

State of California – Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE Bay Delta Region 2825 Cordelia Road, Suite 100 Fairfield, CA 94534 (707) 428-2002 www.wildlife.ca.gov

May 6, 2022

Ms. Nedzlene Ferrario County of Solano 675 Texas Street, Suite 5500 Fairfield, CA 94533 NNFerrario@solanocounty.com GAVIN NEWSOM, Governor CHARLTON H. BONHAM, Director



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Subject: MS-19-02 Lands of Abrew Subdivision, Mitigated Negative Declaration, SCH No. 2022040049, Solano County

Dear Ms. Ferrario:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt a Mitigated Negative Declaration (MND) from the County of Solano (County) for the MS-19-02 Lands of Abrew Subdivision (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

CDFW is submitting comments on the MND to inform the County, as the Lead Agency, of potentially significant impacts to biological resources associated with the Project.

CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under CEQA pursuant to CEQA Guidelines section 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA) or Native Plant Protection Act, the Lake and Streambed Alteration (LSA) Program, or other provisions of the Fish and Game Code that afford protection to the state's fish and wildlife trust resources.

PROJECT DESCRIPTION SUMMARY

Proponent: Joseph Abrew

Objective: The Project would subdivide an 82.9-acre parcel into four approximately 20acre parcels. Each parcel would be developed including one building site, between 6,000 and 8,000 square feet, with associated utilities, driveways, and roads. Approximately 0.5 miles of rural ranch road would be expanded to 18 to 20 feet wide and chip sealed or paved to access each parcel's building site.

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.

Location: The Project is located at Brehme Lane approximately 4,000 feet northeast of the intersection of Brehme Lane and Pleasants Valley Road, approximately 3.25 miles northwest of the City of Vacaville, in unincorporated Solano County. The approximate Project centroid is Latitude 38.41901°N, Longitude 122.03154°W and the Assessor's Parcel Number is 0102-090-140.

Timeframe: The MND does not describe a Project timeframe.

ENVIRONMENTAL SETTING

The Project site is dominated by undeveloped nonnative and potentially native annual and perennial grassland and was previously used for grazing. The Project site is within the Ulatis Creek watershed in the English Hills adjacent to Vaca Valley. The western portion of the Project site contains an existing paved road named Brehme Lane. Gravel roads and dirt ranch roads cross the Project site. Interior live oak (*Quercus wislizeni*), valley oak (*Q. lobata*), black oak (*Q. kelloggii*), blue oak (*Q. douglasii*), California buckeye (*Aesculus californica*), California bay (*Umbellularia californica*), walnut (*Juglans* sp.), cottonwood (*Populus fremontii*) and foothill pine (*Pinus sabiniana*) trees are scattered throughout the Project site, with most occurring along riparian corridors. The headwater of English Creek is located in the northeast corner of the Project site and the headwater of an unnamed tributary to English Creek flows from approximately the middle of the Project site to the southeast. An existing stockpond is located near the northern Project site boundary. The Project site was burned in the 2020 Hennessy fire, a component of the LNU Lightning Complex fire. The surrounding area consists of grazing land, agricultural cropland, and rural housing.

Sensitive natural communities ² with potential to occur in or near the Project site include but are not limited to, needle grass – melic grass (*Nassella* spp. – *Melica* spp.) grassland alliance, blue oak – valley oak woodland association, and California bay – interior live oak forest association. Special-status species with the potential to occur in or near the Project site include, but are not limited to, Swainson's hawk (*Buteo swainsoni*), state listed as threatened; burrowing owl (*Athene cunicularia*), a California Species of Special Concern (SSC); American badger (*Taxidea taxus*), an SSC; white-tailed kite (*Elanus leucurus*), a Fully Protected Species; Keck's checkerbloom (*Sidalcea keckii*), federally listed as endangered and California Rare Plant Rank³ (CRPR) 1B.1; Brewer's western flax (*Hesperolinon breweri*), CRPR 1B.2; adobe-lily (*Fritillaria pluriflora*), CRPR 1B.2; valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), federally listed

² For sensitive natural communities see <u>https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities</u>

³ CRPR 1B plants are considered rare, threatened, or endangered in California and elsewhere. Further information on CRPR ranks is available in CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (<u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline</u>) and on the California Native Plant Society website (<u>https://www.cnps.org/rare-plants/cnps-rare-plant-ranks</u>).

as threatened and a California Terrestrial and Vernal Pool Invertebrate of Conservation Priority (ICP)⁴; western bumble bee (*Bombus occidentalis*), ICP; Crotch's bumble bee (*Bombus crotchii*), ICP; California red-legged frog (*Rana draytonii*), federally listed as threatened and SSC; western pond turtle (*Emys marmorata*), SSC; Northwest/North Coast clade foothill yellow-legged frog (*Rana boylii*), SSC; pallid bat (*Antrozous pallidus*), SSC; and western red bat (*Lasiurus blossevillii*), SSC.

REGULATORY REQUIREMENTS

California Endangered Species Act

Please be advised that a CESA Incidental Take Permit (ITP) 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. **The Project has the potential to impact Swainson's hawk, a CESA listed as threatened species, as further described below.** Issuance of an ITP 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 an ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species. (Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, & 15065). 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 CESA.

Lake and Streambed Alteration

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; 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 subject to notification requirements. If the Project would impact English Creek, the unnamed tributary to English Creek, any other streams, or associated riparian habitat, then the Project would be required to

⁴ The list of California Terrestrial and Vernal Pool Invertebrates of Conservation Priority was collated during CDFW's Scientific Collecting Permit rulemaking process (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157415&inline)

submit an LSA Notification as further described below. In this case, CDFW would consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

Raptors and Other Nesting Birds

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

Fully Protected Species

Fully Protected species, such as white-tailed kite, may not be taken or possessed at any time (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those recommended by CDFW below, CDFW concludes that an MND is appropriate for the Project unless the Project may have cumulatively considerable impacts on fish and wildlife resources as described on Page 14 below, in which case an Environmental Impact Report would be appropriate.

MANDATORY FINDINGS OF SIGNIFICANCE. Does the Project have potential to substantially reduce the number or restrict the range of an endangered, rare or threatened species?

Mitigation Measures and Related Impact Shortcoming

Comment 1: Swainson's Hawk

Issue: The MND identifies that Swainson's hawk has the potential to occur in and near the Project and that three to five known or suspected Swainson's hawk nests are located within five miles of the Project (MND page 17). The MND relies on the general pre-construction nesting bird surveys identified in Mitigation Measure BIO-3 to locate nearby Swainson's hawk nests (MND pages 19-20). This measure requires nesting bird

surveys to occur within the Project site and the 0.25 miles surrounding the Project site within 10 days prior to conducting Project activities within the nesting bird season. This does not provide adequate survey techniques to effectively identify nesting Swainson's hawk in and near the Project site. In addition, the MND identifies compensatory mitigation for impacts to Swainson's hawk foraging habitat in Mitigation Measure BIO-1 at a 1:1 mitigation to impact ratio. Compensatory mitigation requirements generally appear adequate; however, the total amount of impacts is identified as 0.85 acres, however it is unclear how this acreage was calculated, and it appears that impact amounts could change as the Project evolves.

Specific impacts and why they may occur and be potentially significant: If the Project occurs during nesting season, nesting Swainson's hawks could be disturbed by Project activities resulting in nest abandonment or reduced health and vigor of young. If Swainson's hawks are nesting within 0.5 miles of the Project site during construction, the Project could result in take of the species and a substantial reduction in its population, which would be a mandatory finding of significant impact (CEQA Guidelines, § 15065).

In addition, proposed compensatory mitigation for removal of Swainson's hawk foraging habitat provides an estimate that may change. The breeding population of Swainson's hawks in California has declined by an estimated 91% since 1900 and the species continues to be threatened by on-going and cumulative loss of foraging habitat (CDFW 2016).

Recommended Mitigation Measure: To reduce potential impacts to Swainson's hawk to less-than-significant, CDFW recommends including the following mitigation measure and replacing Mitigation Measure BIO-1 with the below language.

Mitigation Measure BIO-19: Swainson's Hawk Surveys: If Project activities are scheduled during the nesting season for Swainson's hawks (March 1 to September 15), prior to beginning work on the Project, a qualified biologist shall conduct surveys according to the *Recommended timing and methodology for Swainson's Hawk Nesting Surveys in California's Central Valley.*⁵ Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the Project site or a larger area if needed to identify potentially impacted active nests, and 2) for at least the two survey periods immediately prior to initiating Project-related construction activities. Surveys shall occur annually for the duration of the Project. The qualified biologist shall

⁵ Swainson's Hawk Technical Advisory Committee, 2000. <u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline</u>

have a minimum of two years of experience implementing the survey methodology resulting in detections. If active Swainson's hawk nests are detected, the Project shall implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist. If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP. CDFW Bay Delta Region staff is available to provide guidance on the ITP application process.

Mitigation Measure BIO-1: Swainson's Hawk Habitat Mitigation: Impacts to Swainson's hawk foraging habitat shall be quantified based on the final Project design plans and a qualified biologist report quantifying the amount of foraging habitat that will be removed by the Project. Habitat mitigation shall include permanent preservation of foraging habitat through a conservation easement and implementing and funding a long-term management plan in perpetuity, or through purchase of Swainson's hawk mitigation credits at a CDFW-approved mitigation bank in Solano County.

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS)?

Project Description and Related Impact Shortcoming

Comment 2: Streams

Issue: As noted above, if the Project would impact English Creek, an unnamed tributary to English Creek, or riparian habitat associated with these streams, or any other streams, then the Project would be required to submit an LSA Notification. The MND states that no development would occur within or along English Creek and riparian habitat would not be affected by the Project, and no stream crossings are proposed as part of the Project (MND page 18). The MND also states that the Project does not require permits or approvals from any other agencies (MND page 9). However, the Project description identifies that a new private road would access the building sites. expanding the existing ranch road that crosses the Project site (MND page 5, Appendix G page 2). The extent of proposed road work in unclear as the biological resource assessment identifies widening of an existing road, however the MND's Project description discusses a new road. Based on the proposed plans, it appears that an existing dirt road will be widened and paved, and a new road/driveway will be added to reach each building site. Based on the aerial imagery in Figure 2, the existing ranch road crosses the unnamed tributary to English Creek (MND page 7). In addition, it appears that repairs to culverts could impact streams.

Specific impacts and why they may occur and be potentially significant: If the existing road would be widened and paved, this would potentially impact riparian habitat

associated with the unnamed tributary. In addition, Project site photos included in the MND Appendix G identify two existing culverts on the Project site, one of which is rusted and described as "disfunct [sic]" (Appendix G pages 36-37). Therefore, it appears that stream crossings would need to be repaired or replaced as part of the Project, a potentially substantial alteration to the stream. Finally, the Project description identifies that the private road would extend through the adjacent property to Cantelow Road (MND page 5). This road extension occurs outside the identified Project site and is not detailed further in the MND. Based on the aerial imagery in Figure 2 and the Tentative Parcel Map, the road would likely cross English Creek to connect to Cantelow Road to the northeast (MND page 7, Appendix C). This would potentially entail substantial alteration of the bed, bank, channel, and riparian vegetation associated with English Creek. Riparian habitat is of critical importance to protecting and conserving the biotic and abiotic integrity of an entire watershed. When riparian habitat is substantially altered, riparian functions become impaired, thereby likely substantially adversely impacting aquatic and terrestrial species. Substantial removal of trees and other vegetation significantly reduces suitable nesting and roosting habitat for many bird and bat species, such as pallid bat, an SSC, and causes the loss of important refugia for small mammals. Mature riparian trees and mid canopy vegetation will take considerable time to reestablish and grow to function. Therefore, if the Project impacts stream and associated riparian habitat, Project impacts to these resources would be potentially significant.

Recommended Mitigation Measure: CDFW recommends that the Project description fully disclose and describe potential stream crossings and any potential impacts to streams and riparian vegetation. To comply with California Fish and Game Code section 1600 et seq. and reduce impacts to stream and riparian habitat to less than significant, CDFW recommends that the MND: 1) identify that CDFW may be a Responsible Agency for the Project if impacts to any stream would occur, and 2) incorporate the following mitigation measure.

Mitigation Measure BIO-8 Notification of Lake and Streambed Alteration: For Project activities that may substantially alter the bed, bank, or channel of English Creek, the unnamed tributary to English Creek, or any other streams, including but not limited to road crossing activities or riparian vegetation disturbance, an LSA Notification shall be submitted to CDFW pursuant to Fish and Game Code section 1602 prior to Project construction. If CDFW determines that an LSA Agreement is warranted, the Project shall comply with all required measures in the LSA Agreement, including but not limited to requirements to mitigate impacts to the streams and riparian habitat. Permanent impacts to the stream and associated riparian habitat shall be mitigated by restoration of riparian habitat at a 3:1 mitigation to impact ratio based on acreage and linear distance as close to the Project area as possible and within the same watershed and year as the impact. Temporary impacts shall be restored on-site in the same year as the impact.

Environmental Setting and Related Impact Shortcoming

Comment 3: Sensitive Natural Communities

Issue: The MND identifies that the Project site contains annual grassland, oak savanna, and oak woodland vegetation communities (MND page 5), which may be considered sensitive natural communities. The Project site is approximately 1.25 miles west of the Great Valley Ecoregion vegetation mapping project, which overlaps the Ulatis Creek Watershed and describes vegetation communities that may be present within the Project site (Buck-Diaz et al. 2012). Examples of sensitive natural communities mapped in the Great Valley Ecoregion that may occur at the Project site include needle grass melic grass grassland alliance, blue oak - valley oak woodland association, and California bay - interior live oak forest association. Grassland alliances are difficult to analyze given their variation in species composition and abundance throughout the season and between years (CDFW 2022). Sensitive natural grassland communities are often underestimated due to relatively high total cover of non-native species and the timing of vegetation classification (ibid.). The MND identifies that the biological resource assessment site visit was conducted not long after the Project site burned, making any vegetation classification for herbaceous species nearly impossible as the ground cover had not yet recovered (Appendix G page 7).

Specific impacts and why they may occur and be potentially significant: The Project could potentially permanently remove sensitive natural communities through ground-disturbing activities such as grading, expanding and paving roads, installing pipelines, and constructing buildings. Sensitive natural communities are endemic communities that have limited distribution and are often vulnerable to project impacts (CDFW 2018). Based on the above, if the Project results in the loss of any sensitive natural community, Project impacts would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to sensitive natural communities to less-than-significant, CDFW recommends including the following mitigation measure in the MND.

Mitigation Measure BIO-9: Sensitive Natural Community Habitat Assessment and Mitigation: A qualified botanist shall conduct vegetation classification and mapping of the Project site following the *Survey of California Vegetation Classification and Mapping Standards*⁶ and *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities*⁷ during the appropriate period to identify the plants and natural communities that have the potential to occur on

https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=102342&inline

⁶ Department of Fish and Wildlife, 2020.

⁷ Department of Fish and Wildlife, 2018. <u>https://www.wildlife.ca.gov/Conservation/Survey-Protocols#377281280-plants</u>

the Project site prior to the start of ground-disturbing activities and prepare a report documenting findings. If sensitive natural communities are mapped within the Project site, the Project shall be redesigned to avoid impacts to all sensitive natural communities. If sensitive natural communities cannot be avoided, then loss of sensitive natural communities shall be mitigated through permanent habitat protection at a 3:1 mitigation to impact ratio, through a conservation easement and implementing and funding a long-term management plan in perpetuity. Compensatory habitat shall be of equal or greater quality than the impacted habitat or a habitat enhancement plan shall be prepared and implemented by a qualified biologist to achieve at least equal habitat guality prior to Project construction. For any habitat enhancement, to ensure a successful planting effort, all plantings shall be monitored and maintained as necessary for a minimum of five years. Oak trees, other trees, and all other plantings shall each have a minimum of 80% survival at the end of the minimum monitoring period. If the planting survival is not meeting this goal, then the Project shall implement replacement planting, additional watering, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plants shall be monitored with the same survival requirements for five years after planting. Oak plantings shall come from nursery stock grown from locally sourced acorns, or from acorns gathered locally, preferably from the same watershed in which they are planted. The trees should be able to survive the last two years of a minimum five-year monitoring period without irrigation.

Mitigation Measures and Related Impact Shortcoming

Comment 4: Tree Replacement and Monitoring

The MND identifies Mitigation Measure BIO-7 to mitigate for removed oak trees and heritage trees by planting replacement trees (MND pages 20-21). The Project's planted trees are currently required to meet a minimum 65% survival after a three-year monitoring period. To reduce potential impacts to less-than-significant, CDFW recommends increasing the monitoring period to five years and the minimum survival of replacement trees to 80% to ensure a successful planting effort.

Would the Project have a substantial adverse 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 USFWS?

Environmental Setting and Related Impact Shortcoming

Comment 5: Special-Status Plants

Issue: The Project site contains grassland habitat that may be suitable for specialstatus plants, including Keck's checkerbloom, Brewer's western flax, and adobe-lily.

There are six California Natural Diversity Database (CNDDB) occurrences of these species within 5 miles of the Project site.

Specific impacts and why they may occur and be potentially significant: The Project has the potential to crush and kill the above special-status plants during ground-disturbing activities. All three species are CRPR 1B species that are rare throughout their range and Keck's checkerbloom is a federally listed species. Without floristic botanical surveys, the Project would not accurately identify special-status plant occurrences and could impact them. Therefore, if the Project would result in impacts to the above plant species, Project impacts to special-status plants would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to special-status plants to less-than-significant, CDFW recommends the following mitigation measure.

Mitigation Measure BIO-10: Special-Status Plant Survey and Avoidance: A qualified botanist shall conduct surveys during the appropriate blooming period for all specialstatus plants that have the potential to occur on or adjacent to the Project area prior to the start of ground-disturbing activities and prepare a report documenting survey findings. Habitat adjacent to the Project area should be surveyed if the Project may have indirect impacts off-site as a result of changes to hydrological conditions or other indirect impacts. More than one year of surveys may be necessary. Surveys and reporting shall be conducted following Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities. Surveys shall be submitted to CDFW for review and written acceptance. If special-status plants are found during surveys, the Project shall be re-designed to avoid impacts to specialstatus plants. If special-status plants listed as threatened or endangered under the federal Endangered Species Act (ESA), such as Keck's checkerbloom, are discovered on or adjacent to the Project site, the Project shall consult with USFWS prior to commencing Project activities. If impacts to any special-status plants cannot be avoided completely during the Project, the Project shall provide mitigation including on-site restoration including a restoration plan approved by CDFW, off-site habitat preservation at a 3:1 mitigation to impact ratio based on acreage or number of plants as appropriate, or another method accepted in writing by CDFW. The qualified botanist shall be knowledgeable about plant taxonomy, familiar with plants of the region, and have experience conducting botanical field surveys according to vetted protocols.

Comment 6: Burrowing Owl

Issue: The MND identifies that burrowing owl has the potential to occur in and near the Project (MND page 17 and Appendix G). There are 5 burrowing owl CNDDB occurrences within a 5-mile radius of the Project site. The MND states that no burrows or burrowing mammals were observed at the Project site (ibid.). However, the Project field

visit occurred shortly after the Project site was burned, so species presence may have been temporarily altered, or could change as the vegetation recovers. In addition, burrowing owls can use burrow surrogates such as culverts, piles of rubble, and other anthropogenic material. The California Wildlife Habitat Relationships (CWHR) predicted habitat suitability for the Project site is High Suitability for burrowing owls. In addition, the California Bay Area Linkage Network identifies the habitat in and surrounding the Project site as a core area capable of sustaining at least 50 burrowing owls (Penrod et al. 2013).

Specific impacts and why they may occur and be potentially significant: The Project could result in burrowing owl nest abandonment, loss of young, reduced health and vigor of owlets, or injury or mortality of adults. Additionally, the Project may result in a permanent reduction of burrowing owl habitat in Solano County. Burrowing owls are an SSC due to population decline and breeding range retraction. Based on the above, if the Project would result in impacts to burrowing owl, Project impacts to burrowing owls would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to burrowing owl to less-than-significant, CDFW recommends the following mitigation measures.

Mitigation Measure BIO-11A: Burrowing Owl Habitat Assessment, Surveys, and Avoidance: Prior to Project activities, a qualified biologist shall conduct a habitat assessment following Appendix C: Habitat Assessment and Reporting Details of the CDFW Staff Report on Burrowing Owl Mitigation⁸ (CDFW 2012 Staff Report). The habitat assessment shall extend at least 492 feet (150 meters) from the Project site boundary or more where direct or indirect effects could potentially extend offsite (up to 500 meters or 1,640 feet) and include burrows and burrow surrogates. If the habitat assessment identifies potentially suitable burrowing owl habitat, then a qualified biologist shall conduct surveys following the CDFW 2012 Staff Report survey methodology. Surveys shall encompass the Project site and a sufficient buffer zone to detect owls nearby that may be impacted commensurate with the type of disturbance anticipated, as outlined in the CDFW 2012 Staff Report, and include burrow surrogates such as culverts, piles of concrete or rubble, and other non-natural features, in addition to burrows and mounds. Time lapses between surveys or Project activities shall trigger subsequent surveys, as determined by a qualified biologist, including but not limited to a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. Detected nesting burrowing owls shall be avoided pursuant to the buffer zone prescribed in the CDFW 2012 Staff Report and any passive relocation plan for non-nesting owls shall be subject to CDFW review.

⁸ CDFW, previously Department of Fish and Game, 2012. <u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline</u>

Please be advised that CDFW does not consider exclusion of burrowing owls (i.e., passive removal of an owl from its burrow or other shelter) as a "take" avoidance, minimization, or mitigation measure for the reasons outlined below. Therefore, to mitigate the impacts of potentially evicting burrowing owls to less-than-significant, Mitigation Measure BIO-11B outlined below should require habitat compensation with the acreage amount identified in any eviction plan. The long-term demographic consequences of exclusion techniques have not been thoroughly evaluated, and the survival rate of excluded owls is unknown. Burrowing owls are dependent on burrows at all times of the year for survival or reproduction, therefore eviction from nesting, roosting, overwintering, and satellite burrows or other sheltering features may lead to indirect impacts or "take" which is prohibited under Fish and Game Code section 3503.5. All possible avoidance and minimization measures should be considered before temporary or permanent exclusion and closure of burrows is implemented to avoid "take."

Mitigation Measure BIO-11B: Burrowing Owl Habitat Mitigation: If the Project would impact an unoccupied nesting burrowing owl burrow or burrow surrogate (i.e., a burrow known to have been used in the past three years for nesting), or an occupied burrow (where a non-nesting owl would be evicted as described above), the following habitat mitigation shall be implemented prior to Project construction:

Impacts to each nesting site shall be mitigated by permanent preservation of two occupied nesting sites with appropriate foraging habitat within Solano County, unless otherwise approved by CDFW, through a conservation easement and implementing and funding a long-term management plan in perpetuity. The same requirements shall apply for impacts to non-nesting evicted owl sites.

Impacts to burrowing owl foraging habitat shall be mitigated by permanent preservation of foraging habitat at a 1:1 mitigation to impact ratio, in the same manner described above, and accepted by CDFW in writing. The CDFW 2012 Staff Report states, "current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal..."

The Project may implement alternative methods for preserving habitat with written acceptance from CDFW.

Comment 7: Special-Status Bees

Issue: The Project site contains grasslands and shrub lands that are potentially suitable habitat for western bumble bee and Crotch's bumble bee (Appendix G page 12). There is one CNDDB occurrence of western bumble bee within a 5-mile radius of the Project site.

Specific impacts and why they may occur and be potentially significant: The Project could result in crushing or killing bees, reduction in sufficient food resources such as nectar and pollen, and removal of nesting and overwintering sites, a potentially significant impact. Western bumble bee, once common in the western United States, has undergone a dramatic decline in both distribution and abundance and is now extirpated from much of its historic range (Hatfield et al. 2018). Crotch's bumble bee, while always limited in its distribution to western North America and primarily within California, has similarly seen drastic declines from its historic range. The Xerces Society estimated an average decline for Crotch's bumble bee of 67.51% based on range reduction, occupancy reduction, and abundance reduction (ibid). These bumble bees are threatened with extinction due primarily to reductions in habitat from urbanization, intensive agriculture, and invasive species introductions (ibid.). In addition, both species are identified as an ICP.

Appendix G of the MND recommended various avoidance, minimization, and mitigation measures that were not included in the MND (Appendix G pages 14-15). Therefore, if the Project impacts western bumble bee or Crotch's bumble bee, Project impacts to these species would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to western bumble bee and Crotch's bumble bee to less-than-significant, CDFW recommends the following mitigation measure, which incorporates the recommendations from Appendix G of the MND.

Mitigation Measure BIO-12: Special-status Bee Habitat Assessment and Avoidance: A gualified wildlife biologist shall conduct visual surveys of areas planned for ground disturbance, including but not limited to, installation of water main, new roads, leach fields, and building sites, and within a 100-foot buffer of ground-disturbing activities. Surveys shall be conducted to coincide with the blooming period of locally common nectar sources such as vetch (Vicia spp.) and California poppy (Eschscholzia californica) during the flight season for the western and Crotch's bumble bee (generally late February through late June). Between two and four evenly spaced surveys shall be conducted for the highest detection probability, including surveys in early spring (late March/early April) and early summer (late June/July). Surveys shall take place when temperatures are above 60°F, preferably on sunny days with low wind speeds (e.g., less than 8 miles per hour) and at least 2 hours after sunrise and 3 hours before sunset. On warm days (e.g., over 85°F), bumble bees will be more active in the mornings and evenings. The gualified biologist shall conduct transect surveys focusing on detection of foraging bumble bees and underground nests using visual aids such as binoculars. If western or Crotch's bumble bee nests are identified within the ground disturbance area or 100-foot buffer area, a plan to protect bumble bee nests and individuals shall be developed and implemented in consultation with CDFW. The plan shall include, but not be limited to: 1) specifications for construction timing and sequencing requirements

(e.g., avoidance of raking, mowing, tilling, or other ground disturbance until late March to protect overwintering queens); 2) pre-construction surveys conducted within 30 days and consistent with any current available protocol standards prior to the start of ground-disturbing activities to identify active nests; 3) establishment of appropriate no-disturbance buffers for nest sites and construction monitoring by a qualified biologist to ensure compliance with buffers; 4) restrictions associated with construction practices, equipment, or materials that may harm bumble bees (e.g., avoidance of pesticides/herbicides, measures to minimize the spread of invasive plant species); and 5) prescription of an appropriate restoration seed mix targeted for the bumble bees, including native plant species known to be visited by native bumble bee species and containing a mix of flowering plant species with continual floral availability through the entire active season for bumble bees (March to October).

Comment 8. Valley Elderberry Longhorn Beetle

Issue: The Project site contains potential valley elderberry longhorn beetle (VELB) habitat within the English Creek riparian corridor (Appendix G page 12). There are three VELB CNDDB occurrences within a 5-mile radius of the Project site. VELB is closely associated with elderberry host plants, which are found patchily throughout Central Valley riparian forests and sometimes adjacent uplands.

Specific impacts and why they may occur and be potentially significant: The Project could crush, injure, or kill VELB. Habitat loss and fragmentation from agricultural conversion, urbanization, and stream channelization continue to threaten VELB with extinction, and the species is listed as threatened under the ESA (USFWS 2017a). Therefore, if the Project impacts VELB, Project impacts to VELB would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to VELB to lessthan-significant, CDFW recommends the following mitigation measure.

Mitigation Measure BIO-13: Valley Elderberry Longhorn Beetle Habitat Assessment and Avoidance: A qualified biologist shall evaluate the Project site for VELB habitat following the USFWS 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle⁹. Project activities shall avoid elderberry plants and a 165-foot buffer around each plant. Elderberry plants and the 165-foot avoidance buffer shall be clearly flagged prior to Project activities. If Project activities must occur within 165 feet of an elderberry plant, the Permittee shall consult with USFWS pursuant ESA and receive written approval from CDFW prior to the impact.

⁹ <u>https://ipac.ecosphere.fws.gov/guideline/assessment/population/436/office/%2011420.pdf</u>

Comment 9: American Badger

Issue: The Project site contains potentially suitable habitat for the American badger, which could occur on-site (MND page 18). There is one American badger CNDDB occurrence within a 5-mile radius of the Project site. Badgers range throughout most of California and can dig burrows in a single day; therefore, the species may occupy the Project site and adjacent habitat prior to Project construction (Ministry of Environment Ecosystems 2007 as cited in Brehme et al. 2015). Additionally, the CWHR predicted habitat suitability for the grassland portions of the site are predicted High Suitability for American badgers. Lastly, the Critical Linkages: Bay Area and Beyond project identifies the Project site as within a core area capable of supporting at least 50 American badgers (Penrod et al. 2013).

Specific impacts and why they may occur and be potentially significant: The Project could result in injury or mortality to adult or young badgers, or burrow abandonment. American badger is an SCC. Therefore, if the Project impacts American badger, Project impacts to the American badger would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to American badger to less-than-significant, CDFW recommends the following mitigation measure.

Mitigation Measure BIO-14: American Badger Burrow Surveys and Avoidance: Within 48 hours prior to ground-disturbing activities, a qualified biologist shall survey the Project site for American badger burrows, including adjacent habitat within 50 feet. If potential badger burrows are identified, they shall be flagged for avoidance, including a sufficient buffer approved by CDFW. If badger burrows cannot be avoided, a qualified biologist shall prepare and implement a relocation and habitat improvement plan approved in writing by CDFW.

Comment 10: Roosting Bats

Issue: The Project is within the range of pallid bat¹⁰ and western red bat¹¹, and the trees in the Project area, some of which are proposed for removal, may provide suitable roosting habitat for bats. Pallid bats occupy a wide range of habitat types and are easily disturbed by human activities (Zeiner et al. 1990). The California Bay Area Linkage Network identifies the habitat on and surrounding the Project site as a core area for pallid bats (Penrod et al. 2013). The Project site contains potentially suitable roost trees

¹⁰ CDFW maintains range maps and life history accounts for all terrestrial species in California. The pallid bat range map is available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2350&inline=1
¹¹ The western red bat range map is available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2350&inline=1

and foraging habitat and is in the vicinity of potentially suitable habitat for pallid bat and other sensitive bat species.

Specific impacts and why they may occur and be potentially significant: Tree removal associated with the Project could lead to injury or death of bats, including pallid bat and western red bat, both SSC. If the Project impacts pallid bat or western red bat, Project impacts to these species would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to pallid bat and western red bat to less-than-significant, CDFW recommends the following mitigation measure.

Mitigation Measure BIO-15: Bat Tree Habitat Assessment and Surveys: Prior to any tree removal, a qualified biologist shall conduct a habitat assessment for bats. The habitat assessment shall be conducted a minimum of 30 to 90 days prior to tree removal and shall include a visual inspection of potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark, and suitable canopy for foliage roosting species). If suitable habitat trees are found, they shall be flagged or otherwise clearly marked and tree trimming or removal shall not proceed unless the following occurs: a) in trees with suitable habitat, presence of bats is presumed, or documented during the surveys described below, and removal using the two-step removal process detailed below occurs only during seasonal periods of bat activity, from approximately March 1 through April 15 and September 1 through October 15, or b) after a qualified biologist conducts night emergence surveys or completes a visual examination of roost features that establish absence of roosting bats.

Two-step tree removal shall be conducted over two consecutive days, as follows: 1) the first day (in the afternoon), under the direct supervision and instruction by a qualified biologist with experience conducting two-step tree removal, limbs and branches shall be removed by a tree cutter using chainsaws only; limbs with cavities, crevices or deep bark fissures shall be avoided; and 2) the second day the entire tree shall be removed.

Comment 11: California Red-legged Frog

Issue: Appendix G of the MND states that the Project is within the range of California red-legged frog (Appendix G page 11). The CWHR predicted habitat for the site is medium suitability for California red-legged frog. The riparian areas, grassland, and the stock pond in the Project site provide potentially suitable habitat for California red-legged frog. California red-legged frogs require a variety of habitats, including aquatic breeding habitats and upland dispersal habitats. Breeding sites of the species are in aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons. Additionally, California red-legged frogs frequently breed in artificial impoundments such as stock ponds (USFWS)

2002). Breeding sites are generally found in deep, still, or slow-moving water (>2.5 feet) and can have a wide range of edge and emergent cover amounts. California red-legged frogs can breed at sites with dense shrubby riparian or emergent vegetation, such as cattails (*Typha* sp.) or overhanging willows (*Salix* sp.), or can proliferate in ponds devoid of emergent vegetation (i.e., stock ponds). California red-legged frog habitat includes nearly any area within one to two miles of a breeding site that stays moist and cool through the summer; this includes non-breeding aquatic habitat in pools of slow-moving streams, perennial or ephemeral ponds, and upland sheltering habitat such as rocks, small mammal burrows, logs, densely vegetated areas, and man-made structures (i.e., culverts, livestock troughs, spring-boxes, and abandoned sheds) (USFWS 2017b). Therefore, even if activities occur when streams are dry, California red-legged frogs could be present.

Specific impacts and why they may occur and be potentially significant: The Project could injure or kill California red-legged frogs if they occur on site. California red-legged is listed as threatened under ESA and is an SSC, and their populations throughout the State have experienced ongoing and drastic declines and many have been extirpated (Thompson et al. 2016). Habitat loss from growth of cities and suburbs, mining, overgrazing by cattle, invasion of nonnative plants, impoundments, water diversions, stream maintenance for flood control, degraded water quality, and introduced predators, such as bullfrogs are the primary threats to the species (Thompson et al. 2016; USFWS 2017b). Therefore, if California red-legged frog is present in the Project area and would be impacted, Project impacts to California red-legged frog would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to California redlegged frog to less-than-significant, CDFW recommends the following mitigation measure.

Mitigation Measure BIO-16: California Red-legged Frog Habitat Assessment and Surveys: Within 48 hours prior to the commencement of ground-disturbing activities, the Project area and nearby vicinity, including a minimum 500-foot radius surrounding the Project area, shall be assessed by a qualified biologist for the presence of California redlegged frog individuals and habitat features. Habitat features include both aquatic habitat such as plunge pools and ponds and terrestrial habitat such as burrows. The results of the habitat feature assessment shall be submitted to CDFW for written acceptance prior to starting Project activities. Habitat features shall be flagged for avoidance to the extent feasible. If California red-legged frogs are encountered during the assessment or Project activities, the Project shall not proceed or all work shall cease, and CDFW shall immediately be notified. Work shall not proceed until the frog, through its own volition, moves out of harm's way and CDFW has provided permission in writing to proceed with the Project. If California red-legged frog is encountered or the qualified biologist believes

that California red-legged frog is likely to occur in the Project area, the Project shall consult with USFWS pursuant to the federal Endangered Species Act.

Comment 12: Foothill Yellow-Legged Frog

Issue: Appendix G of the MND identifies that the Northwest/North Coast clade of foothill yellow-legged frog has the potential to occur in and near the Project site (Appendix G page 11). There are six foothill yellow-legged frog CNDDB occurrences within five miles of the Project. Different life stages of the species use a variety of habitat types for development, foraging, and overwintering (Thompson et al. 2016). The species utilizes upland habitats adjacent to streams and have been observed 164 feet away from streams under rocks or other refugia (Thompson et al. 2016). Little information is known about foothill yellow-legged frog terrestrial movements and the species may travel farther from streams. The species also occur in swales or other moist areas.

Specific impacts and why they may occur and by potentially significant: The Project may result in injury or mortality to foothill yellow-legged frog through crushing, killing, or injuring individuals from vehicles, equipment, and workers during Project activities. The Northwest/North Coast genetic clade of foothill yellow-legged frog is an SSC and the species has been extirpated from much of the southern segment of its range in the San Francisco Bay Area and is at risk from urbanization, severe wildland fires, and climate change (*ibid.*). Therefore, if foothill yellow-legged frog is present in the Project area and would be impacted, Project impacts to foothill yellow-legged frog would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to foothill yellowlegged frog to less-than-significant, CDFW recommends that the following mitigation measures.

Mitigation Measure BIO-17A: Foothill Yellow-legged Frog Survey Methodology: A CDFW-approved qualified biologist shall provide a foothill yellow-legged frog survey methodology to CDFW for review and written approval no less than 30 days prior to beginning Project activities, unless CDFW approves otherwise in writing. No Project activities shall begin until foothill yellow-legged frog surveys have been completed using a method approved by CDFW. Survey methodology shall target all life stages and shall have an adaptive management approach based on the stream conditions at the time of surveys (i.e., whether ponded or flowing water is present, or whether the stream has been completely dry for less than 30 days). Surveys within and adjacent to the Project area shall include searching suitable habitat including but not limited to cavities under rocks, within vegetation such as sedges and other clumped vegetation, and under undercut banks, no less than 50 feet from the streambed and 500 feet upstream and downstream of the Project area. Surveys should be conducted at different times of day and under variable weather conditions if possible.

Mitigation Measure BIO-17B: Foothill Yellow-legged Frog Surveys: Prior to starting Project activities, a CDFW-approved qualified biologist shall conduct surveys for foothill yellow-legged frog using a CDFW-approved methodology (Mitigation Measure BIO-17A). If foothill yellow-legged frogs, or any other special-status species, are found, CDFW shall be notified immediately, and ground-disturbing activities shall not occur without written approval from CDFW allowing the Project to proceed. In this event, a temporary wildlife exclusion fence shall be installed, if requested by CDFW, to prevent frogs and/or other special-status species from entering the work site. Additionally, a qualified biologist shall be on site daily to monitor work and ensure impacts to foothill yellow-legged frogs are avoided and minimized. The results of the survey shall be submitted to CDFW for written acceptance prior to starting Project activities. If the stream has been completely dry for greater than 30 days prior to starting Project activities, and no water or moist areas within the streambed exist within 500 feet upstream and downstream of the Project site, then surveys for foothill yellow-legged frogs are not necessary.

Comment 13: Western Pond Turtle

Issue: The Project is within the range of western pond turtle¹² and potentially suitable habitat exists in and near the streams on and adjacent to the Project. There is one western pond turtle CNDDB occurrence within five miles of the Project. The CWHR predicted habitat suitability for the Project is Medium Suitability for western pond turtles. Western pond turtles can move more than four miles up or down stream, therefore the project area may be 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).

Specific impacts and why they may occur and be potentially significant: The Project may impact streams and upland dispersal habitat, upland refugia, or nesting habitat for western pond turtle through vegetation removal and grading activities, potentially injuring or killing western pond turtles, an SSC. Therefore, if the Project impacts western pond turtle, Project impacts to western pond turtle would be potentially significant.

Recommended Mitigation Measure: To reduce potential impacts to western pond turtle to less than significant, CDFW recommends the following mitigation measure.

Mitigation Measure BIO-18: Western Pond Turtle Survey: For all Project activities that occur within 500 feet of stream or wetland habitat, prior to ground-disturbing activities, a qualified biologist shall conduct a pre-construction survey within 48 hours prior to the

¹² The western pond turtle range map is available at

https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2658&inline=1

start of Project activities, focusing on the presence of western pond turtle and their nests. If western pond turtles are discovered during the survey, Project activities shall not begin until CDFW has been consulted and approved in writing measures to avoid and minimize impacts to western pond turtle, and the measures have been implemented.

MANDATORY FINDING OF SIGNIFICANCE. Does the Project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that incremental effects of the Project are considerable when viewed in connection with effects of past projects, effects of other current projects, and effects of probable future projects?

Closely Related Past, Present, and Reasonably Foreseeable Probable Future Projects and Related Impact Shortcoming

Comment 14: Habitat Fragmentation and Disruption of Wildlife Movement

Issue: The Project site is located within the Jepson Prairie-Vaca Mountains/Inner Coast Range key corridor and "provides an important transition between the Vaca Mountains, Pleasants Valley, and the Valley Floor Grassland and Vernal Pool habitats near Vacaville" (MND page 18). The MND identifies that the "subdivision of the parcels could have a minor impact on the movement of wildlife species along the creek and through the property due to the presence of new fences, buildings, and general disturbance" (MND page 19). The MND also identifies that the property adjacent to the Project site has submitted a subdivision application that is currently under review (MND page 5). In addition, similar future developments in the vicinity of the Project site would be "of similar character and scale" to the Project (MND page 45). Therefore, it appears that large agricultural parcels in this area may also be subdivided to approximately 20-acre lots with new buildings, roads, utilities, fencing, grading, tree removal, stream crossings, and associated increases in human presence. Aerial imagery of the Vaca Valley, English Hills, and adjacent areas shows previous projects that have increased development and removed habitat in the Project vicinity as well. As noted above, numerous special-status species may currently use the habitat at the Project site or move through the habitat while dispersing, including Swainson's hawk, burrowing owl, special-status bats, American badger, special-status frogs, and western pond turtle. Many of these species are sensitive to human presence and fragmentation of their habitat. In addition, locally common species such as black-tailed deer (Odocoileous hemionus) and black-tailed jack rabbit (Lepus californicus) were observed on the Project site and could be impacted by changes in the habitat use and development on site when considered in the context of neighboring projects (MND page 17, Appendix G page 9).

Specific impacts and why they may occur and be potentially significant: The increase in permanent structures, paved roads, and fencing from the Project alone

would contribute to habitat fragmentation and potential disruption of wildlife movement in the English Hills and Vaca Valley (Forman and Alexander 1998). Specifically, roads can cause soil erosion and surface run-off that can transfer sediment into streams, reducing aquatic habitat value for sensitive aquatic species, such as foothill vellowlegged frog and California red-legged frog (Beschta 1978, Sevedbagheri 1996, Richardson et al. 2001). Vegetation clearing for road construction can increase the amount of light that penetrates the canopy, which may result in changes in species composition and natural communities that provide important habitat characteristics for sensitive and common species (Trombulak and Frissell 2000). In addition, vehicle traffic on roads can have a number of environmental impacts including alteration of the physical and chemical environments such as through soil compaction (Helvey and Kochenderfer 1990); dust mobilization that limits plants' ability to photosynthesize (Farmer 1993); disruption of surface water flow (King and Tennyson 1984, Wemple et al. 1996); and increase in the spread of invasive species (Brothers and Spingarn 1992, Greenberg et al. 1997, Gelbard and Belnap 2003, Ansong and Pickering 2013). Road use can also result in wildlife mortality, altered abundances and diversity of wildlife, and modification of animal behavior (Trombulak and Frissell 2000). Moreover, wildlife mortality can occur as a result of road construction (Trombulak and Frissell 2000). Cumulatively, increased road density can compound the documented effects of smallscale road networks. For example, road density has been shown to affect habitat selection in frogs (Vos and Chardon 1998). Both independently and collectively, these impacts from road installation have the potential to significantly impact the fish and wildlife resources identified above. When considered in connection with existing roads, current roads, and probable future roads and infrastructure for continued rural residential expansion, the Project may have a cumulatively considerable impact on fish and wildlife resources, which would be considered a Mandatory Finding of Significance.

Recommended Mitigation Measure: CDFW recommends that the lead agency further analyze potentially cumulatively considerable impacts of the Project on fish and wildlife resources as described above and if such impacts cannot be avoided then an Environmental Impact Report should be prepared to disclose the associated potentially significant impacts.

Please be advised that an LSA Agreement obtained for this Project would likely require the above recommended mitigation measures, as applicable.

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 CNDDB. The CNNDB online field survey form and other methods for submitting data can be found at the following link: <u>https://wildlife.ca.gov/Data/CNDDB/Submitting-Data</u>. The types of information reported to CNDDB can be found at the following link: <u>https://wildlife.ca.gov/Data/CNDDB/Plantsand-Animals</u>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, 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 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

CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed to Amanda Culpepper, Senior Environmental Scientist (Specialist), at (707) 428-2075 or <u>Amanda.Culpepper@wildlife.ca.gov</u>; or Melanie Day, Senior Environmental Scientist (Supervisory), at <u>Melanie.Day@wildlife.ca.gov</u> or (707) 210-4415.

Sincerely,

DocuSigned by: Erin Chappell

Erin Chappell Regional Manager Bay Delta Region

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2022040049)

REFERENCES

- Ansong, M., and C. Pickering. 2013. Are weeds hitchhiking a ride on your car? A systematic review of seed dispersal on cars. *PLoS ONE* 8:e80275.
- Beschta, R. L. 1978. Long-term patterns of sediment production following road construction and logging into the Oregon Coast Range. *Water Resources Research* 14:1011–1016.

- Brehme, C.S.; S. A. Hathaway, R. Booth, B. H. Smith, and R. N. Fisher. 2015. Research of American Badgers in Western San Diego County, 2014. Data Summary prepared for California Department of Fish and Wildlife and the San Diego Association of Governments. 24pp. (42pp. with Appendix).
- Brothers, T. S., and A. Spingarn. 1992. Forest fragmentation and alien plant invasion of central Indiana old-growth forests. Conservation Biology 6:91–100.
- Buck-Diaz, J., S. Batiuk, and J. M. Evens. 2012. Vegetation alliances and associations of the Great Valley Ecoregion, California. California Native Plant Society, Vegetation Program, Sacramento, CA. <u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=64011&inline</u>
- CDFW. 2016. Status Review: Swainson's Hawk (*Buteo swainsoni*) in California, reported to the California Fish and Game Commission, five-year status report. State of California Natural Resources Agency, Sacramento, CA. <u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133622&inline</u>
- CDFW. 2018. Protocols for surveying and evaluating impacts to special status native plant populations and natural communities. Habitat Conservation Planning Branch, Native Plant Program. Sacramento, CA. <u>https://nrm.dfg.ca.gov/FileHandler.ashx?</u> <u>DocumentID=18959&inline</u>
- CDFW. 2022. Semi-natural stands and addressing grasslands and flower fields. Vegetation Classification and Mapping Program, Biogeographic Data Branch. Sacramento, CA. <u>https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities</u>
- Dauphine, N. and R.J. Cooper. 2009. Impacts of free-ranging domestic cats (*Felis catus*) on birds in the United States: A review of recent research with conservation and management recommendations. Warnell School of Froestry and Natural Resources, University of Georgia.
- Farmer, A. M. 1993. The effects of dust on vegetation a review. *Environmental Pollution* 79:63–75.
- Forman, R. T. T. and L.E. Alexander. 1998. Roads and Their Major Ecological Effects. *Annual Review of Ecology and Systematics*. 29: 207-231. <u>https://www.jstor.org/stable/221707</u>
- Gelbard, J. L., and J. Belnap. 2003. Roads as conduits for exotic plant invasions in a semiarid landscape. *Conservation Biology* 17:420–432.

- Greenberg, C. H., S. H. Crownover, and D. R. Gordon. 1997. Roadside soils: A corridor for invasion of xeric scrub by nonindigenous plants. *Natural Areas Journal* 17:99–109.
- Hatfield, R., S. Jepsen, S. F. Jordan, M. Blackburn, and A. Code. 2018. A petition to the state of California Fish and Game Commission to list the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as endangered under the California Endangered Species Act. Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. Sacramento, CA. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161902&inline
- Helvey, J. D., and J. N. Kochenderfer. 1990. Soil density and moisture content on two unused forest roads during first 30 months after construction. Research Paper NE-629. U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. Portland, OR, USA.
- Holland, D. C. 1994. The western pond turtle: habitat and history. Unpublished final report, U. S. Dept. of Energy, Portland, Oregon.
- King, J. G., and L. C. Tennyson. 1984. Alteration of streamflow characteristics following road construction in north central Idaho. Water Resources Research 20:1159– 1163.
- Larson, C. L., S. E. Reed, and K. R. Crooks. 2020. Increased hiking and mountain biking are associated with declines in urban mammal activity. *California Fish and Wildlife* Recreation Special Issue: 52-61.
- Lenth, B. A., R. L. Knight, and G.C. Wendell. 2006. Conservation Value of Clustered Housing Developments. *Conservation Biology* 20: 1445-1456.
- Penrod, K., P. E. Garding, C. Paulman, P. Beier, S. Weiss, N. Schaefer, R. Branciforte, and K. Gaffney. 2013. Critical Linkages: Bay Area & Beyond. Produced by Science & Collaboration for Connected Wildlands, Fair Oaks, CA in collaboration with the Bay Area Open Space Council's Conservation Lands Network. <u>http://www.scwildlands.org/reports/CriticalLinkages_BayAreaAndBeyond.pdf</u>
- Purcell, K. L., E.L. McGregor, and K. Calderala. 2017. Effects of drought on western pond turtle survival and movement patterns. *Journal of Fish and Wildlife Management*. 8(1): 15-27.
- Richardson, E. V., D. B. Simons, and P. F. Lagasse. 2001. River engineering for highway encroachments: Highways in the river environment. Hydraulic Design

Series No. 6. U.S. Department of Transportation, Federal Highway Administration, National Highway Institute. Arlington, VA, USA.

- Seyedbagheri, K. A. 1996. Idaho forestry best management practices: compilation of research on their effectiveness. General Technical Report INT-GTR-339. Intermountain Research Station, U.S. Forest Service, Ogden, UT, USA.
- Thompson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press and California Department of Fish and Wildlife.
- Trombulak, S. C., and C. A. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. *Conservation Biology* 14:18–30.
- USFWS. 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii and 173.
- USFWS. 2017a. Framework for assessing impacts to the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). U.S. Fish and Wildlife Service, Sacramento, CA. <u>https://ipac.ecosphere.fws.gov/guideline/assessment/population/</u> 436/office/%2011420.pdf
- USFWS. 2017b. Species Account for California Red-legged frog. December 2017. Sacramento, CA.
- Vos, C. C., and J. P. Chardon. 1998. Effects of habitat fragmentation and road density on the distribution patter of the moor frog Rana arvalis. *Journal of Applied Ecology* 35:44–56.
- Wemple, B. C., J. A. Jones, and G. E. Grant. 1996. Channel network extension by logging roads in two basins, Western Cascades, Oregon. *Water Resources Bulletin* 32:1195–1207.
- Young, J. K., K. A. Olson, R. P. Reading, S. Amgalanbaatar, and J. Berger. 2011. Is Wildlife Going to the Dogs? Impacts of Feral and Free-roaming Dogs on Wildlife Populations. *BioScience* 61: 125-132.
- Zaragoza, G.; J. P. Rose, K. Purcell, and B. Todd. 2015. Terrestrial habitat use by western pond turtles (*Actinemys marmorata*) in the Sierra Foothills. Journal of Herpetology. 49(3): 437-441.
- Zeiner, D.C. W. F. Laudenslayer, Jr., K. E. Mayer, and M. White. 1990. California's Wildlife. Vol. III. California Department of Fish and Game, Sacramento, CA.