

Mitigation Monitoring and Reporting Program

City of Fortuna - 12th Street Interchange Modernization Project

SCH No. To be assigned

Environmental Protections Actions (EPA) and Mitigation Measures (MM)	Monitoring Responsibility	Monitoring/Reporting Action & Schedule	Verification (Initials/Date)
<p>EPA 1 – Stormwater Pollution Prevention Plan (SWPPP)</p> <p>The Project would obtain coverage under the North Coast Regional Water Quality Control Board (NCRWQCB), Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities (General Permit). The City would submit permit registration documents (notice of intent, risk assessment, site maps, SWPPP, annual fee, and certifications) to the Water Board. The SWPPP would address pollutant sources, BMPs, and other requirements specified in the Order. The SWPPP would include erosion and sediment control measures, dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified SWPPP Practitioner would oversee implementation of the Project SWPPP, including visual inspections, sampling and analysis, and ensuring overall compliance.</p>	<p>City's contractor, to be verified by a SWPPP practitioner</p>	<p>Performance criteria – North Coast Regional Water Quality Control Board and City standards</p> <p>Reporting actions – As required by the state permit</p> <p>Schedule - During project construction activities, including work and non-work times</p>	
<p>EPA 2 – Implementation of Geotechnical Design Recommendations</p> <p>The Project would be designed and constructed in compliance with site-specific geotechnical recommendations. This would include design in accordance with recommendations for earthwork, such as site clearing, cut/fill slopes, subgrade preparation, material for fill, compaction requirements, trenches, and foundations. The geotechnical recommendations would be incorporated into the final plans and specifications for the Project and would be implemented during construction.</p>	<p>City and City's contractor</p>	<p>Reporting actions – Verify inclusion of recommendations in final plans and specifications</p> <p>Schedule – Pre- and during construction; verify implementation of recommendations</p>	
Air Quality			
<p>MM AQ-1: BMPs to Reduce Air Pollution</p> <p>The contractor shall implement the following BMPs during construction:</p> <ul style="list-style-type: none"> – Disturbed surfaces (e.g., staging areas, soil piles, active graded areas, excavations, and unpaved access roads) shall be watered as needed for dust suppression. – All visible mud or dirt track-out onto adjacent public roads shall be removed using street sweepers as needed to alleviate dust and debris on the roadway. – All vehicle speeds on unpaved roads shall be limited to 15 miles per hour, unless the unpaved road surface has been treated for dust suppression with water, rock, wood chip mulch, or other dust prevention measures. 	<p>City and City's contractor</p>	<p>Performance criteria – North Coast Unified Air Quality Management District standards</p> <p>Reporting actions – Verify requirements are included in final plans and specifications</p>	

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<ul style="list-style-type: none"> – All areas to be paved shall be completed as soon as practical. – Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes. 		Schedule – During construction, check jobsite compliance as necessary	
Biological Resources			
<p>MM BIO-1: Mitigation Measure BIO-1: Avoidance and Minimization Measures to Protect Special Status Amphibians and Reptiles</p> <p>As well as adhering to the sediment reduction, spill prevention measures, and efforts to minimize disturbances to vegetation, the footprint of the proposed Project when in proximity to aquatic habitat will be restricted to the minimum area necessary.</p> <p>A qualified biologist will conduct environmental awareness training for contractors prior to construction detailing special status amphibians and reptiles that could be encountered within the Project Area during construction. If special status amphibian or reptile species are encountered during construction, construction-related activities shall cease within 100 feet of the individual until it has left the Project Area upon its own volition. If necessary, a qualified biologist may relocate the individual or individuals into otherwise suitable habitat nearby and outside of harm's way.</p>	City, City's biologist, and City's contractor	<p>Performance criteria – California Department of Fish and Wildlife (CDFW) standards</p> <p>Reporting actions – Verify requirements are in final specifications; verify completion and documentation of surveys, if necessary</p> <p>Schedule – Pre-construction and during construction; verify applicable protection measures are implemented</p>	
<p>MM BIO-2: Avoidance and Minimization Measures to Protect Special Status, Migratory, and Nesting Bird Species</p> <p>Contractors will remove trees and other vegetation that could potentially contain nesting birds outside the bird nesting season (March 15 to August 15). If vegetation removal occurs outside the bird nesting season, no further mitigation is necessary. If vegetation removal or construction work occur adjacent to suitable nesting habitat between March 15 and August 15 a qualified wildlife biologist shall conduct pre-construction surveys within the vicinity of the Project to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. As specified by CDFW, a qualified wildlife biologist shall be defined as a person who is 1) knowledgeable in distribution, habitat, nesting behavior, and life history of northern California birds; 2) can correctly identify bird species found in northern California; 3) has conducted previous field surveys of nesting birds; and 4) is knowledgeable in survey protocols and has obtained the necessary state and federal authorization for any potential take of listed birds, if necessary." The qualified wildlife biologist will conduct at minimum a pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the breeding season, a</p>	City, City's biologist, and City's contractor	<p>Performance criteria – California Department of Fish and Wildlife (CDFW) standards</p> <p>Reporting actions – Verify that protection and avoidance measures are in final specifications; verify completion and documentation of surveys, if necessary</p> <p>Schedule – Pre-construction and during construction; verify applicable disturbance buffers and protection measures are implemented</p>	

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<p>qualified wildlife biologist will conduct a supplemental avian pre-construction survey before Project work is reinitiated.</p> <p>If active nests are detected within the Project Area or up to 500 feet from construction activities, the qualified wildlife biologist will flag a buffer around each nest (assuming property access). Construction activities will avoid nest sites until the qualified wildlife biologist determines that the young have fledged, or nesting activity has ceased. If nests are documented outside of the construction footprint, but within 500 feet of the construction area, buffers will be implemented as needed (buffer size dependent on species). In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with USFWS. Buffer sizes will take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds. An absolute minimum buffer size of 30 feet will be used as a starting point of discussion for common species, with larger buffers for special status species and raptors.</p> <p>If active nests are detected during the survey within the construction footprint or surrounding 500 feet, the qualified wildlife biologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified wildlife biologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified wildlife biologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.</p>			
<p>MM BIO-3: Avoidance and Minimization Measures to Protect Special Status Fish Species</p> <p>The City shall implement the following avoidance and protection measures in areas adjacent to Rohner Creek and Strong's Creek during Project construction.</p> <ul style="list-style-type: none"> – Sediment and/or erosion control will be established to avoid sedimentation and runoff into Strong's Creek and Rohner Creek. The location of sediment and/or erosion control measures will be included on the final construction plan set. 	City and City's contractor	<p>Reporting actions – Verify that protection and avoidance measures are in final specifications</p> <p>Schedule – During construction; check jobsite compliance as necessary</p>	

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<ul style="list-style-type: none"> – Equipment will be cleaned of deleterious materials before working within 100 feet of either creek. – Equipment will be staged, and materials stockpiled, outside Rohner Creek and Strongs Creek riparian habitat, in designated staging and stockpile areas. – Any construction equipment operating adjacent to a creek shall be inspected daily for leaks. Any oil, fuel, and grease residue that has the potential to fall from machinery shall be removed and properly disposed of. Refueling and equipment maintenance would occur in designated staging and stockpiling areas only. – Spill containment booms will be available on-site at all times during construction operations and/or staging of equipment or during fueling when work occurs over live waterbodies. Fueling trucks will at all times be equipped with sealed spill kits. – City contractors will develop and implement site-specific measures and an emergency spill control plan. The contractor shall be responsible for immediate spill containment and cleanup, as well as proper disposal of hazardous materials and BMPs used during spill recovery. 			
<p>MM BIO-4: Avoidance and Minimization Measures to Protect Special Status Mammals</p> <p>The Project footprint shall be restricted to the minimum necessary. Deep steep-sided excavations will be covered or ramped if left overnight to avoid the risk of a nocturnally dispersing terrestrial mammals (e.g., North American Porcupine) becoming trapped. Food waste and other trash will be removed from the site at the end of each workday to avoid attractants. Pets (e.g., dogs) will not be permitted on the construction site.</p>	City and City's contractor	<p>Reporting actions – Verify that protection and avoidance measures are in final specifications</p> <p>Schedule – During construction; check jobsite compliance as necessary</p>	
<p>MM BIO-5: Compensatory Mitigation for Sensitive Natural Communities</p> <p>If impacts to Salal-berry brambles cannot be avoided, this SNC shall be replaced either on or off-site at no less than a 1:1 ratio. Removal of nuisance litter and invasive species will also be acceptable to offset Salal-berry bramble removal if replanting within or near the Project Area is infeasible. Where feasible Himalayan blackberry will be removed from remaining stands of berry brambles within the Project Area as mitigation for Project impacts.</p>	City and City's contractor	<p>Performance criteria – California Department of Fish and Wildlife (CDFW) standards</p> <p>Reporting actions – Completion and documentation of surveys, if necessary</p> <p>Schedule – Pre-construction and during construction; verify applicable disturbance buffers and protection measures are implemented</p>	

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Cultural Resources			
<p>MM CR-1: Inadvertent Discovery of Archaeological Material</p> <p>If cultural materials for example: chipped or ground stone, historic debris, building foundations, or bone are discovered during ground disturbance activities, work shall be stopped within 66 feet of the discovery, per the requirements of CEQA (Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials, and offered recommendations for further action. Tribal representatives, including representatives of the Bear River Band of Rohnerville Rancheria, shall be notified.</p>	City, City's archaeologist, and City's contractor	<p>Performance criteria – City, state, and federal standards</p> <p>Reporting actions – Verify requirements are in final specifications; verify completion of archaeological monitoring; verify completion of noticing upon inadvertent discovery</p> <p>Schedule – During construction</p>	
<p>MM CR-2: Inadvertent Discovery of Human Remains</p> <p>If human remains are discovered during Project construction, work will stop at the discovery location, within 66 feet, and any nearby area reasonably suspected to overlie adjacent to human remains (PRC, Section 7050.5). The Humboldt County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (PRC, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in PRC, Section 5097.98.</p>	City, City's archaeologist, and City's contractor	<p>Performance criteria – City, state, and federal standards</p> <p>Reporting actions – Verify requirements are in final specifications; verify completion of archaeological monitoring; verify completion of noticing upon inadvertent discovery</p> <p>Schedule – During construction</p>	
Geology and Soils			
<p>MM GEO-1: Inadvertent Discovery of Paleontological Resources</p> <p>In the event that fossils are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any</p>	City and City's contractor	<p>Performance criteria – City, state, and federal standards</p> <p>Reporting actions – Verify inclusion of language in final plans and specifications</p> <p>Schedule – During construction; verify completion of protection</p>	

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<p>fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.</p>		<p>measures and notifications if inadvertent discovery</p>	
<p>Hazards and Hazardous Materials</p>			
<p>MM HAZ-1: Inadvertent Discovery of Hazardous Soils</p> <p>A Preliminary Site Investigation (PSI) will be required prior to the start of construction activities within the following portions of the Project Area:</p> <ul style="list-style-type: none"> – Areas of excavation adjacent to the U.S. 101 on- and off-ramps will be characterized for Total Petroleum Hydrocarbons (TPH) and California Administrative Manual (CAM) 17 metals (including Aerially Deposited Lead [ADL]). – Areas of excavation adjacent to the railroad corridor will be characterized for TPH, CAM 17 metals, semi-volatile organic compounds (SVOCs), and polycyclic aromatic hydrocarbons (PAH). – Areas of excavation adjacent to the former Palco Lumber Mill will be characterized for TPH and dioxins and furans. <p>If construction activities are predicted to encounter groundwater, groundwater will also be characterized as part of the PSI.</p> <p>If contaminants are identified in the PSI, a Construction Soil and Groundwater Management Plan (SGMP) will be developed prior to the start of construction to identify protocols to proactively manage potentially impacted soil and groundwater within the Project Area and reduce exposure to site workers.</p> <p>The Construction SGMP will specifically cover applicable soil reuse strategies, potentially unknown hazards related to nearby historical sites, hazards associated with the nearby, open LUST cases, and potential biohazards from illegal camping and garbage dumping. All workers will be trained according to the safe handling instructions included in the Construction SGMP and a copy of the Construction SGMP will be kept on-site at all times during construction.</p> <p>If final design and construction activities include demolition of concrete infrastructure (bridges, overcrossings, box culverts, etc.), a hazardous materials assessment may be warranted to maintain compliance with National Emission Standard for Hazardous Air Pollutant (NESHAP) as included under 40 CFR Part 61 and/or 40 CFR Part 63.</p> <p>If construction activities include dewatering, and if laboratory analysis of pre-construction soil borings indicate elevated Total Threshold Limit Concentration (TTLC) of 1,000 ppm and 5 mg/L, respectively, Solubility Threshold Limit Concentration (STLC) characterization will occur. Additional pre-construction soil and groundwater characterization will occur as required by regulatory thresholds.</p>	<p>City and City's contractor</p>	<p>Performance criteria – City, state, and federal standards</p> <p>Reporting actions – Verify requirements are in final specifications; verify completion of PSI; verify completion of SGMP, if applicable</p> <p>Schedule – Pre- and during construction; verify requirements are implemented; check jobsite compliance as necessary</p>	

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<p>If pre-construction characterization indicates contaminants of concern impacts above STLC levels to soil and/or groundwater, it is required that site workers involved in excavation activities be Hazardous Waste Operations and Emergency Response (HAZWOPER) trained (Occupational Safety and Health Administration (OSHA) 1910.120).</p>			
Noise			
<p>MM NOI-1: Reduce Construction Noise Levels</p> <p>The City and its contractor shall implement measures to reduce construction noise levels emanating from construction activities and minimize disruption and annoyance to adjacent residences. Specific measures that can be feasibly implemented include, but are not limited to, the following:</p> <ul style="list-style-type: none"> – Construction will only occur between 7:00 a.m. and 8:00 p.m. Monday through Saturday. – Provide advance notice to nearby residents within 250 feet prior to starting work, with information regarding anticipated schedule, hours of operation and a Project contact person. – Best available noise control practices (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) will be used for equipment and trucks to minimize construction noise impacts. – Stationary noise sources shall be located as far from sensitive noise receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used. Enclosure openings or venting shall face away from sensitive noise receptors. 	<p>City and City's contractor</p>	<p>Performance criteria – City standards</p> <p>Reporting actions – Verify requirements are in final specifications; verify completion of noticing as detailed in MM NOI-1</p> <p>Schedule – Pre- and during construction; verify applicable best management practices are implemented; check jobsite compliance as necessary</p>	
Transportation			
<p>MM TR-1: Maintain Emergency Access and Notify Emergency Responders</p> <p>The City shall require contractors to provide adequate emergency access to all properties along the corridor during the construction process. At locations where access to a nearby property is temporarily blocked, the contractor shall be required to have ready the means necessary to accommodate access by emergency vehicles to such properties, such as plating over excavations. As construction progresses, emergency providers shall be notified in advance of the timing, location, and duration of construction activities and the locations and durations of any temporary lane closures.</p>	<p>City and City's contractor</p>	<p>Performance criteria – City and county standards</p> <p>Reporting actions – Verify requirements are in final specifications; verify completion</p> <p>Schedule – Pre- and during construction; verify jobsite compliance as necessary</p>	