# SOUTH PACIFIC DIVISION MAP AND DRAWING STANDARDS

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# **OVERVIEW**



Applies to the South Pacific Division (SPD)
 Regulatory Program: Sacramento, San Francisco,

Los Angeles, and Albuquerque Districts

- o Published on February 10, 2016
- Standards apply to all maps and drawings
- o Goals:
  - Improve the quality and consistency of submissions
  - Simplify and improve review and processing
  - Increase timeliness and reduce the need for additional information requests



# MAP AND DRAWING SUBMISSIONS



- Required submissions:
  - Location (vicinity) map
  - Aquatic resource (AR) delineation map
- OAdditional requirements for permit requests figures:
  - Direct/indirect impacts overlaid on delineation map
  - Plan view and cross-sectional drawings
  - Mitigation plan
  - Post-construction drawings (as-built plans)
- OHighly recommended; may be required by the Corps:
  - LiDAR (high quality topo) Maps
  - Flow path Maps
  - GIS data/Shapefiles



# **MAP STANDARDS**



- Orientation for maps must be consistent (typically North will be at top of page)
- Reference elevation datum
- Legend
- Aerial Photos
  - Orthorectified
  - Date that photo was taken
  - Imagery source
  - Topography
  - Aerials showing max visibility of AR (e.g. wet season)
- For large project areas, provide overview map and map/plate set

# **DRAWING STANDARDS**



#### O Do include:

- Map preparer name
- Signature
- Company/agency
- Date prepared and <u>revised</u>
- Drawing title
- Total number of sheets
- Legend on each map

#### Avoid:

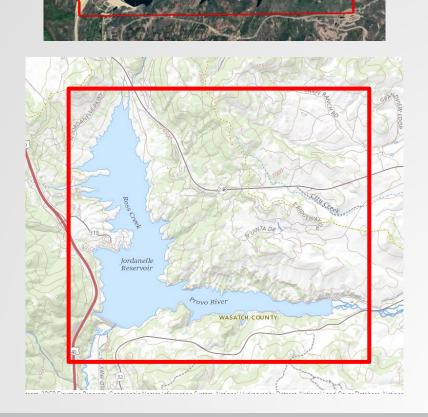
- Irrelevant info on drawings
  - ex. activities that do not require authorization
- Cluttered drawings; keep drawings clear and legible



# LOCATION (VICINITY) MAP(S)

Hideout

- Use an accurate map that is clear and best shows the project area
  - Ex. USGS 7.5-minute quadrangle,
     Google Earth aerial w/ labels, etc.
- Include quadrangle source name
- Outline project boundary
- Include commonly recognizable landmarks and nearby roads
- North arrow



# **AQUATIC RESOURCE (AR) DELINEATION MAPS**



- Outline survey area boundary
- Show location and extent of any areas that meets the AR criteria
  - Indicate boundary or ordinary high water mark (OHWM)
  - Each AR should be clearly annotated and symbolized to easily differentiate
    - Name examples: W1, W2, S1, S2, etc.
    - Ensure you separate by wetland or stream type



# AR DELINEATION MAPS CONT.



- Indicate locations of data and photo points and label according to sample point number, photo number, or OHWM point
  - Numbers/labels should be offset; clearly identifiable
- Overlay topographic contour lines
- Indicate other relevant features
  - Culverts
  - Upland swales
  - Linear features with no OHWM
- Note: Do not use jurisdictional labels on maps or in delineation report

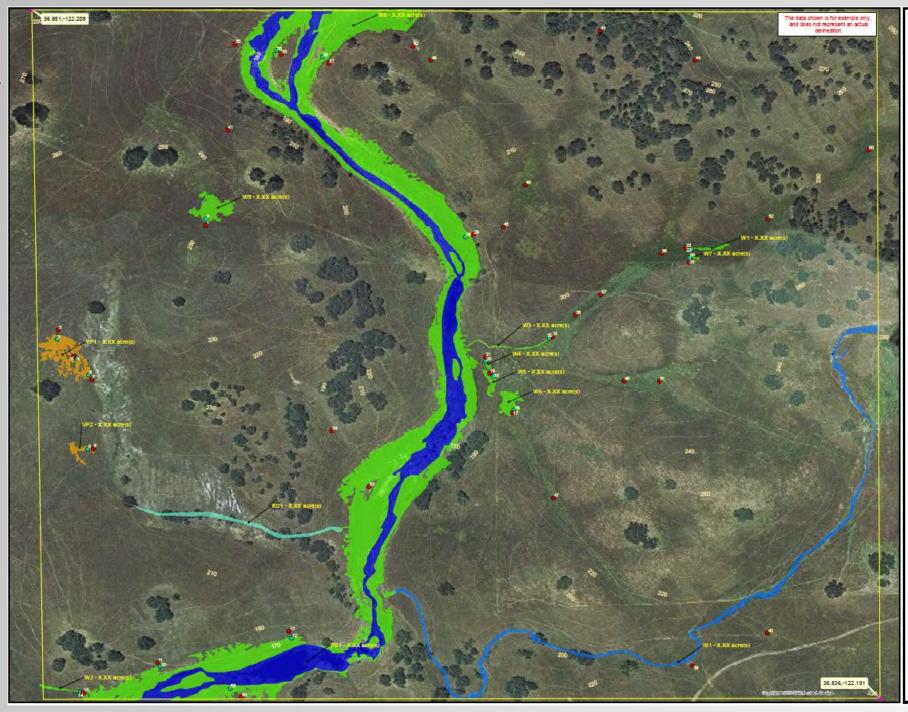




Figure X:
Delineation of Wetlands and
Other Waters of the U.S.
for the Hypothetical Project Site



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

Feet

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



# **GROUND PHOTOGRAPH MAPS**



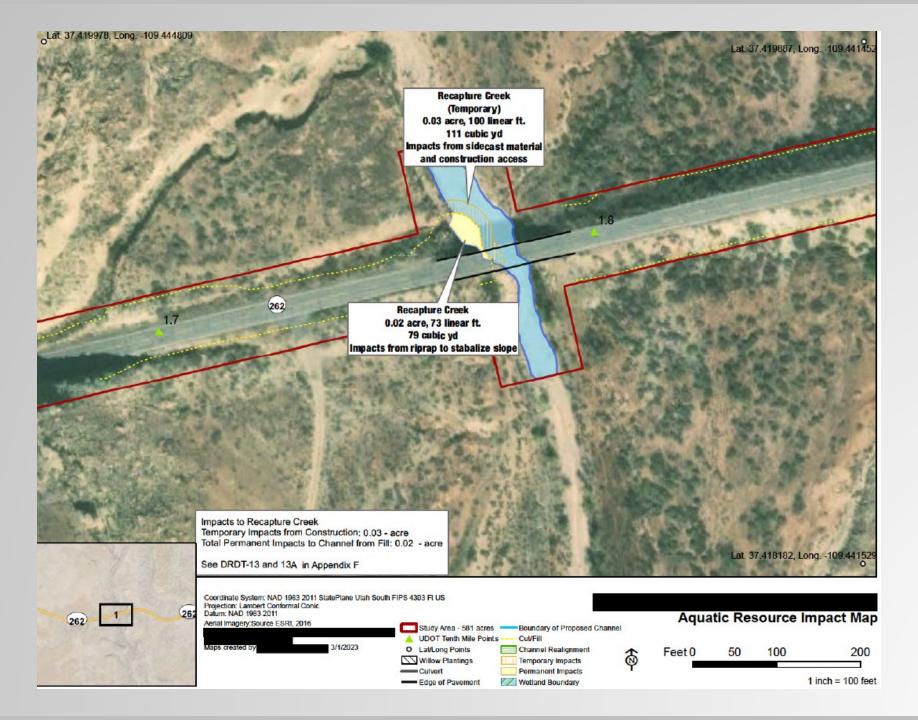
- Ground photos must be accompanied by a map of photo points
- Each photo point should be labeled with unique name and compass direction (arrows or labels such as P1-NW)
- Photos without a map, direction, or label are not helpful



# PROPOSED PROJECT DRAWINGS



- Project plans must be overlaid on AR delineation map
  - Identify/label OHWM or boundaries on all maps
  - Project area
  - Staging and disposal areas
  - Access routes/temporary roads
  - Dewatering locations
  - Proposed mitigation sites, etc.
- Show all proposed fills, structures, and limits of work
  - Annotate whether permanent or temporary
- All impact areas within ARs must be labeled with unique name
  - ex. Cofferdam1, BoxCulvert1, AccessRoad1, etc.





# PLAN VIEW AND CROSS-SECTIONAL DRAWINGS



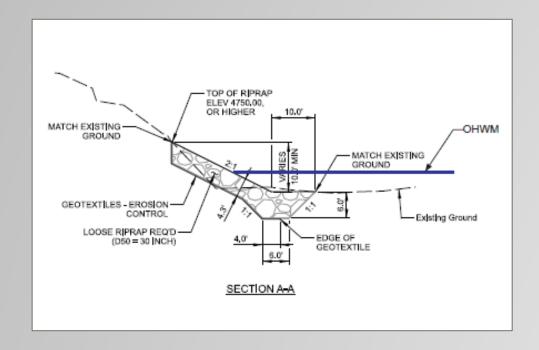
- Submitting both plan view and cross-sectional drawings is required
- North arrow
- Bar and text scale (e.g., 1 inch = 250 ft) not to exceed 1 inch = 400 ft
- Show impacts relative to OHWM or AR boundaries
  - For cross-sectional drawings:
    - Any change in OHWM due to activities, must show existing & proposed OHWM
    - Show subsurface infrastructure such as utility lines, drains, and groundwater impacts if expected
    - Show location of cross-section on the plan view map

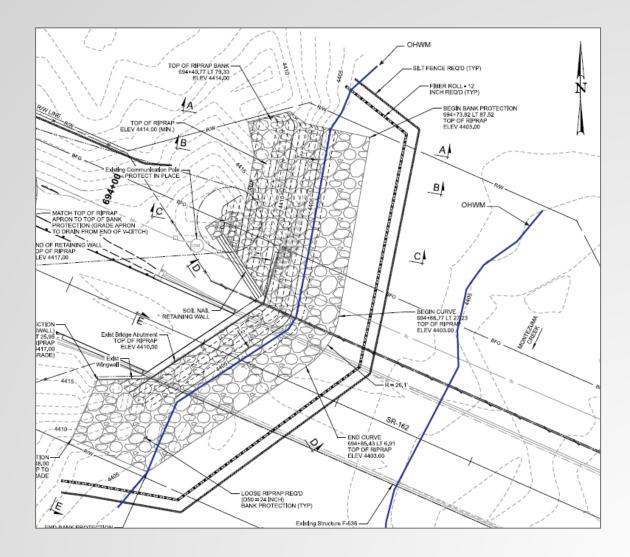


# PLAN VIEW AND CROSS-SECTIONAL EXAMPLES



U.S. ARMY





# **COMPENSATORY MITIGATION PLANS**



- Plan view and cross-sectional drawings
- Mitigation areas must be clearly differentiable based on type of AR and type of mitigation activity/treatment
- All mitigation sites must be clearly labeled with a unique name (ex. WetEstab1, StrmEnhance1, etc.)
- Mitigation sites must be shown relative to landscape features and habitat types
- Need to include monitoring and transect locations

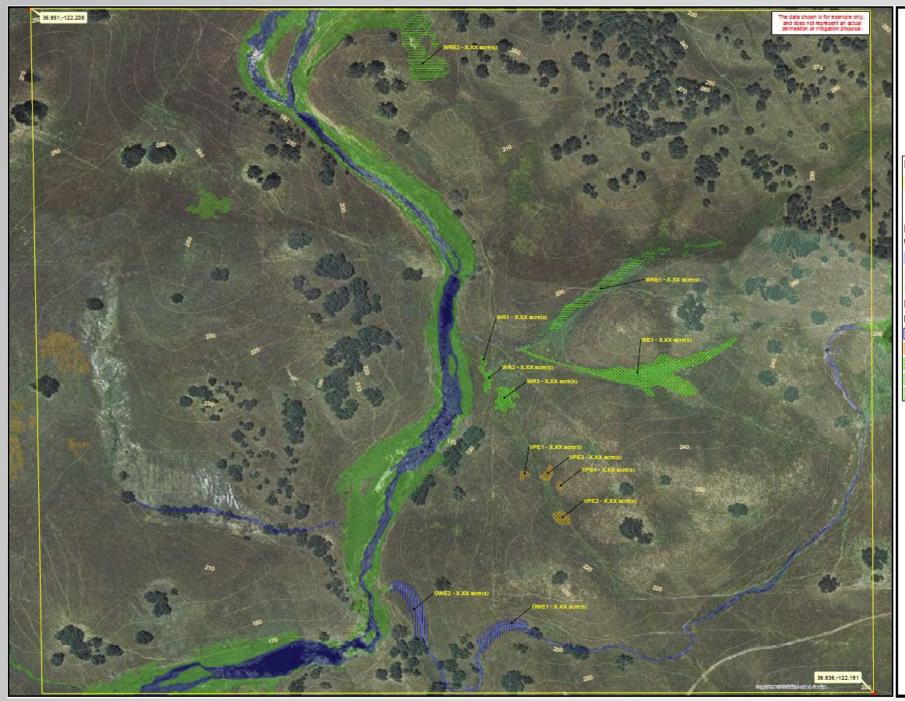




Figure X: Mitigation Plan and Long-term Preservation Map for the Hypothetical Mitigation Project Site

#### 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)



Feet

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#### WHERE TO FIND OUR STANDARDS



- https://www.spk.usace.army.mil/Missions/Regulatory/
- Under Quick Reference on the left side

