Downtown San Rafael Station.**	
MITIGATION MEASURE	**Mitigation Measure T-2:** The implementation of the proposed project signaling and communication system shall include coordination and integration with the adjacent traffic signals to allow for progression of other non-conflicting traffic movements. In addition, a grade crossing protection system shall be provided, which would include a hardware interconnection of the train detection system to the railroad crossing gates to allow the gates to stay up while the train is stopped at the station; the train operator would activate the crossing gates and flashers only when the train is ready to leave the station. Coordination and integration with the adjacent traffic signals in downtown Santa Rosa and Petaluma and the grade crossing protection system would minimize traffic impacts and reduce unnecessary delays and queues to less than significant.	Not Applicable.
Location	Along the rail corridor through downtown Santa Rosa, Petaluma and San Rafael.	
Monitoring / Reporting Action	Periodic monitoring of local traffic operations where improvements have been made.	
Effectiveness Criteria	With implementation of an integrated signal system, there would be a continuation of existing service levels on local streets.	
Responsible Agency	SMART District and local jurisdictions	

Timing	Concurrent with project implementation.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
	Noise and Vibration	
IMPACT N-1	**The proposed project would temporarily cause increased noise levels associated with construction equipment and activities.**	
MITIGATION MEASURE	**Mitigation Measure N-1:** In order to reduce construction noise at nearby receptors, the following noise abatement measures shall be implemented for construction contracts: • When practical, construction operations shall not occur between 7:00 p.m. and 7:00 a.m. or on weekends or holidays in residential areas. • Each internal combustion engine shall be equipped with a muffler of a type recommended by the manufacturer. Other measures to reduce noise levels that may be implemented where appropriate include: • Turning off construction equipment during prolonged periods of non-use. • Requiring contractors to maintain all equipment and train their equipment operators to increase efficiency of operation. • Locating stationary noise-generating equipment away from noise-sensitive receptors such as residences.	Applicable. Noise sensitive receptors exist to the north of the tracks and are approved for development adjacent to the station (Corona Residential). SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	While construction would occur along the entire length of the corridor, at most locations construction activities would be minor and of limited duration. Construction noise would be intermittent over the duration of the proposed project, varying with the time of day and stage of construction. Construction noise impacts would depend on the type, amount, location, and duration of construction activities. The construction noise impacts would be limited to the immediate vicinity of these improvements.	
Monitoring / Reporting Action	Noise monitoring during construction would determine which abatement measures should be implemented to achieve the greatest levels of construction noise reduction.	
Effectiveness Criteria	Implementation of appropriate noise abatement measures would reduce construction noise levels.	
Responsible Agency	SMART District's construction contractor would be required to comply with applicable local sound control and noise level rules, regulations and ordinances.	
Timing	During project construction activities.	
IMPACT N-3	**The Windsor Station operations may cause a permanent increase in ambient noise levels in the project vicinity.**	
MITIGATION MEASURE	**Mitigation Measure N-3:** Install a solid barrier at the Windsor Station to separate the park-and-ride lot from residential uses.	Not Applicable to Corona Station.

Location	Windsor Station	
Monitoring / Reporting Action	None	
Effectiveness Criteria	Further reduction of noise in the vicinity of the park-and-ride lot.	
Responsible Agency	SMART District	
Timing	Prior to initiation of passenger rail service.	
IMPACT N-4	**The proposed maintenance facility would cause a permanent increase in ambient noise levels in the project vicinity.**	
MITIGATION MEASURE	**Mitigation Measure N-4:** Construct a noise barrier or enclosure of the vehicle lay-up area at the Cloverdale Maintenance Facility.	Not Applicable to Corona Station.
Location	Cloverdale Maintenance Facility	
Monitoring / Reporting Action	None	
Effectiveness Criteria	Further reduction of noise in the vicinity of the maintenance facility.	
Responsible Agency	SMART District	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Timing	Prior to initiation of passenger rail service.	
IMPACT N-5	**Train horns would cause a substantial increase in ambient noise levels in the project vicinity.**	
MITIGATION MEASURE	**Mitigation Measure N-5:** Limit the use of train horns and other audible warning devices by installing crossing controls that meet Federal Railroad Administration (FRA) requirements and obtain Quiet Zone designations for crossings along the corridor. Local jurisdictions may apply to the FRA for designation as a Quiet Zone, where audible warning devices are not required.	Applies and implemented. Petaluma has adopted quiet zone ordinance for all existing crossings citywide. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Grade crossings along the corridor.	
Monitoring / Reporting Action	Submittal of Quiet Zone applications by local jurisdictions; if required, implementation of Wayside Horn Systems.	
Effectiveness Criteria	Implementation of FRA Quiet Zone regulations would reduce impacts from train horns.	
Responsible Agency	SMART District	
Timing	During operation of passenger rail service.	
	Energy	
IMPACT E-1	**Construction and maintenance of the proposed project would require indirect energy consumption.**	
MITIGATION MEASURE	**Mitigation Measure E-1:** Implement energy conservation measures during construction such as: • Using energy efficient measures at rail stations, such as solar panels; • Reducing idling of trucks delivering construction material; • Consolidating material delivery; and • Scheduling material delivery during off-peak hours, to allow trucks to travel without traffic and at fuel-efficient speeds (45–55 mph).	Applies. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	At construction locations along the project corridor.	
Monitoring / Reporting Action	Documentation from SMART District and contractor demonstrating compliance.	
Effectiveness Criteria	Reduction in energy consumption during construction.	
Responsible Agency	SMART District	
Timing	During project construction.	

Biological Resources		
IMPACT BR-1	**Project construction would cause damage to sensitive upland vegetation and wildlife habitat within temporary work areas.**	
MITIGATION MEASURE	**Mitigation Measure BR-1a:** Construction access, staging, storage, and parking areas shall be located on ruderal or developed lands to the extent possible. Vehicle travel adjacent to wetlands and riparian areas shall be limited to existing roads and designated access paths. Sensitive natural communities (i.e., wetlands, waters, riparian zones and oak woodlands) shall be conspicuously marked in the field (including suitable buffer zones) to minimize impacts on these communities, and work activities shall be limited to outside the marked areas. The minimum distances for these buffer zones will be determined for each site during consultation with the appropriate resource agencies.	Applies and conforms. Project site is limited to ruderal lands with prior disturbance. No wetlands, waters or riparian or oak woodlands are present onsite. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Throughout the project corridor.	
Monitoring / Reporting Action	Biological monitors shall be present during project construction.	
Effectiveness Criteria	Construction zones are maintained. Sensitive natural communities are marked, and work activities conducted outside these areas.	
Responsible Agency	SMART District	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Timing	Prior to and during project construction.	
MITIGATION MEASURE	**Mitigation Measure BR-1b:** Qualified biologists shall monitor construction activities that could potentially cause significant impacts on sensitive biological resources. A worker education program shall be developed and presented to all construction personnel before they start work on the proposed project. The program shall summarize relevant laws and regulations that protect biological resources, discuss sensitive habitats and special-status species with the potential to occur in the work zone, explain the role and authority of the biological monitors and review applicable avoidance and minimization measures to protect sensitive species and habitats.	Not Applicable to Corona Station. There are no sensitive biological resources that will be affected.
Location	Throughout the project corridor.	
Monitoring / Reporting Action	Biological monitor will oversee construction activities that could impact sensitive biological resources, and present worker biological education to all workers in the project zone before they start work.	
Effectiveness Criteria	Construction activities with the potential to impact biological resources are monitored, and worker biological education is completed for all workers before starting work in the project zone.	
Responsible Agency	SMART District	
Timing	During project construction.	
IMPACT BR-2	**There could be temporary disturbance of wetlands/Waters of the United States.**	
MITIGATION MEASURE	**Mitigation Measure BR-1a; and** **Mitigation Measure BR-2a:** In-stream construction shall be confined to the dry or low-flow season of April 15 to October 15. During in-stream construction, dewatered areas and temporary culverts shall be limited to the minimum area necessary. Pumps used for dewatering shall have agency-approved fish screens installed to minimize intake of fish into pumps. Diversion structures shall be left in place until all in-stream work is completed. Temporary culverts and all construction materials and debris shall be removed from the affected area prior to reestablishing flow and prior to the rainy season.	BR-2a: Not Applicable to Corona Station. There is no in-stream construction required.
Location	In and adjacent to all wetlands and watercourses in the project corridor, which are mapped and included in the Wetlands Report.	
Monitoring / Reporting Action	Biological monitor ensures that in-stream seasonal and construction restrictions are followed and agency-approved fish screens are utilized on dewatering pumps.	
Effectiveness Criteria	Seasonal and other restrictions on in-stream construction will be followed, agency-approved fish screens utilized, and construction materials removed prior to the rainy season.	
Responsible Agency	SMART District	

Timing	During project construction and post-construction.	
MITIGATION MEASURE	**Mitigation Measure BR-2b:** A qualified biological monitor shall be present during critical construction periods (e.g., grubbing and clearing, culvert installation, pouring concrete) in all streams and wetland areas. If a listed or protected species is encountered, work shall be stopped immediately at that location, the appropriate agency or agencies US Fish & Wildlife Service (USFWS), National Oceanic Atmosphere Administration (NOAA), Fisheries and/or California Department of Fish & Game (CDFG) shall be notified, and work shall not resume at that location prior to the agencies' approval, or as agreed to in prior consultation with the agencies.	Not Applicable to Corona Station. There are no streams or wetlands that will be affected.
Location	In and adjacent to all wetlands and watercourses in the project corridor, which are mapped and included in the Wetlands Report.	
Monitoring / Reporting Action	Biological monitor is present during critical construction periods, and is responsible for stopping work in the event a protected species is encountered, and notifying the appropriate agency for consultation on how to proceed. Biologists prepare daily monitoring logs and periodic reports, which are submitted to SMART.	
Effectiveness Criteria	Critical construction activities are monitored, and the appropriate agency is consulted whenever a listed species is encountered.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Responsible Agency	SMART District, USFWS, NOAA Fisheries, CDFG	
Timing	During project construction.	
MITIGATION MEASURE	**Mitigation Measure BR-2c:** Upon completion of the proposed project, all temporarily disturbed natural areas, including stream banks, shall be returned to original contours to the extent feasible. Affected wetlands, stream banks or stream channels shall be stabilized prior to the rainy season and/or prior to reestablishing flow. For wetland areas, the top six inches of native topsoil should be stockpiled and replaced following work. Wetland and riparian vegetation shall be reestablished as appropriate.	Not Applicable to Corona Station. There are no streams or wetlands that will be affected.
Location	Throughout the project corridor.	
Monitoring / Reporting Action	None	
Effectiveness Criteria	All disturbed natural areas will be returned to pre-construction state to the extent feasible.	
Responsible Agency	SMART District, CDFG	
Timing	Post-construction.	
IMPACT BR-3	**There could be disturbance of nesting birds due to construction activities.**	
MITIGATION MEASURE	**Mitigation Measure BR-3a:** To the extent feasible, trees and shrubs in the construction zones shall be trimmed or removed between September 1 and January 31 to reduce potential impacts on nesting birds. If vegetation must be removed during the period from February 1 to August 31, a qualified wildlife biologist shall conduct pre-construction surveys for nesting birds. If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300 feet for raptors; or (b) 75 feet for other non-special-status bird species (for California clapper rail and California black rail see Mitigation Measure BR-12). If active nests are closer than those distances to the nearest work site and there is the potential for destruction of a nest or substantial disturbance to nesting birds due to construction activities, a plan to monitor nesting birds during construction shall be prepared and submitted to the USFWS and CDFG for review and approval. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete and the young have fledged.	Applies. Corona Residential identified preconstruction survey for nesting birds pursuant to MBTA. However, with respect to the Corona Station itself, SMART has adopted this measure and will be responsible for implementation of this measure and the City will have no further role in it. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Throughout the project corridor.	
Monitoring / Reporting Action	Pre-construction survey reports shall be prepared and submitted to SMART. Locations of active nests shall be recorded. If bird nests are found within an applicable radius of the work site, the nest shall be monitored and disturbance avoided to the extent possible.	
Effectiveness Criteria	To the extent feasible, vegetation removal is scheduled during the non-nesting season. Exclusion zones are established on active nests during the nesting season.	

Responsible Agency	SMART District	
Timing	Prior to and during project construction.	
MITIGATION MEASURE	**Mitigation Measure BR-3b:** If construction is likely to occur during the nesting season of cliff swallows (March 1 to July 31), bridges shall be periodically inspected for swallow nests by a qualified biologist prior to the onset of bridge demolition and/or new bridge construction. Nests shall be knocked down by a biologist prior to being one-third completed. Inspection of the bridges shall start in late February. Alternative methods to prevent cliff swallow nesting on the bridge may be used with prior approval by the CDFG.	Not Applicable There are no bridges associated with Corona Station.
Location	All bridges along the project corridor.	
Monitoring / Reporting Action	Surveys, nest removal and inspection of removed nests are reported to CDFG.	
Effectiveness Criteria	No swallow nests are located on bridges scheduled for demolition or new construction.	
Responsible Agency	SMART District, CDFG	
Timing	Prior to and during project construction.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT BR-4	**The proposed project could result in the introduction or spread of noxious weeds in the project corridor.**	
MITIGATION MEASURE	**Mitigation Measure BR-4:** During construction activities, the following measures shall be implemented to the extent feasible to reduce the spread of exotic (non-native) invasive plants in temporary work areas and throughout the project corridor: • Minimize vehicle travel through weed-infested areas. • Minimize soil disturbance and the removal of existing vegetation (non-native [FEIR uses the word exotic rather than non-native] or native) to the extent feasible during construction activities. • Use only certified weed-free straw and mulch or weed-free fiber roll barriers or sediment logs. • Use only certified weed-free native seed mixes and native plants that are appropriate to the pre-existing or adjacent natural habitat for revegetation. [Not applicable to the Downtown Novato station site or other urban sites where there is no existing natural habitat] • Monitor all erosion-control and revegetation sites for weed infestations at least twice yearly during the growing season, for at least three years after construction. • At sites where restoration is required, remove pre-existing invasive species, such as *Arundo donax*, that are growing in the right-of-way.	Not Applicable to Corona Station. The site is highly disturbed with past industrial uses.
Location	Throughout the project corridor.	
Monitoring / Reporting Action	Erosion control and revegetation sites will be monitored for weed infestations during and following construction by the qualified biologist. Erosion control and revegetation sites are monitored for weeds for three years following construction.	
Effectiveness Criteria	Introduction and spread of weed infestation is minimized.	
Responsible Agency	SMART District	
Timing	During project construction and for three years following construction.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT BR-5	**The proposed project would result in the loss or alteration of wetlands/Waters of the United States.**	
MITIGATION MEASURE	**Mitigation Measure BR-5a:** To replace impacted wetlands, a habitat restoration plan shall be developed and implemented to enhance wetland and riparian habitats in undeveloped portions of the right-of-way. Habitat shall be restored or replaced at a minimum 1:1 ratio of acres of these habitats permanently impacted. The ratio of 1:1 would be appropriate for mitigating relocation of a seasonal ditch, where the new ditch would be constructed on-site and parallel to the existing ditch. Many of these ditches provide minimal function, and there would be minimal temporal loss if the replacement ditch is constructed first. Replacement ratios of 3:1 would be appropriate for off-site mitigation of fill of high-quality wetlands such as vernal pools or coastal salt marsh. Restoration efforts shall focus on areas where current conditions are degraded due to erosion, unstable slopes or abundance of invasive exotic plant species. Elements of the plan could include slope stabilization, control of invasive weeds, and reestablishment of appropriate native vegetation. Performance standards that are accepted by the resource agencies for site revegetation shall be specified in the plan. These standards could include a minimum 80 percent success rate of plants reestablished or acres restored. The restored areas shall be monitored for a minimum of three years and remedial measures taken, such as replanting vegetation or enhancing additional areas, if the performance standards are not met. Preliminary reviews of the SMART project corridor have identified 12 sites, covering 3.2 acres, where conditions appear to be suitable for vernal pool restoration and/or enhancement. These sites are located between MP 51- MP 63. They are dominated with herbaceous vegetation, underlain with poorly draining soils, adjacent to compatible land uses, and within 6 miles of the pools that would be affected. At these sites, individual site prescriptions would be developed based on specific soil and hydrologic conditions. Further investigations would confirm underlying soils, map local hydrology and identify potential watershed areas. These data would then be used to first prioritize all of the sites for enhancement or pool creation, and then develop site specific prescriptions on the highest ranking sites up to the area required to mitigate vernal pool impacts associated with the project. Site-specific prescriptions would quantify and delineate grading and landshaping requirements to recreate or enhance ponded conditions. Grading would follow the site prescriptions and take place during the dry season. The pools would then be inoculated with material from the pools that would be filled during project construction, but before the raining season. Annual vegetation monitoring would take place for at least three years until the mitigation sites achieve adequate cover with species typical of vernal pools.	Not Applicable to Corona Station. There are no wetlands that will be affected.
Location	Wetlands and riparian habitat along the project corridor.	

Monitoring / Reporting Action	Development of a habitat restoration plan to replace impacted wetlands and riparian habitat along the project corridor. Annual survey to monitor success rate of re-established plants. Vegetation monitoring of created vernal pools would take place on an annual basis until the mitigation sites achieve 65 percent cover with species typical of vernal pools. Monitoring would take place for a minimum of three years.
Effectiveness Criteria	The habitat restoration plan restores or replaces habitat at a minimum 1:1 ratio; a 3:1 ratio will be used for high-quality wetlands. Performance standards that are accepted by the resource agencies for site revegetation shall be specified in the plan. These standards could include a minimum 65 percent success rate of plants re-established or acres restored.
Responsible Agency	SMART District, resource agencies
Timing	Minimum of three years monitoring of restored areas post-construction. Remedial measures, such as replanting vegetation or enhancing additional areas, taken if the performance standards are not met.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
MITIGATION MEASURE	**Mitigation Measure BR-5b:** In the event that habitat restoration and enhancement within the right-of-way is insufficient to compensate for all wetland losses resulting from the proposed project, SMART shall provide additional, off-site compensation as needed to achieve a minimum 1:1 replacement ratio for affected wetland areas.	Not Applicable. There are no wetlands.
Location	Wetlands and riparian habitat along the project corridor.	
Monitoring / Reporting Action	Compensation shall be documented in ACOE permit conditions.	
Effectiveness Criteria	None	
Responsible Agency	SMART District, US Army Corps of Engineers	
Timing	Post-construction.	
MITIGATION MEASURE	**MM BR-17 (Hamilton):** Design the Hamilton Station to avoid on-site wetlands. [FSEIR]	
Location	Wetlands at the Hamilton station site	
Monitoring / Reporting Action	Development of a site plan that avoids identified wetland areas.	
Effectiveness Criteria	Site visits by qualified wetlands biologist will confirm that the site plan will avoid onsite wetlands.	
Responsible Agency	SMART District, resource agencies	
Timing	Final engineering/site design phase.	
MITIGATION MEASURE	**Mitigation Measure BR-19: Relocate project components to avoid wetland areas to the extent feasible.** Before construction begins, the site plan shall be revised in order to relocate project components (including the secondary access to the maintenance facility site, the multi-use pathway, and parking lots) so that potential wetland impacts are avoided to the extent feasible. [FSMND]	Not Applicable. There are no wetlands.
Location	Wetlands on the Todd Road OMF site.	
Monitoring / Reporting Action	Site plan and documented efforts to avoid wetland impacts to be submitted to SMART District prior to final design.	
Effectiveness Criteria	Site plan avoids wetland impacts to the extent feasible.	
Responsible Agency	SMART District	
Timing	Prior to final design.	
IMPACT BR-6	**The proposed project would result in the loss or alteration of vernal pools**.	
MITIGATION MEASURE	Implementation of a habitat restoration plan or off-site compensation for vernal pools, pursuant to the provisions of **Mitigation Measure BR-5a** and **BR-5b** would reduce this impact to a less than significant level.	Not Applicable. There are no vernal pools.

IMPACT BR-7	**The proposed project would result in the loss or alteration of riparian vegetation.**	
MITIGATION MEASURE	Impacts to riparian vegetation are minimized under environmental compliance measures, including conditions of CDFG Streambed Alteration Agreements. **Measures BR-2c** and **BR-5a** would further reduce this impact to a less-than-significant level.	Not Applicable. There is no riparian vegetation.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT BR-8	**The proposed project would result in the loss of oak woodlands and removal of individual protected trees.**	
MITIGATION MEASURE	**Mitigation Measure BR-6:** This measure addresses impacts on both individual trees and oak woodland habitat. A qualified arborist shall conduct a tree survey within the project corridor, prior to ground-disturbing activities, to identify trees that would be removed or potentially affected by the proposed project and trees that can be avoided. Where it is feasible to avoid protected trees, keep vehicles and mechanical equipment outside the dripline of these trees. In areas where oaks or other protected trees cannot be avoided, replace trees removed with the same native tree species at a minimum 3:1 ratio, or as required by applicable ordinance(s). SMART shall conduct monitoring for ten years following planting to verify that trees have successfully reestablished. Prior to construction, an oak woodland restoration plan shall be developed and provided to CDFG for concurrence. The plan shall include the total acreage of temporary and permanent impacts to all oak woodland habitat. Areas shall be mapped using aerial photographs and provided to CDFG for concurrence. All temporary and permanently disturbed areas shall be mitigated at a 1:1 ratio for creation and preservation of new oak woodlands or a 3:1 ratio for preservation of existing habitat. To ensure a successful creation effort, all mitigation plantings shall be monitored and maintained (including irrigation as necessary) for ten years. At the end of the ten-year monitoring program, the canopy cover shall equal or exceed percent cover mapped at the disturbed sites. If the cover requirements are not meeting these goals, SMART is responsible for replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements. All replacement plants shall be monitored with the same requirements for ten years after planting. An annual status report on the mitigation shall be provided to CDFG by December 31 of each year for the first 5 years and a final report at year ten. This report shall include the percent cover of each species (relative abundance) and average height of both tree and shrub species for each separate area planted. The number of each species of plants installed, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. Photos from designated photo stations shall be included. Sites should be maintained in perpetuity and managed under an approved management plan.	Not Applicable. There are no oak woodlands or individual protected trees.
Location	Throughout the project corridor, notably between Windsor and Santa Rosa.	

Monitoring / Reporting Action	Prior to ground disturbance, a tree survey report shall be prepared to document pre-disturbance conditions. Planted trees shall be monitored annually for 10 years. An annual status report on the mitigation shall be provided to CDFG by December 31 of each year for the first 5 years and a final report at year ten. This report shall include the percent cover of each species (relative abundance) and average height of both tree and shrub species for each separate area planted. The number of each species of plants installed, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. Photos from designated photo stations shall be included.
Effectiveness Criteria	After 10 years, the canopy cover shall equal or exceed percent cover mapped at the disturbed sites.
Responsible Agency	SMART District, CDFG
Timing	Prior to project construction and for 10 years following construction.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT BR-9	**The proposed project could result in the obstruction or alteration of wildlife corridors.**	
MITIGATION MEASURE	**Mitigation Measure BR-7:** In non-urban areas of the corridor that are not directly adjacent to Highway 101 and where a safety structure or wall is proposed to be installed between the proposed bicycle/pedestrian pathway and railway, intermittent gaps shall be placed along the barrier to allow passage of wildlife. These gaps shall be at least three feet wide, extending from ground level to the top of the structure, and be spaced no farther apart than every quarter-mile where feasible within existing or potential wildlife movement corridors along the right-of-way. In addition to gaps, wildlife tunnels shall be installed at appropriate locations to facilitate the movement of animals across the safety structure. Gaps and tunnels shall be located in the following areas: • Rural lands between Cloverdale and northern Santa Rosa where the right-of-way is at least 0.25 mile from Highway 101; and • Between Main Gate Road (MP 23.6) and Smith Ranch Road (MP 21.0) in Marin County. Gaps shall also be placed on both sides of bridge crossings of Mark West Creek and other major non-urban stream corridors to enable wildlife passage through these areas. Gaps shall not be located in or adjacent to urban or residential areas. To facilitate movement of amphibians and other small wildlife across the safety structure, its design shall include openings at the bottom that are approximately 2 inches in diameter.	Not Applicable. Station is in urbanized area surrounded by residential development.
Location	Rural lands between Cloverdale and northern Santa Rosa where the right-of-way is at least 0.25 mile from Highway 101; and between Main Gate Road (MP 23.6) and Smith Ranch Road (MP 21.0) in Marin County. Also on both sides of bridge crossings of Mark West Creek and other major non-urban stream corridors.	
Monitoring / Reporting Action	None	
Effectiveness Criteria	Gaps for wildlife passage are located no farther than one quarter-mile apart in wildlife habitat areas, and tunnels placed in specified rural areas.	
Responsible Agency	SMART District	
Timing	During final engineering design.	
IMPACT BR-10	**The proposed project could result in the loss of individuals or habitat of special-status plant species.**	

MITIGATION MEASURE	**Mitigation Measure BR-8a:** Within three years prior to project construction activities that could affect vernal pool habitats in the Santa Rosa Plain, conduct the botanical survey protocol for federally endangered plant species in the Santa Rosa Plain. The protocol would require two years of botanical surveys, three times over the impact area each year, to determine possible impacts on Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam and many-flowered navarretia. For other sensitive plant species, plant surveys shall be conducted as needed to supplement those conducted in 2003 and pursuant to established agency protocols. Prior to construction, botanical survey results shall be provided to CDFG and USFWS for concurrence.	Not Applicable. Station site is highly disturbed with former industrial activities. Lacks suitable habitat for special status plant species.
Location	Vernal pool habitats in the Santa Rosa Plain, specifically south of the Windsor between Shiloh Road and Aviation Boulevard (MP 60.7), and north of Santa Rosa between Fulton Road and the intersection of the Barnes Road and Dennis Lane (MP 57.6-57.9). All areas where sensitive plant habitat exists.	
Monitoring / Reporting Action	Pre-construction botanical survey results to identify and map locations of special-status plant species shall be provided to CDFG and USFWS.	
Effectiveness Criteria	None	
Responsible Agency	SMART District	
Timing	Within three years prior to project construction.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
MITIGATION MEASURE	**Mitigation Measure BR-8b:** In the event that populations or individuals of sensitive plant species are found in the project corridor, the following measures shall be implemented: • Sensitive plant species that are found within the right-of-way but not where construction would occur shall be protected by installing temporary plastic fencing outside the population perimeter with "Sensitive Habitat Area" signs posted on the outside of the fence. Monitoring shall occur during and following construction to insure compliance with plant protection. • To the extent feasible, sensitive plant locations shall be avoided during final project design. Where it is not feasible to avoid sensitive plant locations within the project corridor and the affected species is a non-listed annual that is sensitive pursuant to CEQA, seed collection and transplanting is proposed in suitable areas of the right-of-way outside of proposed construction. • If an affected sensitive plant is a non-listed perennial, native plant nursery propagation is proposed as well as right-of-way planting outside of construction areas. All planting sites would be chosen for their suitability for the species being planted at that site. • All sensitive plant restoration and planting sites shall be protected as described in bullet point one above and monitored for five years. • Potential impacts on state- or federally listed species would necessitate consultation with the CDFG and/or USFWS and mitigation meeting the resource agency requirements. This could include off-site mitigation and mitigation bank investments, similar to those that have been established in the Santa Rosa Plain. Any retention areas would be held and managed in perpetuity under agency-approved management plans.	Not Applicable. Station site is highly disturbed with former industrial activities. Lacks suitable habitat for special status plant species.
Location	Throughout project corridor, especially in vernal pool habitats.	
Monitoring / Reporting Action	Plant survey results shall be reported to CDFG and USFWS. Qualified biologists shall monitor exclusion fencing to ensure its effectiveness during construction. All sensitive plant restoration and planting sites shall be monitored for five years.	
Effectiveness Criteria	Protective fencing is maintained for the duration of construction. 80% survival of plants in restoration sites.	
Responsible Agency	SMART District, CDFG, USFWS	
Timing	During project construction and for five years following construction.	
IMPACT BR-11	**The proposed project could result in the loss of individuals or habitat of California linderiella.**	
MITIGATION MEASURE	Implementation of **Mitigation Measures BR-2c**, and **BR-5a** would apply to this species and would reduce the impact to less than significant.	Not Applicable. Station site is highly disturbed with former industrial activities. Lacks habitat.

IMPACT BR-12	**The proposed project could result in the loss or disturbance of individuals of Central California Coast coho salmon, California Coastal chinook salmon and Central California Coast steelhead.**	
MITIGATION MEASURE	Implement **Mitigation Measures BR-1a, BR-1b, BR-2a, BR-2b, BR-2c.** **Mitigation Measure BR-9a:** For work in stream zones (DEIR Table 3.9-5) that harbor federal or state-listed salmonid fish, SMART shall consult with NOAA Fisheries and CDFG and Implement protection measures specified in consultation with those agencies.	Not Applicable. Station site does not overlap with stream.
Location	The following streams along the project corridor: Porterfield Creek, Icaria Creek, Unnamed Creek, Peterson Creek, Foss Creek, Russian River, Mark West Creek, Santa Rosa Creek, Copeland Creek, Lichau Creek, Willow Brook, Petaluma River, Novato Creek, and Miller Creek.	
Monitoring / Reporting Action	SMART biologist will consult with NOAA Fisheries and CDFG to implement protection measures for streams containing salmonid fish.	
Effectiveness Criteria	Protection measures for salmonids will be implemented in consultation with appropriate agencies.	
Responsible Agency	SMART District, NOAA Fisheries, CDFG	
Timing	Prior to and during project construction.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
MITIGATION MEASURE	**Mitigation Measure BR-9b:** In streams that harbor state- or federally listed salmonid fish species, in-stream work shall not start before July 1 and shall be completed by October 15, unless otherwise approved by appropriate agencies.	
Location	The following streams along the project corridor: Porterfield Creek, Icaria Creek, Unnamed Creek, Peterson Creek, Foss Creek, Russian River, Mark West Creek, Santa Rosa Creek, Copeland Creek, Lichau Creek, Willow Brook, Petaluma River, Novato Creek, and Miller Creek.	Not Applicable. No in stream work is required.
Monitoring / Reporting Action	Qualified biologists shall monitor construction activities in or near streams.	
Effectiveness Criteria	In-stream work in streams containing salmonid fish will take place only between July 1 and October 15.	
Responsible Agency	SMART District, NOAA Fisheries, CDFG	
Timing	During project construction.	
IMPACT BR-13	**The proposed project could result in the loss or disturbance of individuals of Pacific lamprey, Russian River tule perch, and Sacramento splittail.**	
MITIGATION MEASURE	Implementation of **Mitigation Measures BR-2a, BR-2b and BR-2c** to protect stream habitats would reduce this impact to a less than significant level.	Not Applicable. Station site does not overlap with stream.
IMPACT BR-14	**The proposed project could result in the loss or disturbance of individuals or habitat of the California tiger salamander.**	

MITIGATION MEASURE	**Mitigation Measure BR-10a:** For areas where construction would occur within the range of the California tiger salamander in Sonoma County (i.e., non-urban areas between Windsor and Penngrove), SMART will comply with the Santa Rosa Plain Conservation Strategy and shall consult with the USFWS and CDFG to obtain authorization for activities that could affect this species and implement all applicable protection measures specified through this consultation. Protection measures shall be focused on locations where California tiger salamander habitats have been identified within and adjacent to the right-of-way and where California tiger salamander could potentially be affected as determined in consultation with the USFWS. Protection measures could include, but would not be limited to, the following: • Where impacts on potential CTS breeding habitats can be avoided, establish site-specific exclusion zones to protect these areas. Install temporary plastic fencing around the exclusion areas with "Sensitive Habitat Area" signs posted and clearly visible on the outside of the fence. • Where it is not feasible to avoid work within or adjacent to potential CTS breeding sites, limit work in these areas to the period from June 1 to October 14 or when the ponds are dry. • From October 15 to May 31 within potential CTS dispersal habitat, minimize operation of proposed project vehicles and equipment at night off pavement during rain events and within 24 hours following rain events, and check under vehicles parked overnight off pavement before moving them.	Not Applicable. Station site does contain suitable CTS breeding or estivation habitat.
Location	CTS habitat on the Santa Rosa Plain between Windsor and Penngrove.	
Monitoring / Reporting Action	A Biological Assessment shall be submitted to USFWS, which will document compliance with Santa Rosa Plan Conservation Strategy for construction activities within CTS range.	
Effectiveness Criteria	CTS protection measures are consistent with the Santa Rosa Plan Conservation Strategy.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	
MITIGATION MEASURE	**Mitigation Measure BR-10b:** If permanent loss of occupied or potential CTS breeding habitat cannot be avoided, compensation shall be provided through protection and enhancement of CTS habitat within the right-of-way, purchase of off-site mitigation credits, and/or contribution to regional conservation and recovery efforts for the species as determined in consultation with the USFWS and CDFG.	Not Applicable. Station site does contain suitable CTS breeding or estivation habitat.
Location	CTS habitat on the Santa Rosa Plain between Windsor and Penngrove.	
Monitoring / Reporting Action	Compensation shall be documented in agreements with USFWS and CDFG.	
Effectiveness Criteria	CTS habitat is enhanced within the right-of-way. Off-site mitigation credits are purchased. Monetary contributions are made to regional species recovery efforts.	
Responsible Agency	SMART District, USFWS, CDFG	
Timing	Post-construction.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
MITIGATION MEASURE	**Mitigation Measure BR-18: Implement construction-related avoidance and minimization measures for California tiger salamander (CTS) from the Programmatic Biological Opinion issued to projects permitted by the U.S. Army Corps of Engineers.** The following would apply during construction in CTS breeding or upland habitat areas, unless waived by the USFWS: • CTS at onsite breeding sites (if any) shall be translocated to appropriate breeding sites identified by USFWS and CDFG prior to construction. • Upland CTS habitat that may be impacted shall be fenced prior to construction to exclude CTS from entering the project site. Fences with ramps to allow CTS onsite to move to adjacent habitat offsite and translocation may be required. • A USFWS-approved biological monitor shall be onsite during initial site grading where CTS have been found. • The biological monitor shall conduct a training session for all construction workers before work is started on the project. • Before the start of work each day, the biological monitor shall check for animals under any equipment such as vehicles and stored pipes. The biological monitor shall check all excavated steep-walled holes or trenches greater than one foot deep for any CTS. Any CTS that are discovered shall be translocated. • Access routes, number and size of staging areas, and work areas, shall be limited to the minimum necessary to achieve project goals. Routes and boundaries of the roadwork shall be clearly marked prior to initiating construction/grading. • All foods and food-related trash items shall be enclosed in sealed trash containers at the end of each day, and removed from the site every three days. • No pets shall be allowed on the project site. • No more than a maximum speed limit of 15 mph shall be permitted. • All equipment shall be maintained such that there shall be no leaks of automotive fluids such as gasoline, oils, or solvents. • Hazardous materials such as fuels, oils, solvents, etc., shall be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 200 feet from any aquatic habitat. • Grading and clearing shall be conducted between April 15 and October 15 depending on the level of rainfall and/or site conditions. • Project areas temporarily disturbed by construction activities shall be re-vegetated with locally-occurring native plants. [FSMND]	Not Applicable. Station site does contain suitable CTS breeding or estivation habitat.
Location	CTS habitat on the Todd Road OMF site.	

Monitoring / Reporting Action	A Biological Assessment shall be submitted to USFWS, which will document compliance with Santa Rosa Plan Conservation Strategy for construction activities within CTS range.
Effectiveness Criteria	CTS protection measures are consistent with the Santa Rosa Plan Conservation Strategy and incorporated into construction plans.
Responsible Agency	SMART District
Timing	Prior to and during project construction.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT BR-15	**The proposed project could result in the loss or disturbance of individuals or habitat of the northwestern pond turtle (NWPT).**	
MITIGATION MEASURE	**Mitigation Measure BR-11:** A qualified biologist shall conduct a pre-construction survey for NWPT no more than 14 days prior to construction in suitable aquatic habitats within the project corridor, including stream crossings, drainage ditches, and culverts. A combination of visual and trapping surveys may be performed with authorization from the CDFG. If this species is found near any proposed construction areas, impacts on individuals and their habitat shall be avoided to the extent feasible. If occupied habitat can be avoided, an exclusion zone shall be established around the habitat and temporary plastic fencing shall be installed around the buffer area with "Sensitive Habitat Area" signs posted and clearly visible on the outside of the fence. If avoidance is not possible and the species is determined to be present in work areas, the biologist with approval from CDFG may capture turtles prior to construction activities and relocate them to nearby, suitable habitat out of harm's way (e.g., upstream or downstream from the work area). Exclusion fencing should then be installed if feasible to prevent turtles from re-entering the work area. For the duration of work in these areas the biologist should conduct monthly follow-up visits to monitor effectiveness.	Not Applicable. Station site does contain suitable habitat for pond turtles.
Location	Riparian zones, wetlands, and culverts along the project corridor, including known locations in Healdsburg (MP 69.6) and Miller Creek (MP 22.1).	
Monitoring / Reporting Action	Pre-construction NWPT surveys under agency authorization, and possible relocation of turtles in harm's way. Monthly monitoring of exclusion fencing areas, if installed.	
Effectiveness Criteria	Biological surveys are conducted prior to construction. If NWPT is found, work exclusion zones are established, or the individuals are relocated and the area monitored to prevent re-entry.	
Responsible Agency	SMART District, CDFG	
Timing	Prior to and during project construction.	
IMPACT BR-16	**The proposed project could result in the loss or disturbance of individuals or habitats of the salt-marsh harvest mouse (SMHM), California clapper rail and California black rail.**	

MITIGATION MEASURE	**Mitigation Measure BR-12:** For areas where the construction activities would occur within or adjacent to salt marsh or brackish marsh habitats, consult with the USFWS and CDFG to determine locations where salt-marsh harvest mouse, California clapper rail and California black rail could potentially be affected by the proposed project. All applicable protection measures specified through consultation with these agencies would be implemented during project construction. Protection measures could include, but would not be limited to, the following: • A qualified biological monitor shall be present during all work activities in or adjacent to salt marsh and brackish marsh habitats between Petaluma and Novato. • In areas where one or more of these species is determined to be potentially affected, work activities shall be confined to the existing railroad grade to the extent feasible. Staging, access and parking areas shall be located outside of salt marsh and brackish marsh habitats. • Avoidance measures for SMHM could include installation of temporary exclusion barriers to prevent SMHM from entering work areas during construction. For California clapper rail and California black rail, protection measures could include avoiding work activities during the nesting season (March 1 to July 31) within 300 feet of areas identified as suitable nesting habitat for these species. • If any of these species is detected during work activities, work shall be stopped immediately at that location and the USFWS and/or CDFG shall be contacted within two working days. Work shall not resume at that location until authorization is obtained from the USFWS and CDFG (for the SMHM and California clapper rail) or from the CDFG (for the California black rail), unless prior approval has been granted by these agencies.	Not Applicable. Station site does contain habitats that would support these species.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Location	Salt marsh or brackish marsh habitats. For SMHM, salt marshes south of Petaluma and east to Port Sonoma, and grasslands adjacent to these marshes; it has been seen on the east bank of the Petaluma River and in the Petaluma Marsh near the right-of-way, between Novato and Petaluma. For CBR, in the right-of-way between San Rafael and Port Sonoma. For CCR, particularly along the Bay margin and in Petaluma Marsh; it has been seen along Corte Madera Creek, and also near the mouth of San Rafael Creek, and in the tidal marshes of Novato Creek, both 0.5 mile from the Ignacio-Port Sonoma segment.	
Monitoring / Reporting Action	A Biological Assessment shall be prepared and submitted to USFWS. Biological monitors shall submit daily monitoring logs and periodic compliance reports to SMART.	
Effectiveness Criteria	Habitat for salt marsh harvest mouse, California clapper rail, and California black rail is identified, and appropriate protection measures implemented during construction, in consultation with resource agencies.	
Responsible Agency	SMART District, CDFG, USFWS	
Timing	Prior to and during project construction.	
IMPACT BR-17	**The proposed project could result in disturbance or injury to special-status bats.**	
MITIGATION MEASURE	**Mitigation Measure BR-13:** A qualified biologist shall conduct a pre-construction survey for bats at bridges that have sufficient thermal cover for bat roosting, abandoned buildings and old structures prior to demolition or construction at these sites. Bats should be determined to be absent or flushed from roost locations prior to demolition of buildings. If flushing of bats from buildings is necessary, it shall be done by the biologist during the non-breeding season from October 1 to March 31. When flushing bats, structures shall be moved carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. During the maternity season from April 1 to September 30, prior to building demolition or construction, a qualified biologist shall determine if a bat nursery is present at any sites identified as potentially housing bats. If an active nursery is present, disturbance of bats shall be avoided until the biologist determines that breeding is complete and young are reared.	Not Applicable. Station site does not contain bridges, buildings, or other old structures that would support bat species.
Location	Bridges, abandoned buildings, or old structures along project corridor; potential bat habitat has been identified in buildings at the Cotati, Santa Rosa–Jennings Avenue, and Healdsburg station sites.	
Monitoring / Reporting Action	A biologist will survey potential bat roosting habitat prior to construction and flush bats, if present, between October 1 and March 31 (outside of breeding season). Between April 1 and September 30, pre-construction bat nursery surveys will be conducted and disturbance of bat nurseries will be avoided until young are reared.	

Effectiveness Criteria	Pre-construction bat surveys are conducted. Outside breeding season, bats are carefully flushed from structure; during breeding season, nurseries are monitored and disturbance avoided until young are reared.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	
IMPACT BR-18	**The proposed project could result in train collisions with wildlife.**	
MITIGATION MEASURE	**Mitigation Measure BR-14:** A qualified biologist shall conduct monitoring surveys to assess wildlife collision impacts along the entire corridor at least two times a year, once during spring and once during fall, for the first three years of train operation. The results shall be reported to the CDFG and, if federally listed or migratory bird species are affected, to the USFWS. If the CDFG or USFWS determines that collision impacts are excessive or adverse effects on federal- or state-protected species (including listed species, migratory birds and raptors) are occurring, remedial measures (e.g., redesign of structures and gaps) shall be developed and implemented in consultation with these agencies.	Not Applicable to Station.
Location	Throughout the project corridor.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Monitoring / Reporting Action	Biological monitor will survey the project corridor twice annually for three years to assess wildlife collision impacts, and report results to appropriate agencies. If needed, remedial measures to reduce collision impacts will be developed in consultation with agencies.	
Effectiveness Criteria	In the event of excessive impacts or effects on protected species, remedial measures are developed in consultation with wildlife agencies.	
Responsible Agency	SMART District	
Timing	Post-construction.	
IMPACT BR-19	**The proposed project could result in disturbance to stream zones, special-status species and nesting birds during railway operations and maintenance activities.**	
MITIGATION MEASURE	**Mitigation Measure BR-15a:** SMART shall consult with the resource agencies (USFWS, NOAA Fisheries and CDFG) to develop habitat and species protection measures for scheduled and emergency maintenance activities to minimize impacts on wetlands, streams, riparian habitats, and special-status species.	Not Applicable. Station site does not contain habitats that would support these species.
Location	Riparian zones, wetlands, and sensitive species habitats throughout the project corridor.	
Monitoring / Reporting Action	Consultation with appropriate agencies to develop habitat and species protection measures for special-status species and sensitive habitat areas.	
Effectiveness Criteria	Species and habitat protection measures developed in consultation with resource agencies.	
Responsible Agency	SMART District, CDFG, NOAA Fisheries, USFWS	
Timing	Prior to and during project construction.	
MITIGATION MEASURE	**Mitigation Measure BR-15b:** For all herbicide applications during right-of-way maintenance, herbicides shall be used only according to label directions, applications shall be confined to within the right-of-way and appropriate BMPs shall be followed to prevent uncontrolled release of chemicals. Only aquatic-approved herbicides shall be used for vegetation control adjacent to open water and wetland habitats.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Throughout the project corridor.	
Monitoring / Reporting Action	Pesticide applications are reported to Sonoma and Marin Counties' agricultural commissioners.	
Effectiveness Criteria	Herbicides shall be used according to directions, use shall be confined to the right-of-way, BMPs shall be followed and only aquatic-approved herbicides used adjacent to wetlands and other waters.	
Responsible Agency	SMART District	

Timing	Post-construction.	
	Visual Resources	
IMPACT V-1	**The presence of project-related construction equipment and other construction activities would create temporary visual disturbance**	
MITIGATION MEASURE	**Mitigation Measure V-1:** SMART shall install temporary fencing where views from adjacent residences are adversely affected during construction. These areas shall be identified in greater detail during design review and the type of temporary fencing selected, as part of the design review. Fencing materials would remain in place until finish work has been completed.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Construction areas where construction activities could significantly impact views from nearby residences (areas and fencing type to be determined during final design review)	
Monitoring / Reporting Action	Temporary fencing installed during construction in designated	
Effectiveness Criteria	Fencing meets applicable local standards and reduces visual impacts of construction on adjacent residences	
Responsible Agency	SMART District	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Timing		
IMPACT V-2	**Development of stations, including park-and-ride lots and maintenance facilities, would introduce new sources of nighttime light to their surrounding areas.**	
MITIGATION MEASURE	**Mitigation Measure V-2:** Fixture types, cut off angles, shields, lamp arm extensions, and pole heights will be determined, in consultation with the local jurisdictions.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Station sites and OMF site	
Monitoring / Reporting Action	Light fixture types, angles, and heights selected and designed to minimize nighttime light impacts (in consultation with the local jurisdictions).	
Effectiveness Criteria	Light fixtures at stations and OMF meet all applicable standards regarding nighttime light and minimize nighttime light impacts on surrounding areas.	
Responsible Agency	SMART District	
Timing	During final design.	
IMPACT V-3	**The bicycle/pedestrian safety structure would add a dominant feature in areas where there is open space and no nearby structures.**	
MITIGATION MEASURE	**Mitigation Measure V-3:** To reduce the adverse visual impacts of the proposed bicycle/ pedestrian safety structures where there is no intervening landscaping or structures such as existing privacy fencing, the safety structure associated with bicycle/pedestrian pathway shall be designed to fit in contextually with adjacent nearby fencing via the use of different materials or landscaping. SMART shall work with local jurisdictions and property owners to select the structure that minimizes visual impacts and provides additional vegetation or other design elements to integrate the safety structure to a greater extent into the viewshed while providing adequate safety.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Areas where the bicycle/pedestrian safety structure will be the dominant visual feature	
Monitoring / Reporting Action	Safety structure will be designed to fit in visually with nearby fencing through selection of materials and landscaping.	
Effectiveness Criteria	Aesthetics of safety structure meet all applicable standards of local jurisdictions; visual impacts of safety structure are minimized.	
Responsible Agency	SMART District	

Timing	During final design	
	Historic, Archaeological, and Cultural Resources	
IMPACT HR-1	**Disturbance of historic Healdsburg Station turntable could occur as a result of construction activities.**	
MITIGATION MEASURE	**Mitigation Measure HR-1:** Exclusionary plastic mesh fencing shall be installed and maintained to prohibit equipment from impacting the structure. [applies to historic Healdsburg station turntable]	Not Applicable.
Location	Healdsburg Station.	
Monitoring / Reporting Action	None	
Effectiveness Criteria	Mesh fencing is installed to prohibit equipment from impacting the historic turntable.	
Responsible Agency	SMART District	
Timing	During construction.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT HR-3	**Proposed changes to the Santa Rosa Railroad Square Station landscaping could affect the historic character of the Railroad Square District.**	
MITIGATION MEASURE	Consult and coordinate with the City of Santa Rosa regarding the design of station facilities to ensure that any adverse impacts are less than significant. **Mitigation Measure HR-2:** Any new street furniture, train platform, or shelters shall be sympathetic to the local historic character, and landscaping spatial patterning, and be designed in concert with the Santa Rosa Community Development Department City Cultural Heritage Board. The City's historic district fencing guidelines shall be consulted in the proposed bicycle/pedestrian pathway designs. [applies to Santa Rosa Railroad Square Station site]	Not Applicable.
Location	Santa Rosa Station	
Monitoring / Reporting Action	Alterations and additions to the station will be designed in consultation with the City Community Development Department and historic district fencing guidelines.	
Effectiveness Criteria	Alterations and additions to the station are designed in concert with applicable standards and are consistent with the historic character of the station.	
Responsible Agency	SMART District	
Timing	During final engineering design.	
IMPACT HR-4	**Inappropriate rehabilitation techniques could affect the historic Petaluma Station.**	
MITIGATION MEASURE	Limit future renovations to the station to minor retrofitting, addition of street furniture and construction of the two proposed train platforms. **Mitigation Measure HR-3:** Any proposed rehabilitation, changes, alterations and additions shall comply with City of Petaluma policy, which requires conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings. These guidelines shall be consulted for any proposed street furniture and construction of the two proposed train platforms. [applies to Petaluma Station]	Not Applicable. This measure applies to downtown Petaluma not the Corona Station.
Location	Petaluma Station.	
Monitoring / Reporting Action	Rehabilitation, alterations and additions to Petaluma Station will comply with Interior's Standards for the Treatment of Historic Properties.	
Effectiveness Criteria	Renovations, changes, and additions to Petaluma Station are minimized and consistent with applicable standards and the historic character of the station.	
Responsible Agency	SMART District	

Timing	During final engineering design.	
IMPACT HR-5	**Railroad construction would affect historic features associated with a section of trackwork that retains integrity.**	
MITIGATION MEASURE	**Mitigation Measure HR-4:** Prior to construction, a report shall be prepared by a professional architectural historian and shall be accompanied by requisite sets of large format camera Historic American Landscape Survey (HALS) Level II black-and-white 8-by-10 inch archival quality prints produced by a professional photographer. A minimum of twenty views shall be documented (five landscape perspectives at one-mile intervals, trestle profiles, culvert profiles, and telephone pole alignments) and two sets of prints, plus the report, shall be sent to the California State Library in Sacramento and the Petaluma Museum. The report and accompanying photography would provide a permanent record of this section of the former NWP track and right-of-way. This record would preserve the historic information and context for this section of track. [applies to historic trackwork – MP 31.3 to 36.7]	Not Applicable.
Location	Historic track near Petaluma.	
Monitoring / Reporting Action	Archival quality photographs will be sent to the California State Library and Petaluma Museum, and a report prepared by an architectural historian.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Effectiveness Criteria	Photographs and a report of the historic section of track are recorded and preserved.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	
IMPACT HR-6	**Proposed rehabilitation of the Russian River Railroad Bridge could impact the integrity of the bridge.**	
MITIGATION MEASURE	**Mitigation Measure HR-5:** The following shall be conducted prior to any rehabilitation effort: a report shall be prepared by a professional architectural historian and shall be accompanied by requisite sets of large format camera Historic American Engineering Record (HAER) Level II black-and-white 8-by-10 inch archival quality prints taken by a professional photographer. A minimum of twelve views shall be documented (two profiles, two centerline shots, four abutment shots, and four engineering details) and two sets of prints shall be sent to the California State Library in Sacramento and the Healdsburg Museum. Measured drawings shall be prepared of the structure under the supervision of a qualified architectural historian. After this effort, the bridge shall be rehabilitated using Secretary of the Interior Guidelines and Standards. The new concrete members shall be colored to match the existing metal to lower the visual impacts to less than significant levels. [applies to Russian River bridge and Haystack Bridge – for Haystack, a set of prints and drawings to be sent to the Petaluma Museum.]	Not Applicable
Location	Russian River Railroad Bridge.	
Monitoring / Reporting Action	Archival quality photographs will be sent to the California State Library and Healdsburg Museum, and drawings prepared by an architectural historian.	
Effectiveness Criteria	Archival quality photographs taken by a professional photographer, and drawings prepared by an architectural historian. The bridge is rehabilitated according to Interior Guidelines and Standards.	
Responsible Agency	SMART District	
Timing	Prior to and during project construction.	
IMPACT HR-7	**Proposed replacement of the Petaluma River Haystack Bridge would affect the significance of this historical resource.**	

MITIGATION MEASURE	Implement **Mitigation Measure HR-2**, with a set of prints and drawings sent to the Petaluma Museum. **Mitigation Measure HR-6** [applies to Haystack Bridge]**:** Advertisements shall be placed in local newspapers, and historical advocacy groups that may be interested in acquiring the bridge shall be contacted. Arrangements shall be made for the relocation of the historic structure with its subsequent rehabilitation and adaptive re-use at its new site, including compliance with all State Historic Building Code requirements. Should efforts to relocate the structure fail, one or more of the following actions should be implemented to mitigate the loss: 1. Commemoration of the structure with an enclosed display of text and photos designed by a local professional historical consultant to be placed on the passenger cars at the primary entrance, or alternatively at the Petaluma Station. 2. Salvage of significant materials of the historic structure for conservation in a historical display located at the former bridge site. 3. Incorporation of the historic structure's operator's cab and truss system into the design of the new bridge.	Not Applicable. This measure does not apply to the Corona Station.
Location	Petaluma River Haystack Bridge.	
Monitoring / Reporting Action	Interest groups will be contacted who may wish to acquire the historic bridge; potential re-use will comply with State Historic Building Code requirements.	
Effectiveness Criteria	Historic bridge relocated and reused at new site; or, loss of historic structure mitigated through commemoration at the site, salvage of materials, or incorporation into the new structure.	
Responsible Agency	SMART District	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Timing	During final engineering design and during project construction.	
IMPACT HR-8	**Proposed bicycle/pedestrian pathway safety structures could cause adverse visual impacts on adjacent historic resources.**	
MITIGATION MEASURE	**Mitigation Measure HR-7:** Where tall safety structures are required in close proximity to historic resources, design safety structures similar to the surrounding historical landscape. For example, structures should be built with similar materials (e.g., horizontal wooden planks and vertical wooden posts near historic wooden structures or brick near historic brick buildings). Adjacent property owners and local government shall be consulted about the design details of the safety structures and landscaping, safety structures should be consistent with applicable local historic preservation policies and guidelines.	Not Applicable. No historic structures at the Corona Station site.
Location	Along bicycle/pedestrian pathway.	
Monitoring / Reporting Action	Property owners and local government will be consulted about design details of safety structures, which should be consistent with local preservation policies and guidelines.	
Effectiveness Criteria	Safety structures will be designed using similar materials and style to nearby historic resources, and property owners and local governments consulted about design details.	
Responsible Agency	SMART District	
Timing	During final engineering design.	
IMPACT AR-1	**Several locations exist within the project corridor that have a high probability to contain historic or prehistoric archaeological deposits.**	
MITIGATION MEASURE	**Mitigation Measure AR-1:** Because of the high probability for the presence of historic or prehistoric artifact deposits, an Extended Phase I archaeological study is recommended at these sites (listed in DEIR, page 3-264) in locations where ground disturbances are planned. If an archaeological site is discovered, additional fieldwork (Phase II testing) may be required to establish site boundaries and determine each site's eligibility for listing on the National Register of Historic Places (NRHP). If a site is determined to be eligible, consultation shall be initiated with the State Historic Preservation Officer (SHPO) and other appropriate consulting parties to either avoid the site or to develop a data recovery plan. Extended Phase I archaeological testing is generally comprised of a series of systematically placed vertical holes that are slightly wider than the width of a shovel blade. Shovel test pits are typically excavated to sterile subsoil or the maximum practical depth to which soil material can be removed by shovel, usually just over a meter. During excavation, care is taken that soil strata are recognized and artifacts from each stratum are bagged separately. A profile is then produced and soils are classified by type and Munsell colors.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Sensitive cultural sites throughout the project corridor.	

Monitoring / Reporting Action	An Extended Phase I archaeological study will be conducted at these sites, followed by Phase II testing if a site is discovered.	
Effectiveness Criteria	Archaeological studies conducted at sites with a high probability of containing culturally significant materials. If sites are found, further study is conducted to establish boundaries and determine significance.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	
IMPACT AR-2	**Subsurface historic archaeological deposits associated with the Coast Miwok ethnographic village north of Cotati could be impacted by construction.**	
MITIGATION MEASURE	**Mitigation Measure AR-2:** Archaeological and Native American monitoring is recommended in this area because subsurface historic and possibly prehistoric archaeological deposits could be impacted by construction. [applies to Coast Miwok ethnographic village north of Cotati, Downtown Novato and Hamilton station sites]	Not Applicable.
Location	North of Cotati.	
Monitoring / Reporting Action	Archaeological and Native American monitors present during construction activities.	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Effectiveness Criteria	Archaeological and Native American monitors present during construction to evaluate potential impacts to any subsurface cultural materials found in the area.	
Responsible Agency	SMART District	
Timing	During project construction.	
IMPACT AR-3	**Ground disturbing construction activities could adversely affect unknown potentially important subsurface cultural materials in the vicinity of the Marin Civic Center Station.**	
MITIGATION MEASURE	**Mitigation Measure AR-3:** If construction personnel locate buried cultural materials, work shall be halted or shifted to another area and a qualified archaeologist shall be contacted to determine proper treatment of the find.	Not Applicable.
Location	Vicinity of Marin Civic Center Station.	
Monitoring / Reporting Action	An archaeologist will evaluate any buried cultural materials found during construction.	
Effectiveness Criteria	If buried cultural materials are found, work is stopped and an archaeologist contacted to evaluate the find.	
Responsible Agency	SMART District	
Timing	During project construction.	
IMPACT AR-4	**Eleven culturally sensitive historic and prehistoric sites have been identified in the area that extends north from the Marin/Sonoma county line to the Haystack Bridge south of Petaluma.**	
MITIGATION MEASURE	**Mitigation Measure AR-4:** Trackwork shall be avoided or undertaken in a manner to avoid ground disturbance beyond the current track limits (e.g., by undertaking construction from the existing track) in the most culturally sensitive railroad segments. The Federated Indians of Graton Rancheria have asked that any archaeological site identified within those boundaries be depicted as an "environmentally sensitive area" on railroad maps. Furthermore, maintenance trucks shall avoid driving through this area until boundary definition, evaluation and site capping is completed at the site within the railroad right-of-way. If it is not possible to avoid impacts along this railroad segment, boundary definition would also be warranted at each site to determine if trackwork has the potential to impact the sites. Avoidance of all ground disturbances that could create impacts is recommended at the following sites: two historic foundations; a buried concrete wall within the railroad right-of-way; a prehistoric site north of Penngrove; and a prehistoric site south of San Rafael at Simms. If avoidance is not feasible, then the sites would require evaluation for NRHP/CRHR eligibility. [applies to 11 sites from Marin/Sonoma County line to Haystack Bridge, south of Petaluma]	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.

Location	Culturally sensitive sites from the Sonoma County line to Haystack Bridge.
Monitoring / Reporting Action	Archaeological site definition or NRHP/CRHR evaluation will be undertaken at culturally sensitive sites if ground-disturbing activities are not avoidable.
Effectiveness Criteria	Ground-disturbing activity at culturally sensitive sites along the right-of-way avoided, or, if unavoidable, archaeological site definition or historic site evaluation conducted prior to such activity.
Responsible Agency	SMART District
Timing	Prior to project construction.

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
IMPACT AR-5	**Any replacement bridgework has the potential to disturb potentially significant archaeological resources since prehistoric and historic archaeological sites are often located on stream banks or near the confluence of steams.**	
MITIGATION MEASURE	**Mitigation Measure AR-5:** Of the five bridges and trestles located between MP 31 to MP 37, the open deck trestle between MP 35 and MP 36 should be avoided. If the trestle needs to be replaced, then archaeological site determination (Extended Phase I testing), Phase II eligibility testing, and possible data recovery would be required. The remaining four bridges would require monitoring by a qualified archaeologist and a Native American monitor. Archaeological sites near bridges located at MP 85 and between MP 43 to MP 44 would require boundary definition. If the sites would be impacted by bridgework, then evaluation would be required prior to bridge removals.	Not Applicable.
Location	Trestle between MP 35 and MP 36, and archaeological sites between MP 43 and 44, and at MP 85.	
Monitoring / Reporting Action	Archaeological site determination if the open deck trestle between MP35 and 36 needs replacement, and boundary definition and potential evaluation for the sites at MP 43-44 and MP85.	
Effectiveness Criteria	Appropriate archaeological site evaluations conducted if construction could impact potentially significant archaeological sites.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	
IMPACT AR-6	**Site preparation and use of some of the proposed pre-construction staging areas could disturb unknown and potentially significant cultural resources.**	
MITIGATION MEASURE	**Mitigation Measure AR-6:** If ground disturbances are planned and staging areas cannot be avoided, an archaeologist shall be present for all grading or other ground disturbing activities planned in the staging area. In the vicinity of the staging areas near Ignacio, if ground disturbances are planned, an archaeologist and Native American monitor should be present for all grading or other ground disturbing activities planned in the staging area.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Pre-construction staging areas, particularly near Ignacio.	
Monitoring / Reporting Action	Archaeological monitor present for ground-disturbing activities in staging areas; a Native American monitor should also be present for staging areas near Ignacio.	
Effectiveness Criteria	Grading and other ground-disturbing activities overseen by appropriate monitors.	
Responsible Agency	SMART District	
Timing	Prior to project construction.	

IMPACT CR-3	**Ground disturbing construction activities could adversely affect subsurface deposits associated with a previously demolished historic structure.**	
MITIGATION MEASURE	**Mitigation Measure CR-3 (Hamilton Station Site):** Because of the possibility of the presence of historic or prehistoric artifact deposits, an Extended Phase I archaeological study is recommended at this site in locations where ground disturbances are planned. The purpose of the Extended Phase I study is to establish the presence or absence of an archaeological deposit within an area that may be impacted as a result of project implementation. Extended Phase I archaeological testing is generally comprised of a limited series of systematically placed excavation units in the area of potential impacts. If an archaeological deposit is identified during the Extended Phase I archaeological excavation, additional fieldwork (Phase II testing) may be required to establish site boundaries and evaluate the deposit for it's potential for eligibility for listing in the NRHP/CRHR. If a site is determined to be eligible, consultation shall be initiated with the SHPO and other appropriate consulting parties to either avoid impacts to the site or to develop and implement a data recovery plan (Phase III). [FSEIR]	Not Applicable.
Location	Hamilton station site	

Table 1. SMART Project Mitigation Monitoring Program		City of Petaluma CEQA Findings as to Corona Station Applicability
Monitoring / Reporting Action	Completion of Phase I study and summary report. Completion of Phase II study, if deemed necessary. Consultation with agencies, as described in mitigation measure.	
Effectiveness Criteria	Compliance with agency protocols	
Responsible Agency	SMART District	
Timing	During final engineering design and prior to construction	

Table 2 outlines all the various environmental compliance measures which will be implemented by SMART in order to avoid or minimize potential environmental impacts during construction and operation of the project. The table lists those measures which would occur during project construction first followed by a breakdown of measures by issue areas which would be implemented as part of the operation of the project

Table 2. SMART Project Environmental Compliance Measures		City of Petaluma CEQA Findings as to Corona Station Applicability
Construction	Require contractor to develop and implement construction phasing/sequencing and traffic management plans to minimize traffic impacts during construction. This plan will include: defining each construction operation, approximate duration, and necessary traffic controls to maintain access for vehicles; limiting off-site construction-related hauling and movement of heavy equipment to daytime hours and off-peak travel demand periods; providing alternative access and notice of detours to local neighborhoods; encouraging construction workers to use public transportation and carpool in areas where limited parking is available.	Applies.
	Confine construction access, mainline track reconstruction and construction of new sidings to existing right-of-way, where possible.	Not Applicable
	Conduct additional special-status plant surveys prior to project implementation, consistent with California Department of Fish & Game (CDFG) requirements.	Not Applicable
	Consult with the Regional Water Quality Control Board (RWQCB) and CDFG, as necessary, regarding stream crossings and minimization of impacts on water quality and biological resources.	Not Applicable
	Repair in place small and medium size railroad bridges and replace or rehabilitate existing structures such as bridges within the original footprint, to minimize the physical effects at water crossings, on the floodplain and any surrounding sensitive biological areas.	Not Applicable

	Use of appropriate controls for pollution prevention during servicing and fueling of construction vehicles including: • Perform fueling and servicing only in designated areas located as far as practicable from stream zones and wetland areas. • When fueling, do not "top off" tanks. • Carry spill containment kits in all construction vehicles. • Use a secondary containment such as a drain pan or drain cloth when fueling to catch spills. • Train all project construction personnel and subcontractors in proper fueling, servicing, and clean-up procedures. • Report all fluid spills immediately. • Store hazardous materials as far as practical from stream zones and wetland areas. • Develop and implement a contingency plan for possible leaks and spills of hazardous materials.	
	Surface water runoff from affected areas would be dispersed in accordance with the measures required under a SWPPP from the RWQCB and under a Standard Urban Storm Water Mitigation Plan (SUSMP) as developed by the City of Santa Rosa and County of Sonoma.	Not Applicable
	Develop a Stormwater Pollution Prevention Plan (SWPPP) for construction activities in or adjacent to waterways or wetlands, best management practices (BMPs) shall be implemented to minimize erosion and sedimentation. BMPs would include the following types of activities: • Control sheet flow and run off from all disturbed areas using ditches, berms, weed free wattles, straw bales, and silt fencing.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.

Table 2. SMART Project Environmental Compliance Measures		City of Petaluma CEQA Findings as to Corona Station Applicability
	• Cover or stabilize loose soil and exposed slopes prior to the onset of rainy season and any time that rain is forecast within 24 hours. • Use geo textile fabric or protective mats where feasible to minimize ground damage where vehicle travel through wetlands or other saturated soil areas cannot be avoided in temporary work areas. • Apply gravel to a depth of three inches to access roads used during the rainy season. • Install silt fencing and fiber rolls around soil and gravel stockpiles between October 15 and April 15 to prevent sedimentation in nearby watercourses and wetlands. • Hydroseed disturbed areas before October 15 with a mixture of native and non-invasive plants that provide protection from erosion. The seed mixtures should be developed for each site based on local conditions. • Stabilize stream banks prior to October 15 with riprap, native plantings, willow wattles or other biotechnical slope stabilization techniques.	
	Implement air quality BMPs such as the following measures, where appropriate: • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials or require that all trucks to maintain at least two feet of freeboard. • Sweep streets as required (with water sweepers) if visible soil material is carried onto adjacent public streets. • Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 miles per hour. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as possible. • Use cleanest available engines, including alternative-fueled construction equipment when feasible. • Minimize equipment idling time. • Maintain properly tuned equipment.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Conduct a worker orientation program prior to and during construction activities to summarize relevant laws and regulations that protect historic resources and review applicable avoidance and minimization measures to protect resources.	Not Applicable

	Have a qualified cultural resources monitor present for grading or other ground disturbing activities planned in areas of potential archaeological sensitivity.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation.
	Ensure proper design of restraint and shoring systems in order to prevent unstable excavations.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Use "green building" materials where practical.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Avoid construction noise in early and late hours.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Work with local jurisdictions and transit providers in the preparation and administration of the construction phasing/sequencing and traffic management plan.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Throughout the rail corridor, as warranted.	
Monitoring / Reporting Action	Measures are to be implemented by the construction contractor, with ongoing monitoring, as needed, by the SMART District following construction.	
Effectiveness Criteria	Adherence to appropriate and applicable regulatory requirements to assure successful implementation of compliance measures.	

Responsible Agency	The SMART District will retain primary responsibility for implementing the construction-related compliance measures. Additional agencies that will assist include: • CDFG, for review of special-status plant surveys • RWQCB, for consultation regarding stream crossings and minimization of impacts on water quality and biological sources. • RWQCB and Counties of Sonoma and Marin, for approving and implementing SWPPP and BMPs for minimizing erosion and sedimentation.	

Table 2. SMART Project Environmental Compliance Measures		City of Petaluma CEQA Findings as to Corona Station Applicability
	• Bay Area Air Quality Management District and Northern Sonoma County Air Pollution Control District, for implementation of BMPs for minimizing air pollution emissions	
Timing	During and following project construction.	
Security/Public Safety	In advance of start-up operations, SMART will designate an Emergency Response Coordinator to develop and implement a coordinated Emergency Preparedness Plan in consultation with local emergency responders. It will also hire a Public Safety Assessment (PSA) consultant to assist in the preparation of the plan which will include measures to address fire, safety, health, and security emergencies. SMART will submit the Emergency Preparedness Plan to the Federal Railroad Administration (FRA) for approval prior to initiation of passenger rail service. The Emergency Preparedness Plan will: • Establish chain of command that assigns responsibilities of railroad personnel and acknowledges authority of emergency responders. • Delineate functions and responsibilities for railroad operating personnel and control center personnel. • List telephone numbers of railroad personnel and emergency responders who must be notified in the event of an accident, in milepost order. • Develop criteria for determining whether an emergency exists and requires assistance from emergency responders. • Establish procedures for notifying emergency responders and defining incident responsibility. • Establish communication protocol between train and dispatcher, emergency responders, and within train based on chain of command, role and responsibilities of conductor. • Address care and evacuation of passengers. • Address joint operations with other railroads sharing right-of-way. • Develop a construction safety plan aimed at fire prevention.	
	Incorporate security enhancements into SMART's capital and operating plans. Such improvements include security design considerations for vehicles and stations, on-going personnel and passenger awareness training sessions, alternative back up external communications capabilities, and in-vehicle public address systems.	
	Provide system security for railway operations, either in-house or by contract. Contracted services could include local police, county sheriff's personnel or private security personnel. Fare inspectors would also be part of system security and provide additional surveillance to deter crime.	

	Implement training per the FRA rule of railroad personnel and those who interact with the railroad in emergency situations, including police, fire and heath emergency responders. A required training session for non-railroad personnel includes briefings in railroad and passenger train operations, right-of-way safety issues, equipment, forcible entry and evacuation, train crew personnel, hazards, emergency exits, grade crossings, and bridges and tunnels.	
	Request the US Department of Homeland Security (DHS) to conduct a comprehensive vulnerability assessment of the proposed project corridor.	
	Adhere to state and federal regulations to promote public safety and discourage trespassing. Standard safety measures include fencing, signage, and other physical impediments at appropriate locations designed to promote safety and minimize pedestrian/train accidents. In addition, appropriate set back for bicycle/pedestrian pathway, safety structure between bicycle/pedestrian pathway and rail tracks and use of heavy DMU vehicles compatible with freight trains.	
	In order to educate the community, and school children in particular, about safety issues around the rail tracks, work with Operation Lifesaver.[1] Operation Lifesaver is a nationwide, non-profit information safety program dedicated to educating the public on how to reduce crashes, injuries, and fatalities at at-grade rail crossings and on railroad rights-of-way. This free public service creates awareness of the hazards that may occur on railroad property and at at-grade crossings in particular. Operation Lifesaver has developed an outreach education program specifically for children. SMART proposes to sponsor in-school education in advance of start-up of the project.	

[1] Operation Lifesaver, available: http://www.oli.org/.

Table 2. SMART Project Environmental Compliance Measures		City of Petaluma CEQA Findings as to Corona Station Applicability
	Gate and lock all tunnels at dusk for security and safety purposes.	
	To address safety issues, maintain clearly defined access for non-motorized modes during construction. Where roadways and sidewalks are impassable for bicycles and pedestrians, sign and maintain safe alternate routes and pathways during construction. Coordinate with Marin and Sonoma Counties, local jurisdictions, fire and police departments, and transit providers.	
	Inspect the line during and after major storm and/or flooding events.	
Location	Throughout the rail corridor.	
Monitoring / Reporting Action	Periodic monitoring by the SMART District and local jurisdictions to verify that all security/ public safety measures are being implemented.	
Effectiveness Criteria	Adherence to FRA approved emergency preparedness plan, and to state and federal regulations to promote public safety associated with the use and maintenance of the railroad corridor.	
Responsible Agency	The SMART District will retain primary responsibility for implementing the security/public safety–related compliance measures. Additional agencies that will assist include: • Federal Railroad Administration, for review and approval of SMART's Emergency Pre- paredness Plan • Local police, Sonoma and Marin County Sheriff's, local fire departments and health emer- gency responders.	
Timing	Prior to and following initiation of rail service.	
Aesthetics	Consult with adjacent property owners and local governments about the design details of the safety structures and landscaping along the rail right-of-way.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Consult with local jurisdictions regarding rail station designs to ensure visual compatibility.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Design station and facility lighting to avoid light and glare on residential areas and to protect nighttime views.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Use drought tolerant native species for proposed landscaping/screening and use recycled water for landscaping requirements, where feasible.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.

Location	Throughout the corridor, as warranted.	
Monitoring / Reporting Action	Documentation from SMART demonstrating compliance.	
Effectiveness Criteria	Implementation of design details; where feasible, use of drought tolerant native species and recycled water for landscaping.	
Responsible Agency	SMART District, with assistance from property owners and local jurisdictions	
Timing	Prior to project construction	
Traffic	Implement an interconnected and adaptive traffic signal sequencing and coordination system in downtown San Rafael to minimize vehicle delay (see Section 3.6,	Not Applicable
	Implement roadway improvements at 3rd and Hetherton (addition of dual southbound right-turns), as an option, in the Downtown San Rafael Station area to minimize traffic congestion (see Section 3.6, Transportation).	Not Applicable
	Implement traffic signal timing and sequencing and a grade crossing protection system adjacent to downtown Petaluma and Santa Rosa Railroad Square stations to provide coordination and integration of the train detection system with adjacent traffic signals to minimize delays and allow for progression of other non-conflicting traffic movements (see Section 3.6, Transportation).	Not Applicable
	Work with each city/town's traffic engineer to evaluate the need for traffic signal timing and sequencing and a grade crossing protection system at intersections adjacent to station locations to minimize delay, and implement if warranted (see Section 3.6, Transportation).	Applicable. SMART is responsible for implementing this measure; the City will cooperate with SMART in its implementation.
Location	Along the rail corridor through downtown San Rafael, Petaluma and Santa Rosa.	
Monitoring / Reporting Action	Periodic monitoring of local traffic operations where improvements have been made.	
Effectiveness Criteria	With implementation of compliance measures, there would be a continuation of existing service levels on local streets.	
Responsible Agency	SMART District, with assistance from City of San Rafael, City of Petaluma and City of Santa Rosa.	

Table 2. SMART Project Environmental Compliance Measures		City of Petaluma CEQA Findings as to Corona Station Applicability
Timing	Prior to and following project construction.	
Water Quality/ Biological Resources	Utilize the bicycle/pedestrian pathway as maintenance access for the railway to minimize disturbance of biological resources and adjacent properties.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Develop bio-filtration swales or other appropriate pollutant runoff controls to accommodate surface runoff from the rail improvements, stations, maintenance facility, and park-and-ride facilities, where appropriate.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Develop and implement a habitat restoration plan, in consultation with appropriate agencies, to replace sensitive habitat and trees within the project right-of-way, where feasible.	Not Applicable
	Coordinate with the Sonoma County Water Agency (SCWA) regarding modifications to bridges and culverts and other construction activities adjacent to SCWA facilities.	Not Applicable
	Install signage along the bicycle/pedestrian pathway, where appropriate, to discourage disturbance of sensitive habitats. Signs shall explain the importance of local habitat, wildlife, and legal requirements to stay on the path.	Not Applicable
Location	Throughout the rail corridor.	
Monitoring / Reporting Action	None	
Effectiveness Criteria	Adherence to SWPPP and SISMP; also adherence to habitat restoration plan.	
Responsible Agency	SMART District, RWQCP, City of Santa Rosa, Counties of Sonoma and Marin; CDFG.	
Timing	Prior to and following project construction.	
Biological Resources	**Preservation of Mature Oak Trees.** The construction plan for station sites shall contain detailed provisions for the protection of existing mature oak trees and these provisions shall be conveyed to all construction personnel.[FSEIR]	
Location	Hamilton station site	
Monitoring/Reporting Action	Construction contractor to submit to SMART District: construction plan for review and approval, and proof of construction personnel briefing. Periodic field monitoring by SMART District to ensure proper protection of oak trees.	
Effectiveness Criteria	Oak trees are properly fenced and otherwise protected from construction activities.	
Responsible Agency	SMART District	
Timing	Plans provided prior to construction; monitoring during construction	

Air Quality	Implement control measures for NO_x and diesel particulate matter, which include: use of advanced emission control technology (high-efficiency catalytic after-treatments, such as catalyzed diesel particulate filters, selective catalytic reduction systems, NOx adsorbers, or equivalent) and use of ultra low sulfur (15 ppm) fuel.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Limit train idling to 15 minutes in all locations, except the maintenance facility shop where an emissions collection hood is utilized (see Section 3.5.6). .	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
	Strongly consider use of biodiesel and hybrid engine alternatives.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Throughout the rail corridor.	
Monitoring / Reporting Action	None.	
Effectiveness Criteria	Adherence to applicable BAAQMD and NSCAPCD requirements	
Responsible Agency	SMART District., with assistance from BAAQMD and NSCAPCD	
Timing	Prior to and following project construction.	
Noise	Assist local jurisdictions in Implementing FRA "quiet zones" where permissible to reduce use of train horns (See Section 3.7 Noise). Supplementary safety measures required for Quiet Zones are included in project funding, if such measures are approved by the FRA.	Applies. Quite zone have been implemented citywide in Petaluma including at the adjacent at grade crossing of Corona Road. This measure thus has already been successfully implemented.
	Use continuous welded rail for reduction in noise/vibration.	Applicable. SMART is responsible for implementing this measure; the City has no role in its implementation. The City finds that SMART has adopted this mitigation measure and that it will mitigate this impact to a level of less than significant for the Corona Station.
Location	Throughout the rail corridor.	
Monitoring / Reporting Action	Documentation from SMART demonstrating compliance.	
Effectiveness Criteria	None.	
Responsible Agency	SMART District	
Timing	Prior to, during and following project construction.	
Geology/Slope Stability	In areas with slopes, develop properly designed stormwater runoff collection systems and finished contours for new stations, rail sidings, and earthwork to maximize long-term slope stability.	
Location	In construction locations where drainage patterns exists.	

Monitoring / Reporting Action	None.	
Effectiveness Criteria	Adherence to SWPPP and SUSMP.	

Table 2. SMART Project Environmental Compliance Measures		City of Petaluma CEQA Findings as to Corona Station Applicability
Responsible Agency	SMART District, RWQCB, Counties of Sonoma and Marin, City of Santa Rosa.	
Timing **Cultural Resources**	Prior to and during project construction. If paleontological remains are discovered during construction, construction would cease or be directed away from the discovery, and the potential resource would be evaluated by a qualified paleontologist. The paleontologist would recommend appropriate measures to record, preserve, or recover the resource. [New for FSMND]	Not Applicable
Location	Todd Road OMF site	
Monitoring/Reporting Action	Paleontological evaluation if paleontological remains are discovered during construction.	
Effectiveness Criteria	Paleontologist evaluates potential impacts to any subsurface paleontological materials found in the area.	
Responsible Agency	SMART District	
Timing	During construction	