U.S. ARMY CORPS OF ENGINEERS:

PERMITTING REQUIREMENTS FOR BANK STABILIZATION AND OTHER WORK IN WATERS OF THE U.S.

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March 13, 2018 – Assembly of Planners

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

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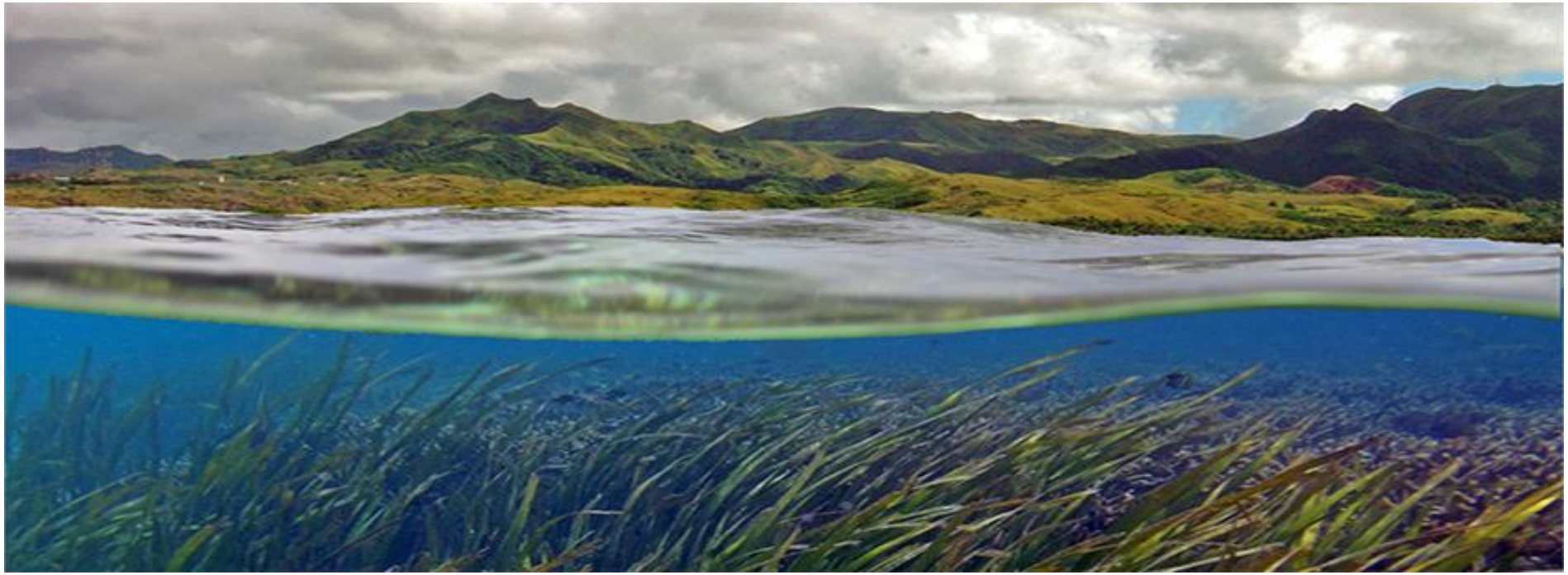
Regulatory Program

Part I: Brief overview of the Corps Regulatory Program

Part II: Application and Permit Process

Part III: Erosion and Bank Stabilization



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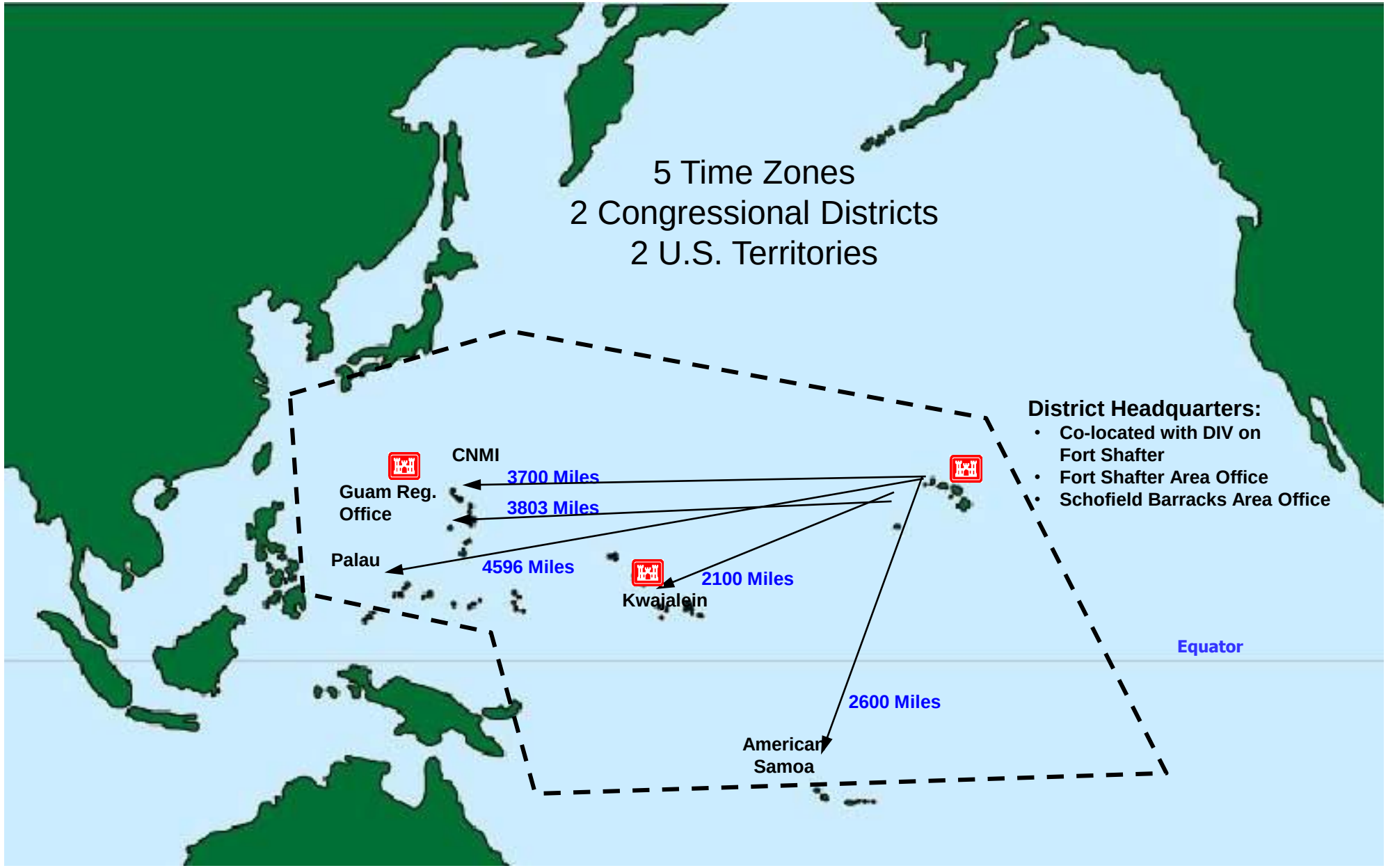
Area of Responsibility



HONOLULU DISTRICT REGULATORY BOUNDARIES

Jurisdiction extends to 3 nautical miles (or the outer continental shelf)

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REGULATORY MISSION

To protect the nation's aquatic resources and navigation capacity, while allowing reasonable development through fair and balanced permit decisions.

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Waters of the U.S. (WOUS)

Navigable waters

- oceans, bays, inlets, etc.

Tributaries to navigable waters

- rivers, creeks, lakes, etc.

Interstate waters

- Cross state or Indian reservation lines

Special aquatic sites

- wetlands, mudflats, vegetated shallows, riffle and pool complexes, coral reefs

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Corps Authorities

Section 10 - Rivers and Harbors Act (1899)

- Permits required for all work in, over or under navigable rivers or interstate lakes or rivers.
- Focus is on maintaining navigability.

Section 404 - Clean Water Act (1972)

- Permits for discharging dredged or fill material into waters of the United States, including wetlands.
- Focus is on protecting aquatic resources; Restoring and maintaining the chemical, physical and biological integrity of the waters of the U.S.

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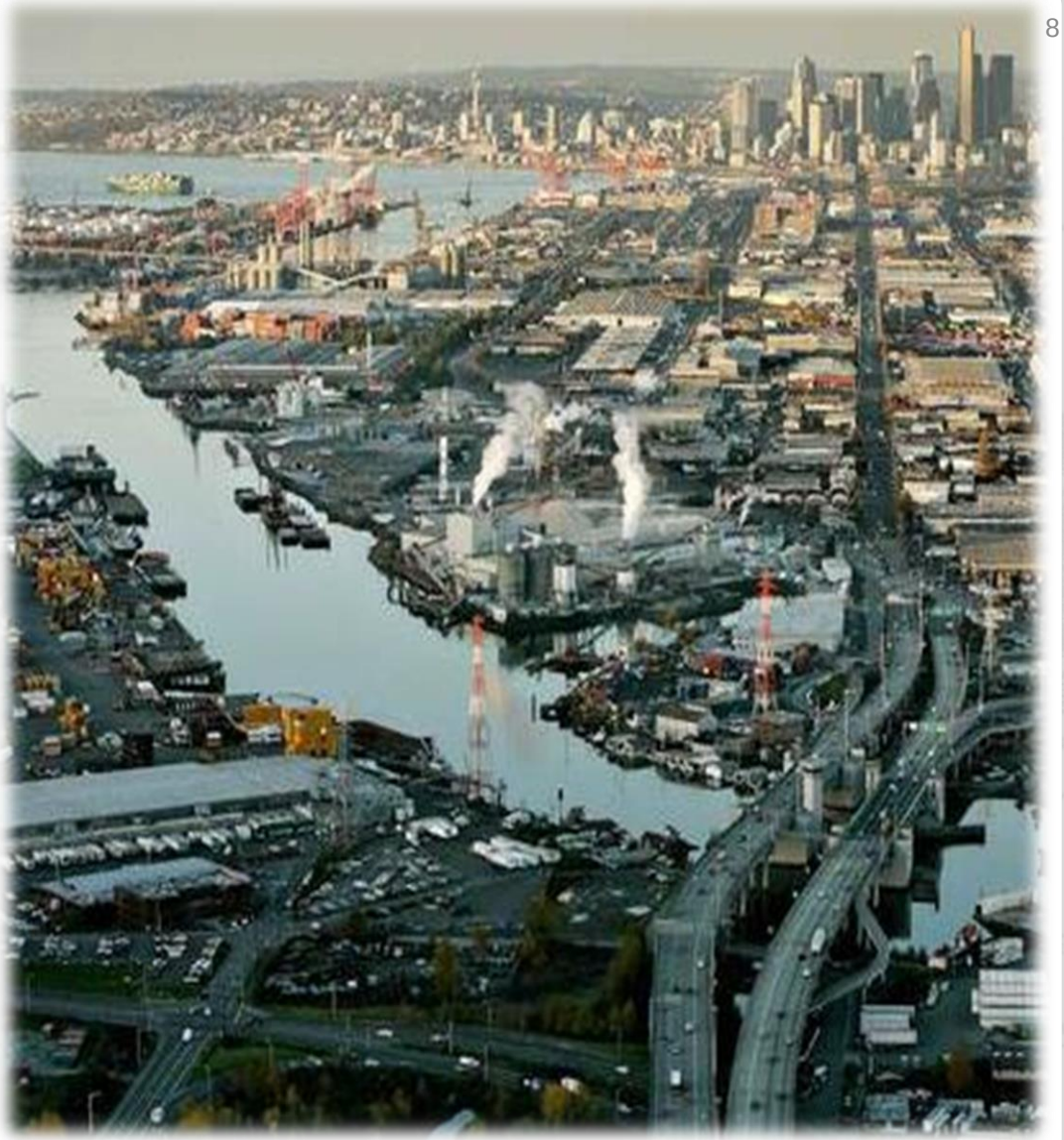
Section 10: Rivers and Harbors Act

Purpose: To protect & preserve the navigability of “Navigable Waters”

Requires that you obtain a Department of the Army permit for any structure or work in, over, or under a navigable water

- Pacific Ocean, tidally influenced portion of tributaries.



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COMMON ACTIVITIES REGULATED UNDER SECTION 10

- Buoys
- Floats
- Piers
- Marinas
- Bulkheads
- Breakwaters
- Dredging
- Fill
- Pilings
- Boat ramps
- Silt Fences

Section 404: Clean Water Act

Purpose: to restore and maintain the chemical, physical, and biological integrity of Waters of the U.S.

Requires that you obtain a Department of the Army permit for the discharge of dredge or fill material in <u>any</u> Water of the U.S.

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Rock

Soil

Sand

Wood Chips

Sandbag Cofferdams

Construction Debris

Examples of Fill

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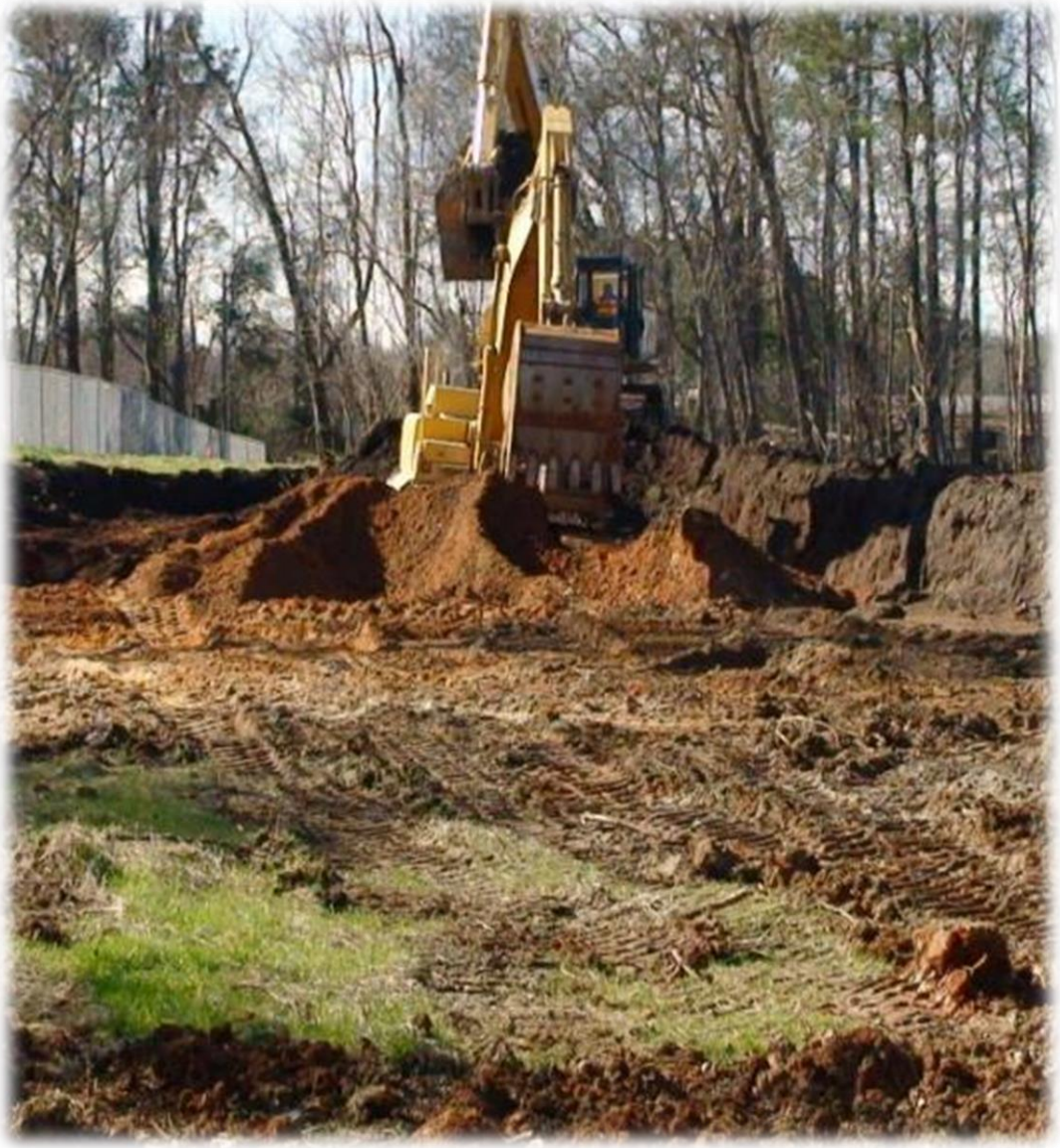
Rock ● Clay ● Sand ● Soil ● Wood Chips ● Cofferdams ● Construction Debris

Discharge of Dredged Material

1. Mechanized Land Clearing
2. Grading
3. Excavation (with an associated discharge)



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COMMON SECTION 404 ACTIVITIES

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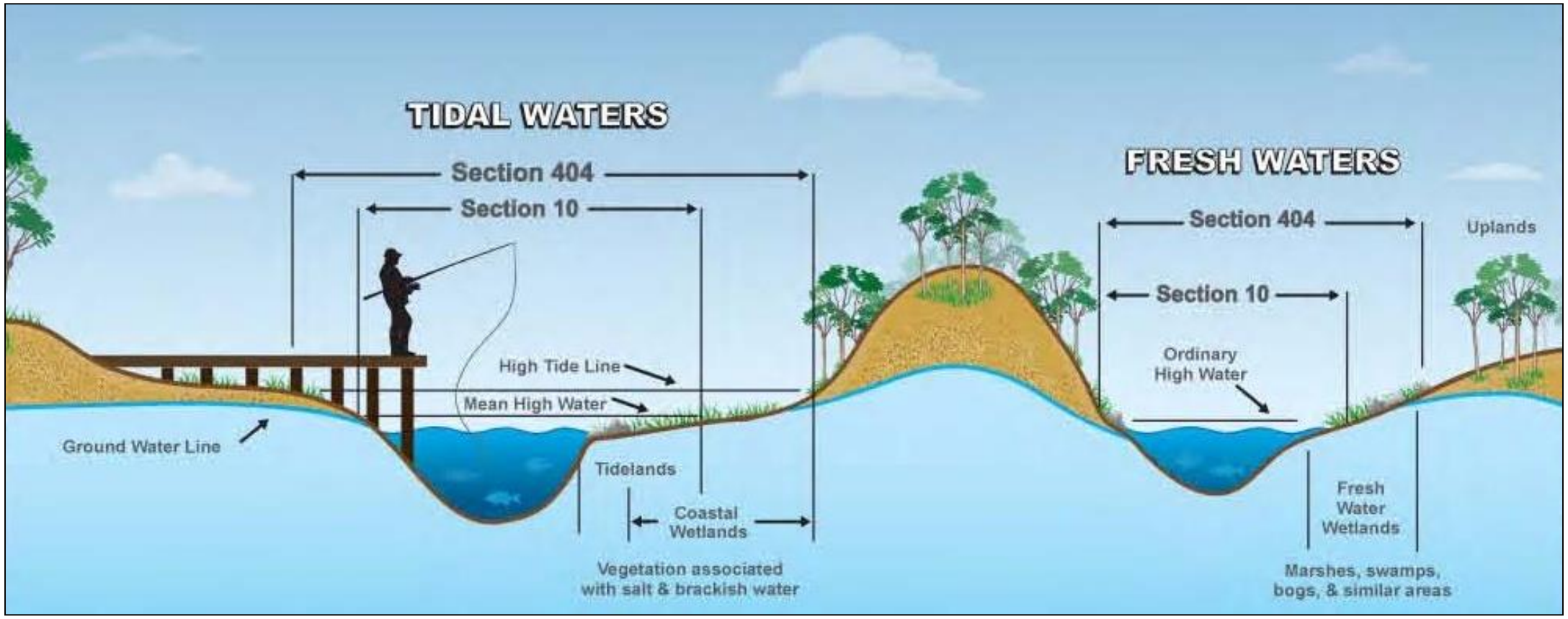
LIMITS OF CORPS JURISDICTION



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Do I need a permit?

Is the AREA regulated?

- Navigable waterways (Section 10)
- Waters of the U.S. (Section 404)
  - Wetlands, streams, etc.

Is the ACTIVITY regulated?

- Work (Section 10)
- Discharge of Dredged or Fill Material (Section 404)

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Do I need a permit?

Section 404 Exemptions

Certain activities are exempt under Section 404 (33 CFR 323.4), such as

- Normal (on-going) farming practices
- Certain maintenance activities
- Construction of farm or stock ponds or irrigation ditches

– Interpretation is complex. Contact the Corps prior to commencing work.

No 404 Exemptions in Navigable Waters where Section 10 applies!

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TYPES OF PERMITS

General Permits

- Nationwide Permits
- Regional General permits
- 60 day review*

Standard Permits

- Individual Permits
- Letter of Permission
- 120 day review*

** Review times may be longer, depending on complexity of project*

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Types of Permits

Department of the Army Permits

General Permits and Individual Permits

General Permits - Congressional intent (Clean Water Act Section 404(e))

- Streamlined authorization process for small activities with no more than minimal adverse environmental effects
- Issued for no more than 5 years

Nationwide Permits are a Type of General Permit

	General Permits		Individual Permits	
	Regional General Permits	Nationwide Permits	Letter of Permission	Standard Individual Permits
Joint Aquatic Resource Permit Application	x	x	x	x
Project Drawings	x	x	x	x
Tribal Coordination	x	x	x	x
National Historic Preservation Act	x	x	x	x
Compensatory Mitigation	x	x	x	x
Jurisdictional Determination	x	x	x	x
Endangered Species Act		x	x	x
Water Quality Certification			x	x
Coastal Zone Management Consistency			x	x
Public Interest Review			x	x
Public Notice				x
National Environmental Protection Act				x
404(b)(1) Guidelines				x
Alternatives Analysis				x
Cumulative Effects Assessment				x

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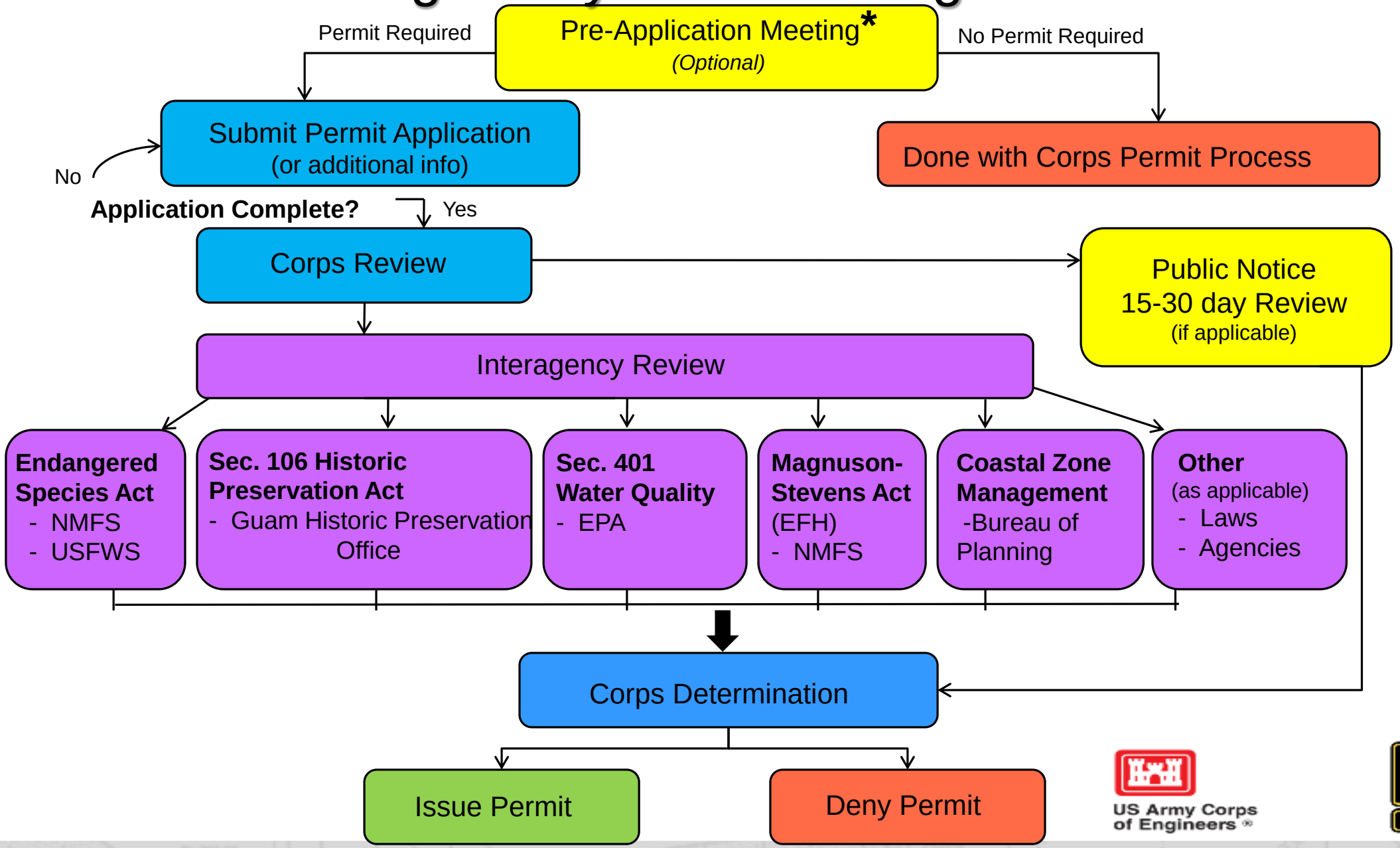
Regulatory Process Diagram



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ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

- Corps consults with U.S. Fish and Wildlife Service and/or National Marine Fisheries Service

- Typical consultation timelines 30 - 135 days

- Cannot authorize permit until consultation is complete

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Nationwide Permits 2017 - 2022

- Reissued all 50 existing NWPs
- Issued 2 new NWPs
  (including NWP 54 – Living Shorelines)

Effective date: March 19, 2017

Expiration date: March 18, 2022

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Commonly Used Nationwide Permits

NWP 3 Maintenance

NWP 12 Utility Lines

NWP 13 Bank Stabilization

NWP 12 Linear Transportation Projects

NWP 27 Aquatic Habitat Restoration, Establishment, and Enhancement activities

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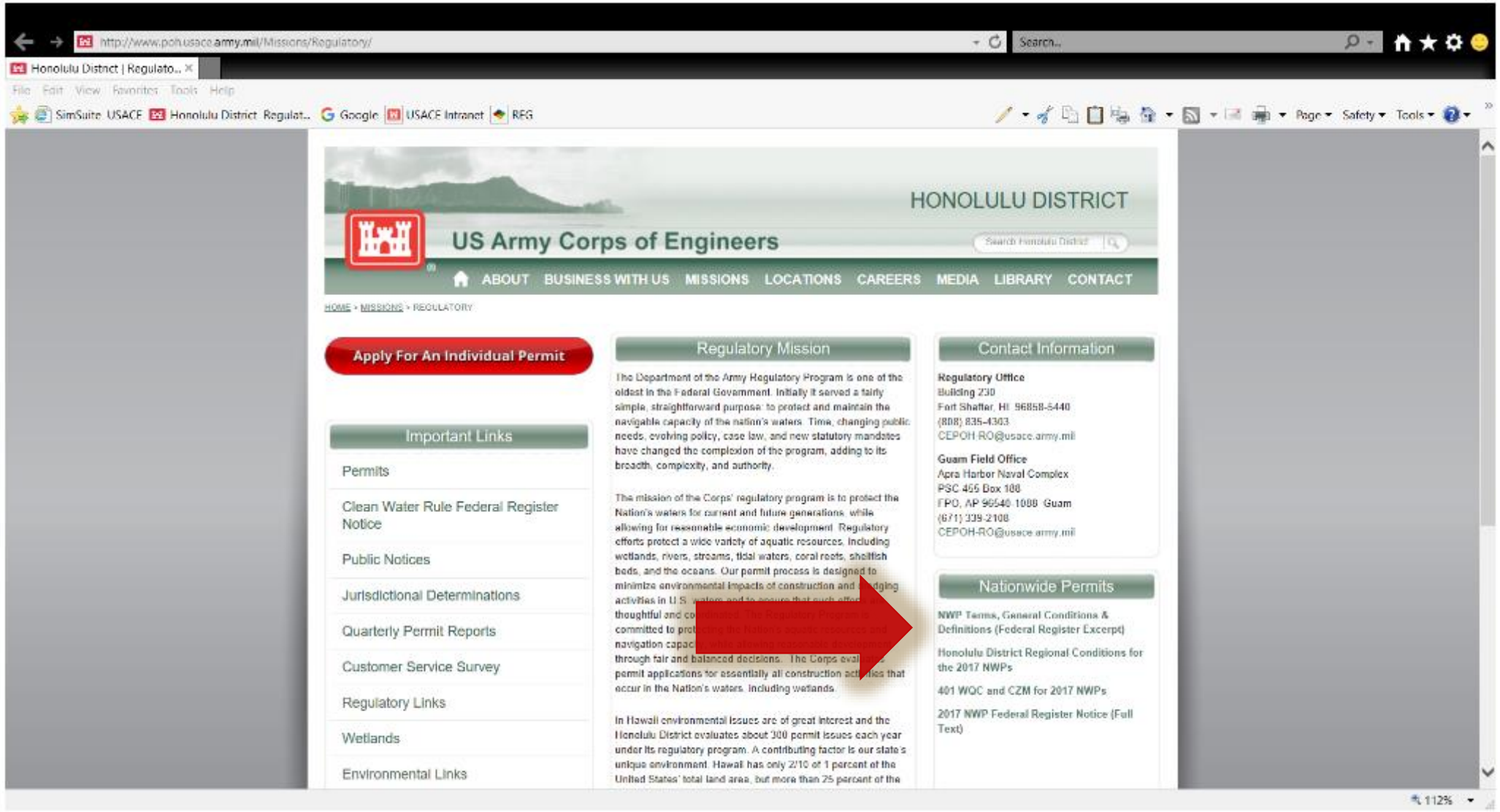
MUST MEET NWP GENERAL CONDITIONS & REGIONAL CONDITIONS



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Part II:

Application and Permit Process

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http://www.poh.usace.army.mil/Missions/Regulatory/

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Apply For An Individual Permit

Important Links

- Permits
- Clean Water Rule Federal Register Notice
- Public Notices
- Jurisdictional Determinations
- Quarterly Permit Reports
- Customer Service Survey
- Regulatory Links
- Wetlands
- Environmental Links

Regulatory Mission

The Department of the Army Regulatory Program is one of the oldest in the Federal Government. Initially it served a fairly simple, straightforward purpose: to protect and maintain the navigable capacity of the nation's waters. Time, changing public needs, evolving policy, case law, and new statutory mandates have changed the complexion of the program, adding to its breadth, complexity, and authority.

The mission of the Corps' regulatory program is to protect the Nation's waters for current and future generations, while allowing for reasonable economic development. Regulatory efforts protect a wide variety of aquatic resources, including wetlands, rivers, streams, tidal waters, coral reefs, shellfish beds, and the oceans. Our permit process is designed to minimize environmental impacts of construction and dredging activities in U.S. waters and to ensure that such efforts are thoughtful and coordinated. The Regulatory Program is committed to protecting the Nation's aquatic resources and navigation capacity, while allowing reasonable development through fair and balanced decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands.

In Hawaii environmental issues are of great interest and the Honolulu District evaluates about 300 permit issues each year under its regulatory program. A contributing factor is our state's unique environment. Hawaii has only 2/10 of 1 percent of the United States' total land area, but more than 25 percent of the

Contact Information

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Building 230
Fort Shafter, HI 96858-5440
(808) 835-4303
CEPOH-RO@usace.army.mil

Guam Field Office
Apra Harbor Naval Complex
PSC 455 Box 188
FPO, AP 96540-1088 Guam
(671) 339-2108
CEPOH-RO@usace.army.mil

Nationwide Permits

- NWP Terms, General Conditions & Definitions (Federal Register Excerpt)
- Honolulu District Regional Conditions for the 2017 NWPs
- 401 WQC and CZM for 2017 NWPs
- 2017 NWP Federal Register Notice (Full Text)

112%

Application Process

Pre-Application Meetings

- Meet onsite if possible
- Coordinate with multiple agencies

Submit an Application

<u>Processing goals:</u>

General Permits = 60 days

Individual Permits = 120 days

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Additional Information Is Often Required to Make a Permit Decision

For example, for certain projects, these documents may be needed:

- Cultural Resources Report
- Biological Assessment
- EFH Assessment
- CZMA Federal Consistency Determination
- Water Quality Certification
- 404(b)(1) Guidelines, Alternatives Analysis

	General Permits		Individual Permits	
	Regional General Permits	Nationwide Permits	Letter of Permission	Standard Individual Permits
Joint Aquatic Resource Permit Application	x	x	x	x
Project Drawings	x	x	x	x
Tribal Coordination	x	x	x	x
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Public Interest Review			x	x
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National Environmental Protection Act				x
404(b)(1) Guidelines				x
Alternatives Analysis				x
Cumulative Effects Assessment				x

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Common Application Mistakes

1. Inadequate drawings
2. Not meeting NWP conditions
3. Not complying with mitigation sequencing
4. Not filling out application completely; not proving a comprehensive project description
5. Insufficient QA/QC prior to application submittal
6. Inconsistencies between different project versions (written description, drawings, biological assessment)

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Common Application Mistakes

Wrong location of proposed activity

- Proximity to OHW, MHHW, or MHW
- Not showing existing vs. proposed conditions
- Not labeling OHW, HTL, MHW, and wetlands

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Project Drawings

Drawings must be submitted with pre-construction notification (PCN).

- Use of the drawing checklist will ensure your drawings contain all the information we need for your project.
- Drawings must provide a clear understanding of the proposed project, and how waters of the U.S. will be affected.
- Drawings must be originals and not reduced copies of large-scale plans.
- Engineering drawings are not required.
- Existing and proposed site conditions (manmade and landscape features) must be drawn to scale.

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Drawing Checklist

The ultimate objective of a set of drawings is to allow someone who is unfamiliar with the project to quickly obtain a clear understanding of what is proposed and how the impacted waterbody and/or wetlands will be affected. Drawings should be originals and not reduced copies of large-scale plans. Engineering drawings are not required. Existing and proposed site conditions (manmade and landscape features) should be drawn to scale.

Page 1 should be a vicinity map, Page 2 should provide a top-down plan view, Page 3 should show a cross-sectional view; additional pages should be used if needed. Every drawing should have a Title Block. Additional information can be found on our website: http://www.nws.usace.army.mil/ (click on "Regulatory/Permits")

1. GENERAL GUIDELINES AND USEFUL INFORMATION TO INCLUDE ON DRAWINGS

( ) Use clear black lettering and the fewest number of pages necessary; use 8 ½- by 11-inch paper
( ) Even if drawings are created by hand please use a graphic scale
( ) Vertical and horizontal scales should use the same units of measure
( ) Vicinity maps and plan drawings must include an accurate North Arrow
( ) Descriptions/types of substrate can be included on drawings along with photographs
( ) Critical habitat and/or known essential fish habitat can be indicated on drawings along with surveys
( ) A drawing with the existing water features overlaid with the proposed project would be helpful

2. TITLE BLOCK EXAMPLES

( ) A completed title block (first example) should be on the first page; for subsequent sheets you can use the smaller abbreviated form (second example)

REFERENCE: *(USACE will provide)*	LOCATION: _____ *(address/intersection/ parcel number)*	PROPOSED PROJECT: *(short description)*
APPLICANT: _____	LAT/LONG: _____	IN: *(waterbody)*
ADJACENT PROPERTY OWNERS: 1. *(include name/parcel on plan view)* 2. *(include name/parcel on plan view)*	PAGE # OF # DATE: *(last revised)*	NEAR/AT: *(closest city or town)* COUNTY: *(county)* STATE: WA

Reference Number:
Applicant Name:
Proposed Project:
Location:
Sheet # of # Date:

3. VICINITY MAP

( ) Show and label location of each *project area* (e.g. circle the perimeter, use an arrow, etc.)
( ) Show and label location of each *mitigation site*, if applicable
( ) List latitude, longitude, section, township, and range and parcel numbers – a parcel map can be helpful
( ) Show and label all waterways (e.g. ditches, wetlands, ponds, streams, rivers, lakes, inlets, oceans, etc.)
( ) Show roads, streets, and/or mileage to nearest town or city limits
( ) The map should be zoomed out enough to show the area but detailed enough to see landmarks for context

1/2

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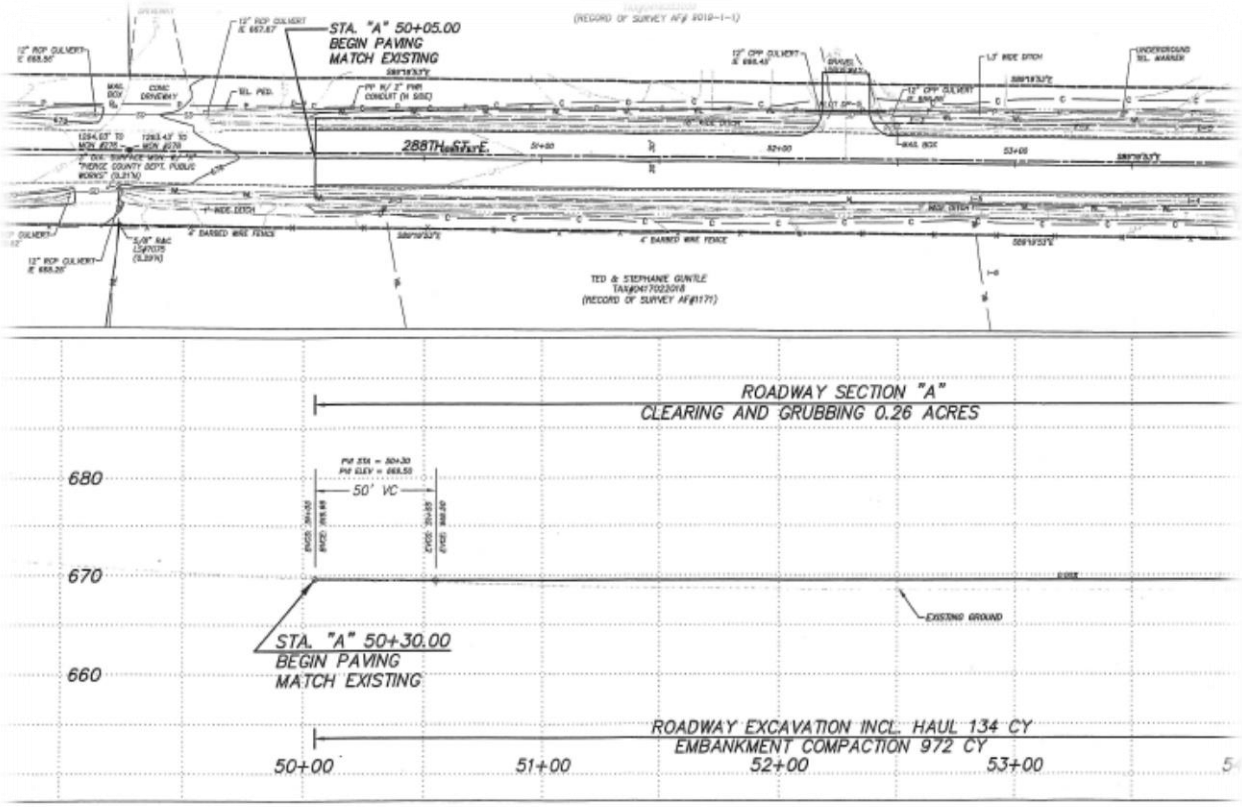
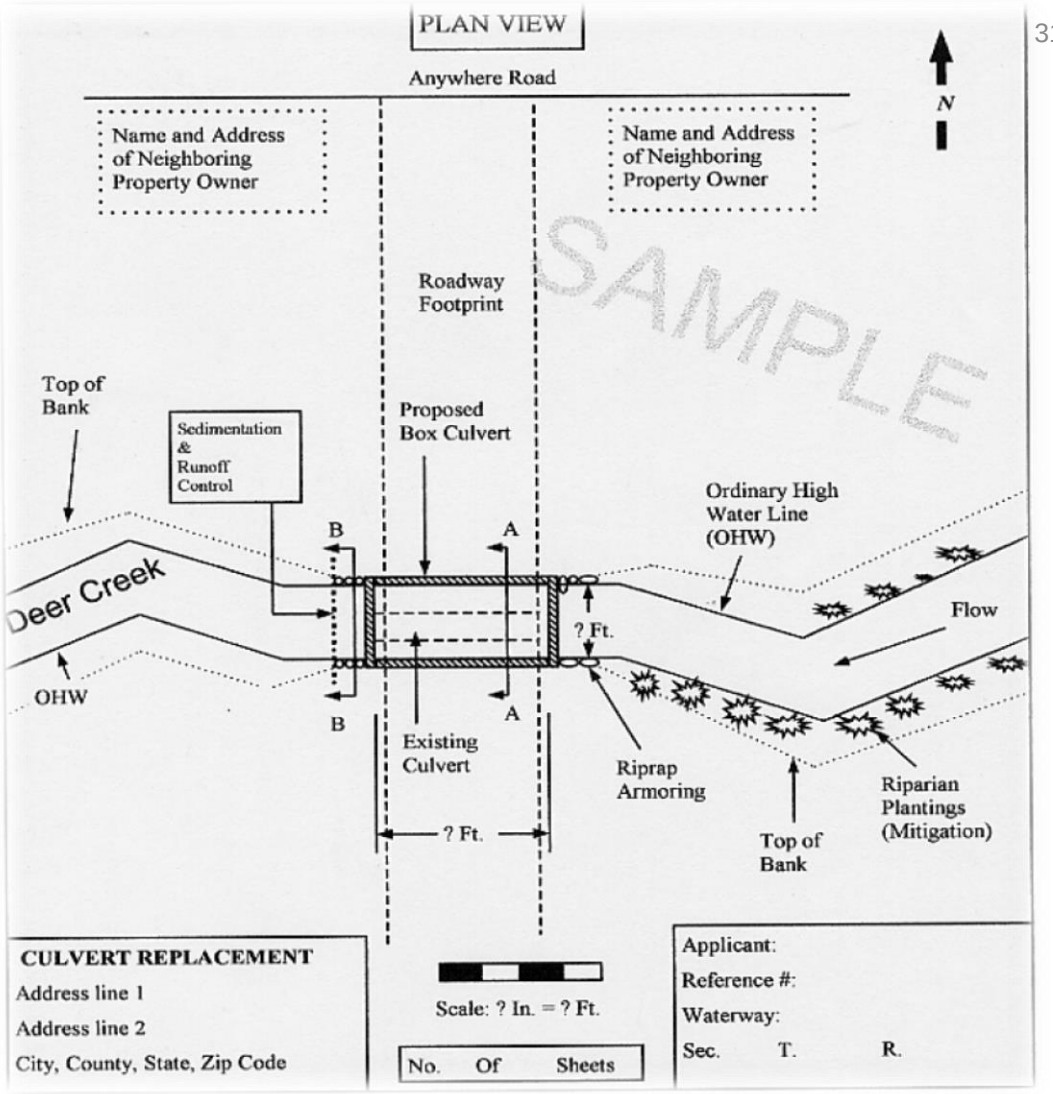
Project Drawings



Bad drawings



Good drawings

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IMPORTANCE OF PROJECT DESCRIPTION

Used to determine

- Which permit may apply
- If mitigation is required
- What other agency coordination is needed

Used for permit compliance

- Include both permanent and temporary activities and impacts
- Construction/Implementation sequence
- Type of equipment needed
- Start date and end date (i.e. how long will project take)

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PERMIT APPLICATION

INCLUDE:

- Best management practices
- Alternatives analysis
- Description of aquatic resources
- Mitigation

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Mitigation Sequencing[1]

Mitigation Sequencing is the first step that must occur for all projects proposing impacts to waters of the U.S.:

1. Avoid impacts to waters of the U.S.
2. Minimize permanent and temporary impacts
3. Restore unavoidable temporary impacts
4. Compensate for unavoidable impacts (direct, indirect, temporal)

[1] 33 CFR 332.3(b)(2-6)

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Compensatory Mitigation for Losses of Aquatic Resources (Federal Rule)[1]

Published on April 10, 2008

All mitigation meet all requirements of the Federal Rule.

1. 33 CFR 325 and 332

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Cost as a Consideration for Compensatory Mitigation

The comprehensive cost analysis must include:

- Land Costs
- Construction Costs
- Implementation
- Financial Assurances
- Site Protection Costs
- Contingencies

Contracting and consulting fees (5-10 years):

- Design
- Maintenance
- Monitoring
- Reporting

Long-term Management Plan (in perpetuity):

- Development
- Management
- Monitoring
- Reporting

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Application Submittal Tips

Electronic versions of permit application materials are preferred (i.e., application, drawings, Biological Assessment/Evaluation, Wetland Delineation, Mitigation Plan).

Electronic files larger than 10MB will exceed our email limits.

File exchange for large files: AMRDEC SAFE

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Part III: Erosion and Bank Stabilization

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TYPES OF SHORELINE STABILIZATION

Beach Nourishment
Large Wood
Vegetated Cribbing
Soil Lifts
Sills
Stream Barbs
Gabion Baskets
Shoreline Plantings
Reslope-Revegetation
Rock Walls
Retaining Walls
Vertical Bulkhead (Sheet Piles, Treated Timber, Concrete Slabs)
Riprap

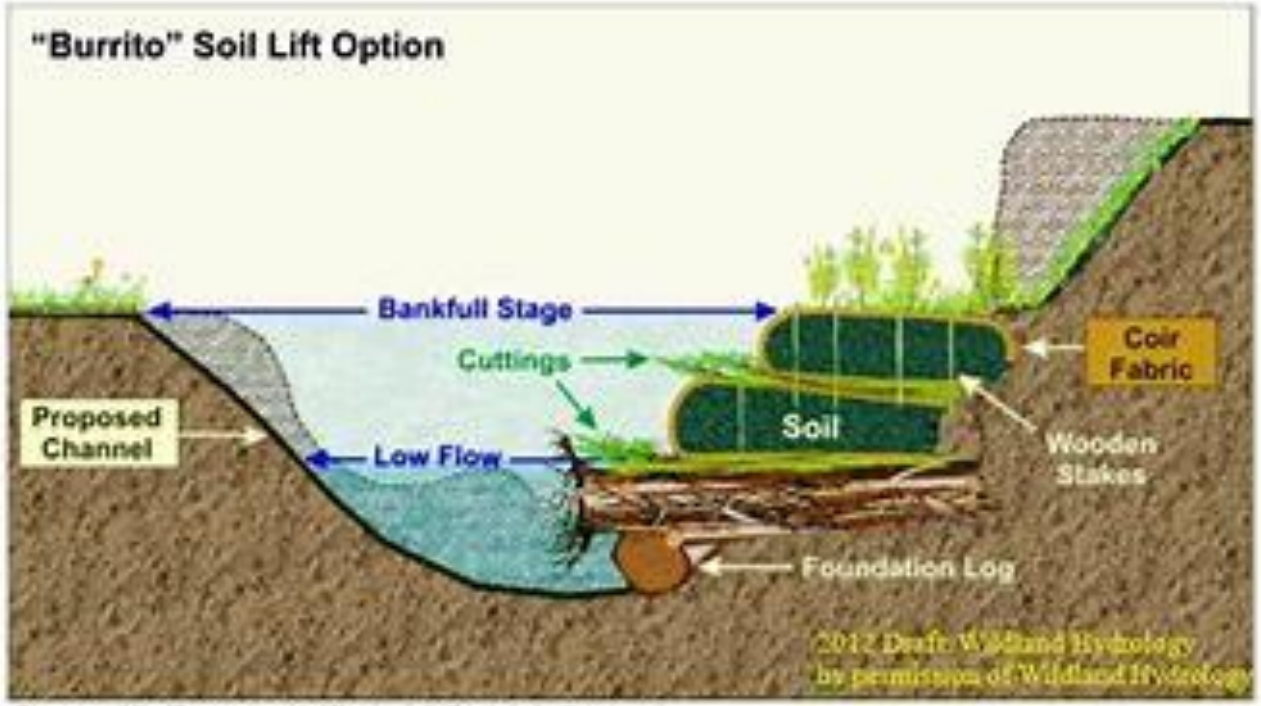

Figure 15: Toe wood "Burrito" Soil Lift Options

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POTENTIAL EFFECTS OF SHORELINE STABILIZATION

- Degradation of water quality
- Degradation of habitat – both upland and aquatic
- Reduces the resilience of the coast to rising sea level
- Affects movement of sediment along the shore and causes increased erosion and/or deposition on nearby properties
- Results in a decrease in shoreline vegetation = increased water temperatures

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WHAT CAN BE DONE?

Implement “Soft” Shore Protection Designs

Bioengineered! Living Shorelines! Green Shores!

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Nationwide Permit 13 – Bank Stabilization

- No material is placed in excess of the minimum needed for erosion protection
- No more than 500 feet in length along the bank
- The activity will not exceed an average of one cubic yard per running foot

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Nationwide Permit 54 – Living Shorelines

- Coastal waters along shores with small fetch and gentle slopes subject to low- to mid-energy waves
- A footprint made up mostly of native material
- Incorporates vegetation or other living, natural “soft” elements alone or in combination with harder shoreline structure for added protection and stability

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HONOLULU DISTRICT REGIONAL CONDITIONS FOR THE 2017 NATIONWIDE PERMITS

REGIONAL CONDITION 9 – BANK STABILIZATION

1. For new bank stabilization projects in streams with vegetated slopes and/or natural bed and bank, vegetative and environmentally sensitive stabilization practices must be used whenever practicable. Documentation of consideration of environmentally sensitive bank stabilization practices must be included in the PCN to demonstrate whether the use of environmentally sensitive stabilization techniques is practicable given site-specific circumstances. Environmentally sensitive stabilization techniques incorporate organic materials to produce functional structure, provide wildlife habitat, and/or provide areas for re- vegetation. Examples of environmentally sensitive bank stabilization practices include, but are not limited to, the use of the following: adequate sized armoring keyed into the toe of the slope with native plantings, or other suitable vegetation, on the banks above; vegetated geogrids; coconut fiber coir logs; live woody vegetated cuttings; fascines or stumps; brush layering; soil lifts. In situations where the use of these stabilization techniques are not practicable (due to high stream flow velocities, for example) stream bank armoring should be designed to incorporate environmentally friendly natural features, if possible. Examples include: vegetated gabions, vegetated gabion mattresses, live cribwalls and joint plantings.

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HONOLULU DISTRICT REGIONAL CONDITIONS FOR THE 2017 NATIONWIDE PERMITS

REGIONAL CONDITION 9 – BANK STABILIZATION CONT.

2. For new shoreline stabilization projects, environmentally sensitive designs that provide wave dissipation, interstitial spaces for fish, crustacean and invertebrate habitat, and other environmental benefits must also be used whenever practicable. Documentation of consideration of environmentally sensitive shoreline stabilization practices must be included in the PCN to demonstrate whether the use of environmentally sensitive stabilization techniques is practicable.

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STANDARD INDIVIDUAL PERMIT ALTERNATIVES ANALYSIS REQUIRED

404(B)(1) Guidelines requires under “40 CFR 230.10(a)-Restrictions on Discharge” **no discharge shall be permitted if there is a practicable alternative** to the proposed discharge which would have less adverse impact on the aquatic ecosystem (waters of U.S.) so long as the alternative does not have other significant adverse environmental consequences.

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BANK STABILIZATION PERMIT CONSIDERATIONS

a. The cause of the erosion and the distance of any existing structures from the area(s) being stabilized.

b. The type and length of existing bank stabilization within the vicinity of the proposed project.

c. A description of current conditions and expected post-project conditions in the waterbody.

d. How will the bank stabilization affect cross-steam, downstream, or adjacent properties?

e. How does the project incorporate elements avoiding and minimizing adverse environmental effects to the aquatic environment and nearshore area?

f. Was a geotechnical investigation conducted?

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Table 3-1. Site visit checklist to guide data collection and questions to assess site-based causes of erosion.Key listed items are further detailed below in bold italics.

Site Visit Checklist

Geology and geomorphology

- ☑ geology: units/stratigraphy, slope character
- ☑ landslide activity: year and type, potential drivers*
- ☑ groundwater, relative sediment permeability, hydrophilic vegetation
- ☑ geomorphology: shoretype, localized beach features, erosion scarps*
- ☑ wave climate & coastal flooding
- ☑ evidence of coastal erosion*
- ☑ beach sediment & grain size
- ☑ backshore features: dimensions, LWD, vegetation
- ☑ alongshore site segments: delineation & descriptions
- ☑ cross sections: elevations, bluff top & toe, backshore features, MHHW, slope & toe of beach, water line

Upland surface water drainage

- ☑ general watershed conditions, streams, wetlands
- ☑ seeps and springs
- ☑ drainage control: water sources: stormwater systems, discharge points, impervious surfaces*

*See below, Defining and Identifying the Problem: Site-Based Causes of Erosion.

Site vegetation, habitat, and species

- ☑ native vegetation, plant species present, erosion control*; indicate processes*
- ☑ vegetation condition, communities
- ☑ juvenile salmon, forage fish habitat
- ☑ animal species present, animal usage

Cultural resources

- ☑ potential historical use, shell midden or other evidence

Site development features

- ☑ primary structures/ locations: houses, roads, septic; setbacks, potential to relocate
- ☑ secondary features: sheds, garages, driveways, unattached patios; potential to relocate
- ☑ irrigation and water features: irrigation, ponds, fountains
- ☑ presence of fill or excavated areas
- ☑ potential for contaminated sediment or debris

Erosion control structures

- ☑ type of structure and material used
- ☑ condition of structure
- ☑ structure elevation

Determining Site-Based Causes of Erosion

- ☑ Where on the site is erosion occurring?
- ☑ What type of erosion or mass wasting is occurring?
- ☑ Why is erosion occurring?

  Potential causes:
  - ♦ Wave attack
  - ♦ Historical beach gravel mining (on site)
  - ♦ Historical fill (only) eroding
  - ♦ Bluff geology
  - ♦ Adjacent coastal structures
  - ♦ Surface/ground water management
  - ♦ Vegetation clearing
  - ♦ Site excavation or other modifications
- ☑ How fast is erosion occurring?
  - ♦ On-site evidence
  - ♦ History and type of landslides
  - ♦ Aerial photograph measurements
- ☑ Is erosion short-term or cyclical?
  - ♦ Temporary storm damage
  - ♦ Seasonal erosion/accretion
- ☑ What development or improvement is at risk?
  - ♦ Substantial, such as house or septic system
  - ♦ Roads or utilities
  - ♦ Other unsubstantial improvement

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WHAT DOES GUAM NEED?

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COMPREHENSIVE SHORELINE MANAGEMENT STRATEGY

- Improved data on geology and coastal processes as well as shoreline conditions to support more informed shoreline management decisions.
- Research to document the habitat value and viability of “soft” shoreline techniques and to improve their design.
- Guidance for local governments to use in shoreline management planning.
- Outreach materials for land use decision-makers, landowners, and contractors on living shoreline advantages and design principles.
- A training program for contractors and local government staff on “soft” shoreline practices.
- A monitoring program.

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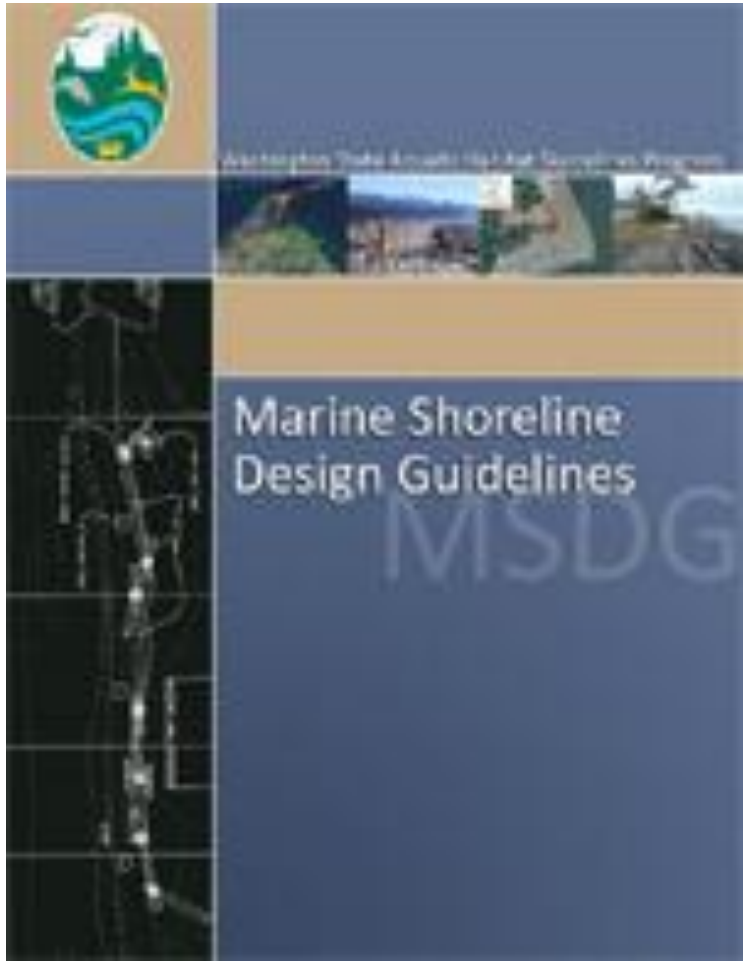

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Before


After

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