

APPENDIX B

RECOMMENDED PROTOCOL FOR WETLAND DELINEATIONS AND BIOTIC RESOURCE REPORTS

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B.1 WETLAND DELINEATIONS

A wetland delineation should be conducted as per ACOE criteria and in the Coastal Zone per Coastal Commission criteria. The delineation should include the following sections:

A. Introduction

1. *Provide a brief introduction of the project, including regional location. Identify report preparers.*
2. *Purpose of Report*
 - Explain the purpose of the report in delineating Waters of the US and Coastal Review wetlands. Briefly summarize the basis of the determination of wetlands and other waters of the US in the context of the project site. Identify what project actions will occur within Waters of the US and Coastal Review wetlands. Identify what areas are subject to Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act or the Coastal Act.
3. *Summary of Project*
 - Describe the features of the project, focusing on activities which will occur within Waters of the US and Coastal Review wetlands. Summarize both permanent and temporary impacts to wetlands and other waters, identifying the acreage of each impact type. Summarize any construction activities that will be used to avoid and/or minimize impacts to wetlands.

B. Background

1. *Project Site Description*
 - Identify the location of the project in a regional and local setting. Identify the size of the project site, property owner and other salient environmental features. Include two figures: Regional Location Map and Project Area Map. The project area map should utilize a USGS topo base.
2. *Criteria for Waters of the US, Including Wetlands Under Section 404 of the Clean Water Act*
 - Describe the regulatory framework for activities within Waters of the US pursuant to Section 10 of the Rivers and Harbors Act, Section 404 of the Clean Water Act and Coastal Review wetlands. Describe the three-parameter approach to delineating wetlands and the criteria for hydrophytic vegetation, hydric soils and wetland hydrology. Describe the one-parameter approach for coastal review wetlands, if applicable. Include table depicting the Key to Wetland Plant Indicator Status.

C. Methodology

1. *Review of Historic Maps and Previous Reports*
 - Present the references used for the delineation, including topographic maps, soil survey data, hydric soils lists, national wetlands inventory and/or previous delineations.

2. *Review of Aerial Photographs*
 - Identify photographs reviewed and used in the delineation; include scale, date and photo source.
3. *Field Survey*
 - Describe the field survey methodology utilized, such as the Protocol of Routine Determinations in the 1987 ACOE Manual. Identify dates of fieldwork, methods for data collection and measurements. Describe how vegetation, soils and hydrology data were collected.

D. Results

1. *Hydrology*
 - Describe the hydrology features of the project area, including observations of positive hydrology. Identify primary and secondary indicators. Identify transect and/or sample data and hydrologic observations.
2. *Soils*
 - Describe the soil features of the site, including soil data from sample pits and Munsell notations at selected sample sites. Identify primary and secondary indicators. Describe mapped soil type and whether site observations confirm the mapped type.
3. *Vegetation*
 - Describe the vegetative features of the site and at sample locations. Identify the dominant and subdominant plant species and their wetland plant indicator status.
4. *Aerial Photograph Review*
 - Describe the results of the aerial photograph review, identifying such features as seasonal ponding, drainage features and other features indicative of wetlands/waters.

E. Conclusions

1. *Areas Potentially Under the Jurisdiction of Section 404 of the Clean Water Act*
 - Describe the areas of the project site that meet the criteria of jurisdiction, based on the results of the described in Chapter 4. Identify areas in both graphic and table format.
2. *Waters of the US – Wetlands*
 - Describe the areas determined to meet the criteria of wetlands. Depict these areas on a graphic (full size map and reduced). Depict the acreage of these areas on a table. Describe the features used as the basis for the determination.
3. *Coastal Review Wetlands*
 - a. Describe the areas determined to meet the criteria of wetlands. Depict these areas on a graphic (full size map and reduced). Depict the acreage of these areas on a table. Describe the features used as the basis for the determination.
4. *Waters of the US – Other Waters*
 - a. Describe the areas determined to meet the criteria of “other waters”. Depict these areas on a graphic (full size map and reduced). Depict the acreage of these areas on a table. Describe the features used as the basis for the determination.

5. *Areas Not Under Jurisdiction of Section 404 of the Clean Water Act*

- a. Describe the areas determined to not meet the criteria of “Waters of the US”, based on the results described in Chapter 4. Describe the features used as the basis for the determination.

F. References

1. *Present references and literature cited.*

G. Appendices

1. *Insert copies of Wetland Delineation Data Forms*

B.2 BIOTIC RESOURCES REPORT

A biotic resources report shall be completed by qualified biologists and include the information described below.

A. List of Special-Status Species Potentially Occurring on Site.

Biologist must consult the following databases: California Natural Diversity Data Base (most current), U.S. Fish and Wildlife (USFWS) species list, and species lists contained in the City of Santa Cruz’s *City-wide Creeks and Wetlands Management Plan*. In addition to the species name and status, the list must include a basic description of suitable habitat for each species and likelihood of occurrence on site.

B. An Existing Conditions Site Map at 1 inch = XX feet. This map must include the following information:

1. Lines delineating the “*management area*”, the “*development setback area*” and the “*riparian corridor*” as designated in the City of Santa Cruz’s *Creeks and Wetlands Management Plan*.
2. Identification and location of all woody overstory/canopy species. For each species biologist will identify the specimen to species, indicate whether the species is native or non-native, and measure the tree’s dbh (diameter breast height).
3. Polygons identifying known occurrences of special-status species, habitat that could be considered suitable¹ for special-status species known to occur within the watershed or an adjacent watershed of the project site, or sensitive biotic communities as defined by the California Department of Fish and Game².
4. Footprint of all existing infrastructure within 50 feet of the *management area* including paved surfaces, culverts, garages, residences, etc.

¹ For the purpose of this process, suitable habitat will be defined as habitat that exhibits the characteristics necessary to support a given species.

² CDFG considers a number of habitat types sensitive including various types of riparian woodlands, tidal marshes, and freshwater marshes (CDFG 1997).

C. **Assessment of Biotic Resources within the Management Area.** This assessment should include the following information:

1. Photo documentation of the character of the “*management area*”.
 - a. Photos should document the composition and complexity of the habitats present on-site (i.e. document areas of lawn vs. areas of dense riparian understory).
 - b. Photos should document the character of the stream channel adjacent to the property in question.
 - c. Photos should document any habitat that is considered suitable for a special-status species or areas of known occurrence.
 - d. Photos should document the condition of the “*management area*” upstream and downstream of the project site/parcel in question.
2. Acreage calculations for suitable habitat polygons, known habitat polygons and any sensitive biotic communities.
3. Narrative description of habitat types present within the “*management area*”, “*development setback*” and “*riparian corridor*”.
 - a. This description should use a standard vegetation classification³, if applicable, to describe vegetation types.
 - i. Specific emphasis should be placed on describing whether the habitats located in the “*management area*”, “*development setback*” and “*riparian corridor*” are considered suitable for species listed on the special-status species list (described in Section A).
 - ii. Emphasis should also be placed on sensitive biotic communities.
 - b. If applicable, please provide a general description of site hydrology (i.e. does the site appear to flood regularly, are there culverts, drains, or other features with outlets within the “*management area*”, etc).
4. Narrative description of known or potential special-status species likely to occur⁴ on site. This description should include the following information:
 - a. General description of the species life history and habitat needs.
 - b. Season/time of year of specific sensitivity (i.e. breeding), if applicable.
 - c. State or federal guidelines for buffer, if applicable.
 - d. Existing survey protocols, if applicable.

D. **Project Impact Analysis**

1. Overlay project footprint on existing conditions map (described in Section B).
2. Indicates areas of **permanent impact** (i.e. footprint of structure/infrastructure) and areas of **temporary impact** (i.e. construction/staging areas) on map.
3. If applicable, describe the nature of potential direct and indirect impacts to all habitats (including sensitive biotic communities) and special-status species and species habitats within the “*management area*”, “*development setback area*” and “*riparian corridor*”.

³ Sawyer-Keller Wolfe (1995) or Holland (1986)

⁴ Species should be deemed likely to occur if suitable habitat is available and the species is known to exist within the watershed or an adjacent watershed.

4. If applicable, describe alternatives to the proposed project that would reduce impacts to biota and aquatic resources (i.e. alternative siting or design). Applicants will be expected to develop alternatives that reduce impacts first, to the “*riparian corridor*” and then to the “*development setback*”.

E. Impact Reduction Plan, if applicable.

1. Develop a comprehensive plan to address any potential direct or indirect impacts to biotic resources within the whole of the “*management area*”.
 - a. Plan should first focus on avoidance, then minimization, and finally, as a last resort, mitigation.
 - b. Revegetation Plan should be developed as per requirements in Appendix C of the *City-wide Creeks and Wetlands Management Plan* and submitted as an appendix to this report.
 - c. Plan should be based on applicable CDFG, USFWS, and/or NOAA Fisheries procedures, if applicable.
 - d. Plan should clearly outline protocols for pre-construction surveys and construction monitoring for any potential special-status species.
 - e. Plan should clearly spell out conditions and restriction already placed on applicant by other agencies with jurisdiction (i.e. CDFG, RWQCB, ACOE, USFWS, NOAA Fisheries, etc) and list all related permits and status of permits.