



CARLSBAD
FRESNO
IRVINE
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

September 26, 2018

Schani Siong
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County of San Luis Obispo
976 Osos Street, Room 300
San Luis Obispo, California 93408

Subject: The Cottages at Point San Luis Project – Response to Peer Review Letter

Dear Ms. Siong,

LSA is pleased to provide this letter response to Terra Verde Environmental Consulting's *Review of LSA Associates March 2018 Biological Resources Assessment for Master Development Plan Amendment Permit Application, Avila Beach, California* (Peer Review letter) dated July 19, 2018. This letter is intended to accompany the submittal of an Amended Biological Resources Assessment Report, dated September 2018, that addresses potential impacts to biological resources associated with updated site plans for the proposed project. Specifically, the revised report addresses (1) a proposed storm drain alignment and several contemplated pedestrian footpath alternatives located to the west of the proposed development boundary and (2) standard County Fire Department (CAL FIRE) fuel modification zones measured from the edge of all proposed occupied structures. These two project components fall partially within the "supplemental survey area," which was assessed in September 2018. In addition to analyzing the impacts to biological resources associated with these two new/potential project components, the revised report has been updated to address comments provided in the Peer Review letter. LSA carefully reviewed the Peer Review letter and recommendations. We sincerely appreciate the professional opinions that were provided in the Peer Review letter and have made several warranted edits to the revised report, including additional and revised avoidance and minimization measures. We believe that the comments provided in the Peer Review letter will contribute to the proposed project's quality and objectives. However, we would like to take this opportunity to respond directly to several points raised in the Peer Review letter on which we would like to provide clarification.

CALIFORNIA RED-LEGGED FROG

The Peer Review letter provides comments regarding the California Red-legged frog (CRLF) analysis. The comments pertaining to the CRLF begin as follows:

"LSA conducted a habitat assessment for this species but did not follow the U.S. Fish and Wildlife Service Site Assessment or survey guidance. They did so in order to determine if further study was needed, but that is typically done by conducting a Site Assessment and coordinating with the U.S. Fish and Wildlife Service to seek input on whether further surveys are appropriate (i.e., protocol-level day and night surveys). The approach taken by LSA is common but does not result in negative findings for California red-legged frog and does not provide enough information to determine if this species may actually be present. A new record of California red-legged frog has been recorded within the adjacent golf course ponds

within a half mile of the proposed project, as well as western pond turtle (Terra Verde 2018)."

Response

On the first page of the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (United States Fish and Wildlife Service [Service] 2005), it is stated that "for sites with no suitable aquatic breeding habitat, but where suitable upland dispersal habitat exists, it is difficult to support a negative finding with the results of any survey guidance. Therefore, this Guidance focuses on site assessments and surveys conducted in and around aquatic and riparian habitat." LSA acknowledges the referenced survey guidance and that negative survey findings would be inconclusive on a site that lacks suitable breeding habitat for California red-legged frog (CRLF; *Rana draytonii*). In other words, given that there is no suitable aquatic or riparian habitat on the project site in which CRLF would be expected to occupy with any regularity, conducting focused or protocol-level surveys for dispersing frogs that have a low potential to temporarily occur on the site in any given year would not provide enough evidence to completely rule out such an occurrence. Indeed, CRLF "may temporarily disappear from an area during periods of extended drought" or due to other factors (Service 2010). Furthermore, it is not required to conduct protocol-level surveys of any given site to determine whether a project has potential to result in the "take" of a federally-listed species, and it is not legal to conduct such surveys on privately-held lands where there is not permission to enter.

Terra Verde goes on to state that:

"LSA discounted the likelihood of California red-legged frogs occurring in San Luis Obispo Creek or the ponds within a one-mile radius of the proposed project based on the age of the record that occurs within 700 feet of the proposed project. The suitable habitat on either side of the proposed project and the ponds both northwest and northeast of the proposed project increases the likelihood that California red-legged frogs may disperse across the upland between these aquatic habitat locations. The LSA report notes that the hydrological regime of the upstream wastewater plant is unknown, thus, they were not able to definitively speak to the water flows and/or pooling in the creek adjacent to Wild Cherry Canyon. LSA did attempt to address the potential for this species to occur on the property on occasion, proposing one mitigation measure. The measure suggested using erosion and sediment controls as a barrier for frogs that may cross the site. Silt fence is not an effective barrier for California red-legged frogs, as they can jump and/or scale this material. LSA did not clarify the location of the intended barrier. LSA did not address the potential impacts to frogs during project operations."

Response

LSA based the analysis of potential project-related impacts on CRLF based on the best available information at the time the Biological Assessment was prepared and did not discount the likelihood of CRLF occurring in aquatic habitats outside of the defined survey area. LSA did discuss potentially suitable aquatic habitat within and outside of the defined survey area, noting that the "creek associated with Wild Cherry Canyon, just west Wild Cherry Canyon Road, is very shallow (less than 2 inches) and lacks pools (e.g., 10 to 20 inches in depth). Permanent water within the creek is not

expected, although flow may be regulated by the wastewater treatment facility that utilizes this area.” The only official database record of the species occurring within two miles of the project site is a California Natural Diversity Database record of one adult individual located at the Avila Beach Golf Course (dated 1998) and is given a “Fair” occurrence rank, noting that the quality/viability of the occurrence was threatened by golf course maintenance activities, development, and proximity to large populations of American bullfrog (*Lithobates catesbeianus*; a main predator of CRLF) (CNDDDB 2018). This record, combined with the analysis of aerial imagery and information collected in the field, informed the original conclusion that potentially suitable non-breeding aquatic habitat is located within the survey area (Wild Cherry Canyon), but not the approximate development envelope. Portions of the overall survey area are suitable to be temporarily used by dispersing adults. The species was not observed or otherwise detected during project-related surveys spanning over one year.

The Peer Review letter indicates that CRLF are still present within suitable habitat identified at the Avila Beach Golf Course, although there are no official records of these occurrences to date and no proper citations or supporting information were provided. The new anecdotal occurrence record does not change any conclusions regarding CRLF made in the original Biological Assessment Report; the likelihood of the species traversing the site is slightly greater, but there is still no suitable aquatic habitat located on the project site and the project area is not located directly between reported occupied habitats at the Avila Beach Golf Course and suitable aquatic habitat identified in Wild Cherry Canyon. The more direct, unobstructed potential migration corridor located to the north of the project area would remain unaffected.

LSA is intimately familiar with CRLF ecology and works with the species on a regular basis. 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 (Service 2017). CRLF enter a dormant state during summer or dry weather (estivate) in small mammal burrows and moist leaf litter. They have been found estivating up to 100 feet from water in adjacent dense riparian vegetation (Service 2017). No direct impacts to either of the habitats described above would occur under the proposed project.

CRLF will disperse from their breeding habitat to forage and seek suitable upland and riparian habitat if aquatic habitat is not available (Service 2010). In one study referenced by the Service in the *Final Rule for Designation of Critical Habitat for the California Red-Legged Frog*, the majority of CRLF dispersed less than 1,640 feet away from breeding habitat, and the maximum dispersal distance recorded was 1.7 miles (Fellers and Kleeman 2007, pp. 279–280). The study concluded that most CRLF move away from breeding sites, but only a few disperse farther than the nearest non-breeding habitat, and that the distance moved is highly dependent on site conditions and local landscapes (Fellers and Kleeman 2007, p. 284). Movements of greater than 98 feet occurred mostly during winter rain events (Fellers and Kleeman 2007, p. 279). Other studies also suggest that CRLF dispersal distances from suitable breeding habitat are greatest during or following rain events. Therefore, as stated in the original Biological Assessment Report, CRLF does have low potential to disperse across the upland habitats within the survey area. Dispersal is most likely to occur during or immediately

following a rain event, since the habitats on the project site remain too dry for CRLF for most of the year (and little suitable sheltering habitat such as small mammal burrows) is present on site. While natural and manmade impediments to such dispersion on the project site exist between the Avila Beach Golf Course ponds (northeast of the project site) and the creek associated with Wild Cherry Canyon, LSA recommended installing sedimentation barriers to prevent potential indirect effects to water quality. The barriers would have the added benefit of minimizing—not preventing—potential CRLF from entering work areas. Precise locations of such fencing will be determined closer to construction under the guidance of the project biologist in accordance with storm water pollution and prevention plan (SWPPP) requirements (and once final project component designs are finalized and approved by the involved parties).

LSA has updated portions of the Biological Assessment Report with a reference to the new occurrence record cited by Terra Verde and has included two additional measures that would further minimize the potential for project-related effects to CRLF, including: (1) conducting pre-construction environmental awareness training for all construction personnel that covers CRLF ecology, identification, and measures to be implemented during construction, and (2) conducting pre-construction surveys and monitoring of all construction work during or following rain events. With the implementation of these measures, project-related effects to CRLF would be avoided to the fullest practicable extent. Furthermore, the project would not prevent the movement of CRLF between the known occurrence locations and suitable habitats within the project vicinity. Given that existing roadways and development exists in closer proximity to the documented CRLF occurrence locations than the proposed project, no operational effects to CRLF are anticipated as a result of the proposed project. For all of the reasons provided above, the project is not likely to adversely affect the species or result in significant effects to any listed wildlife species. Protocol surveys or further habitat assessments are also not warranted given the documented site conditions and known CRLF ecology.

BOTANICAL RESOURCES AND VEGETATION MAPPING

The Peer Review letter provides comments regarding botanical resources and vegetation mapping. The Peer Review letter notes that Terra Verde staff conducted an updated botanical survey of the original 2015 survey area in May 2018 and includes a figure titled: *The Cottages Project - Avila Beach, CA 2018 Updated Botanical Survey Results* dated July 19, 2018. Based on the information provided, it appears that the May 2018 botanical survey was primarily focused on mapping needlegrass, as no other species or vegetation communities were mapped. The Peer Review letter makes the following statements:

1. *“It appears that grazing has ceased after the initial LSA surveys, thus, the vegetation composition has shifted.”*
2. *“Terra Verde surveyed the entire area surveyed by LSA in 2015, as well as an additional corridor on the slope west of Ana Bay Road (northeast corner of the overall survey area). The survey included an assessment of the type and quality of habitat present with an emphasis on identification of special-status species and sensitive habitat types that meet the definition of ESHA. The survey was timed to coincide with the typical blooming and/or fruiting period of regionally-occurring,*

special-status species, when plants are most readily identifiable. At the time of the survey, numerous common, annual-blooming species were readily identifiable at the site.”

3. *“In addition, a patchy distribution of needle grass (Stipa sp.) was observed and mapped throughout the grassland and coastal scrub communities within the survey area. Habitat patches of at least 0.25 acre supporting a minimum of 10 percent cover of needle grass are considered a Sensitive Natural Community by the California Department of Fish and Wildlife. However, these communities do not meet the definition of ESHA in the coastal zone. No areas of unmapped ESHA were observed. The recommendation is that LSA address impacts to purple needlegrass grassland and propose appropriate mitigation to offset proposed impacts.”*

Responses

1. Terra Verde states that *“it appears that grazing has ceased and that the vegetation composition has shifted.”* However, the Peer Review letter does not provide any site photographs, vegetation communities map, explanation of methods, or reasoning supporting this conclusion. The original Biological Assessment Report states that one wildlife/jurisdictional delineation verification survey was conducted on January 29, 2018. One day prior to this survey, a herd of cows was observed grazing on the project site. Furthermore, a thorough biological resources survey was conducted within the supplemental survey area on September 7, 2018. Multiple livestock trails, cow droppings, and other signs of ongoing livestock grazing were observed (i.e., broken tree and shrub branches, uniform/straight oak tree canopy bottoms [shaped by cows grazing/resting under the canopies], hoof prints, etc.). A herd of cattle was also observed on a nearby hillside. Horse and cattle grazing in the region typically utilizes a rotation method, where herds graze in certain pastures during certain times of the year. The vegetation communities have not changed since LSA mapped the site in 2015 and re-surveyed the site in September 2018. A total of 18 representative site photographs are included in Appendix A of the Biological Resources Assessment Report.
2. While Terra Verde states that numerous common, annual blooming species were identified, the Peer Review letter does not include a botanical species inventory, which is standard practice for a focused botanical survey. A description of methodology is also not included. In contrast, LSA conducted five botanical surveys throughout the 2015 growing season (and one survey in September 2018) to produce a comprehensive list of plant species occurring within the overall survey area, including early, mid-season, and late-blooming species. As noted in the Biological Assessment Report, LSA conducted the surveys consistent with protocols provided by the California Native Plant Society (CNPS 2001), California Department of Fish and Wildlife (CDFG 2009), and United States Fish and Wildlife Service (Service 1996).
3. Terra Verde states that a *“patchy distribution of needle grass was observed and mapped throughout the grassland and coastal sage scrub communities within the survey area.”* Note that the Peer Review letter does not explain what vegetation classification was used, does

not describe what methods were employed, nor does it provide representative site photographs. It is unclear whether such “patchy distributions of needle grass” are associated with the figure provided, as no reference is given. Nevertheless, the mapping conventions used during this exercise do not correspond with the vegetation classifications described in *A Manual of California Vegetation* (MCV) (Sawyer et al. 2009), and neither the figure nor Peer Review letter explain why needlegrass grassland was mapped in areas dominated by shrubs (defined to be mapped as shrubland/scrub types under the MCV rather than grassland). A complete vegetation communities map is also not provided in the Peer Review letter.

According to the MCV, the membership rules for purple needlegrass grassland require that *Stipa [Nassella] pulchra* is present in quantities greater than 10 percent relative cover in the herbaceous layer or greater than 5 percent absolute cover as a characteristic or dominant species in the herbaceous layer. Several other native perennial grasses and nonnative grass species are noted as characteristic species in this vegetation community. As noted in the original Biological Assessment Report, “...although purple needlegrass is found within the survey area, it represents less than 1 percent of the cover, therefore not occurring in high enough quantities (at least 10 percent cover) to warrant membership for valley needlegrass grassland.” Based on the results of the assessment of the supplemental survey area conducted in September 2018, the Amended Biological Resources Report has been updated to state: “...although purple needlegrass is found in several areas within the overall survey area, it represents between 1 and 5 percent relative ground cover, therefore not occurring in high enough quantities (at least 10 percent cover) to warrant membership for valley needlegrass grassland. Furthermore, these areas lack cover by other perennial native grasses included in the purple needlegrass grassland classification (MCV 2009).” Multiple representative photos of the annual brome grassland community within the overall survey area are provided in Appendix A of the Biological Resources Assessment Report. In addition, purple needlegrass is specifically included as a species to be included in the revegetation plans required under Mitigation Measure BIO-1.

OAK TREES

The Peer Review letter provides comments regarding oak trees and states the following:

“LSA appears to have measured oak trees six inches in diameter at breast height and above. The County and state guidance require oaks five inches and above be included in impact assessments. The report notes 17 trees may be impacted, but it appears that actual impacts (numbers, trimming versus removal) were not known at the time of the LSA report. The report recommends excluding heavy equipment from under the dripline of oaks but allows for an arborist to approve encroachment. Lastly, the report calls for blaze orange fencing as tree protection fencing.

The recommendations are that LSA include trees five inches in diameter, provide an impact assessment of trees impacted (including anticipated heavy equipment encroachment) or removed based on current project design, provide more detail on oak tree mitigation,

including any proposed locations for replanting on the project site, and provide for other tree protective fencing options, such as t-posts and highly visible yellow rope.”

Response:

LSA conducted an additional tree assessment survey within the supplemental survey area in September 2018. In addition to mapping all trees within this area, LSA confirmed that no trees less than 6 inches diameter at breast height (DBH) were omitted within the original survey area. Therefore, all trees at least 5 inches DBH were inventoried within the overall survey area.

As noted in the updated Tree Inventory Report, the precise designs of the proposed storm drain, utilities, pedestrian foot path located west of the building footprint, and fuel modification areas are subject to refinement, and the precise number of trees required to be trimmed or removed may change during final project design. Furthermore, it is difficult to definitively quantify all potential detrimental effects (based on draft project component designs) that often manifest over a period of many years following construction or development activities conducted near the root zones of individual trees. Sometimes the trees can adapt or recover, and other times they cannot. Therefore, while not identifying the extent of specific impacts to any particular tree, the Tree Inventory Report uses a conservative approach to identify the extent to which individual trees may need to be removed, trimmed, and/or protected based on assumed impacts to maintain fire apparatus clearance, road maintenance, and the construction limits of the proposed project.

As discussed in the recommended mitigation measures, prior to project development or issuance of a grading permit, a qualified arborist will review the trees that are within or immediately adjacent to the final project disturbance limits. An Oak Tree Impact and Mitigation Plan shall be prepared and implemented based on the arborist’s review to compensate for all project-related impacts to oak trees. Measures to be included in the Oak Tree Impact and Mitigation Plan are outlined in both the Tree Inventory Report and the Biological Assessment Report.

Due to the sensitivity of cultural sites documented within the survey areas, on-site oak tree planting areas are limited. All tree replacement will take place in accordance with current County policies, and off-site planting and/or preservation may be warranted. It should be noted that based on the current project design, direct removal of oak trees would be associated with individual trees rather than oak woodlands. All stands of mature oak woodland within the survey areas would be protected in place.

The recommended oak tree protective fencing measures states what materials “should” be used, based on extensive experience with oak tree protection in the region. Yellow rope is often not an ideal protective fencing material on a site with large topographic variation. Nevertheless, fencing activities will be overseen by a qualified arborist who will have discretion as to what materials are best suited to provide optimal protection.

WOODRAT

The Peer Review letter provides comments regarding woodrats and states that *“at least one woodrat midden was documented on site. The recommendation is that an avoidance measure be provided.”*

Response:

The Biological Assessment Report notes that “a woodrat midden belonging to *Neotoma macrotis* was observed in coast live oak woodland near the eastern portion of the survey area. It could not be determined whether the subspecies is *N.macrotis* ssp. *luciana* [CDFW species of special concern], known from the Coast Ranges to the north, or *N.macrotis* ssp. *macrotis* (a non-special-status species), known from areas to the south; both subspecies occur within San Luis Obispo County. Regardless, this midden is not anticipated to be affected by the project as it is located outside of the project area.” Therefore, no additional measures are warranted. It should also be noted that “species of special concern” is an administrative designation made by CDFW that carries no formal legal status.

NESTING BIRDS

The Peer Review letter provides comments regarding nesting birds and states the following:

“The LSA report provides a shortened window for nesting birds, ending August 15 rather than the California Department of Fish and Wildlife guidance of September 15. Additionally, they propose that regulatory agencies be contacted to determine appropriate buffers should nesting occur during construction. The recommendation is for the window to be expanded and to specify buffers to be followed, versus contacting agencies during construction.”

Response:

Mitigation Measure BIO-4 has been updated in the Amended Biological Assessment Report to extend the referenced nesting season to August 31. It should be noted that nesting after August is very rare in the region and there is no standard nesting season defined in any applicable regulation. Several bird species have potential to nest during almost any time of the year; this measure is intended to capture the period in which most birds nest. Given the habitat types present in the project area, the bird species known to occur in the project area are expected to be finished nesting by August. The Worker Environmental Awareness Training measure added under Measure BIO-5 in the Amended Biological Resources Assessment Report will ensure that construction personnel understand applicable regulations that protect nesting birds. Preconstruction surveys coupled with biological monitoring during vegetation removal and grading activities (Measure BIO-5) provide further practicable protections for birds that have potential to nest within the project area. Standard nesting buffers will not be added to the Mitigation Measure since every nesting situation is different and the appropriate nesting buffer is contingent upon a variety of factors (e.g., topography, precise nest location, type of work being conducted, etc.); the monitoring biologist will determine the appropriate buffer to avoid impacts to nesting birds during construction activities conducted inside of the nesting season.

The original measure did not propose that regulatory agencies be contacted during construction for any active nest(s) observed. Note that the original measure stated “as applicable,” given that several special-status species with specific legal protections have potential of occurring on site. This statement has been removed from Measure BIO-4 and Measure BIO-5 has been slightly revised to clarify this point: “If a federally- and/or state-listed or fully-protected species is observed on the project site, work activities with potential to directly or indirectly disturb the plant or animal shall

not occur until the appropriate regulatory agency (California Department of Fish and Wildlife and/or United States Fish and Wildlife Service) has authorized the work to proceed.”

CONCLUSION

LSA has provided the above responses to the Peer Review letter to clarify all determinations made in the Amended Biological Resources Assessment Report. If the County has any questions or would like to discuss this project in further detail, please contact Bo Gould at Bo.Gould@lsa.net or at (949) 553-0666.

Sincerely,

LSA

A handwritten signature in blue ink that reads "Bo Gould".

Bo Gould
Biologist

Attachment: References

REFERENCES

- California Native Plant Society (CNPS). 2001. *CNPS botanical survey guidelines*. CNPS, Sacramento, CA.
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- Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation, Second Edition*. CNPS, Sacramento, CA.