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To: Ishvi Aum

Date: June 03, 2024

Dear Mr. Aum:

I have been forwarded comments concerning your proposed project at 13501 Point Cabrillo Dr. (APN: 118-160-35) submitted by Gil Falcone, Sr. Environmental Scientist, with the North Coast Regional Water Quality Control Board. Mr. Falcone expresses concern that the wetland delineation was done in the winter when vegetation would have been less evident. While it is true that the protocol wetland delineation investigation was conducted, and wetland data sheets filled out, on December 17, 2022, this does not mean that this was the only day that vegetation was examined and factored into the overall results of the wetland delineation. Additional site surveys were conducted on September 13, 2022, April 15 & 16, June 20, and July 31, 2023, before the biological report containing the wetland delineation was completed. The soil pits were dug during the best time of the year to make hydrology observations. Changes in vegetation over the course of the season did not necessitate additional hydrophytic vegetation parameter observations.

Last week I returned to the site to make additional observations and observed that site conditions are consistent with those reported in the September 15, 2023, report. I've attached a few photos taken on May 31, 2024, in the vicinity of the wetland test pits that demonstrate the relatively clear difference in vegetation and topography used to make the wetland determination.

At the time the biological work was conducted the design and locations of proposed development had not been decided on. In April of 2024 you reached out to me to conduct a Reduced Buffer Analysis (RBA) for portions of the proposed project, including a solar electric array and a portion of the single-family residence that were proposed greater than 50ft but less than 100ft from less sensitive portions of the wetland presumed ESHA dominated by non-native invasive grasses and forbs. If a 100ft buffer is maintained to the higher quality ESHAs which include areas of wetland supporting deceiving sedge, intermittent stream, seasonal pond, and Coastal Act wetland that include areas vegetated with coastal tufted hairgrass meadow, and with coyote brush scrub with slough sedge understory, development closer than 100ft but further than 50ft from the Coastal Act wetland vegetated with non-native grassland should not result in a significant negative impact to sensitive natural resources on the site, or to adjacent sites. The Reduced Buffer Analysis is attached as Appendix A.

Sincerely,

Asa B. Spade

Figure 1. Looking southwest from the wetland sample points toward the area determined to be wetland.

Figure 2. Looking north across the western end of the wetland in the vicinity of the wetland sample points nearest the proposed development. A couple areas of bare soil and sparser vegetation can be seen near the middle of the photo behind the stake marking the test pit location, with longer grasses outside of the wetland further back.

Figure 3. Looking westward from the trio of wetland sample points toward the area where development is proposed. Vegetation west of this sample point is dominated by sweet vernal grass, a plant with a FACU wetland indicator.

Mendocino County Coastal Zoning Code, Table 4. Section 20.496.020 ESHA – Development Criteria	
(A)	***Buffer Areas.*** *A buffer area shall be established adjacent to all environmentally sensitive habitat areas. The purpose of this buffer area shall be to provide for a sufficient area to protect the environmentally sensitive habitat from degradation resulting from future developments and shall be compatible with the continuance of such habitat areas.*
	Special status plant communities and other resources observed on or near the property that are presumed Environmentally Sensitive Habitat Areas (ESHAs) include populations of **deceiving sedge**, an **intermittent stream**, a **seasonal pond**, and **Coastal Act wetland** that include areas vegetated with **coastal tufted hairgrass meadow, coyote brush scrub with slough sedge understory**, and areas dominated by non-native grasses. The proposed development has been designed to avoid all ESHAs by at least 100ft with the exception of the single-family residence (SFR) and a solar field each of which will be located closer than 100ft but further than 50ft from a portion of the Coastal Act wetland vegetated with non-native grassland and in which deceiving sedge is not present. The portion of the Coastal Act wetland nearest the SFR and solar field should be sufficiently buffered from potential impacts of development by a buffer width of 50ft.
(1)	***Width****.* *The width of the buffer area shall be a minimum of one hundred (100) feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred (100) feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas and shall not be less than fifty (50) feet in width. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent Environmentally Sensitive Habitat Area.*
	It is the professional opinion of biologist Asa Spade that a buffer width of 100ft is not necessary to protect the lower quality Coastal Act wetland vegetated with non-native grassland. A buffer width of 50ft is recommended for the portions of Coastal Act wetland dominated by non-native grassland and not supporting populations of deceiving sedge. Consultation with California Department of Fish and Wildlife should occur to obtain their opinion on the buffers recommended in this reduced buffer analysis. According to the Mendocino Local Coastal Plan, California Department of Fish and Wildlife and County Planning Staff opinions will be needed to determine the final appropriate buffer widths between ESHA and proposed development.
1(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 wetland, stream, or riparian habitat that is adjacent to the proposed development.*

Mendocino County Coastal Zoning Code, Table 4. Section 20.496.020 ESHA – Development Criteria	
	The areas of non-native grassland adjacent to the Coastal Act wetlands have no significant functional relationships to the wetlands and do not need to be considered part of the Coastal Act wetland ESHA. The 50ft recommended buffer should be measured from the edge of the Coastal Act wetland that is adjacent to the proposed development
1(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.*
	The recommended 50ft buffer applies only to those portions of the Coastal Act wetland dominated by non-native grassland species and which do not have deceiving sedge growing within them. **1b-i: Habitat requirements of resident and migratory fish and wildlife species:** The Coastal Act wetland does not support fish or fish habitat. Any potentially present special status amphibians may use the Coastal Act wetland for resting and travel though they are unlikely to be suitable for breeding. Potentially present special status birds may utilize the Coastal Act wetland areas of the property for some feeding requirements. Separate recommendations for seasonal avoidance for special status amphibians and nesting birds has been included in the main report and does not require additional ESHA buffer width. **1b-ii: Adaptability to human disturbance:** The project area is located in a rural residential area with a history of historic grazing and the portions of the parcel in question is currently in use as horse pasture and directly adjacent to California Highway 1. Wildlife found in this area should be reasonably adapted to human disturbance. **1b-iii: Impacts of proposed activity on the project area:** The proposed development consists of a single-family residence, and associated development. The development is expected to result in minimal removal of vegetation, and the use of the property is expected to be similar to existing neighboring uses. The proposed development within 100ft of the Coastal Act wetland is a SFR and solar field which should have minimal impact on the habitat more than 50ft from them.
1(c)	***Susceptibility of Parcel to Erosion.*** *The width of the buffer zone shall be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel and to what degree the development will change the potential for erosion. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.*

Mendocino County Coastal Zoning Code, Table 4. Section 20.496.020 ESHA – Development Criteria	
	The property slopes gently in a northwesterly direction, towards the ocean. Proposed impervious surface coverage is expected to be a minimal percentage of the total area of the property. Erosion has the potential to occur during construction of the proposed development. The Coastal Act wetland within 100ft of the proposed SFR and solar field is upslope of the proposed development, therefore sediment from the construction would move away from, rather than toward this portion of the wetland.
1(d)	***Use of Natural Topographic Features to Locate Development.*** *Hills and bluffs adjacent to ESHA's shall be used, where feasible, to buffer habitat areas. Where otherwise permitted, development should be located on the sides of hills away from ESHA's. Similarly, bluff faces should not be developed, but shall be included in the buffer zone.*
	There are no natural topographic features present to use for buffering purposes. The slopes present are of relatively low gradient. The proposed SFR and solar field are downslope of the nearest portion of Coastal Act wetland.
1(e)	***Use of Existing Cultural Features to Locate Buffer Zones.*** *Cultural features (e.g., roads and dikes) shall be used, where feasible, to buffer habitat areas. Where feasible, development shall be located on the side of roads, dikes, irrigation canals, flood control channels, etc., away from the ESHA.*
	There are no cultural features on the property to use as a buffer.
1(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. Where development is proposed in an area that is largely undeveloped, the widest and most protective buffer zone feasible shall be required.*
	Similar development and land uses occur on the parcels around the subject parcel. The development proposed is able to avoid all presumed ESHAs by at least 100ft except for the SFR and solar field which are proposed closer than 100ft but further than 50ft from a portion of Coastal Act wetland vegetated with non-native grassland. A buffer width of greater than 50ft, or planting of additional vegetation, is not necessary to protect the habitat present. Best management practices should be utilized, and impact avoidance measures presented in the main report should be implemented. This should be sufficient to protect resources while allowing the portion of the proposed development that is greater than 50ft but closer than 100ft to the Coastal Act wetland.
1(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.*

Mendocino County Coastal Zoning Code, Table 4. Section 20.496.020 ESHA – Development Criteria	
	The type and scale of the proposed development is reasonable, appropriate, and consistent with the use of similarly sized and zoned parcels in the area. A buffer width of 50ft from the portion of the Coastal Act wetland adjacent to the proposed SFR and solar field should be sufficient to buffer this natural resource from the potential impact posed by these uses.
(2)	***Configuration.*** *The buffer area shall be measured from the nearest outside edge of the ESHA (e.g., for a wetland from the landward edge of the wetland; for a stream from the landward edge of riparian vegetation or the top of the bluff).*
	The buffer area is measured from the landward edge of the Coastal Act wetland.
(3)	***Land Division.*** *New subdivisions or boundary line adjustments shall not be allowed which will create or provide for new parcels entirely within a buffer area.*
	No new subdivisions or boundary line adjustments are included in this proposal.
(4)	***Permitted Development.*** *Development permitted within the buffer area shall comply at a minimum with the following standards:*
	No development is proposed within the recommended 50ft buffer.

Contributing Biologists

Asa B Spade graduated from Humboldt State University with a Bachelor of Science majoring in Environmental Science, with a concentration in Landscape Ecosystems as well as a minor in Botany. Since that time, he has been working in the natural resources field, first with Mendocino County Environmental Health and later with California State Parks and the Department of Fish and Game. He has been trained in Army Corps wetland delineation by the Coastal Training Program at Elkhorn Slough and in Advanced Wetland Delineation by the Wetland Science and Coastal Training Program. He has been trained in the environmental compliance process for wetland projects in San Francisco bay and outer coastal areas. In 2011 Asa completed training to survey for California red-legged frog held by Elkhorn Slough Coastal Program. In 2015 he attended a Townsend's big eared bat basal hollow habitat assessment and survey methods workshop taught by Michael Baker, Leila Harris, and Adam Hutchins. Asa has trained with the Carex Working Group in identifying grasses and sedges of Northern California as well as a CNPS sedge workshop taught by CA Fish and Wildlife staff biologist Gordon Leppig. In 2019, he completed a training for burrowing owls taught by Dr. Lynne Trulio through the Elkhorn Slough Coastal Training Program and completed foothill yellow legged frog training taught by David Cook and Jeff Alvarez. Asa conducted field work for the Classification and Mapping of Mendocino Cypress Woodland and Related Vegetation using CNPS/CDFW Rapid Assessment/Relevé protocol. In 2021 Asa completed training by Jeff Alverez and Jeff Wilcox on the eradication of bullfrogs within the range of California red-legged and foothill yellow legged frog. He is on the Fish and Wildlife Service approved list for Point Arena mountain beaver surveys and has done surveys for Behren's silverspot butterfly, Northern spotted owl, Sonoma tree vole, foothill yellow-legged frog and the California red-legged frog. He has contributed natural resources expertise to more than 250 coastal development projects in Mendocino County.