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November 5, 2021

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City of Hollister
Development Services Department
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Subject: Hollister Research Campus Project (Project)
Notice of Preparation (NOP)
State Clearinghouse No: **2021090434**

Dear Ms. Kelly:

The California Department of Fish and Wildlife (CDFW) received a NOP for a draft Environmental Impact Report from San Benito County for the above-referenced Project pursuant to 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, CDFW appreciates 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 Fish and Game Code. While the comment period may have ended, CDFW would appreciate if you will still consider our comments.

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,

[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.

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 **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it 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 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.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest 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).

In this role, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on Project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: Hollister Research Campus LLC

Objective: The project applicant, Hollister Research Campus LLC, is seeking an amendment to the City of Hollister's Planning Area and Sphere of Influence boundaries, a City General Plan Amendment to Industrial-North Gateway Overlay and Industrial designations, and pre-zoning of the property to Industrial Business Park (IBP) and Light Industrial (M1). The boundary amendments and pre-zoning are initial steps toward annexation of the properties into the City of Hollister, development of land consistent with the requested zoning, and provision of municipal services to the site. Future development of the property is planned for uses that would be consistent with this visible location along the State Highway.

Within "Area 1" (north of SR 156, although Project information lists it as south, which doesn't match up with Figure 1 in the NOP that was sent to the Department), the applicant proposes traveler-oriented uses including restaurants, gas station/convenience market, truck stop, and hotels. Light industrial uses may also be located in this area. Within "Area 2" (the majority of the property south, not north, of SR 156 per Project information in the NOP), the applicant proposes a public events center and a Research Campus.

The Research Campus is envisioned as a facility to attract private sector auto/truck/motorcycle manufacturers, autonomous and controlled transportation technologies and research, independent concept design companies, trade schools and other associated multidisciplinary businesses focused on the automotive sector and automotive technology. Other specific uses in Area 2 could include light manufacturing/warehousing, a 2.5-mile test track, open testing area and private garage areas.

Location: The 230-acre project site is located at the intersection State Route (SR) 156 and San Felipe Road in unincorporated San Benito County, north of the City of Hollister. The 230 acres includes parcels on both sides and east of the State Highway. The site is bounded by Tequisquito Slough to the northeast, San Felipe Road to the west, and SR 156 to the east. Santa Ana Creek flows south to north through the property. The project is located at the northern gateway to the City of Hollister, close to Hollister Municipal Airport. Project parcel numbers are: 014-120-014; -055; -063, and -064.

Timeframe: N/A

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist San Benito County 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.

There are several special-status resources that may utilize the Project site and/or surrounding area, and these resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities. CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the Federally endangered and State threatened San Joaquin kit fox (*Vulpes macrotis mutica*), the Federally threatened steelhead-south-central California coast DPS (*Onchorhynchus mykiss irideus* pop. 9) and California red-legged frog (*Rana draytonii*), the Federally and State threatened California tiger salamander (*Ambystoma californiense*), the State threatened tri-colored blackbird (*Agelaius tricolor*) and Swainson's hawk (*Buteo swainsoni*), the State Species of Special Concern American badger (*Taxidea taxus*), the burrowing owl (*Athene cunicularia*), western pond turtle (*Emys marmorata*), and the western spadefoot (*Spea hammondii*).

Water Pollution: Pursuant to Fish and Game Code (section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without mitigation measures this Project could result in pollution of Waters of the State from storm water runoff or construction-related erosion. Potential impacts to the wildlife resources that utilize watercourses in the Project area include the following: increased sediment input from road or structure runoff; toxic

runoff associated with Project-related activities and implementation; and/or impairment of wildlife movement along riparian corridors. The Regional Water Quality Control Board and United States Army Corps of Engineers (USACE) also have jurisdiction regarding discharge and pollution to Waters of the State.

I. Environmental Setting and Related Impact

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 the United States Fish and Wildlife Service (USFWS).

COMMENT 1: San Joaquin Kit Fox (SJKF)

Issue: SJKF occurrences have previously been documented within the proposed Project area (CDFW 2021). The Project has the potential to temporarily disturb and permanently alter suitable habitat for SJKF and directly impact individuals if present during construction and other activities.

SJKF den in a variety of areas such as grassland, agricultural and fallow/ruderal habitat, and dry stream channels, and populations can fluctuate over time. SJKF are also capable of occupying urban environments (Cypher and Frost 1999). The Project site is situated in an area that is currently undeveloped, aside from one mobile home, and contains agricultural operations. Of the 230-acres in this Project, only approximately 31 acres is used for farming and the remainder of the site is fallow and regularly disced, or occasionally dry farmed. SJKF may be attracted to the Project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. SJKF will forage in grassland, fallow and agricultural fields. As a result, there is potential for SJKF to occupy suitable habitat in the Project area and the vicinity.

Specific impact: Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with construction include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). The Project vicinity contains suitable habitat including grassland. Therefore, subsequent ground-disturbing activities have the potential to significantly impact local SJKF populations.

Recommended Mitigation Measure 1: SJKF Habitat Assessment

For all Project-specific components including construction and land conversion, CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for SJKF.

Recommended Mitigation Measure 2: SJKF Surveys

If suitable SJKF habitat is present on or adjacent to the Project site, CDFW recommends assessing presence/absence of SJKF by having qualified biologists conduct surveys of Project areas and a 500-foot buffer of Project areas to detect SJKF and their sign. CDFW also recommends following the USFWS "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011).

Recommended Mitigation Measure 3: SJKF Take Authorization

SJKF detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 2: Steelhead South-Central California coast (Steelhead)

Issue: Steelhead have been known to occur in Tequisquito Slough (CDFW 2021). Activities such as construction, vegetation removal and/or new access roads/driveways could impact the riparian zone along the slough as Project boundaries abut Tequisquita Slough at the northeast project limits.

Specific impact: Without appropriate avoidance and minimization measures for Steelhead, potential impacts associated with Project activities could include disrupted spawning behavior, reduced reproductive success, and inability to reproduce.

Evidence impact is potentially significant: An estimated 94,000 steelhead spawned in streams of the central California coast in the early 1960s. Steelhead numbers have been in decline since the 1960's and most coastal streams have remnant runs of 500 fish or fewer (Center for Biological Diversity 2021).

Recommended Mitigation Measure 4: Steelhead Habitat Avoidance

CDFW recommends Project activities avoid work in water and floodplains whenever possible, conduct Project activities during less critical times of the year (June-February), and avoid spawning riffles or holding pools.

Recommended Mitigation Measure 5: Tree Removal and Replacement

If Project activities will occur in the riparian environment, CDFW recommends avoidance of tree removal whenever possible. If tree removal avoidance is not feasible, CDFW recommends preparation of a revegetation plan that incorporates native tree plantings within Tequisquito Slough to replace removed trees.

Recommended Mitigation Measure 6: Steelhead Salmon Habitat Mitigation

If Project activities will occur in the floodplain, CDFW advises consultation with us to determine how to minimize and mitigate impacts to juvenile steelhead utilization.

COMMENT 3: California red-legged Frog (CRLF)

Issue: CRLF are known to occur within the Project area (CDFW 2021). CRLF requires a variety of habitats including aquatic breeding habitats and upland dispersal habitats. Breeding sites of CRLF are aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds, lagoons and the species will also breed in ephemeral waters (Thomson et al. 2016). Additionally, CRLF frequently breed in artificial impoundments such as stock ponds (USFWS 2002). Breeding sites are generally found in deep, still or slow-moving water (greater than 2.5 feet) and can have a wide range of edge and emergent cover amounts. CRLF can breed at sites with dense shrubby riparian or emergent vegetation, such as cattails or overhanging willows or can proliferate in ponds devoid of emergent vegetation and any apparent vegetative cover (i.e., stock ponds). CRLF habitat includes nearly any area within 1-2 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 even man-made structures (i.e. culverts, livestock troughs, spring-boxes, abandoned sheds) (USFWS 2017). Review of aerial imagery indicates that Tequisquito Slough, immediately north of project limits, and Santa Ana Creek, which runs south to north through the project site, could serve as potential habitat to CRLF.

Specific impact: Without appropriate avoidance and minimization measures for CRLF, potentially significant impacts associated with the Project's construction could include alteration to the natural flow regime of the adjacent slough, and Santa Ana Creek. Any exposure to fertilizers and pesticides including herbicides and fungicides, may pose contamination threats to the CRLF, direct mortality effects, and indirect negative effects by altering habitat availability and quality.

Evidence impact is potentially significant: 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 CRLF (USFWS 2017). Review of aerial imagery indicates that Santa Ana Creek intersects the Project area from south to north, which could serve as habitat to CRLF. Therefore, project activities have the potential to significantly impact CRLF.

Recommended Mitigation Measure 7: CRLF Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if project sites or their immediate vicinity contain suitable habitat for CRLF.

Recommended Mitigation Measure 8: CRLF Surveys

If suitable habitat is present, CDFW recommends that a qualified wildlife biologist conduct surveys for CRLF within 48 hours prior to commencing work (two night surveys immediately prior to construction or as otherwise required by the USFWS) in accordance with the USFWS *Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog* (USFWS 2005) to determine if CRLF are within or adjacent to individual project sites.

Recommended Mitigation Measure 9: CRLF Avoidance

If any CRLF are found during preconstruction surveys or at any time during construction, CDFW recommends that construction cease and that CDFW be contacted to discuss a relocation plan for CRLF.

CDFW recommends that initial ground-disturbing activities be timed to avoid the period when CRLF are most likely to be moving through upland areas (November 1 and March 31). If ground-disturbing activities must take place between November 1 and March 31, CDFW recommends that a qualified biologist monitor construction activity daily.

COMMENT 4: California Tiger Salamander (CTS)

Issue: CTS are known to occur in the vicinity of the Project area (CDFW 2021). Aerial imagery shows that the proposed Project site has upland habitat including grassland which may support small mammal burrows, a requisite upland habitat feature for CTS.

Specific Impacts: Potential ground- and vegetation-disturbing activities associated with Project activities could potentially include: collapse of small mammal burrows, inadvertent entrapment, loss of upland refugia, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. In addition, depending on the design of any activity, the Project has the potential to result in creation of barriers to dispersal.

Evidence impact would be significant: Up to 75% of historic CTS habitat has been lost to urban and agricultural development (Searcy et al. 2013). Loss, degradation, and fragmentation of habitat are the primary threats to CTS. Contaminants and vehicle strikes are also sources of mortality for the species (CDFW 2015, USFWS 2017). The Project site is within the range of CTS and has suitable upland habitat (i.e., grasslands interspersed with burrows). CTS have been determined to be physiologically capable of dispersing up to approximately 1.5-miles from seasonally flooded wetlands/ponds (Searcy and Shaffer 2011) and have been documented to occur approximately 1.4-miles southwest of the Project site (CDFW 2021). Given the presence of suitable habitat potentially within, and adjacent to the Project site, ground-disturbing activities have the potential to significantly impact local populations of CTS.

Recommended Mitigation Measure 10: Focused CTS Protocol-level Surveys

CDFW recommends that a qualified biologist conduct protocol-level surveys in accordance with the USFWS "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander" (USFWS 2003) at the appropriate time of year to determine the existence and extent of CTS breeding and refugia habitat. The protocol-level surveys for CTS require more than one survey season and are dependent upon sufficient rainfall to complete. As a result, consultation with CDFW and the USFWS is recommended well in advance of beginning the surveys and prior to any planned vegetation- or ground-disturbing activities. CDFW advises that the protocol-level survey include a 100-foot buffer around the Project area in all areas of wetland and upland habitat that could support CTS. Please be advised that protocol-level survey results are viable for two years after the results are reviewed by CDFW.

Recommended Mitigation Measure 11: CTS Avoidance

If CTS protocol-level surveys as described in Mitigation Measure 10 are not conducted, CDFW advises that a minimum 50-foot no-disturbance buffer be delineated around all small mammal burrows in suitable upland refugia habitat within and/or adjacent to the Project site. Further, CDFW recommends potential or known breeding habitat within and/or adjacent to the Project site be delineated with a minimum 250-foot no-disturbance buffer. Both upland burrow and wetland/pond breeding no-disturbance buffers are intended to minimize impacts to CTS habitat and avoid take of individuals. Alternatively, the applicant can assume presence of CTS within the Project site and obtain from CDFW an ITP in accordance with Fish and Game Code section 2081 subdivision (b).

Recommended Mitigation Measure 12: CTS Take Authorization

If through surveys it is determined that CTS are occupying or have the potential to occupy the Project site, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided as described in Mitigation Measure 11, take

authorization would be warranted prior to initiating ground-disturbing activities to comply with CESA. Take authorization would occur through the acquisition of an ITP issued by CDFW, pursuant to Fish and Game Code section 2081 subdivision (b). As stated above, in the absence of protocol surveys, the applicant can assume presence of CTS within the Project site and obtain an ITP from CDFW.

Comment 5: Tri-colored Blackbird (TRBL)

Issue: TRBL occurrences have been documented near the Project site (CDFW 2021). Per CNDDB records, there was an occurrence of TRBL observed approximately 1.9-miles northwest from the Project site, across the Tequisquito Slough. TRBL colonies require suitable nesting habitat, nearby freshwater, and nearby foraging habitat including semi-natural grasslands, agricultural croplands or alkali scrub (Beedy et al. 2017). Habitat surrounding the Project area may provide suitable foraging habitat for TRBL.

Specific impact: Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated with Project activities include nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Evidence impact would be significant: The Project vicinity contains elements that have the potential to support TRBL nesting colonies. TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Beedy et al. 2017). This species has been steadily declining due to annual breeding losses due to crop-harvesting activities, insufficient insect resources, and habitat loss due to land conversion for agriculture, rangeland, and urban development (Beedy et al. 2017).

Recommended Mitigation Measure 13: TRBL Surveys

CDFW recommends that Project activities be timed to avoid the normal bird breeding season (February 1 through September 15). However, if Project activities must take place during that time, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 14: TRBL Avoidance

If an active TRBL nesting colony is found during preconstruction surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer in accordance with CDFW's "Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agriculture Fields in 2015" (CDFW 2015). CDFW advises that this buffer remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon the colony or parental care for survival. It is important to note

that TRBL colonies can expand over time and for this reason, the colony should be reassessed to determine the extent of the breeding colony within 10 days for Project initiation.

Recommended Mitigation Measure 15: TRBL Take Avoidance

In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to acquire an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), prior to any ground-disturbing activities.

COMMENT 6: Swainson's Hawk (SWHA)

Issue: SWHA have been documented to occur within the Project limits approximately 0.35-mile south of State Route 156 along Santa Ana Creek, and immediately adjacent to the west of Project limits (CDFW 2021). Review of aerial imagery indicates that large trees, which may support nesting SWHA, are present within Santa Ana Creek as well as Tequisquito Slough to the north, within and in the immediate vicinity of the Project area. In addition, habitat both within and surrounding the Project area may provide suitable foraging habitat for SWHA, increasing the likelihood of SWHA occurrence both within and in the immediate vicinity of the Project area.

Specific impact: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts associated with Project activities include nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs and/or young) and direct mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact would be significant: Depending on the timing of construction, activities including noise, vibration, and movement of workers or equipment that could affect nests present within the vicinity of the Project area and have the potential to result in nest abandonment and loss of foraging habitat, significantly impacting local nesting SWHA.

Recommended Mitigation Measure 16: Focused SWHA Surveys

To evaluate potential impacts, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC, 2000) prior to project implementation. The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest sites prior to initiating ground-disturbing activities.

Recommended Mitigation Measure 17: SWHA Avoidance

If ground-disturbing Project activities are to take place during the normal bird breeding season (March 1 through September 15), CDFW recommends that additional pre-activity surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of Project implementation. CDFW recommends a minimum no-disturbance buffer of 0.5-mile be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

Recommended Mitigation Measure 18: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected during surveys and the 0.5-mile no-disturbance buffer around the nest cannot feasibly be implemented, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081(b) is necessary to comply with CESA.

Recommended Mitigation Measure 19: Loss of SWHA Foraging Habitat

CDFW recommends compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based on CDFW's "*Staff Report Regarding Mitigation for Impacts to Swainson's Hawks*" (CDFG, 1994), which recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites and the amount of habitat compensation is dependent on nest proximity. In addition to fee title acquisition or conservation easement recorded on property with suitable grassland habitat features, mitigation may occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

Recommended Mitigation Measure 20: SWHA Nest Trees

CDFW recommends that the removal of known raptor nest trees, even outside of the nesting season, be replaced with an appropriate native tree species planting at a ratio of 3:1 at or near the Project area or in another area that will be protected in perpetuity to reduce impacts resulting from the loss of nesting habitat**.**

COMMENT 7: American Badger (AMBA)

Issue: AMBA are known to occur in the Project vicinity (CDFW 2021). Badgers occupy sparsely vegetated land cover with dry, friable soils to excavate dens, which they use for cover, and that support fossorial rodent prey populations (i.e. ground squirrels, pocket gophers, etc.) (Zeiner et. al 1990). The Project site may support these requisite habitat features, and the Project has the potential to impact AMBA.

Specific impact: Without appropriate avoidance and minimization measures for AMBA, potentially significant impacts associated with ground disturbance include direct mortality or natal den abandonment, which may result in reduced health or vigor of young.

Evidence impact is potentially significant: Habitat loss is a primary threat to AMBA (Gittleman et al. 2001). The Project has the expectation to construct traveler-oriented uses including restaurants, a gas station/convenience market, a truck stop and hotels along with a public events center and the new research campus. This land conversion could cause potential habitat fragmentation. As a result, ground-disturbing activities have the potential to significantly impact local populations of AMBA.

Recommended Mitigation Measure 21: AMBA Surveys

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for AMBA and their requisite habitat features (dens) to evaluate potential impacts resulting from ground- and vegetation-disturbance.

Recommended Mitigation Measure 22: AMBA Avoidance

Avoidance whenever possible is encouraged via delineation and observation of a 50-foot no-disturbance buffer around dens until it is determined through non-invasive means that individuals occupying the den have dispersed.

COMMENT 8: Burrowing Owl (BUOW)

Issue: BUOW have been observed in the project vicinity (CNDDB 2021). This species inhabits open grassland or adjacent canal banks, right-of-ways, vacant lots, etc., containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Review of aerial imagery indicates that most of the Project site contains, and is partially bordered by annual grassland which provides potentially suitable habitat features.

Specific impact: Potentially significant direct impacts associated with Project activities include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). The Project area is bordered by some grassland/undeveloped land in the vicinity, which is otherwise surrounded by agriculture. Therefore, Project activities have the potential to impact local BUOW populations. In addition, and as described in CDFW's "*Staff Report*

on Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Mitigation Measure 23: BUOW Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its vicinity contains suitable habitat for BUOW.

Recommended Mitigation Measure 24: BUOW Surveys

If suitable habitat is present on or in the vicinity of the Project area, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's (CBOC) "*Burrowing Owl Survey Protocol and Mitigation Guidelines*" (CBOC 1993) and CDFW's "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012). Specifically, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15), when BUOW are most detectable. In addition, CDFW advises that surveys include a 500-foot buffer around the Project area.

Recommended Mitigation Measure 25: BUOW Avoidance

CDFW recommends that no-disturbance buffers, as outlined in the "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

Recommended Mitigation Measure 26: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that

burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

COMMENT 9: Western Pond Turtle (WPT)

Issue: Suitable habitat features for WPT occur in the Project area. WPT have been observed in the Tequisquito Slough north of the Project area (CNDDB 2021). WPT are known to nest in the spring or early summer within 100 meters of a water body, although nest sites as far away as 500 meters have also been reported (Thomson et al. 2016).

Specific impact: Without appropriate avoidance and minimization measures for WPT, potentially significant impacts associated with Project activities could include nest reduction, inadvertent entrapment, reduced reproductive success, reduction in health or vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: The Project site is in proximity of known WPT habitat. Additionally, noise, vegetation removal, movement of workers, and ground disturbance as a result of Project activities have the potential to significantly impact WPT populations.

Recommended Mitigation Measure 27: WPT Surveys

CDFW recommends that a qualified biologist determine if suitable habitat for WPT occurs at the Project site. If suitable habitat is determined to occur at the Project site, CDFW recommends that a qualified biologist conduct focused surveys for WPT 10 days prior to Project implementation. In addition, CDFW recommends that focused surveys for nests occur during the egg-laying season (March through August) and that any nests discovered remain undisturbed until the eggs have hatched.

Recommended Mitigation Measure 28: WPT Relocation

CDFW recommends that if any WPT are discovered at the site immediately prior to or during Project activities, they be allowed to move out of the area on their own.

COMMENT 10: Western spadefoot (WESP)

Issue: WESP inhabit grassland habitats, breed in seasonal wetlands or ephemeral pools, and seek refuge in upland habitat where they occupy burrows outside of the

breeding season (Thomson et al. 2016). Review of aerial imagery indicates that the Project vicinity contains grassland/upland habitat, which is one of the requisite habitat elements.

Specific impact: WESP are known to occur in the area (CDFW 2021). Santa Ana Creek or any ephemeral pools may provide potential breeding habitat in the Project limits and/or area. Without appropriate avoidance and minimization measures for western spadefoot, potentially significant impacts associated with ground disturbance include; collapse of small mammal burrows, inadvertent entrapment, loss of upland refugia, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss and fragmentation resulting from agricultural and urban development is the primary threat to western spadefoot (Thomson et al. 2016). The Project area is within the range of western spadefoot, contains suitable upland habitat (i.e., grasslands interspersed with burrows) and potential breeding habitat (i.e., the seasonal creek listed previously). As a result, ground-disturbing activities associated with development of the Project site have the potential to significantly impact local populations of this species.

Recommended Mitigation Measure 29: WESP Surveys

CDFW recommends that a qualified biologist conduct focused surveys for WESP and their requisite habitat features to evaluate potential impacts resulting from ground- and vegetation-disturbance.

Recommended Mitigation Measure 30: WESP Avoidance

Avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer around burrows. If WESP are observed on the Project site, CDFW recommends that Project activities in their immediate vicinity cease and individuals be allowed to leave the Project site on their own accord. Alternatively, a qualified biologist with appropriate take authorization can move them out of harm's way and to a suitable location.

Issue: The Project area contains numerous waterways, riparian and wetland areas. Development within the Project has the potential to involve temporary and permanent impacts to these features.

COMMENT 11: Wetland and Riparian Habitats

Specific impact: Project activities have the potential to result in the loss of riparian and wetland vegetation, in addition to the degradation of wetland and riparian areas through grading, fill, and related development.

Evidence impact is potentially significant: The Project area includes stream and wetland features within an agricultural landscape that also maintains undeveloped habitats. Riparian and associated floodplain and wetland areas are valuable for their ecosystem processes such as protecting water quality by filtering pollutants and transforming nutrients; stabilizing stream banks to prevent erosion and sedimentation/siltation; and dissipating flow energy during flood conditions, thereby spreading the volume of surface water, reducing peak flows downstream, and increasing the duration of low flows by slowly releasing stored water into the channel through subsurface flow. The Fish and Game Commission policy regarding wetland resources discourages development or conversion of wetlands that results in any net loss of wetland acreage or habitat value. Construction activities within these features also has the potential to impact downstream waters as a result of Project site impacts leading to erosion, scour, and changes in stream morphology.

Recommended Mitigation Measure 31: Stream and Wetland Mapping

CDFW recommends that formal stream mapping and wetland delineation be conducted by a qualified biologist or hydrologist, as warranted, to determine the baseline location, extent, and condition of streams (including any floodplain) and wetlands within and adjacent to the Project area. Please note that while there is overlap, State and Federal definitions of wetlands differ, and complete stream mapping commonly differs from delineations used by the United States (U.S.) Army Corps of Engineers specifically to identify the extent of Waters of the U.S. Therefore, it is advised that the wetland delineation identify both State and Federal wetlands in the Project area as well as the extent of all streams including floodplains, if present, within the Project area. CDFW advises that site map(s) depicting the extent of any activities that may affect wetlands, lakes, or streams be included with any Project site evaluations, to clearly identify areas where stream/riparian and wetland habitats could be impacted from Project activities.

Recommended Mitigation Measure 32: Stream and Wetland Habitat Mitigation

CDFW recommends that the potential direct and indirect impacts to stream/riparian and wetland habitat be analyzed according to each Project activity. Based on those potential impacts, CDFW recommends that the EIR include measures to avoid, minimize, and/or mitigate those impacts. CDFW recommends that impacts to riparian habitat (i.e., biotic and abiotic features) take into account the effects to stream function and hydrology from riparian habitat loss or damage, as well as potential effects from the loss of riparian habitat to special-status species already identified herein. CDFW recommends that losses to stream and wetland habitats be offset with corresponding riparian and wetland habitat restoration incorporating native vegetation to replace the value to fish and wildlife provided by the habitats lost from Project implementation. If on-site restoration to replace habitats is not feasible, CDFW recommends offsite mitigation by restoring or enhancing in-kind riparian or

wetland habitat and providing for the long-term management and protection of the mitigation area, to ensure its persistence.

II. Editorial Comments and/or Suggestions

Lake and Streambed Alteration: The Project is subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake; or (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent, as well as those that are perennial in nature.

For additional information on notification requirements, please contact our staff in the Lake and Streambed Alteration Program at (559) 243-4593. It is important to note, CDFW is required to comply with CEQA, as a Responsible Agency, when issuing a Lake or Streambed Alteration Agreement. If inadequate, or no environmental review, has occurred, for the Project activities that are subject to notification under Fish and Game Code 1602, CDFW will not be able to issue the Final LSAA Lake and Streambed Alteration Agreement until CEQA analysis for the project is complete. This may lead to considerable Project delays.

Nesting birds: CDFW encourages that Project implementation occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project sites to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of

non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction areas would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, San Joaquin kit fox, California tiger salamander, steelhead, and California red-legged frog. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground-disturbing activities.

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 found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CDFW appreciates the opportunity to comment on the Project to assist the City of Merced in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). If you have any questions, please contact Kelley Nelson, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Kelley.Nelson@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
FA83F09FE08945A...

Julie A. Vance
Regional Manager

Attachment

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Center for Biological Diversity. 2021. https://www.biologicaldiversity.org/species/fish/central_California_coast_steelhead_trout/index.html website. Originally accessed February 8, 2021.

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WESP Literature Citations

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Attachment 1

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: Hollister Research Campus Project-NOP
State Clearinghouse No: 2021090434

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure 1: SJKF Habitat Assessment	
Mitigation Measure 2: SJKF Surveys	
Mitigation Measure 4: Steelhead Habitat Avoidance	
Mitigation Measure 7: CRLF Habitat Assessment	
Mitigation Measure 8: CRLF Surveys	
Mitigation Measure 9: CRLF Avoidance	
Mitigation Measure 10: Focused CTS Protocol-level Surveys	
Mitigation Measure 11: CTS Avoidance	
Mitigation Measure 13: TRBL Surveys	
Mitigation Measure 14: TRBL Avoidance	
Mitigation Measure 15: TRBL Take Avoidance	
Mitigation Measure 16: Focused SWHA Surveys	
Mitigation Measure 17: SWHA Avoidance	
Mitigation Measure21: AMBA Surveys	
Mitigation Measure 22: AMBA Avoidance	
Mitigation Measure 23: BUOW Habitat Assessment	
Mitigation Measure 24: BUOW Surveys	
Mitigation Measure 25: BUOW Avoidance	
Mitigation Measure 26: BUOW Passive Relocation and Mitigation	
Mitigation Measure 27: WPT Surveys	
Mitigation Measure 28: WPT Relocation	
Mitigation Measure 29: WESP Surveys	
Mitigation Measure 30: WESP Avoidance	
Mitigation Measure 31: Stream and Wetland Mapping	
Mitigation Measure 32: Stream and Wetland Habitat Mitigation	
During Construction	
Mitigation Measure 3: SJKF Take Authorization	
Mitigation Measure 5: Tree Removal and Replacement	
Mitigation Measure 6: Steelhead Salmon Habitat Mitigation	
Mitigation Measure 12: CTS Take Authorization	
Mitigation Measure 18: SWHA Take Authorization	

Mitigation Measure 19: Loss of SWHA Foraging Habitat	
Mitigation Measure 20: SWHA Nest Trees	