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of Engineers®**

SPECIAL PUBLIC NOTICE

Final Map and Drawing Standards for the South Pacific Division Regulatory Program

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Introduction: This notice establishes final standards and guidelines for maps and drawings submitted as part of delineations and applications for U.S. Army permits and jurisdictional determinations. The intent of these standards is to improve the quality and consistency of maps and drawings and simplify and improve review and processing by Corps Regulatory project managers. We estimate that at least 70-80% of maps and drawings submitted to the Corps Regulatory Program in South Pacific Division (comprised of Albuquerque, San Francisco, Sacramento, and Los Angeles districts) already meet the majority of these standards. By adhering to a single standard for maps and drawings, applicants and consultants should have a clear and concise product, and project managers should be able to provide permit decisions and jurisdictional determinations in a more consistent and timely manner. In addition, electronic mapping of permit-related maps and drawings will enable data sharing with other resource agencies for coordination of mitigation decision-making.

Applicability: These standards apply to all submittals to Regulatory Divisions, within the Districts of the Corps' South Pacific Division, and supersede all previous SPD district-specific standards related to map and drawing requirements. At the Corps' discretion, these standards may be modified or waived on a case by case basis, for example, projects or activities with small or temporary impacts to waters of the U.S. (for example, less than a tenth of an acre of permanent impact), projects where the applicant possesses limited financial resources (for example, private homeowners and small land owners), emergencies, and restoration projects with limited grant funding. Additional examples where these standards may be modified or waived include reauthorization of previously-authorized work and maintenance, repair, and/or rehabilitation projects where the original authorization included adequate drawings that are available. In general, compensatory mitigation plans must adhere to these standards, regardless of whether the standards are waived for the overall project.

Standards:

1) General:

- a. Documents must include at a minimum: location (vicinity) map(s) and plan view map(s). Mitigation plans and construction drawings should also include representative cross-sectional views. Delineation maps must be provided for the project area, staging areas, disposal sites, access routes, and proposed mitigation sites, etc.
- b. The orientation of the map on the page (as it is read) must be the same for all maps submitted.
- c. By convention, North will normally be toward the top of the page.

- d. For plan view maps where specific elevations are shown, and for all cross sections, the reference elevation datum (e.g. North American Vertical Datum of 1988, National Geodetic Vertical Datum of 1929, etc.) must be indicated.
- e. Procedure: the Corps will review submitted maps and drawings for conformance with these standards. Documents not meeting the standards may be returned for revision.
- f. Base maps:
 - a. If aerial photographs are used, these must be orthorectified, date-stamped, and with the imagery source identified on the map.
 - b. Date of imagery must be chosen such that aquatic resources have maximum visibility (e.g., during wet season).
 - c. At least one map showing topography must be included.
- g. Format:
 - a. Both paper and electronic versions of documents are required; however, submittal of electronic documents may be waived on a project-specific basis for applicants without access to the appropriate software. For electronic documents, Adobe PDF format is preferred.
 - b. Size: If larger than 11 x 17 inches, documents must be folded to fit within a 8.5 x 11 inch binder.
 - c. GIS: All GIS data and associated metadata shall be provided on a digital medium (for example, CD or DVD), preferably using the Environmental Systems Research Institute (ESRI) shapefile format. Other data types may be accepted at the Corps project manager's discretion.
- h. Plan view :
 - a. At least two control points on opposite corners with latitude and longitude clearly annotated.
 - b. North arrow.
 - c. Bar scale and text scale (e.g., "1 inch = 100 ft").
 - d. Legend for any relevant items shown (e.g., wetlands and/or other water types), including the area (acres or square feet) in parenthesis for all relevant items shown on the map (e.g. project boundary, project construction footprint, waters of the U.S., impacts to waters of the U.S., etc.). Such items must be clearly identified in the legend. Annotate clearly showing the location of cross-sectional views (e.g., "A-A' ")
 - e. Date prepared/revised.
 - f. Name and organization of map preparer.
 - g. Appropriate landmarks (on-site and nearby roads, prominent structures and/or topographic features, etc.).
- i. Cross-sectional view:
 - a. Must include a bar scale and text scale (e.g., "1 inch = 100 ft") for horizontal and vertical dimensions.
 - b. If there are tidal areas within the survey area, identify the location and elevation of Mean High Water and the High Tide Line on all maps and cross-section drawings when appropriate.

2) Location (vicinity) map(s):

- a. One or more vicinity maps must be submitted, at least one of which must use a USGS 7.5- minute quadrangle sheet as its basemap (if no USGS quadrangle is available, another accurate local map may be used as a basemap) with the project study boundary clearly outlined and the quadrangle name included on the map.
- b. Does not need to be to-scale, but must include commonly recognizable landmark(s).
- c. Must include north arrow.
- d. Project location must be clearly marked and annotated.
- e. Must include adjacent local roadways.

3) Proposed projects:

- a. Show all proposed fills, structures, and /or limits of work within and adjacent to potential waters of the U.S., including wetlands.

- b. Clearly annotate all fills, structures, and /or limits of work as either permanent or temporary.
- c. Pre-construction drawings (grading plans) and post-construction drawings (as-built plans) must include name, company/agency, and signature of preparer, date signed, drawing title, and total number of sheets.
- d. Both plan view and cross-sectional view maps must be provided.

4) Post-construction drawings (as-built plans):

- a. Both plan view and cross-sectional view maps must be provided.
- b. Must be the same size and alignment (spatial) as authorized grading plans (i.e., grading plans and as-built plans must overlay such that structures, boundaries, etc. align).
- c. Show any deviations from the fills and/or structures authorized as part of an approved pre-construction drawing in red.

5) Delineations of waters of the U.S.:

- a. Plan view maps must be provided.
- b. Cross-sectional view drawings must be provided at the Corps project manager's discretion. Examples of when cross-sectional view drawings would be appropriate include stream or wetland restorations, stream crossings, proposed structures, and delineations of tidal areas.
- c. Clearly show location and extent of all areas potentially meeting the criteria for waters of the U.S., including special aquatic sites (e.g., wetlands, sanctuaries and refuges, mudflats, vegetated shallows, and riffle and pool complexes), and/or navigable waters. Each type of boundary (for example, ordinary high water mark, mean high water, wetlands or other special aquatic sites, and high tide line) must be clearly annotated and/or symbolized to ensure they are differentiable on the map..
- d. The survey area boundary must be clearly annotated and/or symbolized and must include all potential waters of the U.S. The survey area boundary encloses the spatial area for which a Corps jurisdictional determination is being requested. Show locations of any wetland delineation or ordinary high water mark data points, labeled according to the number of the corresponding wetland delineation form or ordinary high water mark data sheet. Generally, a wetland boundary must be based on sets of at least two wetland delineation data points, one within the proposed wetland boundary and one outside it.
- e. Include representative ordinary high water mark (OHWM) widths where measured in the field (averages may be acceptable for uniform channel reaches). OHWM widths must be shown with a transect/profile line (e.g., A-A') labeled with the corresponding width measurement in feet. In some cases, a corresponding cross section may be required, in which case the cross section must include the corresponding OHWM elevations.
- f. Include information not directly related to a delineation of waters of the U.S. on a separate map(s).
- g. If there are tidal areas within the survey area, identify the location and elevation of Mean High Water and the High Tide Line on all maps and cross-section drawings.
- h. Each line or polygon representing a water of the U.S. must be labeled with a unique name (for example, WL1, WL2, VP1, VP2, STR1, STR2, etc.). The delineation report must be accompanied by the attached Aquatic Resources.xlsx table (Excel file format).
- i. If impact areas within waters of the U.S. are shown, those must also be labeled with a unique name (for example,). In this case, the delineation report must also be accompanied by the attached Impacts.xlsx table (Excel file format).
- j. If submitted, delineation-related GIS data must use the unique names as described above and conform to the Aquatic Resources.xlsx and Impacts.xlsx data tables and must include a text file of metadata, including datum, projection, and mapper contact information.

6) Mitigation plans and long-term preservation (LTP) maps (see attached example map):

- a. Both plan view and cross-sectional view maps must be provided.
- b. Mitigation boundaries must be clearly differentiable based on mitigation type: establishment, re-establishment, rehabilitation, enhancement, and preservation only. Establishment boundaries must use a dotted line. Re-establishment boundaries must use a dashed line. Rehabilitation boundaries must use an alternating dash-dot-dash line. Enhancement areas must use a hatched line. LTP boundaries

(preservation) must use a single, bolded line. For a definition of mitigation terms, see 2008 Mitigation Rule (33 CFR Part 332).

- c. All mitigation sites and LTP boundaries must be clearly labeled (e.g., site A, B, and C).
- d. Locations of mitigation sites must be shown relative to other landscape features and habitat types (e.g., riparian corridor, wetland complex, etc.).
- e. Each line or polygon representing a mitigation site must be labeled with a unique name (for example, MIT1, MIT2, etc.). The delineation report must be accompanied by the attached Mitigation.xlsx table (Excel file format).
- f. If submitted, mitigation-related GIS data must use the unique names as described above and conform to the Mitigation_SPD.xlsx data table and must include a text file of metadata, including datum, projection, and mapper contact information..

7) Mitigation monitoring report maps:

- a. Any ground photographs included in a mitigation monitoring report must be accompanied by a map of photo-points. Each photopoint must be annotated by number and the compass direction in which the photograph was taken (e.g., a dot with an arrow). Each photograph must include a legend with its number, as labeled on the map, as well as its geographic coordinates (latitude, longitude), the compass direction in which the photograph was taken (e.g., N, NW, etc.), and a brief explanation of the photograph's relevance.
- b. Each discrete mitigation site (i.e., polygon) must be shown on a map, annotated or symbolized to indicate the target habitat type and the mitigation type.
- c. Any sampling presented in the monitoring report must be shown on a map, including locations and extent of sampling points, transects, quadrats, etc.

Updates: These standards may be updated periodically. The most current version will be posted on each district's website.

Figure X. Happy Frogs development mitigation sites

