US ARMY CORPS OF ENGINEERS

UPDATED MAP AND DRAWING STANDARDS SOUTH PACIFIC DIVISION REGULATORY PROGRAM

Prepared by Zachary Simmons Regulatory Program Workshop July 14, 2017

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MAP AND DRAWING STANDARDS



US Army Corps of Engineers

- February 10, 2016
 - Improve Quality and Consistency
 - Simplify Review and Processing
 - Applies to <u>all</u> submittals to



Exceptions determined on a case-by-case basis

- Less than 0.10 acre permanent impacts
- Limited Financial Resources (grant funding for restoration)
- Emergencies





a. Must include:

- Location (Vicinity)
- Plan View Maps
- Cross-sectional views
- Delineation maps showing
 - Project area,
 - Staging areas,
 - Disposal sites,

- Access routes, and
- Mitigation sites
- b. Same Orientation for all maps (North up)
- d. Indicate reference elevation datum





f. Base Map:

- Aerial photographs must be orthorectified
- Date and source of imagery identified on map
- Date of imagery should be when aquatic resources are visible (e.g. wet season)
- At least one map showing topography

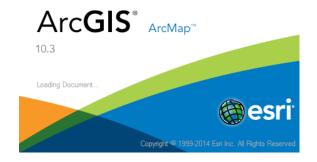






g. Format:

- Submit both paper and electronic versions,
 - Adobe PDF
- Fold larger maps to fit within an 8.5" x 11"
- GIS data and associated metadata
 - ESRI shapefiles







h. Plan View:

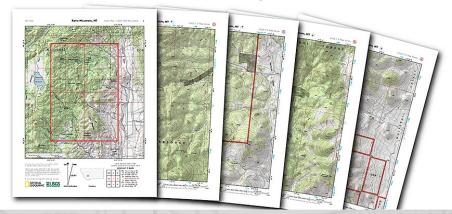
- Two control points with Lat/Long
- North Arrow
- Bar <u>and</u> text scale, not to exceed 1" = 400'
- Legend (Area in parenthesis for each item)
- Date prepared/revised
- Name & Organization of preparer
- Appropriate landmarks





2. LOCATION (VICINITY) MAPS

- a. USGS 7.5-minute quadrangle basemap
- b. Does not need to be to scale
- c. Include north arrow
- d. Project location clearly marked
- e. Include roadways and landmarks







3. PROPOSED PROJECTS

- a. Show all fill, structures, limits of work within all potential waters of the U.S.
- b. Show delineated waters within project area
- c. Label all impacts to waters
- d. Identify if Permanent or Temporary
- g. Completed ORM impacts sheet





4. POST CONSTRUCTION DRAWINGS

(AS-BUILT PLANS)

- a. Both plan view and cross-sectional view
- Same size and alignment as authorized grading plans
- Show deviations from authorized plans in red







5. DELINEATION MAPS

- a. Plan view
- b. Cross-sectional upon request
- c. Clearly identify survey area
- d. Show location and extent of all potential waters of the U.S.
 - Each water type must be differentiable
- e. Location of all paired data points
- f. OHWM widths



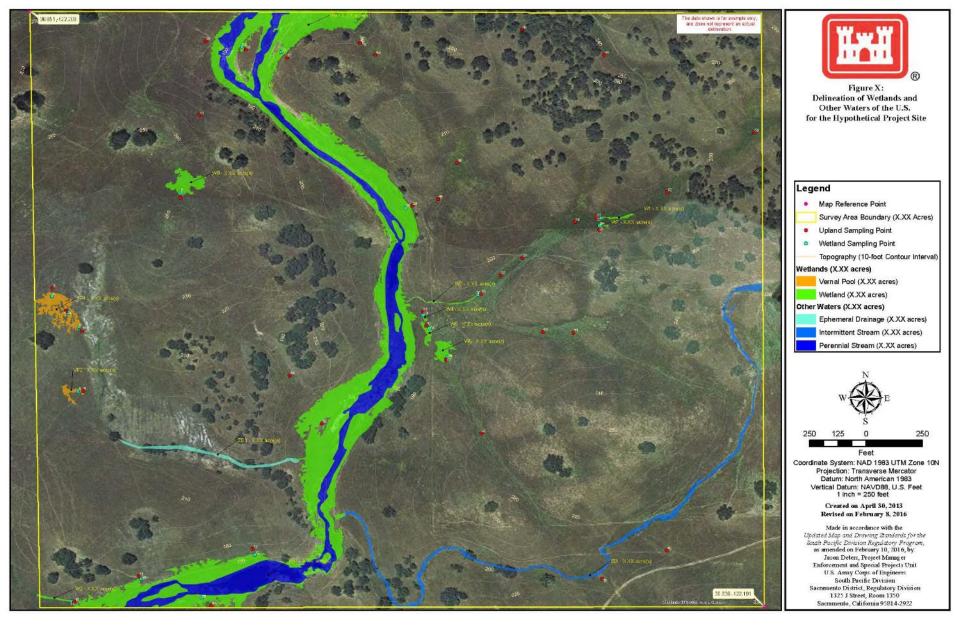


5. DELINEATION MAPS

- i. Identify Ordinary High Water Mark
- Each polygon must be clearly labeled
 - Feature type and unique number
 (i.e. SW1, SW2, VP1, VP2, etc.)
- k. Completed ORM Aquatic Resources sheet
- GIS Data with same polygons names and metadata text file







6. MITIGATION PLANS

- a. Both plan view and cross-sectional view
- b. Clearly differentiable Aquatic Resource type and Mitigation type
- c. Each polygon must be clearly labeled with unique name
- d. Shown Relative to other landscape features or Habitat types
- e. Completed ORM mitigation sheet





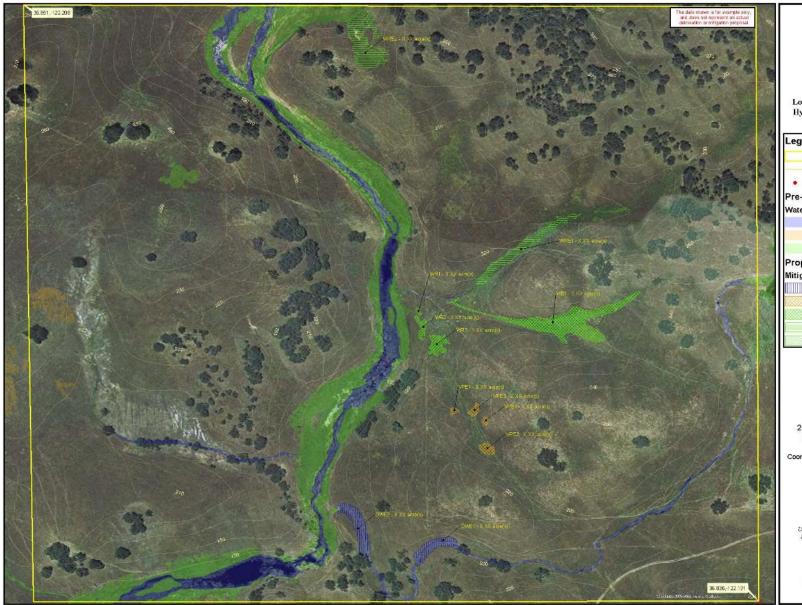




Figure X: Mitigation Plan and Long-term Preservation Map for the Hypothetical Mitigation Project Site

Legend

Project/Preserve Boundary (X.XX Acres)

Topography (10-foot Contour Interval)

Map Reference Point

Pre-project Delineation

Waters Type

Open Water (X.XX acres)

Vernal Pool (X.XX acres) Wetland (X.XX acres)

Proposed Mitigation

Mitigation Type

Open Water Enhancement (X.XX Acres) Vernal Pool Establishment (X.XX acres)

Wetland Establishment (X.XX acres)

Wetland Re-establishment (X.XX acres)

Wetland Rehabilitation (X.XX acres)



Coordinate System: NAD 1983 UTM Zone 10N Projection: Transverse Mercator Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet 1 inch = 250 feet

250

Created on April 30, 2013 Revised on February 8, 2016

Made in accordance with the Updated Map and Drawing Standards for the

South Pacific Division Regulatory Program, as amended on February 10, 2016, by: Jason Deters, Project Manager Enforcement and Special Projects Unit U.S. Army Corps of Engineers South Pacific Division Sacramento District, Regulatory Division 1325 J Street, Room 1350 Sacramento, California 95814-2922

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7. MITIGATION MONITORING REPORT

- a. Identify each mitigation area as indicated in Sec 6. Mitigation Plans
- b. Show sampling present in report
 - Locations
 - Extent of sampling points
 - Transects, quadrats, etc...





8. GROUND PHOTOGRAPH MAP

- a. Any ground photos must be accompanied by a map of photo points
- b. Labeled with unique name and Compass direction (arrow or name, e.g. P1-NW, or P1-315°)
- c. Include a table
 - Name and date of photo
 - Coordinates (Lat/Long)
 - Compass direction
 - Brief explanation of relevance





ADDITIONAL HELPFUL INFO

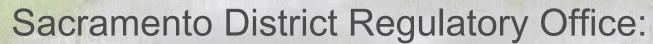
- Topographic maps
- LIDAR (Light Detection and Ranging)
- NWI (National Wetland Inventory)
- Satellite Photos
- Aerial and Ground Photos
- Floodplain Maps

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CONTACT INFORMATION



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