ADDENDUM TO BIOLOGICAL SCOPING SURVEY REPORT, BOTANICAL SURVEY AND WETLAND DELINEATION

FOR

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November 30, 2015

Purpose

This document serves as an addendum to the Biological Scoping Survey Report, Botanical Survey and Wetland Delineation published by Spade Natural Resources Consulting, dated April 21, 2015. Over the last several months the project has been refined as agencies including the California Coastal Commission, City of Fort Bragg, California Department of Fish and Wildlife, and the US Army Corps of Engineers have provided additional information and guidance. This document will address concerns expressed, changes in the project, and changes in interpretation of the rarity of a plant community, that have occurred since the April 21, 2015 report was published.

1. Coastal Blackberry Brambles

The April 2015 report describes a "roughly 2,000 square feet of area… dominated by native blackberry (*Rubus ursinus*), present along the west property boundaries, just outside of wetlands, adjacent to the Haul Road." This area was considered a potential ESHA for the purpose of the report due to its currently published state rarity ranking of "S3" and a 30ft buffer was recommended through reduced buffer analysis.

Spade Natural Resources Consulting's Environmental Scientist, Asa B. Spade, noted that *Rubus ursinus* coastal bramble seemed much more common than the S3 ranking describes. Mr. Spade initiated personal communication with CDFW Staff Environmental Scientist, Todd Keeler-Wolf, who agreed with Mr. Spade's observations saying in part:

> "Following our work in Sonoma County this past year we have found that the more we have looked, the more we see of that generic *Rubus ursinus* community, while we are still clear that the other 4 associations are less common. That means upon finalizing our descriptions for Sonoma county, we will "demote" the *R. ursinus* association rarity to a G4 rather than a G3 and rank only the *R. spectabilis*, *R. parviflorus*, or the more diverse associations with more than one *Rubus* species, (in addition to other species) as the rarer (S3) types of associations."

The *Rubus ursinus* patches present on the subject parcels do not contain *R. spectabilis* or *R. parviflorus,* nor are they highly diverse plant communities; rather, they are low diversity, low quality patches that have resulted from the lack of maintenance over the last decade. In addition, *Rubus ursinus* is a common plant throughout coastal California and for some distance inland. It can quickly become dominant in open areas when a disturbance regime, such as grazing or mowing, is removed. In our professional opinion the *Rubus ursinus* coastal brambles present should not be considered a rare plant community, and do not require any direct protection or buffers.

2. Development Within Buffers

The proposed development includes portions of trail (Figure 1) connecting the user serving facility buildings with the Haul Road, as well as stormwater swales, within protective wetland buffers recommended by SpadeNRC. In our professional opinion these proposed developments will not promote significant negative impacts to the adjacent wetlands, and in some ways will improve conditions and the protective nature of the buffer area. Included as an appendix to

this document is a new analysis of the proposed development utilizing the ESHA development criteria in the City of Fort Bragg Coastal Element, Policy 1.9, in consideration of the reduced buffer to less than 100 feet from wetlands, as well as Policy 1.10, Permitted Uses within ESHA Buffers.

Trails proposed within the wetland buffers total 261ft in length. They will be raised walkways, 5 feet in width constructed of weather resistant decking and will include wood curbs and pathway lighting. The proposed trails will benefit the adjacent wetland areas by directing foot traffic and providing a visual and physical boundary between landscaped areas that visitors can be expected to use, and the natural area and wetland habitat beyond. Without dedicated surfaced trails it is common for "volunteer" trails to form between locations. Volunteer trails often form in less than ideal locations and are hard to direct, maintain, and eliminate when necessary. Visitors can be expected to utilize a portion of the outdoor area adjacent to their accommodations. A trail for shared use of all visitors can act as a physical and visual boundary; the difference in landscaping on each side of the trail, along with interpretive signage, will signal to visitors that the area beyond the trail is natural habitat and not intended for visitor use. Constructing the trails too close to the buildings may defeat this physiological effect; increasing the overall footprint of visitor use.

Figure 1. Project footprint. The proposed development and undeveloped areas. Depicted in the upper (western) portion of the drawing are lines delineating the edge of the wetland, a 30-foot and 50-foot buffer. Portions of the trail are proposed within the 50-foot buffer adjacent to the higher quality wetland and within the 30-foot buffer of the lower quality wetland.

The locations of the proposed trails and stormwater swales are currently vegetated primarily by invasive non-native grass species. The vegetation currently present is not functionally related to the wetland habitat to be protected. Allowing installation of stormwater swales vegetated by carefully selected native species will increase the wetlands' functional capacity, their ability to be self-sustaining and to maintain natural species diversity. Stormwater swales adjacent to a wetland habitat can increase the functionality of the buffer area and the adjacent wetland habitat areas. The stormwater swales can be designed to provide nesting, feeding, breeding, resting and safety for species that spend at least part of their life cycle within the adjacent wetland habitat. The swales will also benefit the adjacent wetland by slowing runoff water which will carry less sediment into the wetlands and allow a greater amount of time for the water to infiltrate and merge with the shallow groundwater-table. The swales will contribute to the groundwater, and therefore the sustainability of the wetland, more than a flat topography because they will be able to retain a greater volume of water during higher flow rain events; a flat topography would result in more of the water leaving the site as surface flow.

Conclusion

Recommendations for the protection of *Rubus ursinus* coastal brambles have been removed; they are unlikely to be considered rare and sensitive and do not need protection. Trails and stormwater swales within the wetland buffer area are consistent with allowable development and will not increase the impact to the wetland habitat being protected by the buffer. Trails with signage will educate visitors on the value of the habitat present and provide visual and physical boundaries to visitor use. Stormwater swales will buffer the wetlands during high flow rain events and allow more water to infiltrate into the ground. The swales will provide habitat that is more functionally related to the invasive species currently present, providing areas more useful to species present in the wetlands.

Appendix A. Reduced Buffer Analysis.

Policy OS- 1.9 Utilize the following criteria to establish buffer areas:
a. Biological Significance of Adjacent Lands. *Lands adjacent to a wetland, stream, or riparian habitat area vary in the degree to which they are functionally related to these habitat areas. Functional relationships may exist if species associated with such areas spend a significant portion of their life cycle on adjacent lands. The degree of significance depends upon the habitat requirements of the species in the habitat area (e.g., nesting, feeding, breeding, or resting).* *Where a significant functional relationship exists, the land supporting this relationship shall also be considered to be part of the ESHA, and the buffer zone shall be measured from the edge of these lands and be sufficiently wide to protect these functional relationships. Where no significant functional relationships exist, the buffer shall be measured from the edge of the ESHA that is adjacent to the proposed development.* No functional relationships are noted. Lands adjacent to the wetlands are disturbed ruderal areas and non-native grasslands.
b. Sensitivity of Species to Disturbance. *The width of the buffer zone shall be based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Such a determination shall be based on the following after consultation with the Department of Fish and Game or others with similar expertise:* *(1b-i) Nesting, feeding, breeding, resting, or other habitat requirements of both resident and migratory fish and wildlife species;* *(1b-ii) An assessment of the short-term and long-term adaptability of various species to human disturbance;* *(1b-iii) An assessment of the impact and activity levels of the proposed development on the resource.* No sensitive plant or wildlife species were observed. Surveys for nesting birds and avoidance measures for special status frogs are recommended prior to development, as outlined in proposed mitigation measures, in order to avoid any impacts.
c. Erosion susceptibility. *The width of the buffer zone shall be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, erosion potential, and vegetative cover of the parcel proposed for development and adjacent lands. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.* The building envelope is relatively flat with low potential for detrimental impacts to sensitive areas from construction related erosion. Silt fencing is recommended as outlined in the proposed mitigation measures.
d. Use natural topography. *Where feasible, use hills and bluffs adjacent to Environmentally Sensitive Habitat Areas, to buffer these habitat areas. Where otherwise permitted, locate development on the sides of hills away from Environmentally Sensitive Habitat Areas. Include bluff faces in the buffer area.* There are no topographical features that would apply as a buffer to the wetlands/special status plant communities.
e. Use existing man-made features. *Where feasible, use man-made features such as roads and dikes to buffer environmentally sensitive habitat areas.* There are no existing cultural features to utilize in the proposed improvement area.

Policy OS- 1.9 Utilize the following criteria to establish buffer areas:
f. Lot Configuration and Location of Existing Development. *Where an existing subdivision or other development is largely built-out and the buildings are a uniform distance from a habitat area, at least that same distance shall be required as a buffer zone for any new development permitted. However, if that distance is less than one hundred (100) feet, additional mitigation measures (e.g., planting of native vegetation) shall be provided to ensure additional protection.* Buildings to the south are directly adjacent to the south wetland, and the lot to the north is developed with gravel storage/driveway areas to the edge of the northern wetland. The proposed buffers would ensure on-site structures would be located a greater distance from the wetlands then surrounding development to the north and south. Additionally, planting of native vegetation in the buffer is recommended to ensure additional protection.
g. Type and Scale of Development Proposed. *The type and scale of the proposed development will, to a large degree, determine the size of the buffer zone necessary to protect the ESHA. Such evaluations shall be made on a case-by-case basis depending upon the resources involved, the degree to which adjacent lands are already developed, and the type of development already existing in the area.* *Required buffer areas shall be measured from the following points as applicable:* • *The outer edge of the canopy of riparian vegetation for riparian ESHA, or from the top of stream bank where no riparian vegetation exists.* • *The upland edge of a wetland for a wetland ESHA.* • *The outer edge of the plants that comprise the rare plant community for rare plant community ESHA.* Proposed development is to consist of a 50,689 square foot, 66-room visitor serving facility with a conference center and 86 parking spaces. The adjacent property to the south is developed with a visitor serving facility and the property to the north is developed with an industrial gravel storage and processing plant. Taking into consideration the proposed and adjacent developments and recommended protective measures, a 30-foot buffer area is recommended to protect the south wetland and a 50-foot buffer is recommended to protect the north wetland and the plant communities therein. The buffer area is measured from the outer edge of the wetlands and special status plant communities.

Policy OS- 1.10 Permitted Uses within ESHA Buffers. Development within an Environmentally Sensitive Habitat Area buffer shall be limited to the following uses:
a. Wetland Buffer. *i. Uses allowed within the adjacent Wetland ESHA pursuant to Policy OS-1.3.* *ii. Nature trails and interpretive signage designed to provide information about the value and protection of the resources.* *iii. Invasive plant eradication projects if they are designed to protect and enhance habitat values.* i. No diking, dredging, or filling is proposed within the buffer area. ii. A total of 261 linear feet of 5-foot wide, raised weather resistant decking walkways are proposed within the wetland buffer areas. Trails proposed within the buffer area will connect the user serving facilities to the Haul Road which is a popular natural recreation destination and access to the beach in many locations. The trails are proposed to include interpretive signage designed to provide information about the value and protection of the adjacent wetland habitat. Dedicated trails will provide control of visitor foot traffic and prevent informal trails from forming in undesired locations. Trails will provide physical and visual boundaries between areas indented for visitor use and the natural areas on the opposite side. iii. The locations of the proposed trails and stormwater swales are currently vegetated primarily by invasive non-native grass species. The vegetation currently present is not functionally related to the wetland habitat to be protected. Allowing installation of stormwater swales vegetated by carefully selected native species will increase the wetlands' functional capacity, their ability to be self-sustaining and to maintain natural species diversity.
b. Riparian Buffer. *i. Uses allowed within the adjacent River and Stream ESHA pursuant to Policy OS-1.5.* *ii. Uses allowed within the adjacent ESHA pursuant to Policy OS-1.6.* *iii. Buried pipelines and utility lines.* *iv. Bridges.* *v. Drainage and flood control facilities.* No development is proposed within Riparian Buffer.
c. Other types of ESHA Buffer. *i. Uses allowed within the adjacent ESHA pursuant to Policy OS-1.6.* *ii. Buried pipelines and utility lines.* *iii. Bridges.* *iv. Drainage and flood control facilities.* No development is proposed within ESHA buffers other than the Wetland Buffers addressed above.