

Suggestions for Preparing a Wetland Delineation Report
for the California Coastal Commission
(Vanessa Metz & John Dixon, 10-16-06, revised Sep 2011)

Ideally, wetland delineations should be conducted before the project is designed. The report should be sufficiently detailed to enable an independent investigator to replicate the results. Reports should include the following components:

NARRATIVE

- Introduction
 - Purpose of delineation.
 - Personnel conducting delineation - training, and experience. Someone on the delineation team must have botanical taxonomic expertise (“unknown grass” is not useful).
 - Dates field work conducted

- Site Description:
 - Location.
 - Size - acreage and dimensions.
 - General site description-- including topography, geology, soils, hydrology, and vegetation communities.
 - Hydrology of the site (how water gets on and off the site), including significant features such as waterbodies, culverts, swales, ditches, etc. Also describe significant hydrological features on property adjacent to the project site.

- Sampling Methods:
 - Wetland delineation methodology used (routine, comprehensive, etc.). Regional supplement used.
 - Identify any “atypical situations,” where one or more parameters (vegetation, soil or hydrology) have been sufficiently altered by recent human activity or natural events to remove wetland indicators of a parameter (e.g., an area scraped of vegetation). Do not speculate as to whether the offending human activity is legal or treat the situation as “new normal.” For purposes of field delineation, treat the area as an atypical situation. Legal considerations for jurisdictional purposes can be presented in the delineation report.
 - When feasible for difficult sites, after the first several rains of the season, visit the site shortly after significant rainfall and map all inundated areas. Return and remap inundated areas after 7 and 14 days. On each occasion, assess shallow soil saturation in potential wetlands.
 - Rationale for the sampling method used.
 - Visually estimate the cover of all species within the sample plots (use plot dimensions recommended in the 1987 Corps Manual or give rationale for differences). Determine dominance using the 50/20 rule and determine prevalence using the dominance ratio.
 - Identify all plants to species. If an individual is only identified to genus, assign it the wettest classification of representatives of the genus that appear in the regional list of plants that occur in wetlands.
 - Within each significant wetland area establish at least one set of paired sample points across the wetland boundary.

- For each wetland area, describe the surface feature used to map the wetland boundary.
 - Provide the rationale for changes to standard methods.
 - Number of sampling sites (and transects, if applicable) used.
 - Supporting materials used-- plant lists, soil surveys, etc.
 - Wetland regulatory definition used should be the Coastal Commission “one-parameter” wetland definition found in Section 13577 of the Commission’s Regulations.
 - Even if the project is only partly in the Coastal Zone, delineate wetlands throughout the entire project area to Coastal Commission standards.
 - Where the project can impact off-site hydrology in the Coastal Zone, delineate wetlands adjacent to the project site.
- Results and Conclusions
 - Summarize results of vegetation, soil, and hydrology sampling.
 - Describe the characteristics, location, and size (acreage and dimensions) of each wetland area.
 - Give size of each wetland separately, as well as the total.

MAPS

All map layers should be available in shape files that are compatible with ArcView and provided to the CCC mapping unit upon request.

- Indicate on all maps:
 - Legend.
 - North arrow & scale, including a 100-foot mark.
 - Date & author.
 - Hydrologic features-- waterbodies, culverts, swales, ditches, etc.
 - Landmarks-- structures, roads, etc.
 - Applicable boundaries-- property, project, plant communities, etc.
- Site Map(s)
 - Topographic map (or maps) of the project site, preferably at a 1:24,000 scale, showing 5- to 10-foot contours.
 - Indicate property and project area boundaries.
 - Indicate plant community boundaries, if appropriate at this scale.
- Wetland Map
 - An appropriately large-scale map (or maps) of the project site showing delineated wetland areas and any areas with a preponderance of wetland indicator species (whether or not delineated), with enough detail to identify hydrological and landscape features. Depending on the size of the wetland features, maps should be at a scale of 1 inch equals 200 feet or larger.
 - Although large maps in pockets that are bound into the report are acceptable and often very useful, smaller maps (up to 11” x 17”) should be included in the appropriate places within the report. This may require multiple maps to cover the same area in the larger maps and still remain legible.

- An ortho-rectified aerial photo is an appropriate base map. An overlay showing elevation contours is useful.
- Indicate sampling locations, photo locations (with direction arrow), transect lines, and wetland boundaries.
- Sampling sites and photo locations must be individually identified (i.e., numbered or named) so that they can be cross-referenced to the wetland data sheets and photo descriptions.
- Vegetation communities. These should be mapped, and any area with a preponderance of wetland indicator species should be delineated with a polygon.
- Wetland or vegetation boundaries that are straight lines should be explained. Such features suggest arbitrary anthropogenic limits.

SITE PHOTOS

- Ground-level photos documenting surface features (e.g. plant community changes) used to map the wetland boundaries.
- Ground-level photos of each wetland.
- Ground-level photos of vegetation types.
- Aerial photos of project site, if available, with important features identified (wetlands, waterbodies, project boundaries, etc). Oblique aerial photos are especially helpful in providing orientation.
- Photo log including date, location, and photographer.

FIELD DATA FORMS

- Completed wetland delineation data sheets showing the data collected for hydrology, soils, and vegetation for each sampling site.
- Data sheets must be legible and completely filled out.
- Photocopies of the original, hand-written data sheets that were filled out in the field should be appended to the report. Data sheets should be checked for accuracy and completeness in the field. There should be no changes or additions to data sheets after the delineator has left the field. After leaving the field, any corrections or explanations should be in the delineation report - not on the data sheets.
- If abbreviations are used, supply a key to the abbreviations.

CITATIONS AND APPENDICES

As applicable. Cited documents should be available and copies sent to CCC staff upon request.

IMPACT ANALYSIS

An impact analysis is a necessary part of all project proposals. In general, such an analysis should be separate from the wetland delineation. It should include the following features:

- Impact Calculations
 - Permanent impacts and temporary impacts should be identified separately.

- Long-term “temporary impacts” that result in the removal or death of vegetation should be distinguished from short-term “temporary impacts” that are sufficiently brief or benign that the vegetation can reasonably be expected to recover in less than one year.
 - Impacts should be calculated for each wetland polygon by wetland type.
 - The area of wetlands and of wetland impacts in the various applicable categories should be presented in a table.
- Project Overlay
 - The footprint of the proposed project and alternatives should be overlaid on separate maps of the delineated wetlands. The footprint of both permanent and temporary impacts should be shown and distinguished. Short-term and long-term “temporary” impacts should be distinguished.
 - Areas of impact in the various categories should be identified (e.g. with hachuring).
 - Maps should be of sufficiently large scale that they are easily read.