State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
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GAVIN NEWSOM, Governor
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March 12, 2021

Ms. Stacy Lawson
City of Lompoc
100 Civic Center Plaza
Lompoc, CA 93436
(805) 568-2055
S_Lawson@ci.lompoc.ca.us

Subject: Comments on the Draft Mitigated Negative Declaration (DMND) for the Floradale Crossing Sewer Line Directional Drill Project; SCH #2021020258; Santa Barbara County

Dear Ms. Lawson:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Notice of Availability of a Draft Mitigated Negative Declaration (DMND) for the Floradale Crossing Sewer Line Directional Drill Project (Project). The City of Lompoc (City) is the lead agency preparing a DMND pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et. seq.) with the purpose of informing decision-makers and the public regarding potential environmental effects related to the Project. Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & Game Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; CEQA Guidelines § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, §

2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and Game Code §1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required.

Project Description and Summary

Objective: The Project involves installing 700 feet of sewer pipeline under the Santa Ynez River using horizontal directional boring. The new pipeline consists of 700 feet of inverted siphon interceptor sewer line using two 12-inch diameter high density polyethylene pipes. The two pipelines are intended to provide redundancy and easier maintenance.

The directional drill will cross the Santa Ynez River within an existing 20-foot easement, which is located approximately 188 feet east (upstream) of the existing Floradale Bridge. The entrance pit will be located on the south west bank of the Santa Ynez River, where the riverbed curves west and is approximately 413 feet wide. The exit pit will be located on the north bank of the Santa Ynez River along Rancho Lompoc Farm Road, where the riverbed extends approximately 271 feet to the south.

The entrance pit staging areas on the south and north sides of the Santa Ynez River will measure 40 feet by 100 feet. The entrance and exit pits, along with the staging area for this Project will be located within the existing right-of-way of Floradale Road and Santa Lucia Canyon Road and the utility easement adjacent to the prison farm road. The length of the bore is estimated at 750 feet.

The directional drilling is scheduled to take place in the fall of 2021, between September 15 and November 1, when river flow is the lowest and outside of the bird nesting season. The Project will be completed when the Santa Ynez River is dry or when water has been diverted to accomplish the Floradale Bridge replacement, which is currently under construction. Construction is anticipated to require four to five weeks to complete, involving a light horizontal directional drill rig, a support truck, a drill stem trailer, one water truck, several small excavators, loaders, several utility trucks to transport four drill operators, a supervising engineer, and a biologist.

Location: The Project is located parallel to Floradale Avenue Bridge, at the intersection of Floradale Avenue and Terra Road, 180 feet east (upstream) of the Santa Ynez River.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

Project Description and Related Impact Shortcoming

Comment #1: Impacts to California Species of Special Concern

Issue: CDFW is concerned that Project-related activities may result in significant impacts to the following Species of Special Concern (SSC):

- Fish: southern California steelhead (Oncorhynchus mykiss);
- Reptiles: two-striped garter snake (*Thamnophis hammondii*), Blainville's horned lizard/coast horned lizard (*Phrynosoma blainvillii*), and southwestern pond turtle (*Actinemys pallida*);
- Amphibians: California red-legged frog (*Rana draytonii*); and
- Mammals: Yuma myotis (*Myotis yumanensis*), silver-haired bat (*Lasionycteris noctivagans*), pallid bat (*Antrozous pallidus),* and hoary bat (*Lasiurus cinereus*).

Specific impact: Project construction and related activities, directly or through indirect effects, may result in direct injury or mortality of SSC. The DMND acknowledged the potential for these species to occur but did not include survey data conducted during the appropriate time of year to maximize detection. If the Project relies solely on pre-construction surveys occurring during fall to winter, a period when many species are not active or detectable due to brumation/hibernation/torpor, Project impacts to SSC may go undetected.

Why impact would occur: Project implementation includes staging and using heavy equipment within and adjacent to the active river channel. These activities include increased ambient noise and vibration, night lighting, and other activities.

Anthropogenic noise can disrupt the communication of many wildlife species including frogs, birds, and bats (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Noise can also affect predator-prey relationships as many nocturnal animals such as bats and owls primarily use auditory cures (i.e., hearing) to hunt. Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011). Substantial noise may adversely affect wildlife species in several ways as wildlife responses to noise can occur at exposure levels of only 55-60 dB (Barber et al. 2009). For reference, normal conversation is approximately 60 dB, and natural ambient noise levels (e.g., forest habitat) are generally measured at less than 50dB.

Increased ambient lighting levels can increase predation risks and disorientation. This would disrupt normal behaviors of birds in adjacent feeding, breeding, and roosting habitat (Longcore and Rich 2004). Stone et al. (2015) found that illumination of bat hibernation sites may cause avoidance as well as light disturbance within a hibernation site, which would cause bats to arouse from torpor. These effects may result in direct mortality, population declines, or local extirpation of SSC fish, reptile, and mammal species

Evidence impact would be significant: An SSC is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;

- is listed under the Federal Endangered Species Act-, but not CESA-listed, meets the State definition of threatened or endangered but has not formally been listed;

- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; and,

- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for CESA status (CDFW 2020c).

Project construction and activities, directly or through habitat modification, may result in direct mortality, reduced reproductive capacity, population declines, or local extirpation of SSC. CEQA provides protection not only for State and federally listed species, but for any species including but not limited to SSC which can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15065). Take of SSC could require a mandatory finding of significance by the City (CEQA Guidelines, § 15065).

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: Pursuant to the California Code of Regulations, title 14, section 650, the City/qualified biologist must obtain appropriate handling permits to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. Please visit CDFW's Scientific Collection Permits webpage for information (CDFW 2020d). A Lake and Streambed Alteration (LSA) Agreement may provide similar take or possession of species as described in the conditions of the agreement.

CDFW has the authority to issue permits for the take or possession of wildlife, including mammals; birds, nests, and eggs; reptiles, amphibians, fish, plants; and invertebrates (Fish & G. Code, §§ 1002, 1002.5, 1003). Effective October 1, 2018, a Scientific Collecting Permit is required to monitor project impacts on wildlife resources, as required by environmental documents, permits, or other legal authorizations; and, to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with otherwise lawful activities (Cal. Code Regs., tit. 14, § 650).

Mitigation Measure #2: CDFW recommends monitoring noise generated by the Project operations during construction and post-construction operations to ensure noise from the Project does not affect wildlife in the adjacent river habitat. The MND should set acceptable noise thresholds that would be part of a daily monitoring and reporting program to ensure impact to adjacent habitat is below a threshold that would have an adverse effect.

Mitigation Measure #3: Construction equipment should use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. Stationary noise sources (e.g., generators, pumps) at staging areas within 1,400 feet of sensitive receptors should be shielded at the source by an enclosure, temporary sound walls, or acoustic blankets. Where feasible, sound walls or acoustic blankets should have a height of no less than 8 feet, a Sound Transmission Class (STC) of 27 or greater, and a surface

with a solid face from top to bottom without any openings or cutouts. Unnecessary construction vehicle use and idling time should be minimized to the extent feasible, such that if a vehicle is not required for use immediately or continuously for safe construction activities, its engine should be shut off.

Mitigation Measure #4: The City should retain a qualified biologist(s) with experience surveying for or is familiar with the life history of each of the species mentioned above. The qualified biologist should conduct focused surveys for SSC and suitable habitat within the appropriate season to detect presence, and again no more than one month from the start of any ground-disturbing activities or vegetation removal where there may be impacts to SSC. In addition, the qualified biologist should conduct daily biological monitoring during any activities involving vegetation clearing (including ruderal areas), open ditches or pits, or modification of natural habitat. Positive detections of SSC and suitable habitat at the detection location should be mapped and photographed and reported to the California Natural Diversity Database. The qualified biologist should provide a summary report of SSC surveys to the City prior to implementing any Project-related ground-disturbing activities and vegetation removal. Depending on the survey results, a qualified biologist should develop species-specific mitigation measures for implementation during the Project.

Mitigation Measure #5: Wildlife should be protected, allowed to move away on its own (non-invasive, passive relocation), or relocated to adjacent appropriate habitat on site or to suitable habitat adjacent to the project area. SSC should be captured only by a qualified biologist with proper handling permits. The qualified biologist should prepare a species-specific list (or plan) of proper handling and relocation protocols and a map of suitable and safe relocation areas. A relocation plan should be submitted to the City prior to implementing any Project-related ground-disturbing activities and vegetation removal.

Mitigation Measure #6: The City, in consultation with a qualified biologist, should prepare a worker environmental awareness training. The qualified biologist should communicate to workers that upon encounter with an SSC (e.g., during construction or equipment inspections), work must stop, a qualified biologist must be notified, and work may only resume once a qualified biologist has determined that it is safe to do so.

Mitigation Measure #7: If any SSC are harmed during relocation or a dead or injured animal is found, work in the immediate area should stop immediately, the qualified biologist should be notified, and dead or injured wildlife documented. A formal report should be sent to CDFW and the City within three calendar days of the incident or finding. Work in the immediate area may only resume once the proper notifications have been made and additional mitigation measures have been identified to prevent additional injury or death.

Comment #2: Impacts to Riparian Resources

Issue: CDFW has determined that streams subject to Fish and Game Code section 1600 *et seq.* may be impacted by the proposed Project.

Specific Impact: The DMND states the Project could result in impacts to jurisdictional resources due to the potential for frac-outs. Surface heaving during horizontal directional drilling operations can occur from frac-out of drilling fluids. Surface settlement after horizontal directional drilling operations can also occur.

Why impact would occur: Degradation of water quality due to frac-outs affect fish, amphibians, and riparian dependent species such as birds and bats. Runoff with high total suspended solids and total dissolved solids has been shown to be high in nutrients as well as other contaminants. Drilling fluid can be toxic to aquatic organisms.

Evidence impact would be significant: Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW prior to beginning any activity that may do one or more of the following:

- Divert or obstruct the natural flow of any river, stream, or lake;
- Change the bed, channel, or bank of any river, stream, or lake;
- Use material from any river, stream, or lake; or,
- Deposit or dispose of material into any river, stream, or lake.

The Project may substantially adversely affect the existing water quality and geomorphologic processes through the alteration of the channel.

Mitigation Measure #1: The Project may result in the alteration of streams. For any such activities, the Project applicant (or "entity") must provide notification to CDFW pursuant to Fish and Game Code, section 1600 et seq. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration (LSA) Agreement with the applicant is required prior to conducting the proposed activities. Please visit CDFW's Lake and Streambed Alteration Program webpage to for information about LSA notification and online submittal through the Environmental Permit Information Management System (EPIMS) Permitting Portal (CDFW 2020d).

CDFW's issuance of an LSA Agreement for a Project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document from the County for the Project. To minimize additional requirements by CDFW pursuant to Fish and Game Code, section 1600 et seq. and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement.

Any LSA permit issued for the Project by CDFW may include additional measures protective of streambeds on and downstream of the Project site. The LSA Agreement may include further erosion and pollution control measures. To compensate for any on-site and off-site impacts to aquatic resources, additional mitigation conditioned in any LSA Agreement may include the following: avoidance of resources, on-site or off-site creation, enhancement or restoration, and/or protection, and management of mitigation lands in perpetuity.

Mitigation Measure #2: A weed management plan should be developed for the Project area and implemented both during and for at least 3 years post-Project. Soil disturbance promotes establishment and growth of non-native weeds. As part of the Project, non-native weeds should be prevented from becoming established both during and after construction, to control the local spread of invasive plants. The Project area should be monitored via mapping for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring should be included in this plan. Monitoring for spread of invasive weeds to adjacent lands should also be included.

Recommendation #1: CDFW recommends pursuing the alternative of strapping the pipeline under the Floradale Bridge to avoid potential impacts to the stream and water quality due to frac-outs and the future potential for erosion/undercutting, washouts, spills, settling, and vegetation removal for repairs.

Recommendation #2: CDFW recommends a non-toxic, water-based drilling fluid be used to reduce the risk to aquatic life.

Comment #3: Survey and Assessment Methodology – Preconstruction Surveys as Mitigation

Issue: The DMND relies on pre-construction surveys for the detection of CEQA-rare plants. CDFW is concerned the DMND does not contain sufficient information regarding existing, known biological resources on the proposed Project to allow for a meaningful discussion of impacts and alternatives analysis.

Specific impacts: The Project may result in impacts to CEQA-rare plant species without including any specific disclosure or analysis in the DMND. Deferring impact assessment and disclosure to pre-construction botanical surveys does not allow adequate disclosure of impacts during the CEQA review period.

Why impact would occur: Direct impacts include Project activities that result in vegetation crushing, trimming or removal, burial, human intrusion, and the erosion, crushing and compaction or excavation of soil. Indirect effects include the spread of invasive, non-native weeds, which impact adjacent habitat.

Evidence impact would be significant: CEQA Guidelines section 15070 and section 15071 require the document to analyze if the Project may have a significant effect on the environment as well as review if the Project will 'avoid the effect or mitigate to a point where clearly no significant effects would occur'. Relying on future surveys, the preparation of future management plans, moving out of harm's way, or mitigating by obtaining permits from CDFW are considered deferred mitigation under CEQA. In order to analyze if a project may have a significant effect on the environment, the Project related impacts, including survey results for species that occur in the entire Project footprint, need to be disclosed during the public comment period. This information is necessary to allow CDFW to comment on alternatives to avoid impacts, as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity). CDFW is unable to determine the extent of impacts based on the biological analysis conducted for the DMND. Absent survey data, CDFW is unable to provide meaningful avoidance, minimization, or mitigation measures related to special status plant resources.

In addition, Impacts to CEQA-rare plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to these sensitive species will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or United States Fish and Wildlife Service.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: Appropriate surveys, including protocol botanical surveys, should be conducted to document the presence/absence of CEQA-rare species prior to finalizing the DMND. Based on the survey results, the final CEQA document should propose avoidance and specific mitigation for Project impacts to CEQA-rare species. Surveys should be timed during the appropriate season for maximum detection of sensitive species. For botanical species, CDFW's Updated protocols (CDFW, 2018) should be utilized.

Recommendation: CEQA-rare species within the Project area should be included in the DMND, including location (map), population/occurrence size estimates, and an assessment of specific impacts with avoidance and minimization measures.

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife resources, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (California Code of Regulations, tit. 14, § 753.5; Fish and Game Code, § 711.4; Public Resources Code, § 21089).

Conclusion

We appreciate the opportunity to comment on the project to assist the City of Lompoc in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that the City has to our comments and to receive notification of any forthcoming hearing date(s) for the project. Questions regarding this letter and further coordination on these issues should be directed to Kelly Schmoker-Stanphill, Senior Environmental Scientist (Specialist), at (626) 335-9092 or Kelly.Schmoker@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Erinn Wilson-Olgin
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Erinn Wilson-Olgin
Environmental Program Manager I
South Coast Region

Attachments: Attachment A: Draft Mitigation and Monitoring Reporting Plan

ec: CDFW
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References

Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. Trends in Ecology and Evolution 25:180–189.

(CDFW) California Department of Fish and Wildlife, 2018. Updated Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Accessed at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959

(CDFW) California Department of Fish and Wildlife, Rarefind Database, Government Edition. 2020. Natural Heritage Division. Sacramento, California. Available online at: https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx. Accessed October 25, 2020

Cembrowski, Adam & Tan, Marcus & Thomson, James & Frederickson, Megan. (2014). Ants and Ant Scent Reduce Bumblebee Pollination of Artificial Flowers. The American naturalist. 183. 133-139. 10.1086/674101.

Dooling, R.J. and A.N. Popper. 2007. The effects of highway noise on birds. Report prepared by Environmental BioAcoustics LLC for the California Department of Transportation, Sacramento, California.

Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. Current Biology 19:1415–1419.

Gillam, E. H., and G. F. McCracken. 2007. Variability in the echolocation of Tadarida brasiliensis: effects of geography and local acoustic environment. Animal Behaviour 74:277–286.

Hanna, C., Naughton, I., Boser, C., Alarcón, R., Hung, K.J. and Holway, D. (2015), Floral visitation by the Argentine ant reduces bee visitation and plant seed set. Ecology, 96: 222-230. doi:10.1890/14-0542.1

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game. October 1986.

Kight, C. R., and J. P. Swaddle. 2011. How and why environmental noise impacts animals: An integrative, mechanistic review. Ecology Letters 14:1052–1061.

Longcore, T. and C. Rich. 2004. Ecological light pollution. Front Ecological Environment 2(4):191-198.

Marr, A. 2001. Dealing with Vibration and Noise from Pile Driving. Adapted from Pile Driving Contractors Association, Vol. 2, No. 1, 2001, pp 17-20.

Mitrovich M.J., Matsuda T, Pease K.H., Fisher R.N. 2010 Ants as a measure of effectiveness of habitat conservation planning in Southern California. Conserv Biol 24:1239–1248.

Patricelli, G., and J. J. L. Blickley. 2006. Avian communication in urban noise: causes and consequences of vocal adjustment. Auk 123:639–649.

Quinn, J. L., M. J. Whittingham, S. J. Butler, W. Cresswell, J. L. Quinn, M. J. Whittingham, S. J. Butler, W. Cresswell, and W. Noise. 2017. Noise, predation risk compensation and vigilance in the chaffinch Fringilla coelebs. Journal of Avian Biology 37:601–608.

Slabbekoorn, H., and E. A. P. Ripmeester. 2008. Birdsong and anthropogenic noise: Implications and applications for conservation. Molecular Ecology 17:72–83.

Sawyer, J.O., Keeler Wolf, T., and Evens J.M. 2008. A manual of California Vegetation, 2nd ed. ISBN 978 0 943460 49 9.

Stone, E., S. Harris, and G. Jones. 2015. Impacts of artificial lighting on bats: A review of challenges and solutions. *Mammalian Biology - Zeitschrift für Säugetierkunde* 80.

Sun, J. W. C., and P. M. Narins. 2005. Anthropogenic sounds differentially affect amphibian call rate. Biological Conservation 121:419–427.

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Attachment A: Draft Mitigation and Monitoring Reporting Plan

CDFW recommends the following language to be incorporated into a future environmental document for the Project. A final MMRP shall reflect results following additional plant and wildlife surveys and the Project's final on and/or off-site mitigation plans.

Biological Resources (BIO)			
Mitigation Measure (MM) or Recommendation (REC)		**Timing**	**Responsible Party**
MM-BIO-1- Impacts to California Species of Special Concern	Pursuant to the California Code of Regulations, title 14, section 650, the City/qualified biologist must obtain appropriate handling permits to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with Project construction and activities. Please visit CDFW's Scientific Collection Permits webpage for information (CDFW 2020d). An LSA Agreement may provide similar take or possession of species as described in the conditions of the agreement.	Prior to/After Project construction and activities	Lead Agency/ Applicant
MM-BIO-2- Impacts to California Species of Special Concern	The City shall monitor noise generated by the Project operations during construction and post-construction operations to ensure noise from the Project does not affect wildlife in the adjacent river habitat. The MND shall set acceptable noise thresholds that would be part of a daily monitoring and reporting program to ensure impact to adjacent habitat is below a threshold that would have an adverse effect.	During Project construction activities	Applicant
MM-BIO-3- Impacts to California Species of Special Concern	Construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. Stationary noise sources (e.g., generators, pumps) at staging areas within 1,400 feet of sensitive receptors shall be shielded at the source by an enclosure, temporary sound walls, or acoustic blankets. Where	During Project construction activities	Applicant

	feasible, sound walls or acoustic blankets shall have a height of no less than 8 feet, a Sound Transmission Class (STC) of 27 or greater, and a surface with a solid face from top to bottom without any openings or cutouts. Unnecessary construction vehicle use and idling time shall be minimized to the extent feasible, such that if a vehicle is not required for use immediately or continuously for safe construction activities, its engine should be shut off.		
MM-BIO-4- Impacts to California Species of Special Concern	The City shall retain a qualified biologist(s) with experience surveying for or is familiar with the life history of each of the species mentioned above. The qualified biologist shall conduct focused surveys for SSC and suitable habitat within the appropriate season to detect presence, and again no more than one month from the start of any ground-disturbing activities or vegetation removal where there may be impacts to SSC. In addition, the qualified biologist shall conduct daily biological monitoring during any activities involving vegetation clearing (including ruderal areas), open ditches or pits, or modification of natural habitat. Positive detections of SSC and suitable habitat at the detection location shall be mapped and photographed and reported to the California Natural Diversity Database. The qualified biologist shall provide a summary report of SSC surveys to the City prior to implementing any Project-related ground-disturbing activities and vegetation removal. Depending on the survey results, a qualified biologist shall develop species-specific mitigation measures for implementation during the Project.	Prior to Project construction and activities	Lead Agency/ Applicant
MM-BIO-5- Impacts to California Species of Special Concern	Wildlife shall be protected, allowed to move away on its own (non-invasive, passive relocation), or relocated to adjacent appropriate habitat on site or to suitable habitat adjacent to the project area. SSC shall be captured only by a qualified biologist with proper handling permits. The qualified biologist shall prepare a species-specific list (or plan) of proper handling and relocation protocols and a map of suitable and safe relocation areas. A relocation plan shall be submitted to the City prior to implementing	Prior to Project construction and activities	Lead Agency/ Applicant

	any Project-related ground-disturbing activities and vegetation removal.		
MM-BIO-6- Impacts to California Species of Special Concern	The City, in consultation with a qualified biologist, shall prepare a worker environmental awareness training. The qualified biologist shall communicate to workers that upon encounter with an SSC (e.g., during construction or equipment inspections), work must stop, a qualified biologist must be notified, and work may only resume once a qualified biologist has determined that it is safe to do so.	Prior to Project construction and activities	Lead Agency/ Applicant
MM-BIO-7- Impacts to California Species of Special Concern	If any SSC are harmed during relocation or a dead or injured animal is found, work in the immediate area shall stop immediately, the qualified biologist shall be notified, and dead or injured wildlife documented. A formal report shall be sent to CDFW and the City within three calendar days of the incident or finding. Work in the immediate area may only resume once the proper notifications have been made and additional mitigation measures have been identified to prevent additional injury or death.	Prior to Project construction and activities	Lead Agency/ Applicant
MM-BIO-8- Impacts to Aquatic and Riparian Resources; Lake and Streambed Alteration Agreement	The Project applicant (or "entity") must provide written notification to CDFW pursuant to section 1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, CDFW shall determine whether an LSA Agreement is required prior to conducting the proposed activities. A notification package for an LSA may be obtained by accessing CDFW's web site at https://www.wildlife.ca.gov/conservation/lsa.	Prior to Project construction and activities	Lead Agency/ Applicant
MM-BIO-9- Impacts to Aquatic and Riparian Resources; Lake and	A weed management plan shall be developed for the Project area and implemented both during and for at least 3 years post-Project. Soil disturbance promotes establishment and growth of non-native weeds. As part of the Project, non-native weeds shall be prevented from becoming established both during and after construction, to control the local spread of invasive plants. The Project area shall	Prior, during, and after Project construction and activities	Lead Agency/ Applicant

Streambed Alteration Agreement	be monitored via mapping for new introductions and expansions of non-native weeds. Annual threshold limits, eradication targets, and monitoring shall be included in this plan. Monitoring for spread of invasive weeds to adjacent lands should also be included.		
Rec-BIO-1- Impacts to Aquatic and Riparian Resources; Lake and Streambed Alteration Agreement	CDFW recommends pursuing the alternative of strapping the pipeline under the Floradale Bridge to avoid potential impacts to the stream and water quality due to frac-outs and the future potential for erosion/undercutting, washouts, spills, settling, and vegetation removal for repairs	Prior to Project construction and activities	Lead Agency/ Applicant
Rec-BIO-2- Impacts to Aquatic and Riparian Resources; Lake and Streambed Alteration Agreement	CDFW recommends a non-toxic, water-based drilling fluid be used to reduce the risk to aquatic life.	Prior to Project construction and activities	Lead Agency/ Applicant
MM-BIO-10- Impacts to plant species	Appropriate surveys, including protocol botanical surveys, shall be conducted to document the presence/absence of CEQA-rare plant species prior to finalizing the DMND. Based on the survey results, the final CEQA document shall propose avoidance and specific mitigation for Project impacts to CEQA-rare species. Surveys shall be timed during the appropriate season for maximum detection of sensitive species. For botanical species, CDFW's Updated protocols (CDFW, 2018) shall be utilized.	Prior to finalizing the MND. Prior to Project construction and activities	Lead Agency/ Applicant

Rec-BIO-3-Impacts to plant species	CEQA-rare species within the Project area should be included in the DMND, including location (map), population/occurrence size estimates, and an assessment of specific impacts with avoidance and minimization measures.	Prior to finalizing the MND	Lead Agency/ Applicant