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Subject: Highway 17 Wildlife and Regional Trail Crossings and Trail Connection, Joint Mitigated Negative Declaration/Environmental Assessment, SCH No. 2024020745, Santa Clara County

Dear Jared Hart

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt a Mitigated Negative Declaration (MND) from Midpeninsula Regional Open Space District (MROSD) for the Highway 17 Wildlife and Regional Trail Crossings and Trail Connections (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

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 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 & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (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 fish and wildlife resources.

CDFW is also submitting comments as a potentially **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority (Fish & G. 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 & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

REGULATORY REQUUIREMENTS

Lake and Streambed Alteration Agreement

The Project has the potential to impact stream resources including mainstems, tributaries, drainages and floodplains within the Biological Study Area (BSA) that may require notification to the LSA Program. If work is proposed that will impact the bed, bank, channel or riparian habitat, including the trimming or removal of trees and riparian vegetation, please be advised that the proposed Project may be subject to LSA notification. CDFW requires an LSA notification, pursuant to Fish and Game Code § 1600 et. seq., for or any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, bank or channel or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements.

California Endangered Species Act

Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (CEQA Guidelines §§ 21001 subd. (c), 21083, 15380, 15064 and15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code, § 2080. More information on the CESA permitting process can be found on the CDFW website at https://wildlife.ca.gov/Conservation/CESA.

PROJECT DESCRIPTION SUMMARY

Proponent: Midpeninsula Regional Open Space District

Objective: The objective of the Project is to improve wildlife passage, habitat connectivity, and regional trail connections in the vicinity of Highway 17 adjacent to Lexington Reservoir. The Project is needed to address wildlife mortality and motorist safety from animal vehicle collisions on Highway 17 in the Project area, to maintain healthy wildlife populations by improving habitat connectivity, and to provide more efficient non-automotive recreational access across Highway 17, including to regional multi-use trails.

Primary Project activities include:

- A wildlife undercrossing of Highway 17 with installation of wildlife directional fencing, wildlife escape ramps, electrified mats, and sound walls;
- Two alternatives for a regional trail overcrossing, one of which would be constructed. Each overcrossing alternative would consist of a bridge over Highway 17 and trail connections to existing or proposed trails that would be partially within the California Department of Transportation (Caltrans) right-of-way (ROW); and
- New or improved existing trail segments that are outside of the Caltrans ROW.

Location: Los Gatos, Santa Clara County (County), and along Highway 17 from the Bear Creek Road overcrossing in unincorporated Santa Clara County (post mile [PM] 4.1) to 0.7 mile south of the Main Street overcrossing in Los Gatos (PM 5.8), and GPS coordinates 37°12'10.5"N 121°59'30.5"W.

Timeframe: Years 2027 to 2032. Construction of the wildlife undercrossing, regional trail overcrossing, and associated elements could start in early 2027 and take two construction seasons (generally considered to be April through October). Work on the trails outside of the Caltrans ROW would be phased and prioritized based on the availability of funding and the ability to secure access rights from multiple public and private landowners. Construction of the regional trails could take a total of approximately five years, over a period of multiple non-consecutive years.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist MROSD in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

COMMENT #1: Project Design Analysis and Coordination

Issue: Based on the lack of detail on the location and design of the wildlife undercrossing along the slope of the Trout Creek canyon provided in Section 1.4 of the

MND, CDFW is unable to fully assess the accuracy of the impacts of the design on Trout Creek and its drainage. The draft MND also does not provide sufficient detailed designs for the two proposed build alternatives, such as cross sections, grading, or dimensions/shape of the two pedestrian crossing options and the wildlife undercrossing. The western opening of the wildlife undercrossing would be constructed on a slope above Trout Creek on the west side of Highway 17. The eastern opening of the wildlife undercrossing would be constructed on an embankment above a San Jose Water pipeline and the Lexington Reservoir spillway on the east side of Highway 17. Each side of the wildlife undercrossing would have wingwalls that would conform to the new slopes on the northern and southern sides of the wildlife undercrossing.

CDFW is concerned that the design of the wildlife undercrossing and the escape ramps, as included in the MND may not allow for crossing under Highway 17 for all species analyzed in the MND. The MND proposes multiple escape ramps throughout the Project. CDFW has concerns that some escape ramp designs proposed along the directional fencing may not be effective for Columbian black-tailed deer (*Odocoileus hemionus columbianus*), present in the Project area and a focal species for the crossing. Some of the proposed escape ramps are aligned linearly along the directional fence, and some use the directional fence to funnel black-tailed deer away from the roadside toward safety and provide an escape ramp at the apex. In general, deer's natural tendency for an escape route is a natural funnel that connects to escape cove, and thus the funnel design may be more effective. Deer will travel on the easiest route possible that appears relatively secure. Funnels move deer further away from traffic and also provide a perception closer to safety.

The MND does not include sufficient information to address the effectiveness of the underpass design for all impacted species in the Project area. The design does not include aspects which could benefit species, particularly those designated as rare under CEQA (CEQA Guidelines, §15380 subds. (b)(2)) due to their designation by CDFW as a California Species of Special Concern (SSC) in the Project area that may utilize the crossing, including the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*), California giant salamander (*Dicamptodon ensatus*), Santa Cruz black salamander (*Aneides niger*), California red-legged frog (*Rana draytonii*), and western pond turtle (*Emys marmorata*). The Natural Environmental Study (NES) referenced in the MND states that small herpetofauna crossings under driveways or access roads may be included in conjunction with electrified mats to allow safe passage for amphibians and reptiles, but these are not included in the design element in the MND. Section 1.4.4.8 of the MND includes Post-Construction Effectiveness Monitoring, proposing a range of methods such as infrared cameras, track beds, radiotelemetry of wildlife, genetic tracking, and roadkill studies. However, the MND does not commit to specific monitoring approaches, protocols, or locations.

Recommended Mitigation Measure 1: Design Coordination

Early and continued coordination with CDFW staff in the Habitat Conservation Program and Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW should be provided with engineered drawings and design specification planning sheets during the initial design process and prior to design selection. Re-initiation of design consultation should be at 30 percent design at minimum and through the permitting process for review and comment.

Recommended Mitigation Measure 2: Wildlife Crossing Design Effectiveness Monitoring

CDFW recommends that the MROSD devise and implement a multi-species Wildlife Crossing Monitoring Plan for the design features, including, but not limited to, the wildlife undercrossing, directional fencing, electrified mats, escape ramps, and pedestrian overpasses. CDFW recommends MROSD consult with CDFW during the drafting of the Monitoring Plan and obtain approval of the Plan prior to Project implementation. CDFW recommends a minimum of two types of monitoring be implemented, such as camera traps and track beds. Specifically, CDFW recommends post-construction monitoring include a camera trap monitoring component on escape ramps to determine use and, if possible, determine if target wildlife species, including deer, prefer a particular design. Determining if wildlife, when under pressure from traffic, prefers one design over the other will assist future projects with improved wildlife connectivity and escape ramp design, and further prevent wildlife and human mortality.

The Monitoring Plan should be contingent with action-based monitoring performance objectives and be adaptive. Goals should at a minimum include: 1) provide data to assist in designing crossings; 2) conduct long-term population monitoring for use by wildlife; 3) track progress of use of the crossing and associated features; and 4) evaluate overall effectiveness of the crossings.

COMMENT #2: Design Alternatives

Issue: The MND proposes two design alternatives for the pedestrian overpass: a southern and northern location, and one option for the wildlife crossing underpass.

The Southern Pedestrian Overpass Alternative would have the smallest impact on vegetation within and adjacent to the Project area and would be located in an area with a more significant existing built infrastructure footprint (e.g., the Lexington Reservoir spillway, San Jose Water plant, and more extensive existing public access). The Southern Pedestrian Overpass Alternative would result in impacts to 17 fewer trees. The Southern Pedestrian Overpass Alternative is approximately 500 feet from the proposed wildlife undercrossing.

The Northern Pedestrian Overpass Alternative would impact a greater extent of less disturbed habitats in and adjacent to the Project area than the Southern Pedestrian Overpass Alternative. This includes known occurrences of badger, large patches of Loma Prieta hoita (*Hoita strobilina*) and woodland woollythreads (*Monolopia gracilens*), and relatively intact grassland/shrub habitat on both sides of Highway 17. Adding additional public access, connecting existing trails, and increasing pressure from human and dog use of the trails would have direct and indirect impacts to local and landscape level habitat. The Northern Pedestrian Overpass Alternative is approximately 300 feet from the proposed wildlife undercrossing.

Both pedestrian overpass alternatives in the MND include the same proposed wildlife undercrossing in a location where wildlife that cross through from the northwest will be passed into the existing paved and heavily-used Los Gatos Trail adjacent to the Lexington Reservoir's spillway. Wildlife moving from southeast to northwest will pass into a proposed trail within approximately 200 feet of the wildlife undercrossing. Given the target species tend to avoid human interaction and areas with presence of human use, CDFW is concerned that the Project may not be successful in achieving the goal of wildlife passage. Further, the land on the northwest side of the crossing is not shown in the MND as protected. Future development of this land that is adjacent to the crossing may limit its effectiveness.

Recommendations

Because of the potential cumulative impacts of the northern pedestrian overpass on intact habitat and connectivity, CDFW recommends the MND be revised to consider the southern pedestrian overpass as the preferred alternative for the Project, if implemented with the recommended measures included in this letter.

However, the above factors suggest that Alternative 5, which was excluded from this MND, but noted on page 47 would be the most ecologically sound approach.

- Alternative 5 would place the wildlife crossing in the location where the Northern Pedestrian Overpass Alternative is currently proposed, while placing the pedestrian bridge in the location where the southern overpass crossing is proposed. Doing so would provide improved connectivity for the focal species by connecting significant expanses of open space (El Sereno and St. Joseph's Hill), while keeping a substantial distance of approximately 1,800 feet between the wildlife and pedestrian crossing, thus reducing the impacts of human and dog use of trails on wildlife movement and breeding.

- The UC Santa Cruz Puma Project connectivity study determined that the northern location would be the best location for a crossing based on radio collar data, while

the proposed wildlife undercrossing is currently located in a marginal location for successful mountain lion (*Puma concolor*) movement.

- While the Lexington and Trout Creek culverts experienced the highest number of detections on camera traps in recent studies (Pathways for Wildlife 2016), both locations are more developed and accessible to people and dogs than the northern location.

- Additionally, the Lexington culvert, approximately 0.5 miles south of the proposed wildlife undercrossing was successful at passing a majority of wildlife (82 percent) that approached it (Pathways for Wildlife 2016), and the placement of a crossing further north may broaden the effective corridor for wildlife movement.

- If the proposed Northern Pedestrian Overpass Alternative was developed as a wildlife crossing instead of a pedestrian crossing, directional fencing could be utilized to direct wildlife to safer, less impacted locations away from the developed reservoir lands.

COMMENT #3: Wildlife Corridors and Habitat Connectivity

Issue: The proposed switchback trail west of the wildlife undercrossing in the Southern Pedestrian Overpass Alternative would add additional constrictions and obstacles to wildlife movement. If constructed as proposed, the wildlife undercrossing will lose its quality and functionality due to habitat fragmentation and wildlife avoidance of multi-use trail activities, which will impact habitat connectivity and wildlife movement. The MND also does not include efforts to deter wildlife from the use of pedestrian overpasses, which would be within 800 to 1,500 feet of the wildlife undercrossing, depending on which alternative is implemented. The MND does not include measures to assess and/or reduce impacts of trail users and dogs on the use of wildlife crossings. For these reasons, the proposed trails near the wildlife crossing, and in wildlife movement pathways, could negatively offset the benefits of the wildlife crossing.

The lands surrounding Lexington Reservoir serve as narrow linkage between the Santa Cruz and Diablo Mountain ranges and are necessary to support population exchange for large and medium mammals. Substantial evidence exists that trails may act as barriers to the movement of animals due to behavioral avoidance, the presence of a physical barrier, or development of a home range along the physical barrier (Burgin and Hardiman 2012). Trail density is a main factor influencing how wildlife responds to trail users and the ability of wildlife to disperse or reach seasonally important habitats such as breeding grounds (D'Acunto *et al*. 2018). Recreation is associated with declines in occupancy of five-to-ten-fold, habitat use, and relative activity of reptile and mammal species (Reed and Merenlender, 2008; Reed *et al*., 2019), including mountain lion, bobcat (*Lynx rufus*), and deer. Movement rates of mountain lions have also been shown

to increase with increasing human density, leading to increased energy expenditures (Buderman *et. al*, 2017; Wang *et. al*, 2017). Fear of humans causes mountain lions to increase their energy expenditures as they move through the landscape, and this can ultimately limit the size of the home ranges they are able to maintain (Nickel *et al*., 2021).

The MND states that existing and proposed trails may allow dogs to use them. Generally, people with dogs on leash, and even more so off leash, are more alarming and detrimental to wildlife than any non-motorized recreational user group without dogs. People with dogs substantially increase the amount of wildlife habitat affected; and often wildlife does not habituate to the presence of dogs because the scent of dogs continues to repel wildlife (Hennings 2016). For example, in the San Francisco Bay region, mountain lions and Virginia opossum (*Didelphis virginiana*) are both known to be negatively associated with presence of domestic dogs (Reilly *et al*., 2017). The potential impacts of human and dog activity will be most impactful for crepuscular and diurnal species (Lovell *et al*, 2022). Mountain lions are active yearlong, are mostly nocturnal and crepuscular, and tend to move through a fixed range in response to prey movements. Badgers can move up to six miles in a day in search of prey and are active both day and night and are typically solitary. Badgers tend to avoid areas of human activity (Lovell *et al*, 2022).

Recommended Mitigation Measure 3: Monitor and Enforce Restrictions to Public Access

CDFW recommends that MROSD develop and implement a Trail Use Enforcement Plan to reduce potential impacts of trails to wildlife connectivity, and to the use and functioning of the wildlife undercrossing. The plan should include strategies for enforcing and remediating off trail use, monitoring trail use with cameras and/or visitor surveys, providing education on wildlife-human conflict, and seasonal trail closures during sensitive periods, such as breeding periods as appropriate. CDFW recommends limitations on trail use by dogs and bikes within 1,000 feet of the wildlife undercrossing and corridors.

Recommended Mitigation Measure 4: Designate Undisturbed Corridor Habitat

CDFW recommends that MROSD designates wildlife corridor habitat adjacent to the proposed wildlife undercrossing that at a minimum includes a 3,000-foot buffer from trails and anticipated wildlife movement away from the proposed undercrossing. CDFW recommends shifting or eliminating the proposed “Southern Crossing to Serenity Trail” to the east or west to avoid connectivity impacts to wildlife that will utilize the proposed wildlife undercrossing. Where buffers are not possible, CDFW recommends utilizing directional fencing and vegetation cover to direct wildlife to undisturbed habitats.

COMMENT #4: Cumulative Impacts to Biological Resources

Issue: The Project would include between 6 to 6.5 miles of additional trails in the Project area across multiple trail segments (Table 1.4-4). A trail located on land adjacent to the wildlife undercrossing (if constructed) should be considered a barrier and not compatible with wildlife connectivity movement for the proposed wildlife undercrossing location (see Figure 2.2.1-1: Spheres of Influence in the Project Vicinity, Pg 58). Additionally, the Project would enhance connectivity across existing trails, creating loop trails, and likely bringing more people and dogs into the Project area.

Recreation can degrade or fragment habitat, resulting in habitat that is otherwise of high quality being used less frequently or not at all. Behavioral reactions such as flight, flushing, or vigilance are commonly observed and studied wildlife responses to recreationists (Larson et al. 2016). Mountain lions and bobcats have been known to increase nighttime activity and decrease daytime activity with as few as two people a day using trails (Wang 2015). Changes in activity budgets have also been observed, with animals typically spending less time in activities such as foraging and caring for young, and more time moving or being vigilant when recreationists are present (Schummer and Eddleman 2003; Arlettaz et al. 2015). Physiological responses, such as increases in stress hormones (Arlettaz et al. 2007) or decreased body mass (McGrann et al. 2006), are less obvious to observe, and can occur even when a corresponding behavioral response does not.

The effect zones, or areas within which wildlife is disturbed by recreational activities on trails, can extend several hundred feet on either side of trails (Reed et al. 2019), and as much as 3,000 feet for large species (Dertien et al. 2018). The smaller a protected area is and the denser its trail networks are, the greater the proportion of the protected area is occupied by effect zones, and the less likely it is that spatial buffers are effective. This impacted area expands as more habitat is opened up to recreation, reducing the effective protected area (Reed et al. 2019).

Recommended Mitigation Measure 5: Cumulative Impacts of Trails

CDFW recommends that MROSD revise the MND to assess the cumulative direct and indirect impacts of existing and proposed trails and access roads on wildlife movement and connectivity and implement appropriate mitigation measures to reduce the impact.

COMMENT #5: Mountain Lion

Issue: The mountain lion, Southern California/Central Coast (CC) Evolutionarily Significant Unit, is currently a candidate species for threatened status under CESA and is afforded the same protection as a CESA-listed species (CEQA Guidelines, §15380, subds. (b)). Unauthorized take of this species pursuant to CESA is a violation of Fish and Game Code section 2080 et seq. The MND states that both build alternatives are anticipated to result in temporary and permanent impacts on mountain lion habitat, both

directly through construction activity and indirectly through displacement of prey (e.g., deer). The MND does not offer feasible and specific minimization measures and compensatory mitigation to completely offset impacts.

To evaluate and avoid potential impacts of the proposed Project to mountain lion and its habitat, CDFW recommends incorporating the following mitigation measures, and that these measures be made conditions of approval for the Project:

Recommended Mitigation Measure 6: Den Survey and Buffers

CDFW recommends that the MND include a measure stating that if the qualified biologist identifies potential denning habitat, a focused survey for dens should be conducted in advance of Project implementation. If a den with kittens is found, an appropriate buffer that will result in avoidance of impacts should be established between the Project activities and the den. The buffer should be clearly marked and maintained until kittens are no longer present. CDFW should be contacted within 24 hours if a den is found.

Recommended Mitigation Measure 7: Avoidance Buffer for Corridor Areas

CDFW recommends that the MND include a measure stating that during construction, movement corridors such as drainages and riparian areas maintain a minimum 0.25-mile buffer to minimize impacts to mountain lion movement through these areas.

Recommended Mitigation Measure 8: Take Authorization

CDFW highly recommends that the Project proponent obtain take authorization from CDFW through issuance of an Incidental Take Permit (ITP) if full avoidance of take during construction and/or operations is not feasible. The MND must include all biologically appropriate and feasible take avoidance measures. If “take” or adverse impacts to mountain lion cannot be avoided either during Project construction and/or over the life of the Project, the Applicant should consult with CDFW to determine if a CESA ITP is required (pursuant to Fish & Game Code, § 2080 *et seq*.).

Recommended Mitigation Measure 9: Compensatory Mitigation

The MND should include mitigation measures that directly address all potential impacts of the Project to mountain lion, including measures to avoid “take” under CESA and compensatory mitigation for all habitat types, including denning, dispersal and foraging.

CDFW considers compensation for permanent impacts to mountain lion habitat in the absence of a proposed mitigation location to be a minimum of a 3:1 replacement ratio as appropriate. Mitigation lands should be established at a safe distance away from Project construction and operational activities to avoid disturbance and be protected in

perpetuity under a conservation easement with an endowment established for long-term management of the lands.

COMMENT #6: Crotch's Bumble Bee

Issue: Crotch's bumble bee (*Bombus crotchii*) is a candidate endangered species under CESA (CEQA Guidelines, §15380, subds. (c)(1)). Implementation of the Project may result in direct mortality of this species through crushing or filling of active bee colonies and hibernating bee cavities, reduced reproductive success, loss of suitable breeding and foraging habitats, loss of native vegetation that may support essential foraging habitat. Unauthorized take of this species pursuant to CESA is a violation of Fish and Game Code section 2080 et seq.

Bumblebees are critically important because they pollinate a wide range of plants over the lifecycles of their colonies, which typically live longer than most native solitary bee species. Crotch's bumble bee has been documented to occur within the vicinity of the Project area (CDFW 2022) and historic observations occur elsewhere in the County. Recent sightings of the species in the County have also been verified on Bumble Bee Watch (https://www.bumblebeewatch.org/).

The MND fails to consider the potential for this species to occur within the Project area although suitable habitat, such as grasslands, prairies, and coastal scrub that contain requisite habitat elements for the species, including small mammal burrows, are present within the Project area. The Project may impact foraging and nesting habitat due to construction of permanent facilities and associated infrastructure.

To evaluate and avoid potential impacts of the proposed Project to Crotch's Bumblebee, CDFW recommends incorporating the following mitigation measures, and that these measures be made conditions of approval for the Project:

Recommended Mitigation Measure 10: Habitat Assessment

CDFW recommends the MND be revised to include a thorough habitat assessment for Crotch's bumble bee within the Project area and surrounding areas that may be impacted by Project construction and operations. The assessment should be conducted by a qualified entomologist knowledgeable with the life history and ecological requirements of Crotch's bumblebee, and include all areas of suitable overwintering, nesting, and foraging habitats.

Suitable habitat includes areas of grasslands and upland scrub that contain requisite habitat elements such as small mammal burrows and forage plants. Potential nest habitat (late February to late October) could contain underground abandoned small mammal burrows, perennial bunch grasses and/or thatched annual grasses, brush piles, old bird nests, dead trees, or hollow logs. Overwintering sites (November through early

February) utilized by mated queens in self-excavated hibernacula could be present in soft, disturbed soil, sand, well-drained, or loose soils, under leaf litter or other debris with ground cover requisites such as barren areas, tree litter, bare patches within short grass in areas lacking dense vegetation.

Recommended Mitigation Measure 11: Surveys

Measure AMM-BIO-01 in the MND should address specific requirements for bumble bees. The MND should state that pre-construction surveys will be conducted within the Project area and surrounding areas which may be impacted by Project construction and/or operations. CDFW recommends following the guidance outlined in the California Bumble Bee Atlas Habitat surveys- Cali Bumble Bee Atlas – California Bumble Bee Atlas (https://www.cabumblebeeatlas.org/habitat-surveys.html).

The peak flying time for Crotch's bumblebee is March to August, but bees could be flying anytime between February 1 and October 31. Surveys between March and June are expected to have highest detection probability and are therefore the period recommended for pre-construction surveys. Surveys should be conducted no more than 30 days prior to the start of Project construction activities, assessing all areas of suitable habitat for overwintering, nesting and foraging at, and within 100 feet of the proposed work area. Surveys should include a minimum of three survey efforts, over a three-day period within a temperature range of 15°C and 30°C although bumblebees can fly and forage at near freezing temperatures. If the surveyor suspects Crotch bumble bee detection or occupancy, CDFW should be consulted immediately.

Goals of the surveys should be to potentially identify the bee species through non-take methods (close lens photography), foraging plants, and potential ground nest sites on site. Surveys should include examining flowering vegetation, any potential preferred nectar plants, small mammal burrows, bunch grasses, thatch, brush piles, old bird bests, dead trees, or hollow logs. Survey results, after the protocol was followed, would be good for one year (until the next flying period season) but a pre-activity survey would still be needed prior to ground-disturbing activities.

Recommended Mitigation Measure 12: Avoidance of Nesting Colonies

CDFW recommends that inactive small mammal burrows and thatched/bunch grasses be avoided whenever feasible. If an inactive burrow may be disturbed by Project activities, it should be resurveyed for Crotch's bumble bee presence within seven days prior to the scheduled disturbance. If Crotch's bumblebee has been detected during surveys, the qualified entomologist should identify the location of all nests in or adjacent to the Project site. If nests are identified, 45-foot no-disturbance buffer zones should be established around nests to reduce the risk of disturbance or accidental take. If Project

activities may result in disturbance or potential take, the qualified entomologist should expand the buffer zone as necessary to prevent disturbance or take.

Recommended Mitigation Measure 13: Take Authorization

If surveys document presence of Crotch's bumblebee within the Project area, due to the difficulty of completely avoiding take of individuals of the species, CDFW strongly recommends that the Project proponent apply for an ITP under CESA to provide take authorization for Crotch's bumblebee as a covered species.

Recommended Mitigation Measure 14: Compensatory Mitigation

CDFW recommends that the MND include compensatory mitigation for the loss of all suitable Crotch's bumble bee habitat. Bumble bee floral resources should be mitigated at a 3:1 ratio for permanent impacts in the absence of information regarding the compensatory mitigation site. Floral resources should be replaced as close to their original location as is feasible. If active Crotch's bumble bee nests have been identified and floral resources cannot be replaced within 600 feet of their original location, floral resources should be planted in the most centrally available location relative to identified nests. This location should be no more than 4,900 feet (1.5-km) from any identified nest. Replaced floral resources may be split into multiple patches to meet distance requirements for multiple nests. The MND should state that mitigation lands will be protected in perpetuity under a conservation easement with an endowment established for long-term management of the lands.

COMMENT #7: Special-status Herpetofauna

Issue: The Project may impact the following special-status herpetofauna, which the

MND identified have potential to occur: California giant salamander (SSC), Santa Cruz black salamander (SSC), foothill yellow-legged frog Central Coast clade (federally threatened, state endangered), California red-legged frog (federally threatened, state SSC), and western pond turtle (federally proposed threatened, state SSC). California Natural Diversity Database (CNDDB) identifies occurrences of all four species within five miles of the Project. The NES notes that no U.S. Fish and Wildlife Service (USFWS), CDFW, or California Native Plant Society (CNPS) protocol-level surveys were conducted for any federally or state listed species and no aquatic surveys were conducted. The presence of several terrestrial species was inferred based on historical occurrences, field observations, and availability of suitable habitat in the BSA.

The Project would impact streams and surrounding habitat that may be occupied by these species. Foothill yellow-legged frogs have been documented moving up to 500 feet from the wetted channel of a stream across upland habitat (CDFW 2018). California red-legged frogs can use upland habitat one to two miles away from breeding ponds,

including habitat such as rocks, small mammal burrows, logs, densely vegetated areas, and even man-made structures (i.e., culverts, livestock troughs, spring-boxes, and abandoned sheds) (USFWS 2017). Western pond turtles can move more than four miles up or down stream; therefore, the Project area is within the mobility range of western pond turtle observations (Holland 1994). The species may also survive outside of aquatic habitat for several months in uplands up to several hundred feet from aquatic habitat (Purcell et al. 2017; Zaragoza et al. 2015).

Recommended Mitigation Measure 15: Habitat Surveys

For all Project activities that occur within 500 feet of stream or wetland habitat, prior to ground-disturbing activities, a qualified biologist should conduct a pre-construction survey within 48 hours prior to the start of Project activities, focusing on the presence of foothill yellow-legged frog, California red-legged frog, California giant salamander and western pond turtle and their nests. If any of these special-status species are discovered during the survey, Project activities should not begin until CDFW has been consulted and approved in writing measures to avoid and minimize impacts to special-status species, and the measures have been implemented. If California red-legged frog is encountered, the Project should consult with USFWS pursuant to the federal Endangered Species Act (ESA) and obtain any required authorization for impacts. If an LSA Notification is submitted for Project activities affecting streams, CDFW may include in the LSA Agreement, if issued, additional protection measures for special-status herpetofauna pending further analysis of the potential for their occurrence within the Project area.

Recommended Mitigation Measure 16: Take Authorization

If surveys document presence of foothill yellow-legged frog within the Project area, due to the difficulty of completely avoiding take of individuals of the species, CDFW strongly recommends that the Project proponent apply for an ITP under CESA to provide take authorization for foothill yellow-legged frog as a covered species.

COMMENT #8: Light Impact Analysis

Issue: The MND states that the Project will mitigate lighting impacts by turning on portable tower lights no more than 30 minutes before the beginning of civil twilight, and off no more than 30 minutes after the end of civil sunrise. Artificial light pollution has the potential to significantly and adversely affect wildlife species and the habitat that supports them and can serve as an impediment to wildlife movement and connectivity. Specifically, lights utilized at dusk and dawn can impact crepuscular animals that are at their peak activity at the twilight hours of dawn and dusk. Lights used at dusk can attract insects, which in turn attracts birds, bats and other species that prey on insects. Wildlife that are attracted to the lights are then more likely to be hit by vehicular traffic.

Additionally, light at dusk and dawn can impact movement and foraging of crepuscular species such as mountain lion, bobcats, bats, and snakes.

Recommended Mitigation Measure 17: Timing of Construction Lighting

The MND should state that portable tower lights will not be used before dawn or after dusk.

Recommended Mitigation Measure 18: Light Output Limits

The MND should state that all Light-Emitting Diodes (LED) or bulbs installed as a result of the Project will be rated to emit or produce light at or under 2700-kelvin that results in the output of a warm white color spectrum.

Recommended Mitigation Measure 19: Light Pole Modifications and Shielding

All light poles or sources of illumination that are proposed to be installed or replacement installations of existing light sources should be designed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat within the Project area. In addition, the light pole arm length and mast heights should be modified to site-specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project area. The MND should also include an analysis to determine if placing the light poles at non-standard intervals could further reduce excessive light pollution in sensitive natural landscapes or aquatic habitat.

COMMENT #9: Special-Status Plant Species

Issue: The Native Plant Protection Act (NPPA) (Fish & G. Code §1900 *et seq*.) prohibits the take or possession of state-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of state-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Impacts to special-status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. CDFW considers plant communities, alliances, and associations with a statewide ranking of S1, S2, S3, and S4 as sensitive and declining at the local and regional level (Sawyer 2009).

Additionally, plants that have a CNPS California Rare Plant Rank (CRPR) of 1A, 1B, 2A, and 2B are rare throughout their range, endemic to California, and are seriously or moderately threatened in California. All plants constituting CRPR 1A, 1B, 2A, and 2B are eligible for State listing. Impacts to these species or their habitat must be analyzed during preparation of environmental documents relating to CEQA, as they meet the

definition of rare or endangered (CEQA Guidelines, § 15380). Please see CNPS https://www.cnps.org/rare-plants (CNPS 2022) page for additional rank definitions.

The draft MND states that 17 special-status plant species could potentially occur within the Project area and adjacent areas, including Loma Prieta hoita, Woodland woollythreads, and Bent-flowered fiddleneck *(Amsinckia lunaris),* with CNPS ranking of 1B. Special-status plants are typically narrowly distributed endemic species. These species are susceptible to habitat loss and habitat fragmentation.

The NES states that the BSA and the Survey Area are dominated by California natives. The most common species recorded in the Survey Area were coast live oak (*Quercus agrifolia*) and California bay (*Umbellaria californica*). Of the 334 trees recorded within the Survey Area (Figure 12), approximately 182 trees may be impacted by the Build Alternative with Southern Pedestrian Overcrossing (104 coast live oak), and approximately 165 trees (41 coast live oak) may be impacted by the Build Alternative with Northern Pedestrian Overcrossing. The importance of oak woodlands is further supported through the Oak Woodlands Conservation Act (Fish & G. Code §1360–1372). A temporal loss also exists for regaining the specific habitat that oak trees provide such as trunk and branch cavities, downed woody debris, and snags. The MND does not include a compensatory mitigation ratio or a revegetation or restoration monitoring period. Oaks are very slow growing trees and monitoring of oaks/oak woodland habitat should be for at least 10 years. A longer monitoring period with appropriate corrective measures should be included to account for such climate uncertainties, such as drought.

Recommended Mitigation Measure 20: Buffers

To avoid indirect impacts to special-status plants, an appropriate buffer distance should be established between the special-status plant occurrence and the Project impact areas. Appropriate buffer distance should be based upon review of site-specific conditions (e.g. special-status plants located downstream or in lower elevational areas in relation to the impact location, special-status plants being down wind of earth moving activities, and other conditions).

Recommended Mitigation Measure 21: Compensatory Mitigation and Revegetation

A review of protocol-level survey results should be conducted to establish appropriate compensatory mitigation ratios specific to each special-status plant species. Compensatory mitigation ratios should be developed based on the biological factors specific to each species and should be sufficient to compensate for the loss of those species.

Compensatory mitigation for loss of sensitive natural communities (e.g., oak woodland and scrub) should be based on species and size of trees to be impacted. Appropriate compensatory mitigation should be through preservation and protection in perpetuity of

equal or higher quality habitat, or through creation, enhancement, and/or restoration. Replanted or restored mitigation sites should be monitored for a 10-year period. A mitigation and monitoring plan should be developed and include success criteria to be met at the end of the monitoring period. If success criteria are not met, the mitigation plan should include adaptive management actions along with additional years of monitoring as well as additional mitigation for the temporal loss.

All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and a funding mechanism for long-term management.

COMMENT #10: Nesting Birds

Issue: CDFW encourages Project implementation outside of the bird nesting season, which extends from February through early September. However, if anthropogenic structure work activities, ground-disturbing or vegetation-disturbing activities must occur during the nesting season, the Lead Agency is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act (MBTA) or Fish and Game Code.

The MND notes that construction of the Project would require the removal or trimming of trees that bald eagles (*Haliaeetus leucocephalus*), golden eagles (*Aquila chrysaetos*), and/or white-tailed kite (*Elanus leucurus*) could use for nesting. Approximately 182 trees may be impacted by the Build Alternative with Southern Pedestrian Overcrossing, and approximately 165 trees may be impacted by the Build Alternative with Northern Pedestrian Overcrossing. The MND states that many of these trees are not suitable for nesting due to their small size, shape, structure, and surrounding tree density, and that removal of trees would be negligible when compared to the abundance of suitable nesting habitat adjacent to the Project.

Recommended Mitigation Measure 22: Nesting Bird Surveys

If Project-related work is scheduled during the nesting season (typically February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist should conduct a minimum of two surveys for active nests of such birds within 14 days prior to the beginning of Project construction, with a final survey conducted within 48 hours prior to construction. However, species-specific survey protocols may be available and should be followed.

CDFW also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially

affected by the Project. Prior to initiation of ground or vegetation disturbance, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests.

Recommended Mitigation Measure 23: Nesting Bird Buffers

If the qualified biologist documents active nests within the Project area or in nearby surrounding areas, an appropriate buffer between the nest and active construction should be established. The buffer should be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist should conduct baseline monitoring of the nest to characterize “normal” bird behavior and establish a buffer distance which allows the birds to exhibit normal behavior. The qualified biologist should monitor the nesting birds daily during construction activities and increase the buffer if the birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman should have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active.

COMMENT #11: Bats

Issue: Pallid bats (*Antrozous pallidus*) are rare under CEQA (CEQA Guidelines, §15380 subds. (b)(2)) due to their designation by CDFW as a California SSC. The draft MND notes that pallid bats may use trees in the Project footprint for day or night roosting. Approximately 182 trees may be impacted by the Build Alternative with Southern Pedestrian Overcrossing, and approximately 165 trees may be impacted by the Build Alternative with Northern Overcrossing. In general, the widely accepted knowledge that bats utilize anthropogenic structures, such as bridges and culverts, for day, night, and maternity roosts creates the potential for significant impacts to bats as a result of the Project that should be addressed in the MND. The NES states that the pallid bat is one of the bat species most predictably associated with bridges.

To evaluate and avoid potentially significant impacts to bat species, CDFW recommends the MND include avoidance, minimization, and mitigation measures and that the Project include prepare a bat avoidance and habitat enhancement plan.

In order to determine the extent to which impacts may occur to bats and determine where habitat loss may occur from the replacement of structures or removal of trees, it is important the Lead Agency develop maps and text descriptions that note where potential bat habitat exists. It is also important to develop a detailed description and map that notes where new structures will be constructed that could provide new roosting habitat

structure for bats such as bridges, overpasses, underpasses, and other anthropogenic structures.

Recommended Mitigation Measure 24: Bat Habitat Assessment and Survey

In addition to measure BIO-07 in the MND, a qualified biologist should conduct a habitat assessment within the Project limits for suitable bat roosting habitat to be included in the MND. The habitat assessment should include a visual inspection of features within 200 feet of the work area for potential roosting features including trees, crevices, portholes, expansion joints and hollow areas (bats need not be present). The MND should also include a section that discusses the results of the suitable habitat assessment and if any bats or signs of bats (feces or staining at entry/exit points) are discovered. The surveys should occur at least two seasons in advance of Project initiation.

Pallid bats use a variety of materials for roosting including tree hollows, rock crevices, mines, caves, and man-made structures. A qualified bat expert shall develop a survey methodology plan for CDFW review and approval. Historic and future survey data at this location shall be submitted to the CNDDB, https://wildlife.ca.gov/Data/CNDDB, CDFW's Report a Bat Colony page, https://wildlife.ca.gov/Conservation/Mammals/Bats/Report-Colony, and/or the North American Bat Monitoring Program, https://www.nabatmonitoring.org/. The survey plan shall include pre- and post-Project construction surveys. The qualified bat biologist shall review and consider survey protocols located at the North American Bat Monitoring Program's Collect Data page, https://www.nabatmonitoring.org/collect-data.

Recommended Mitigation Measure 25: Bat Habitat Mitigation and Monitoring Plan

A qualified bat biologist shall prepare a Bat Mitigation and Monitoring Plan and submit the plan to CDFW for review and approval. Please note that Fish and Game Code affords protection to all bats via Code Sections 2000, 3007, and 4150. The Bat Mitigation and Monitoring Plan shall include a measure describing the installation of wildlife exclusion, fencing, or other appropriate devices placed in the vicinity of the Project or other pallid bat roosting or maternity sites to avoid or reduce construction disturbance at these sites. The plan shall include noise reduction measures to be implemented near the crossings to the most extent possible and/or implement a sound disturbance buffer during the maternity season.

If potentially suitable bat roosting habitat is determined to be present, CDFW recommends that a qualified biologist conduct focused surveys at the trees, bridge(s), culverts, and overpasses utilizing night-exit survey methods, sound analyzation equipment survey methods and visual inspection within open expansion joints and portholes of the structures from March 1 to April 1 or August 31 to October 15 prior to construction activities. If the focused survey reveals the presence of roosting bats, then

the appropriate exclusionary or avoidance measures should be implemented prior to construction during the period between March 1 to April 15 or August 31 to October 15. Potential methods may include temporary, exclusionary blocking, one way-doors or filling potential cavities with foam. Methods may also include visual monitoring and staging of work at different ends of the Project to avoid work during critical periods of the bat life cycle or to allow roosting habitat to persist undisturbed throughout the course of construction. Exclusion netting or adhesive roll material shall not be used as exclusion methods. If presence/absence surveys indicate bat occupancy, then construction should be limited from March 1 through April 15 and/or August 31 through October 15.

Recommended Mitigation Measure 26: Tree Removal Plan

Trees containing bat roosting habitat should be removed using the method described below during the following seasonal periods of bat activity:

Prior to maternity season – from approximately March 1 (or when night temperatures are above 45°F and when rains have ceased) through April 15 (when females begin to give birth to young); and prior to winter torpor – from September 1 (when young bats are self-sufficiently volant) until October 15 (before night temperatures fall below 45° F and rains begin).On day one, in the afternoon and under the supervision of a qualified biologist, chainsaws shall only be used to remove tree limbs that do not contain suitable bat roosting habitat (e.g., cavities, crevices, deep bark fissures). The next day, the rest of the tree shall be removed.

If trees containing bat habitat cannot be removed during the above seasonal periods of bat activity, a qualified bat biologist shall survey the trees to determine if the tree contains a maternity colony or winter torpor bats. If the qualified biologist cannot make this determination with certainty, the presence of maternity colonies or winter torpor bats shall be assumed, and removal of the tree shall be delayed until the seasonal periods of bat activity specified above. If the biologist determines bats are present but a maternity colony or winter torpor bats are absent, then the tree may be removed outside of the above periods of seasonal bat activity using the above two-step tree removal process. If the qualified biologist determines that bats are absent, then the tree may be removed without bat seasonality or method restrictions.

Recommended Mitigation Measure 27: Permanent Bat Roost Design

CDFW recommends inclusion of permanent bat roost structures into the design of new bridges or overpasses to avoid potentially significant impacts from permanent habitat loss. The structures should be designed in coordination with CDFW and include the appropriate baffle spacing or features to accommodate multiple species of bats as specified in the Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions Manual (H.T. Harvey, 2019).

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database CNDDB). The CNDDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document 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 environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California's fish and wildlife resources. 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.

Questions regarding this letter or further coordination should be directed to Marcus Griswold, Senior Environmental Scientist (Specialist), at (707) 815-6451 or Marcus.Griswold@wildlife.ca.gov or Karen Taylor, Senior Environmental Scientist (Specialist), at (707) 287-2144 or Karen.Taylor@wildlife.ca.gov.

Sincerely,

DocuSigned by:
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