REGULATORY PROGRAM AUTHORITIES AND GEOGRAPHIC JURISDICTION

Kara Vick
Regulatory Specialist, Compliance Branch

Regulatory Division
Date: 30 May 2019

U.S.ARMY

US Army Corps of Engineers®

REGULATORY PROGRAM AUTHORITIES

Section 10 of the Rivers and Harbors Act of 1899 (Section 10)

- Corps authorizes structures and work in/or affecting “navigable waters of the U.S.” such as dredging, piers and docks, dikes, levees.
- Structures/work/navigable waters
- Navigable waters are those that are subject to the ebb and flow of the daily tide; and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Section 14 of the Rivers and Harbors Act (Section 408)

- Requires authorization regarding work and/or projects in or affecting features built or under the control of the U.S. for the improvement of any of it’s navigable waters.

Section 404 of the Clean Water Act of 1972 (Section 404)

- Corps authorizes the discharge of dredged and/or fill material into waters of the U.S. such as earthern fill, mechanized landclearing, riprap.
- Discharge of dredged and/or fill material/waters of the U.S.
- 1987 Corps of Engineers Wetland Delineation Manual
- Supplements: Atlantic and Gulf Coastal Plain Region & Great Plains Region.

Section 103 of Marine, Research, and Sanctuaries Protection of 1972 (Section 103)

- Corps regulates transport of dredged material for purpose of ocean disposal.
- Corps regulates transport, EPA regulates actual disposal.

RIVERS AND HARBORS ACT OF 1899
SECTION 10

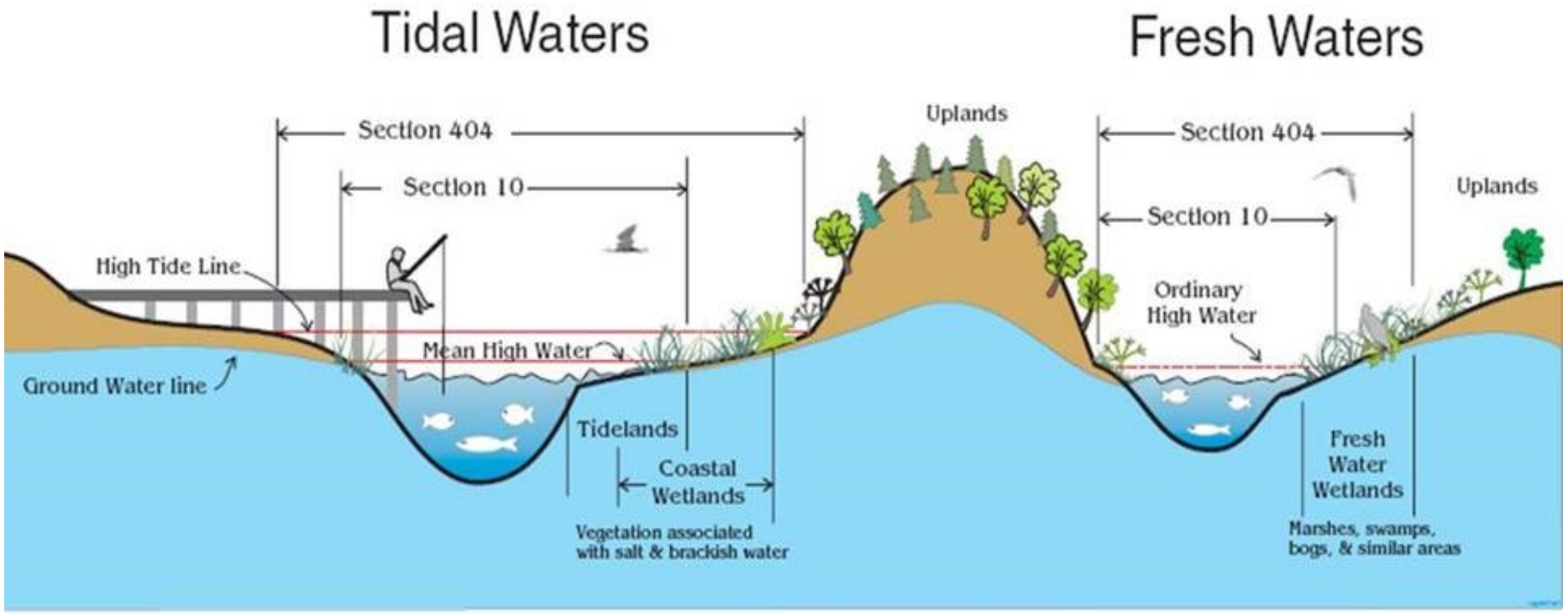
Structures

Work

CLEAN WATER ACT OF 1972
SECTION 404

Geographic Limits of Tidal and Non-Tidal Waters

CORPS OF ENGINEERS REGULATORY JURISDICTION



	Section 103 Ocean Discharge of Dredged Material	Section 404 Discharge of Dredged or Fill Material Regulated Waters Definition: 33 CFR 328.3(a)	Section 10 All Structures and Work Regulated Waters Definition: 33 CFR 329.4
Typical examples of regulated activities	Ocean discharges of dredged material	All filling activities, utility lines, outfall structures, road crossings, beach nourishment, riprap, jetties, some excavation activities, etc.	Dredging, marinas, piers, wharves, floats / docks, intake / withdrawal pipes, pilings, bulkheads, ramps, fills, overhead transmission lines, etc. that occur within, over, under, or affecting the waterbody.

TYPES OF PERMITS; 404(B)(1) GUIDELINES; ALTERNATIVE ANALYSIS

Brian Bader
Project Manager, Evaluation Branch

Regulatory Division
Date: 30 May 2019

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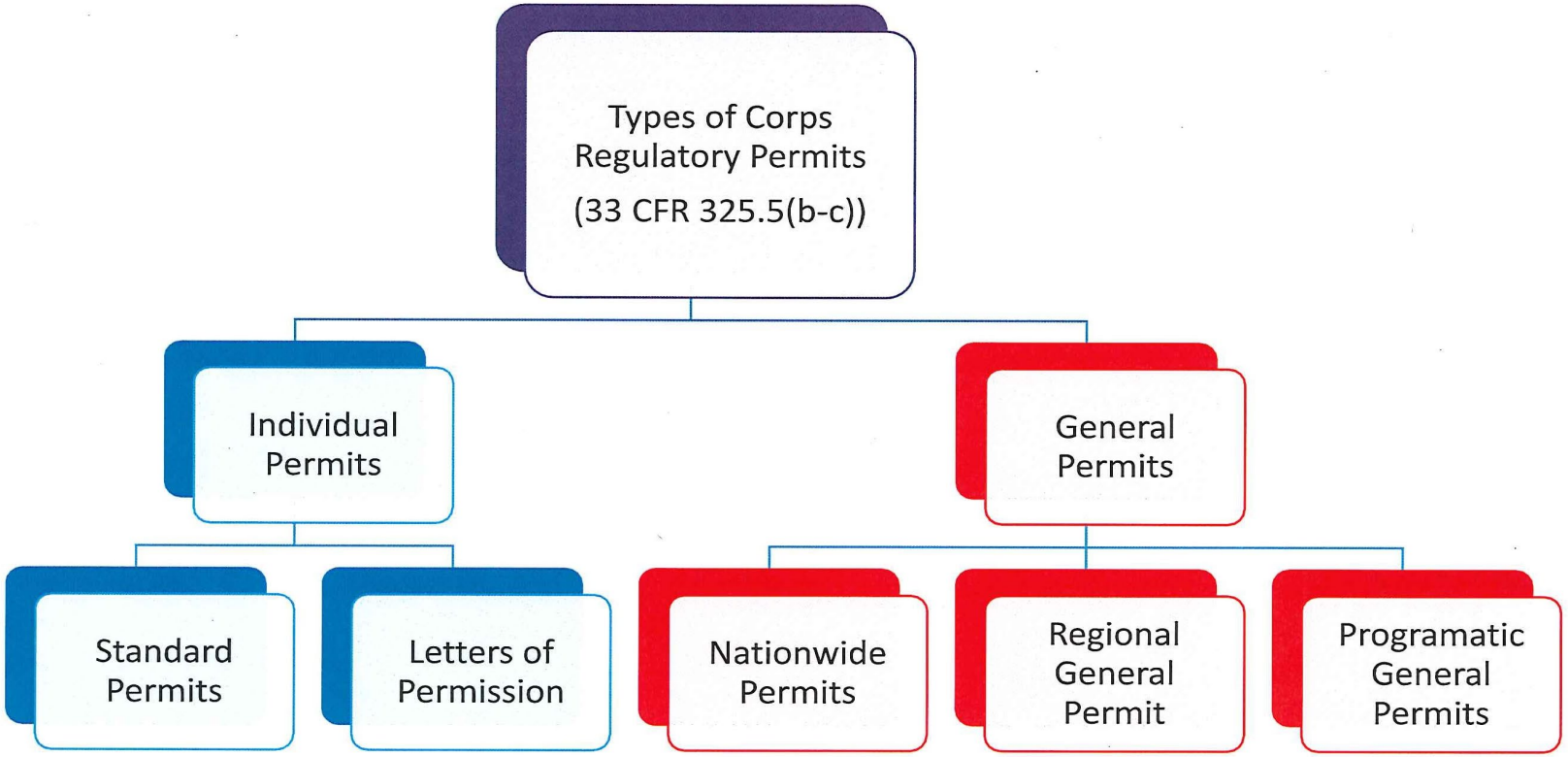
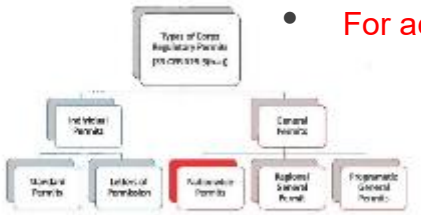
TYPES OF PERMITS
INDIVIDUAL AND GENERAL PERMITS



TYPES OF PERMITS

General Permits (GP) – Nationwide Permits



- For activities that will have only minimal individual and cumulative adverse effects on the environment,

Nationwide General Permits (NWP)

- Developed by Corps Headquarters and issued for a 5 year period to the nation
- General Concurrence has been issued from the State for 401 water Quality Certification and Consistency with Coastal Zone Management Program
- Endangered Species Act (ESA) Essential Fish Habitat (EFH), and Historical Properties (HP) concerns have been coordinated and determined to be minimal
- Some permits require notification to the Corps = *Pre-Construction Notification (PCN)*
- Some NWPs have Regional Conditions per District
- Further coordination may be required for these concerns

An activity is authorized under an NWP only if that activity and the permittee satisfy all of the NWP's terms and conditions. (including Regional Conditions) Activities that do not qualify for authorization under an NWP still may be authorized by an individual or regional general permit. (Reference 33 CFR 330.1(c)).

33 CFR 330.4(a) "A prospective permittee must satisfy all terms and conditions of an NWP for a valid authorization to occur."

Federal Register/ Vol. 82 No. 4/ Friday, January 6, 2017/Rules and Regulations/Pg. 1998 2nd column, C. "Nationwide Permit General Conditions Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

REGIONAL GENERAL PERMITS

•For activities that will have only minimal individual and cumulative adverse effects on the environment,

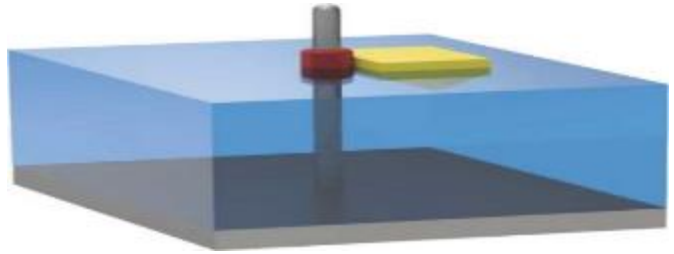
- These permits are initiated, researched, and implemented by the Corps divisions or districts to address a group of similar activities.
- Subject to Section 10 and/or 404
- May be conditioned to require case by case reporting.
- May be administered by the State of behalf of the Corps, with oversight by the district.
- Development is similar to the Individual Permit review process.

Individual Permits (IP)

- **For activities that do not fit the terms and conditions of a General Permit**

Letters of Permission (LOP)

- Subject to Section 10 only
- These permits require a 15 Day Interagency Coordination
- Do not require Section 401 CWA Certification
- May require Coastal Zone Consistency
- **Non – controversial** *
- Requires Public interest Review
- Categorical Exclusion for NEPA



Standard Permits (SP)

- Subject to Section 10 and/or Section 404
- The permits include a 15/30 Day Public Notice
- If 404 - State Water quality certification is required
- May require Coastal Zone Consistency
- Requires Public interest Review
- Requires all other elements of permit evaluation
- Requires full NEPA analysis

404(B)(1) GUIDELINES-ALTERNATIVE ANALYSIS

40 CFR 230

- Purpose is to restore and maintain the **chemical**, **physical**, and **biological** integrity of waters of the U.S. through the control of discharges of dredged or fill material.
- No discharge of fill material is permitted if there are **PRACTICABLE ALTERNATIVES** to the proposed discharge that would have **LESS ADVERSE IMPACT** to aquatic ecosystem.
- Practicable alternatives are always presumed to be available unless **clearly demonstrated otherwise** – discharge of fill.
- This would be the **L**east **E**nvironmentally **D**amaging **P**racticable **A**lternative.
- Discharge into a special aquatic site does not require siting within a special aquatic site to fulfill the basic project purpose (i.e. water dependency).
- Water Dependent according to 404 (B)(1) Guidelines

404(B)(1) GUIDELINES-ALTERNATIVE ANALYSIS

40 CFR 230

- Permit would only be granted if it complies with the guidelines (33 CFR 320.4)
- Corps has final responsibility for determining compliance with the guidelines.
- Corps MUST select least environmentally damaging practicable alternative (LEDPA)
- Level of review commensurate to impact (August 23, 1993 EPA/USACE MOA)

ALTERNATIVES ANALYSIS

A thorough alternative analysis should include a well-defined project purpose and need, a **no action alternative**, multiple offsite location alternatives, and multiple onsite alternatives. The offsite alternatives should fit the stated **siting criteria**, and specific **reasons** why each of these sites were not selected. The preferred site (and subsequent on-site alternatives) must fit the stated siting criteria, must clearly demonstrate that the applicant has avoided and minimized the proposed impacts on the project site so that the remaining proposed impacts are, in fact, unavoidable, AND that the proposed project is the **least environmentally-damaging practicable alternative** with regard to the aquatic resources.

****

The least environmentally-damaging practicable alternative and all unavoidable impacts must be identified before any consideration of compensatory mitigation may commence.

****

If economics are cited as justification for any of the above alternatives not being practicable, please submit data that shows that the particular alternative is in fact not economically practicable.

An Alternative Analysis is required for all aquatic resources, including waters of the US and not just special aquatic sites.

DEVELOPING THE ALTERNATIVE ANALYSIS

Project Purpose and Need: See HQ SOP, July 2009 Section 12, 33 CFR 325 App B 9(b)(4) and 40 CFR1502.13 for information on need and purpose.

Applicant's stated Purpose and Need:

Basic Project Purpose and Need;

Overall Project Purpose and Need:

Corps determines Overall project Purpose and Need

Siting Criteria—what are your limiting factors, design constraints

In order to be practicable, an alternative must be available, achieve the project purpose, and feasible when considering cost, logistics and technology.

The applicant considered the following citing criteria to determine the preferred alternate: 1)….2)…..3)…..4)…..5)

ALTERNATIVES ANALYSIS

Alternative Analysis ---format helps expedite review of alternative

No Action Alternative

Off-site alternatives: Include maps.
Property not currently owned by the applicant can be considered as a practicable alternative
Alternatives that don't fit the siting criteria should not be listed
Off-site alternative 1: Description of off-site alternative 1
Off-site alternative 2: Description of off-site alternative 2

On-site alternatives: Include the site development plans or layouts
On-site alternative 1 (applicant's preferred alternative): Description/practicability of on-site alternative 1.
On-site alternative 2: Description of on-site alternative 2.

Evaluate alternatives and whether or not each is practicable under the Guidelines, or reasonable under NEPA: Provide appropriate discussion here. This section includes off site and on site alternatives.

Least environmentally damaging practicable alternative under the 404(b)(1) Guidelines (if applicable) and the environmentally preferable alternative under NEPA: Identify the least damaging/environmentally preferred alternative.

If more than one alternative is practicable based on the analysis above, include discussion of environmental effects of each, and rationale for selecting the least damaging one.

404(b)(1) Guidelines-Alternative Analysis
40 CFR 230

Common Issues to avoid:

•Focus of the alternative analysis is the preferred alternative and not the LEDPA

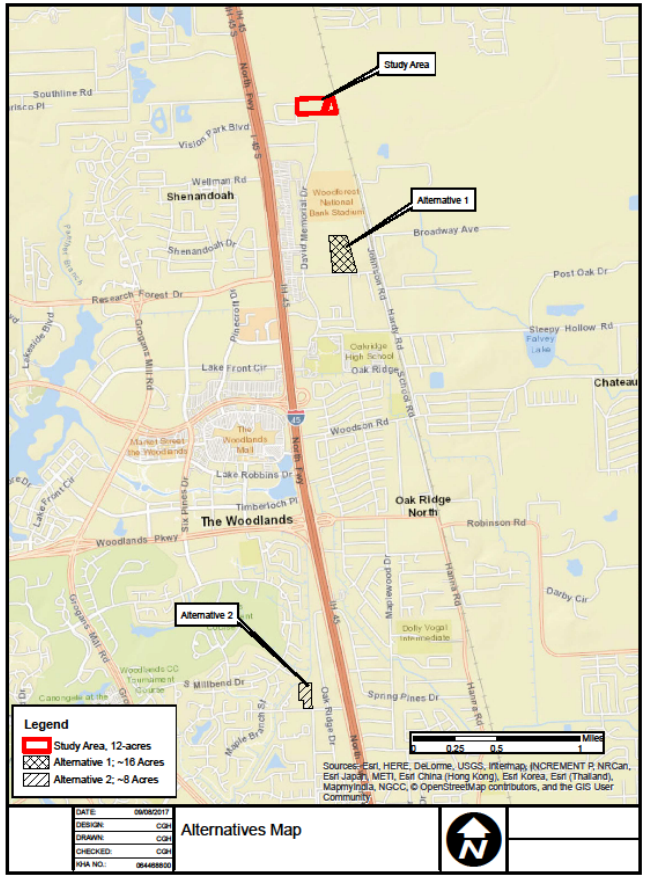
•Justification of proposed project at the proposed location; rather than an actual analysis of practicable alternatives

•Reverse engineered

•Cost is the main and ONLY selection criteria

•No discussion of other alternatives that may/may not have fewer environmental impacts

Corps must select the LEDPA



404(B)(1) GUIDELINES-ALTERNATIVE ANALYSIS

40 CFR 230

- Corps Source Book Alternative Analysis Guidance
- http://www.saj.usace.army.mil/Missions/Regulatory/SourceBook.aspx

PUBLIC INTEREST REVIEW; WQC, CZM, ESA, EFH; SECTION 106; MITIGATION

Kristie Brink
Project Manager, Policy Analysis Branch

Regulatory Division
Date: 30 May 2019

Whooping Crane

US Army Corps of Engineers®

PUBLIC INTEREST REVIEW (PIR)

- 33 CFR 320.4(a) Public interest review
- 21 PIR Factors (ex. conservation, aesthetics, etc.)
- **Public Interest** = the public's rights and concerns over the protection and use of waters of the U.S.
- More than an evaluation of impacts to the aquatic environment, and includes cumulative impacts.
- Applies to **ALL** permit decisions.
- PIR for RGPs, PGPs, and NWPs is done at the regional/HQ level at the time of issuance.
- PIR for SPs and LOPs done on a case-by-case basis.

Recreation

Fish and Wildlife Values

PUBLIC INTEREST REVIEW (PIR)

- Three (3) general evaluation criteria:
  1. Relative extent of the public and private need;
  2. Practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and,
  3. Extent and permanence of beneficial and/or detrimental impacts to the public and private uses to which the area is suited.
- Includes consideration of **mitigation** and use of **special conditions**.
- Balanced evaluation of expected benefits vs. reasonably foreseeable detriments of the proposed activity and its intended use on the public interest.

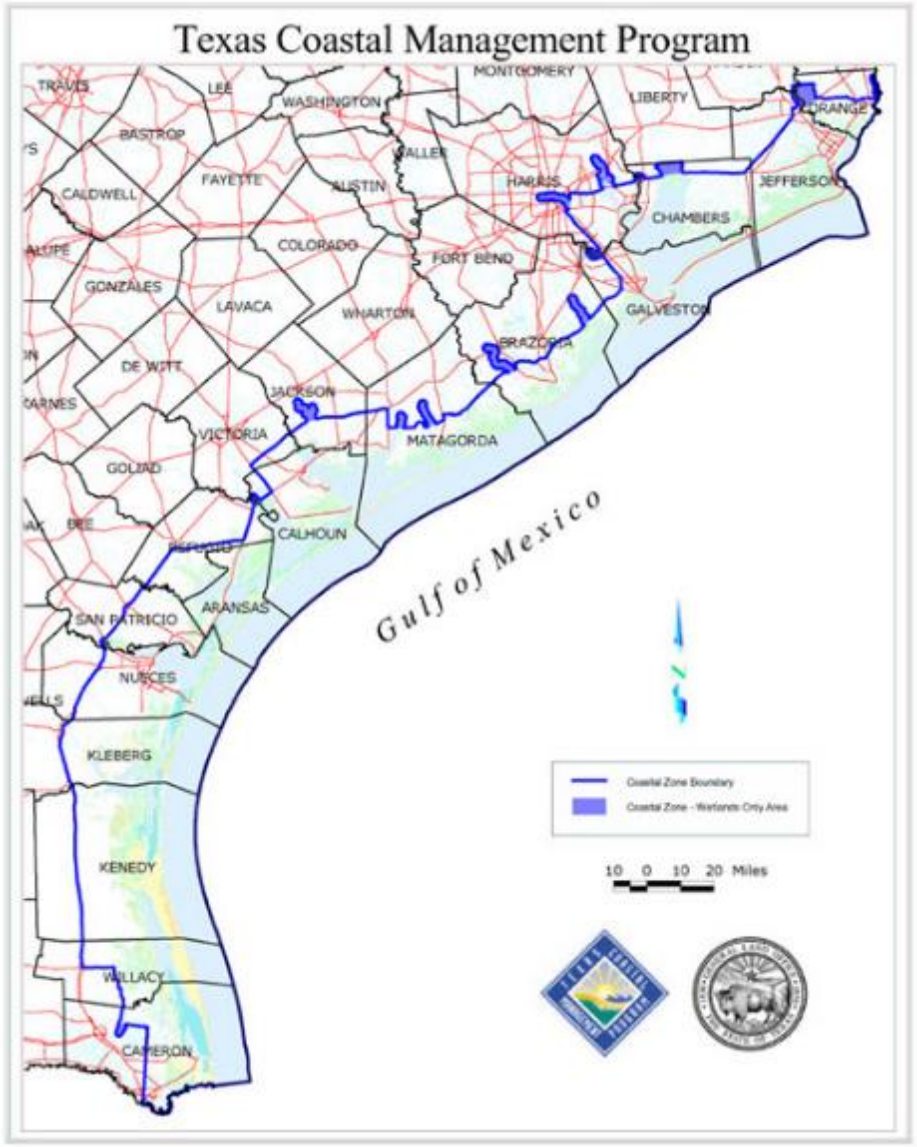
A permit will not be granted if the DE determines that the permit would be contrary to the public interest.

CLEAN WATER ACT SECTION 401: Water Quality Certification (WQC)

- Section 401(a)(1) – requires WQC or waiver before any Federal license or permit is issued to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into navigable waters
- RGL 87-03: General Corps guidance on when WQC is required
- 33 CFR 325.2(b)(1) Section 401 WQC: Requires the Corps Public Notice to provide a statement regarding WQC requirements of the proposed project.
- In most cases, WQC for General Permits is issued at the time of issuance/ re-issuance.

WQC is <u>required</u> prior to permit issuance.

COASTAL ZONE MANAGEMENT ACT (CZMA)



- Approved CZM program in both Texas and Louisiana
- Applicable to both Sec. 10 and 404 resources within CZM boundary
- 33 CFR 325.2(b)(2) CZM consistency

A CZMA consistency finding, or presumed concurrence, is <u>required</u> prior to permit issuance.

ENDANGERED SPECIES ACT (ESA)

- Program for the conservation of Federally listed threatened and endangered (T&E) plants and animals and the habitats in which they are found.
- Requires federal agencies, in consultation with the appropriate Federal agency, to ensure that actions they **authorize**, fund, or carry out are not likely to jeopardize the continued existence of any Federally listed species or result in the destruction or adverse modification of designated critical habitat of such species.
- **Responsible Federal Agencies:**
  - U.S. Fish and Wildlife Service (FWS)
  - U.S. National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS)
- 33 CFR 325.2(b)(5) Processing of Applications, Procedures for particular types of permit situations, Endangered Species: Corps regulations regarding the review of applications pursuant to Section 7 of the ESA

Houston Toad

Whooping Crane

ESA: Effect Determinations

No Effect: Determination by the Corps that the proposed action will not affect, not even beneficial, on a Federally listed species or designated critical habitat.

- **No** consultation required.

May Effect: Determination by the Corps that the proposed action may pose an effect, negative and/or beneficial, on a Federally listed species or designated critical habitat when a listed species or designated critical habitat is exposed to a stressor generated or caused by the action or interrelated or interdependent actions.

- May Affect, Not Likely to Adversely Affect (most common); or
- May Affect, Likely to Adversely Affect.
- Consultation **is required**.

ESA consultation must be concluded prior to permit issuance.


Nesting Sea Turtle


Piping Plover

ESSENTIAL FISH HABITAT (EFH)

- Regulated under the Magnuson-Stevens Fishery Conservation and Management Act
- Establishes procedures designed to identify, conserve, and enhance [tidal and non-tidal] EFH for those species regulated under a Federal fisheries management plan (FMP).
- Requires Federal action agencies to consult with NMFS on all actions authorized by the agency that **may adversely affect EFH**.
- EFH: *"those **waters** and **substrate necessary** to fish, for **spawning, breeding, feeding, or growth to maturity."***
- If the Corps determines that a proposed permit action may adversely impact EFH, then an EFH assessment will be prepared and submitted to NMFS for consultation.

EFH consultation must be concluded prior to permit issuance.

ESA and EFH Responsible Federal Agencies Summary

USFWS	NOAA NMFS	
ESA	ESA	EFH
• Terrestrial T&E species • **Manatee** • Critical habitat for above • **Sea turtles** on the beach (**nesting**)	• Marine aquatic T&E species • Anadromous fishes (in marine and freshwater habitats) • Critical habitat for above • **Sea turtles in the water**	***waters*** *and* ***substrate necessary*** *to fish, for* ***spawning, breeding, feeding, or growth to maturity***

NATIONAL HISTORIC PRESERVATION ACT: Section 106

- Requires an agency to take into account the agency's **undertakings** on properties included in or eligible for the National Register of Historic Places (NRHP).
- Historic Property: any **prehistoric or historic** structure, district, site, building, or object **included in or eligible for inclusion in** the NRHP.
- 33 CFR 325 Appendix C: Corps' implementing regulations
  - Revised Interim Guidance for Implementing Appendix C, April 25, 2005
  - Clarification of Revised Interim Guidance, January 2007

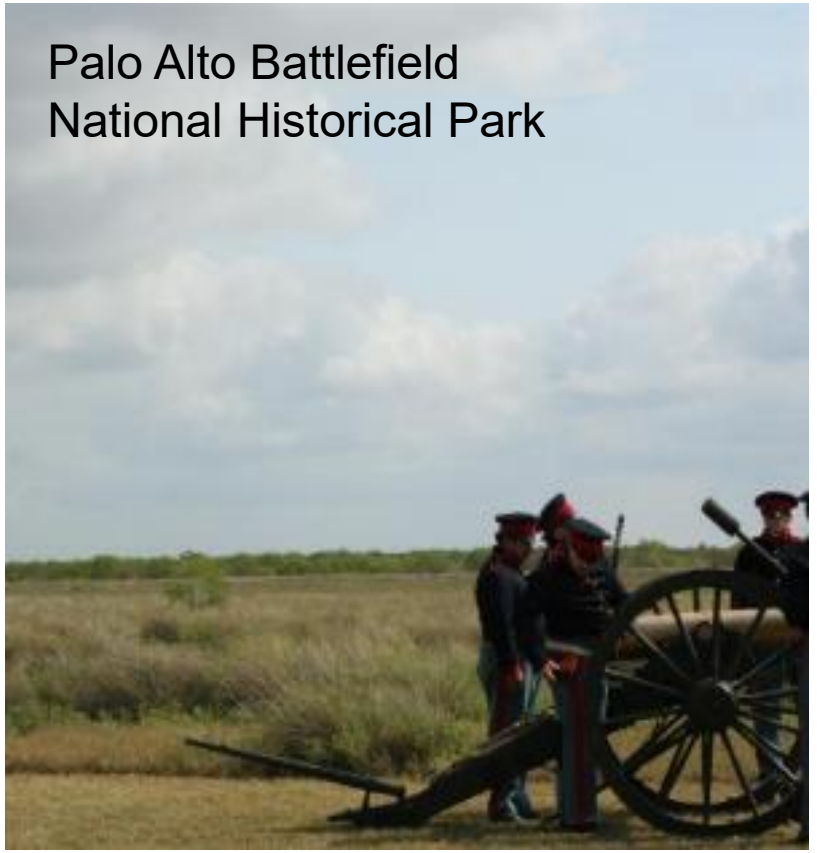
SECTION 106: Consultation Process

Responsible Agencies and their Roles:

- State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officer (THPO)
  a. Reviews and/or comments on Corps determinations and assessments.
  b. Provides recommendations and/or actions.
- Advisory Council on Historic Preservation (ACHP):
  a. Is notified if there is an adverse affect.
  b. Is notified if there is a disagreement between Corps and SHPO/THPO.
  c. May provide review and/or comments.

The Corps Responsibilities:

- Initiates consultation with SHPO, THPO, and other consulting parties including the Tribes if eligible historic property **may be affected.**
- Is ultimately responsible for **final decision** while considering all consulting party's comments.



A permit will <u>not</u> be issued until the requirements of Section 106 have been satisfied.

MITIGATION

Regulations pertaining to mitigation:

- **33 CFR 320.4(r) – General Mitigation Policy**
- 33 CFR 325.4 – Permit Processing: Conditioning of permits
- 40 CFR 230 – 404(b)(1): Subparts B and H
- 40 CFR 1508 – NEPA
- 33 CFR 325.1(d)(7) – Complete Application
- **33 CFR 332 – Compensatory Mitigation for Losses of Aquatic Resources**

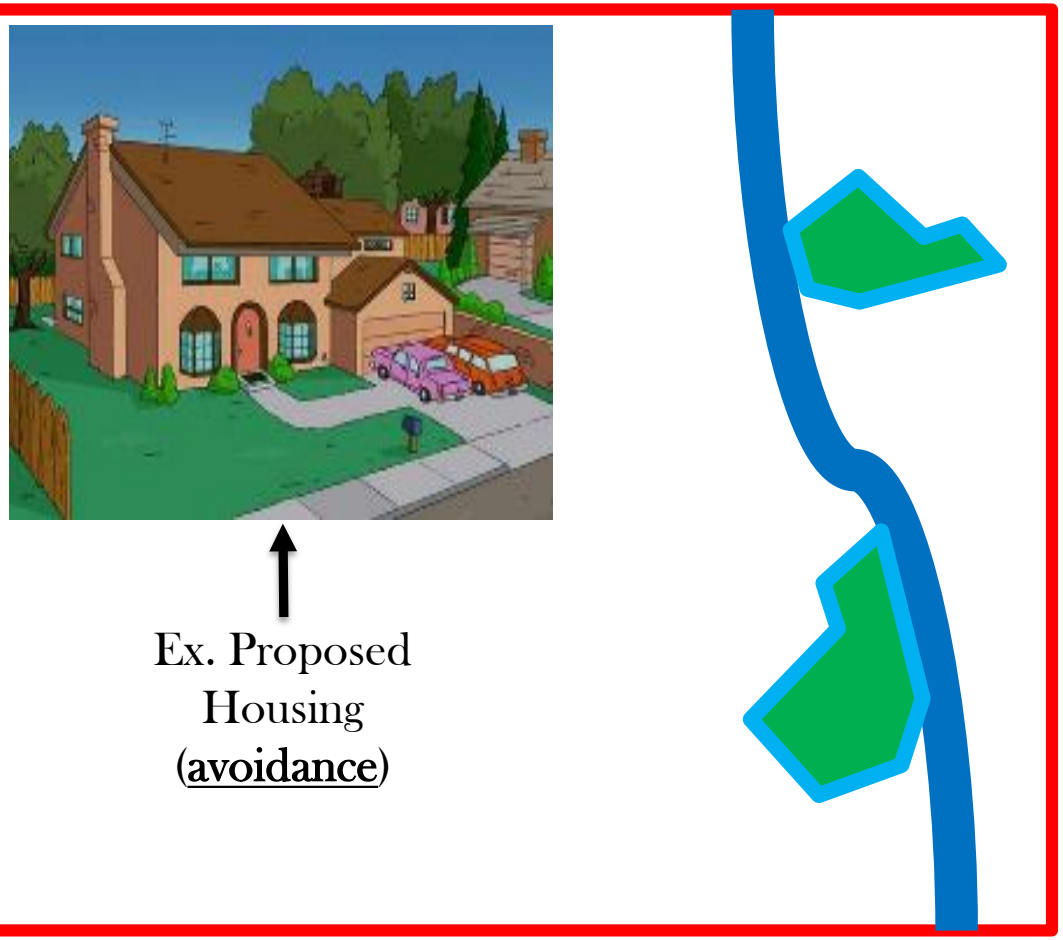
MITIGATION: General Policy

33 CFR 320.4(r) – General Mitigation Policy

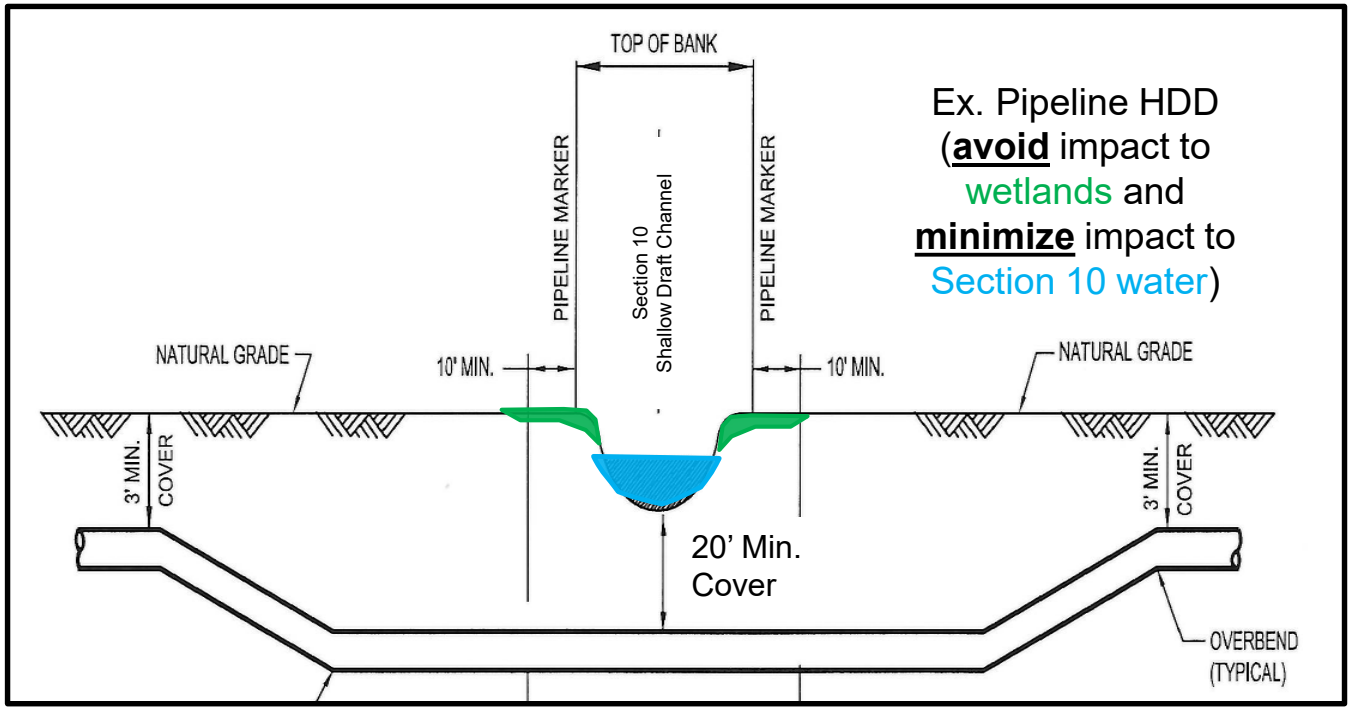
- Review and balancing process used to evaluate all aquatic resource losses.
- Pertains to **all regulatory authorities**, including Section 10 and 404.
- Losses will be **avoided** to the extent practicable.
- Three (3) general categories of mitigation requirements:
    1. Modification(s) to **minimize** adverse project impacts.
    2. Measures required to satisfy **legal requirements** (ex. 404(b)(1), WQC, ESA).
    3. Additional measures required to ensure that the project is **not contrary to the public interest**, which may include resources other than aquatic resources (ex. Coast Guard required lighting and/or signs).

MITIGATION: Sequence of Evaluation

Avoidance → (Minimization/Rectification/Reduction) → Compensation



Ex. Proposed Housing (avoidance)



Ex. Pipeline HDD (**avoid** impact to wetlands and **minimize** impact to Section 10 water)

AFTER all appropriate and practicable **avoidance and minimization** has been achieved…..

MITIGATION: Compensatory Mitigation

33 CFR 332 - Compensatory Mitigation for Losses of Aquatic Resources

- Offset **unavoidable** adverse impacts to aquatic resources.
- To establish standards and criteria for the use of all types of compensatory mitigation.
- Types: restoration, establishment, enhancement, and/or in certain circumstances preservation of **aquatic resources**.
- **Does not alter** the circumstance(s) under which mitigation is required under 33 CFR 320.4(r).
- **Does not affect "sequencing"** of avoidance and minimization requirements under **404(b)(1)**.

CHALLENGES OF THE JD AND DELINEATION VERIFICATION PROCESS

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Team Lead, Compliance Branch

Lynne Ray
Regulatory Specialist, Compliance Branch

Regulatory Division
Date: 30 May 2019

US Army Corps of Engineers®

JURISDICTIONAL DETERMINATIONS

Determination vs. Delineation vs. Verification

Determination provides a yes/no if tract contains waters of the U.S. subject to Section 10 and/or Section 404

Delineation provides the boundary and acreage for waters of the U.S. within the tract, including wetlands, tributaries, seagrasses, oyster reefs, navigable waters (Section 10)

Verification revises/confirms delineation or determination performed by consultants

JURISDICTIONAL DETERMINATIONS

Who Can Request a Jurisdictional Determination (JD)?

Landowner

Lease, easement or option holder

Individual who has an identifiable and substantial legal interest in the property

JURISDICTIONAL DETERMINATIONS

How To Request a JD

Complete, sign, and send JD request form found in RGL 16-01 or send request letter

Attach a map with the area of interest clearly identified with a polygon

Include mailing address, phone number, e-mail address

JURISDICTIONAL DETERMINATIONS

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: _____
  (Street Address)
  City/Township/Parish: _____ County: _____ State: _____
  Acreage of Parcel/Review Area for JD: _____
  Section: _____ Township: _____ Range: _____
  Latitude (decimal degrees):_____ Longitude (decimal degrees): _____
  (For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ___ I currently own this property. ___ I plan to purchase this property.
  ___ I am an agent/consultant acting on behalf of the requestor.
  ___ Other (please explain): _____.
- Reason for request: (check as many as applicable)
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ___ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ___ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ___ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ___ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ___ A Corps JD is required in order to obtain my local/state authorization.
  ___ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ___ I believe that the site may be comprised entirely of dry land.
  ___ Other: _____
- Type of determination being requested:
  ___ I am requesting an approved JD.
  ___ I am requesting a preliminary JD.
  ___ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ___ I am unclear as to which JD I would like to request and require additional information to inform my decision.

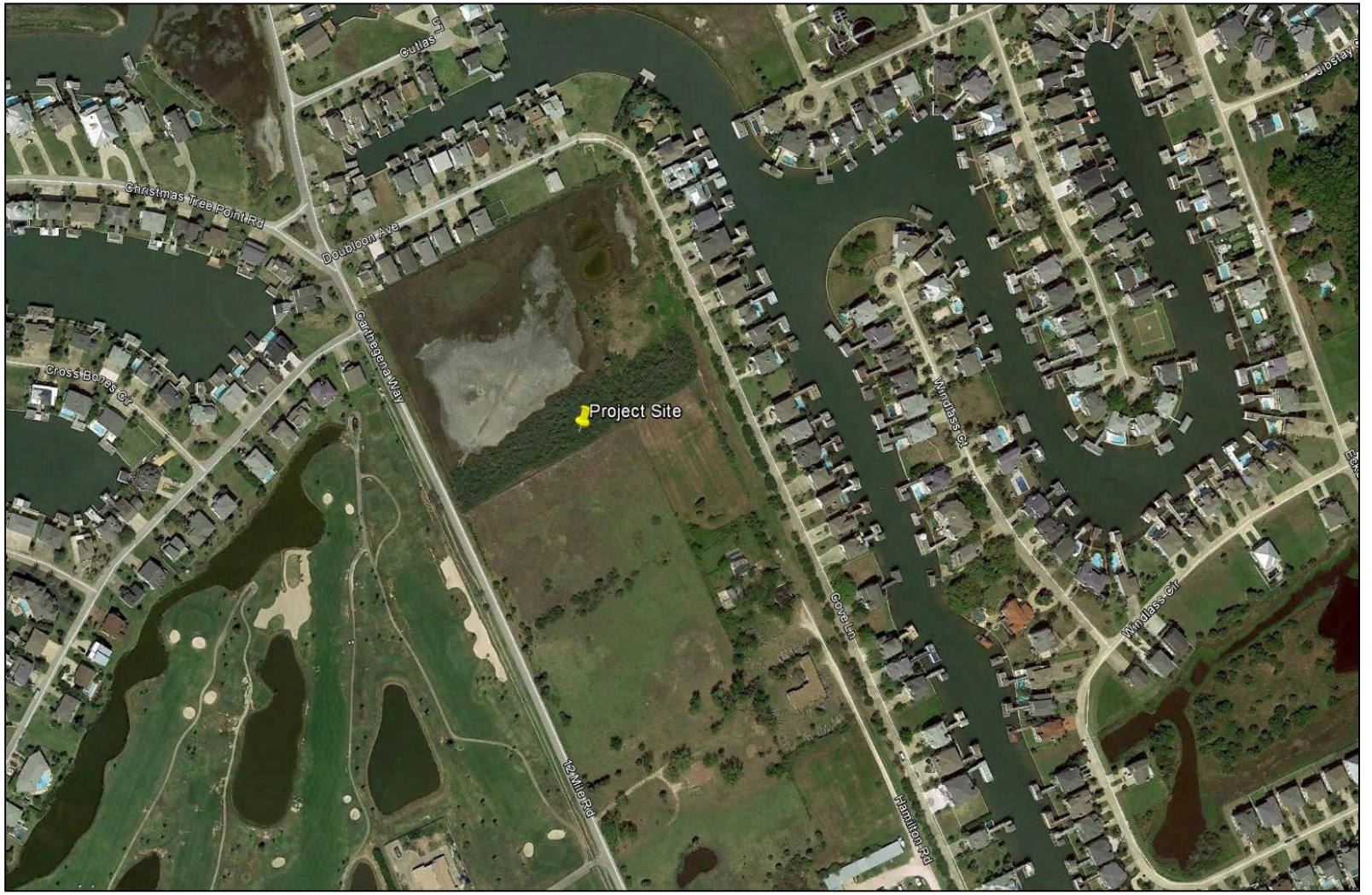
By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: _____
  Company name: _____
  Address: _____
  _____
  Daytime phone no.: _____
  Email address: _____

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

JURISDICTIONAL DETERMINATIONS



JURISDICTIONAL DETERMINATIONS

JURISDICTIONAL DETERMINATIONS

Types of Jurisdictional Determinations

- Refer to Regulatory Guidance Letter 16-01
- Approved Jurisdictional Determination (AJD)
- Preliminary Jurisdictional Determination (PJD)
- No JD
- AJD/PJD Combination

JURISDICTIONAL DETERMINATIONS

Approved Jurisdictional Determination

Defined at 33 CFR 331.2

Presence/absence of waters of the U.S. on a parcel or map identifying limits of waters of the U.S. on a parcel

Must be used for no waters of the U.S. including all upland

Coordinate with EPA & USACE HQ on isolated and EPA on significant nexus

Appealable

Valid for 5 years

JURISDICTIONAL DETERMINATIONS

Preliminary Jurisdictional Determination

Defined at 33 CFR 331.2

Written indications there may be waters of the U.S. on a parcel or indications of the approximate locations of waters of the U.S. on a parcel

Corps is making no legally binding determination (advisory in nature)

Preliminary – Can later request an AJD

May be requested to move ahead expeditiously (In their best interest)

JURISDICTIONAL DETERMINATIONS

Preliminary Jurisdictional Determination cont'd

May be requested even when indications are the aquatic resource(s) are not jurisdictional (Requestor makes informed decision)

May be used for permit decision – all aquatic resources treated as jurisdictional for mitigation requirements

May include delineation limits on a parcel without determining jurisdictional status

No coordination with EPA

Not appealable - No expiration date

JURISDICTIONAL DETERMINATIONS

No JD

Certain circumstances a JD is not necessary

Authorizations by non-reporting NWP

Where Corps verifies GP or issues LOP and/or SP and no jurisdictional questions arise

Proposed activity is not regulated

Proposed activity is exempt under Section 404(f)

Letter clearly states it is not addressing geographic jurisdiction

JURISDICTIONAL DETERMINATIONS

AJD/PJD Combination

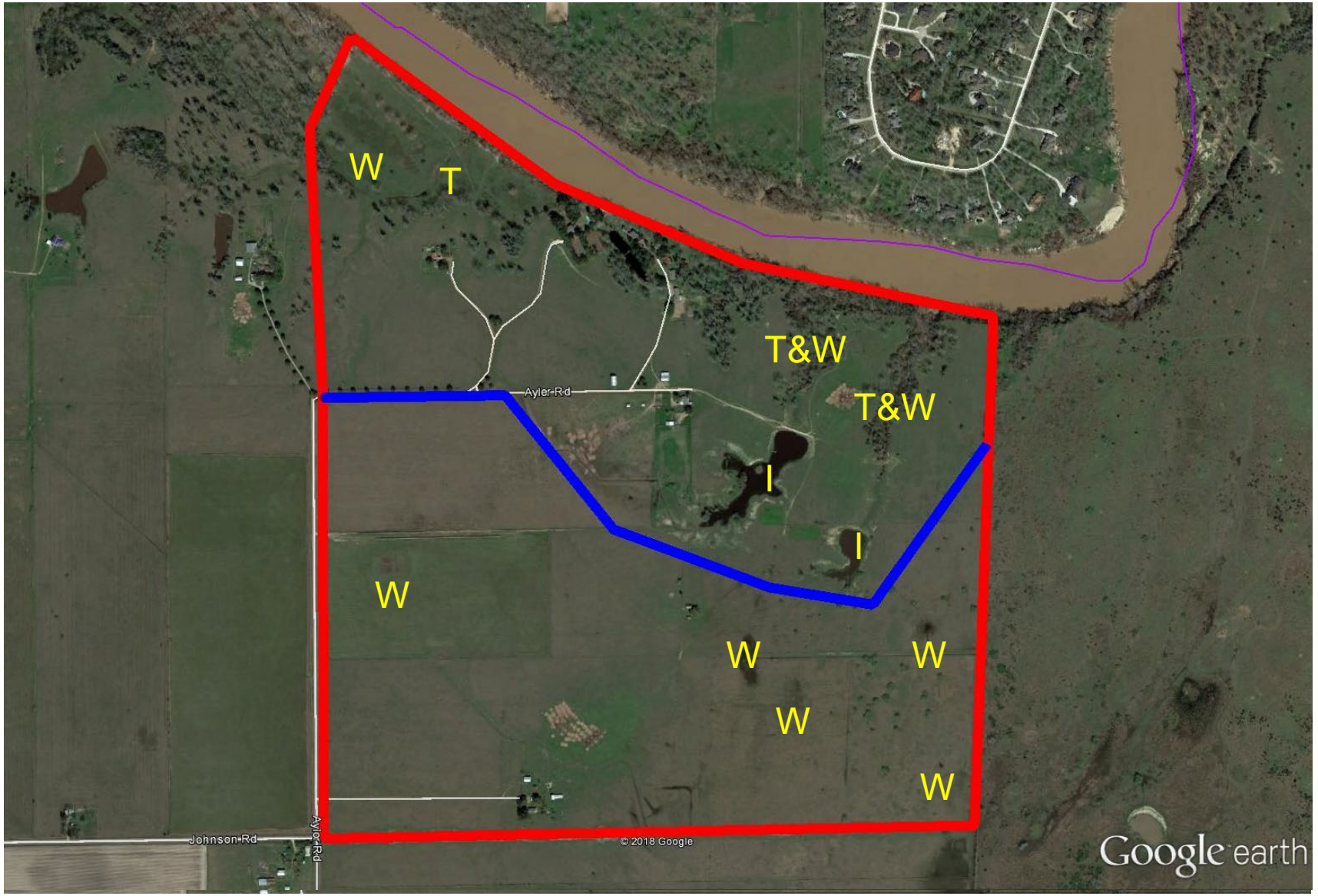
Use AJD on portion of tract and a PJD on portion of a tract

AJD/PJD portions must be clearly identified

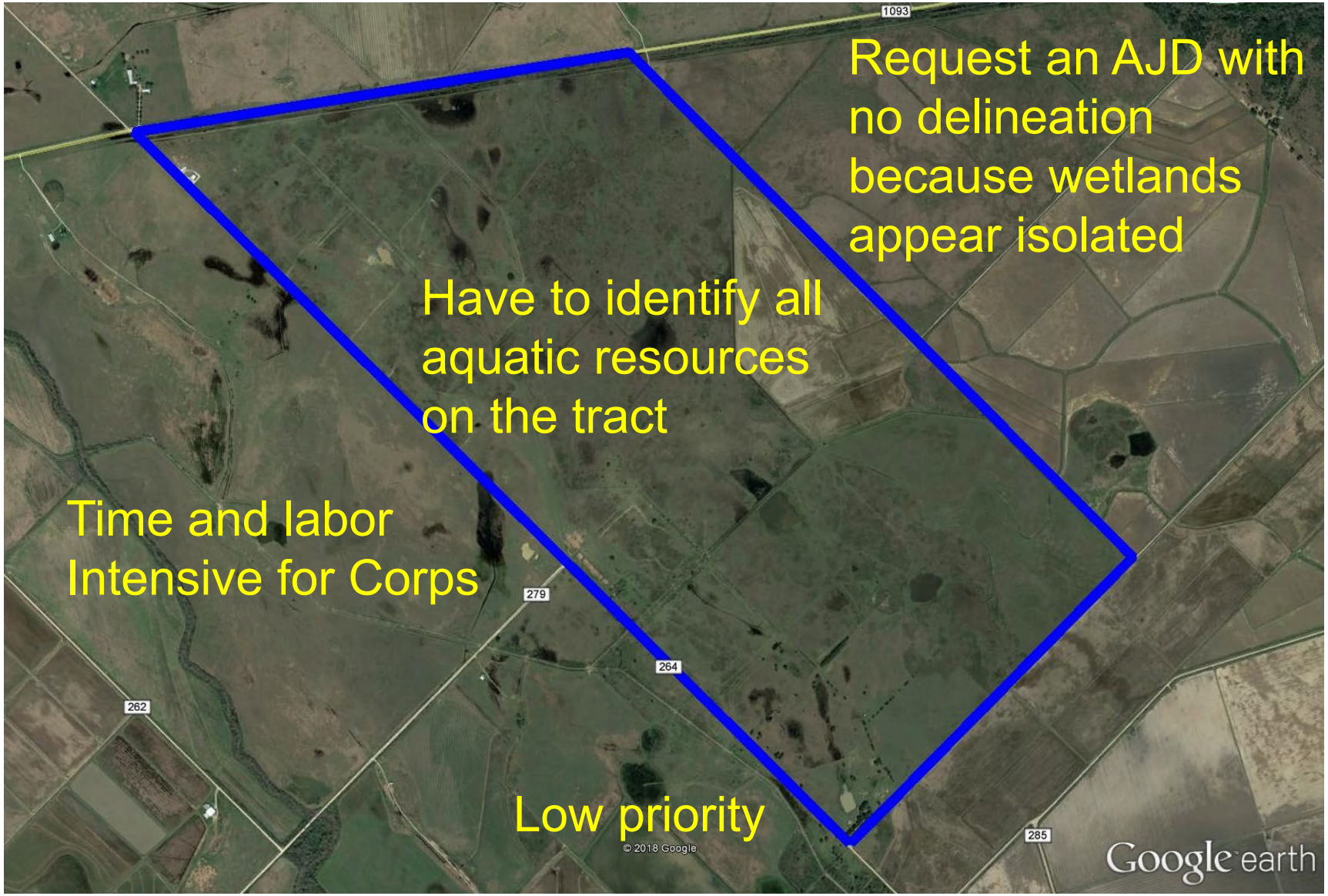
AJD portion appealable

PJD portion not appealable

JURISDICTIONAL DETERMINATIONS



JURISDICTIONAL DETERMINATIONS



DELINEATION REPORT

Importance of Accurate Delineation Report

Used for avoidance and minimization of impacts for the 404(b)(1) guidelines

Used to obtain scores for iHGM and/or compensation

Required for PCNs

USACE must defend delineation and data sheets during legal challenges and administrative appeals

Becomes part of the official administrative record

DELINEATION REPORT

Minimum Requirements

Property owner/affected party permission

Property owner/affected party contact info

Delineation map with data point and transect locations and area of interest clearly identified

Accurate data sheets

Aquatic resource table with acreages and coordinates

DELINEATION REPORT

Useful attachments

Aerial Photos

Topographic Maps

LIDAR

FEMA FIRM

Soil Maps

Shapefiles or .kmz

DELINEATION REPORT

Verification Process

USACE reviews report to determine if in accordance with 1987 Manual and regional supplement (transects if greater than 5 acres and data sheets)

If report not in accordance with 1987 Manual and regional supplement, send letter notifying such and give 30 days to provide information

No information provided within 30 days or information is still not in accordance with the 1987 Manual and regional supplement, request is withdrawn

DELINEATION REPORT

Verification Process

USACE then reviews delineation map and aerial photos

Consistent wetland signatures with no data point, and area is not within a delineated wetland, USACE will request data point prior to scheduling site visit

Waters must be flagged in the field (preferred) or identified using polygons on sub-meter GPS

If revisions warranted after site visit, revisions due within 30 days of date of site visit, if not request is withdrawn

WETLAND IDENTIFICATION & DELINEATION

Publications used by USACE to identify and delineate wetlands.

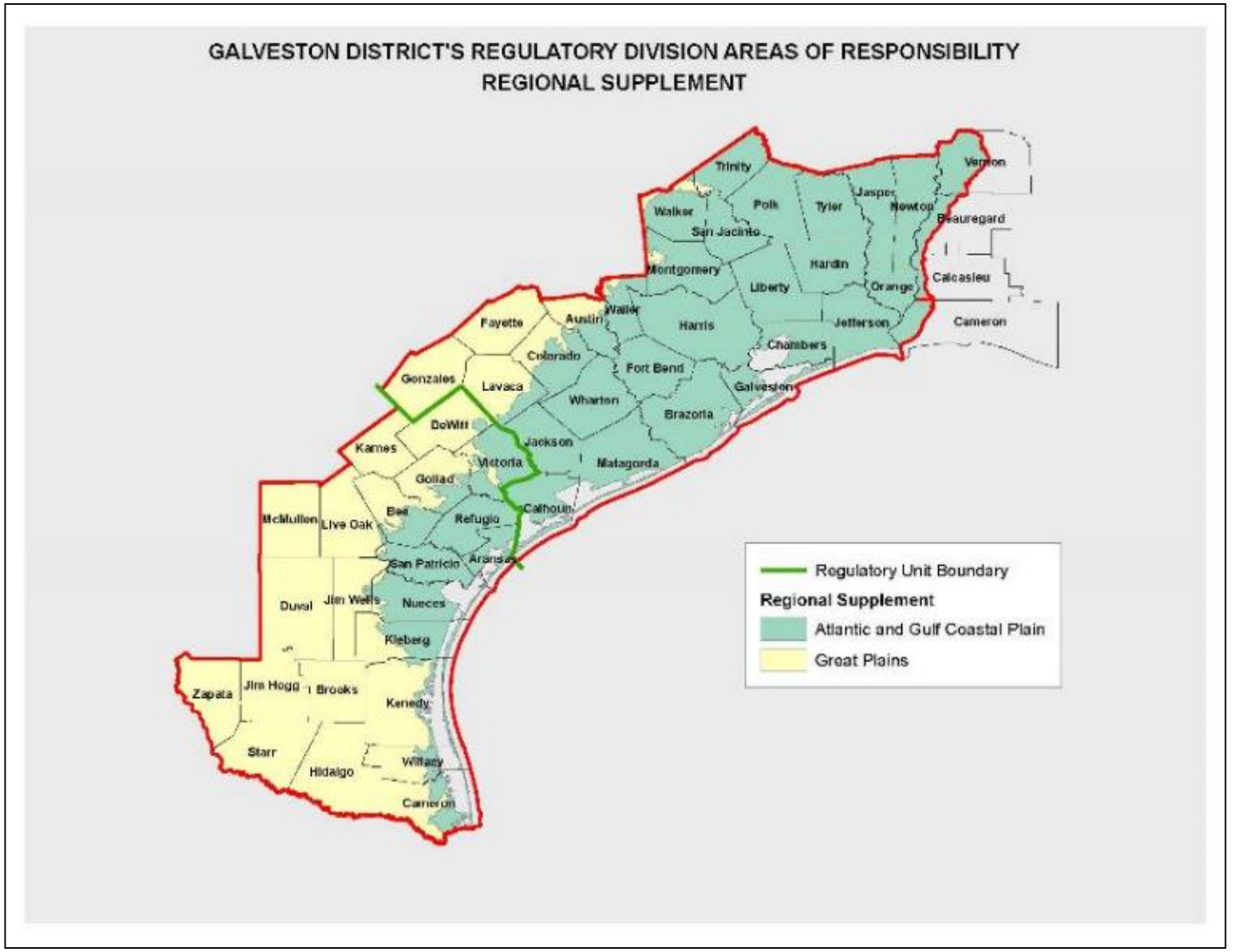
The 1987 Corps of Engineers Wetland Delineation Manual (1987 Manual)
https://el.erdc.dren.mil/elpubs/pdf/wlman87.pdf

And the appropriate Regional Supplement
https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/

Note: The USACE Galveston District geographic area is within the Atlantic and Gulf Coastal Plain Region Supplement as well as the Great Plains Region Supplement.

WETLAND IDENTIFICATION & DELINEATION

WETLAND IDENTIFICATION & DELINEATION



WETLAND IDENTIFICATION & DELINEATION

The 1987 Manual contains the wetland identification and delineation methods including Data Form 3 for Atypical Situations

The Regional Supplement contains the hydrophytic vegetation, hydric soil and wetland hydrology indicators as well as guidance for Difficult Wetland Situations which includes wetland/non-wetland mosaic areas

WETLAND IDENTIFICATION & DELINEATION

1987 Manual Methods:

- Preliminary data gathering
- Routine determinations
  - Onsite inspection unnecessary
  - Onsite inspection necessary
    - Areas equal to or less than 5 acres
    - Areas greater than 5 acres
- Comprehensive determinations

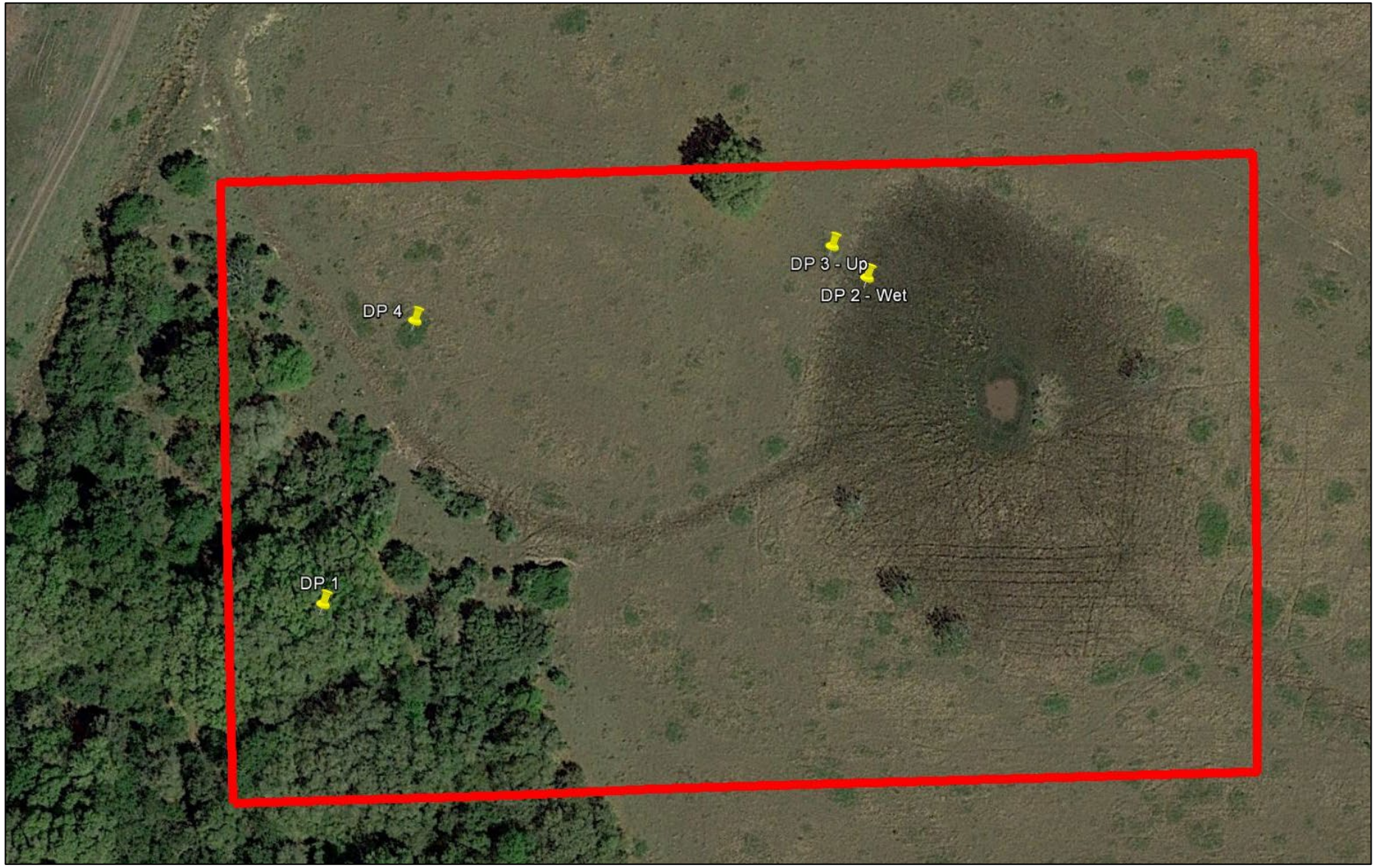
WETLAND IDENTIFICATION & DELINEATION

1987 Manual Methods – Onsite Inspection Necessary:

Areas Equal To or Less Than 5 Acres

Select a representative observation point in each plant community type

WETLAND IDENTIFICATION & DELINEATION



WETLAND IDENTIFICATION & DELINEATION

1987 Manual Methods – Onsite Inspection Necessary:

Areas Greater Than 5 Acres

Establish a baseline parallel major watercourse or perpendicular to the hydrologic gradient

Determine the required number and position of transects

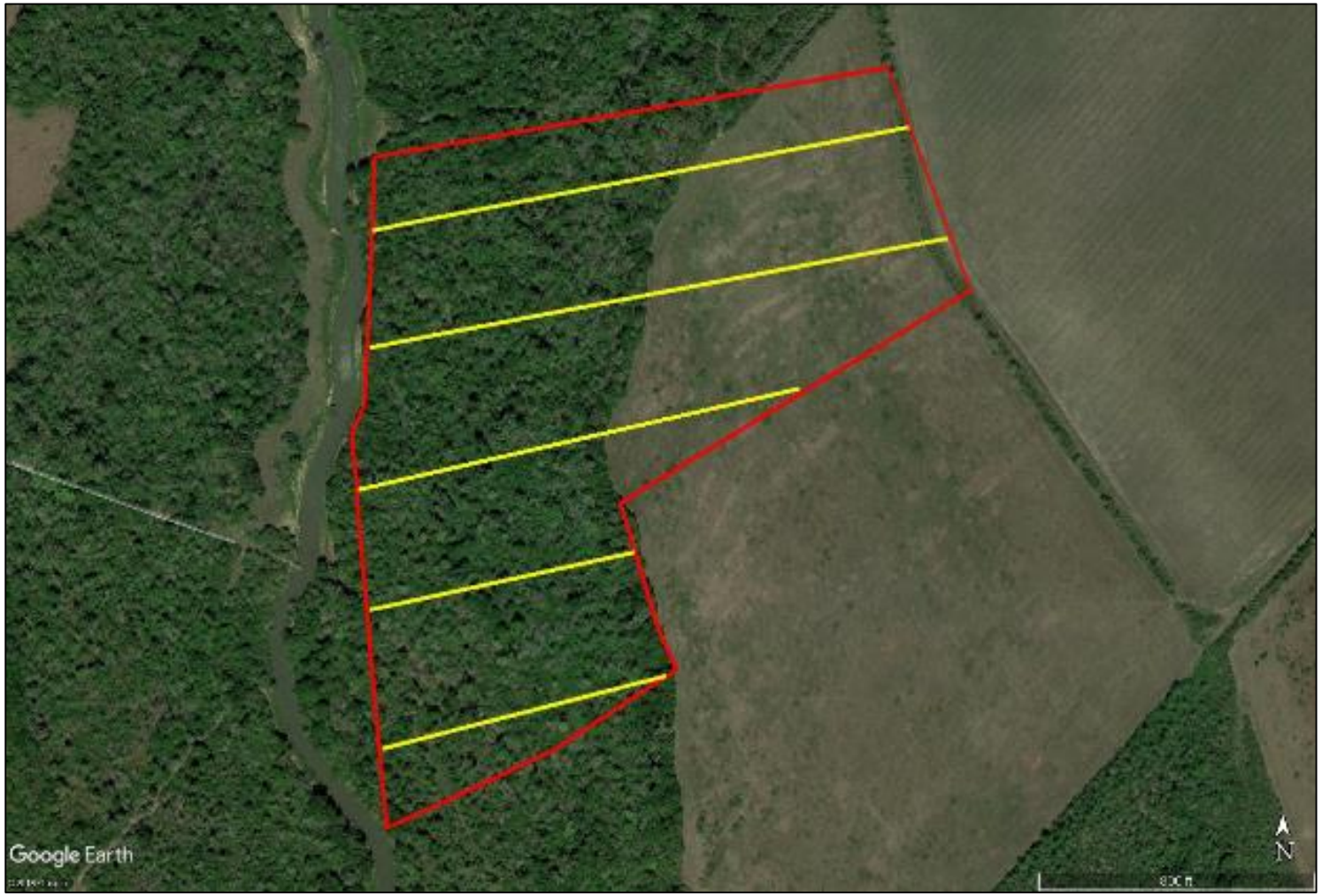
Run transects perpendicular to the baseline

Establish an observation point along the first transect in the first plant community encountered

Continue along transect until a different plant community is encountered and establish another observation point

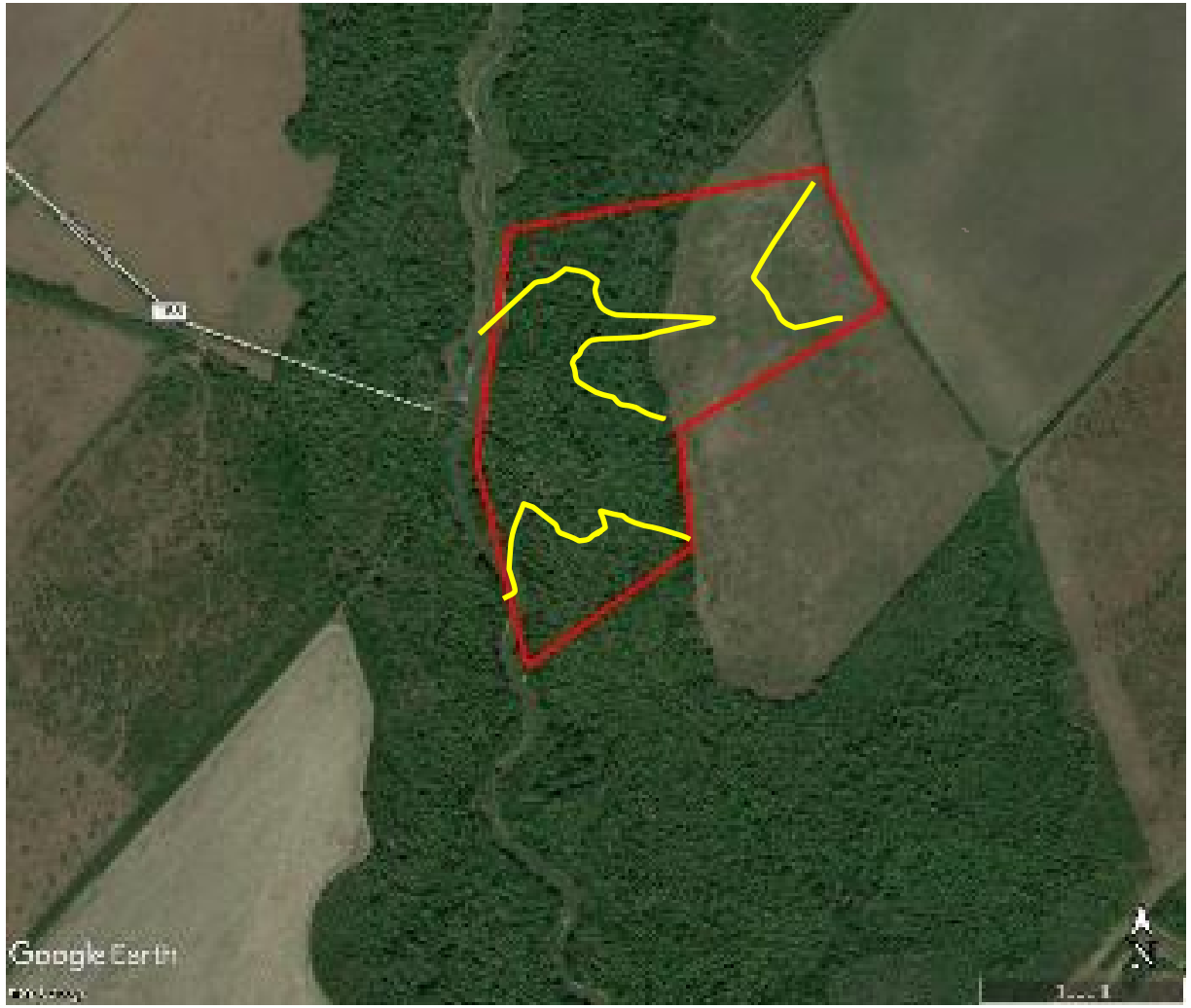
WETLAND IDENTIFICATION & DELINEATION

Transects perpendicular to major watercourse



WETLAND IDENTIFICATION & DELINEATION

Transects not in accordance with the Manual



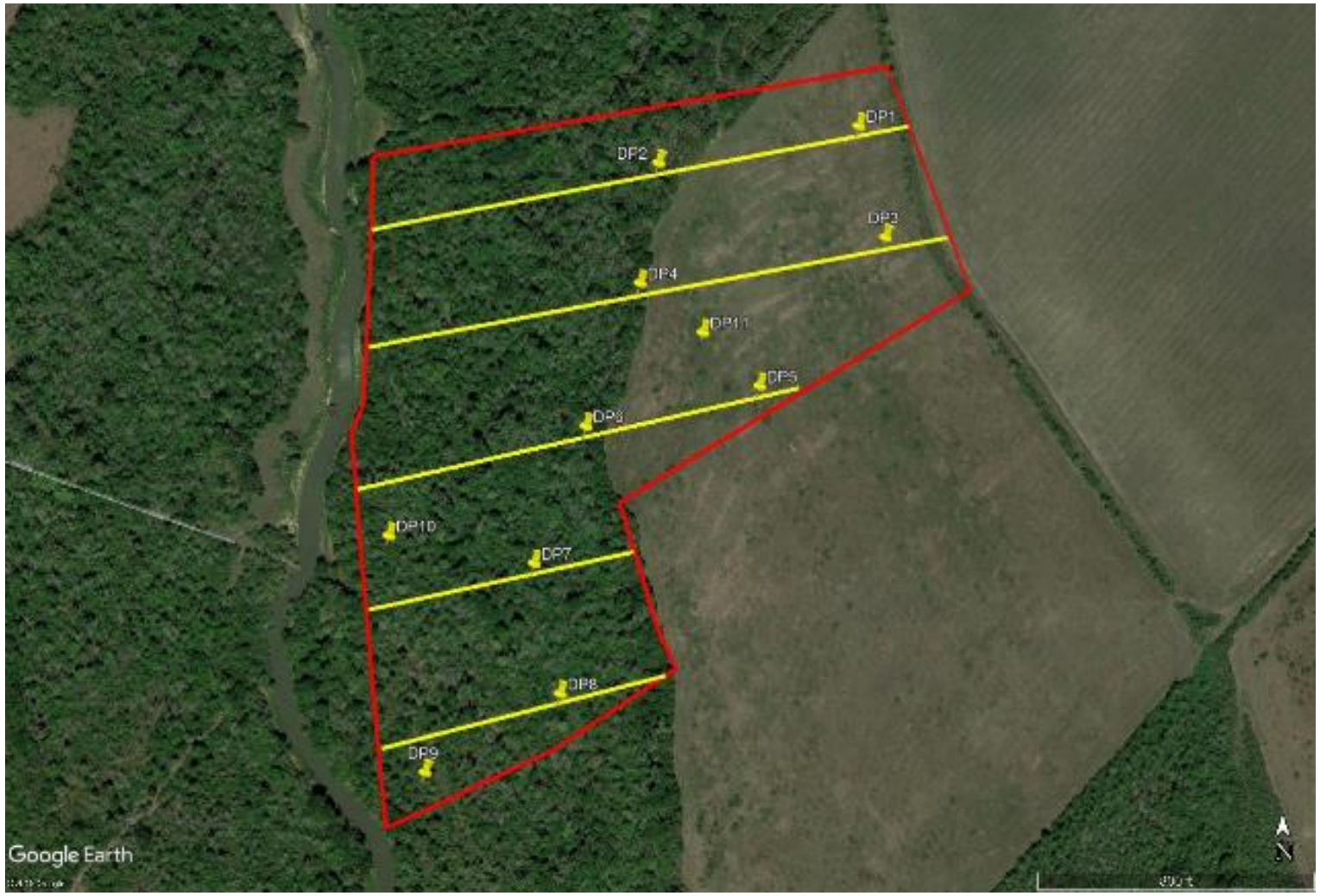
Transects are not in a straight line perpendicular with the waterway.

WETLAND IDENTIFICATION & DELINEATION

Transects not in accordance with the Manual

Transects are parallel, not perpendicular with the waterway.

WETLAND IDENTIFICATION & DELINEATION



Data should be taken on the transects. Data can be taken off the transects in addition to the transect data.

WETLAND IDENTIFICATION & DELINEATION

This map is not in accordance with the Manual because there are no data points on the transects.

WETLAND IDENTIFICATION & DELINEATION

Regional Supplement

Vegetation

- Rapid Test – All dominant species are OBL and/or FACW
- Dominance Test – 50/20 Rule
- Prevalence Index

WETLAND IDENTIFICATION & DELINEATION

Regional Supplement

Vegetation – Common Issues on Data Sheets

- Plant not identified to species
- Used plant Common Name
- Incorrect plant indicator status
- Incorrect application of 50/20 Rule

USACE National Wetland Plant List
http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET (5 Strata) WITH INCORRECT VEGETATION

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Oak	60	Yes	
6.			
	60	=Total Cover	
50% of total cover: 30	20% of total cover: 12		
Sapling Stratum (Plot size:)			
1. *Triadica sebifera*	5	No	FAC
6.			
	5	=Total Cover	
50% of total cover: 3	20% of total cover: 1		
Shrub Stratum (Plot size:)			
1. *Ligustrum sp*	20	Yes	FAC
4.			
5.			
6.			
	20	=Total Cover	
50% of total cover: 10	20% of total cover: 4		

Vegetation should be identified with scientific names and not common names

Stratum must have a dominant plant in the layer if a species is present

Vegetation must be identified to species.

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	45 (A)		175 (B)
Prevalence Index = B/A =			3.89

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines,

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET (5 Strata) WITH INCORRECT VEGETATION

50% of total cover: 10 20% of total cover: 4

Herb Stratum (Plot size: _____)

1.	*Verbena brasiliensis*	20	Yes	UPL

Need current scientific name. Indicator status is not correct for this plant.

Note: The indicator status NI is no longer to be used on a Wetland Determination Form.

10. _____
11. _____

20 =Total Cover

50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size: _____)

1. _____
2. _____
3. _____
4. _____
5. _____

=Total Cover

50% of total cover: _____ 20% of total cover: _____

Remarks: (If observed, list morphological adaptations below.)

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Incorrect data skewed the results of the dominance test.

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET (5 Strata) WITH CORRECT VEGETATION

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: _____

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus nigra*	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover: 12	
Sapling Stratum (Plot size: _____)			
1. *Triadica sebifera*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	5	=Total Cover	
50% of total cover: 3		20% of total cover: 1	
Shrub Stratum (Plot size: _____)			
1. *Ligustrum sinense*	20	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	20	=Total Cover	
50% of total cover: 10		20% of total cover: 4	

Scientific name instead of common name

Correct Dominance

Scientific name to genus and species

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	85	x 3 =	255
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		295 (B)

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines,

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET (5 Strata) WITH CORRECT VEGETATION

50% of total cover: 10 20% of total cover: 4

Herb Stratum (Plot size:)

1.	*Verbena incompta*	20	Yes	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				

20 =Total Cover

50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size:)

1.				
2.				
3.				
4.				
5.				

=Total Cover

50% of total cover: 20% of total cover:

Remarks: (If observed, list morphological adaptations below.)

Correct scientific name

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

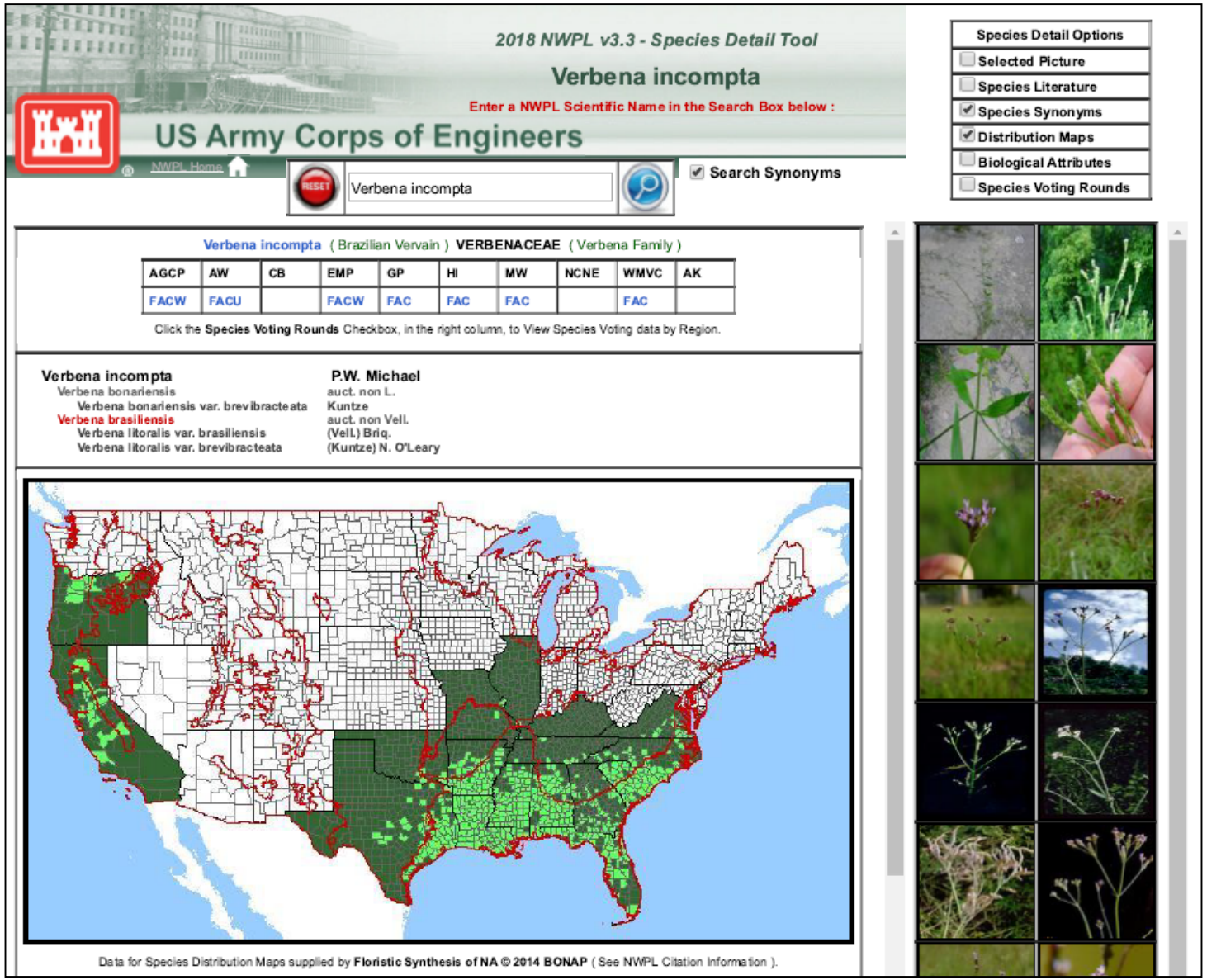
Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes X No

Changed the outcome of the dominance test

WETLAND IDENTIFICATION & DELINEATION



The link for this website is http://wetland-plants.usace.army.mil/nwpl_static/v33/species/species.html?DET=001100#

WETLAND IDENTIFICATION & DELINEATION

Regional Supplement

Hydric Soil

Use the NTCHS Field Indicators of Hydric Soil in the United States, Version 8.2, 2018
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf

Dig a 20-inch soil pit, record soil profile

Determine if soil profile meets hydric soil indicator(s)

WETLAND IDENTIFICATION & DELINEATION

Regional Supplement

Hydric Soil – Common Issues on Data Sheets

- Soil profile not recorded to 20 in.
  - 16 in. required on most indicators
  - Thick Dark Surface can exceed 20 in.
- Soil profile layer colors do not equal 100%
- Using Sandy indicators on Loamy/Clayey soils and vice versa
- Incorrect indicator applied to soil profile

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET WITH INCORRECT SOIL DATA

SOIL

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	90	10YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

Soil percentages add up to more than 100 percent.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR, P, T, U)**
- ___ 5 cm Mu
- ___ Muck Pr
- ___ 1 cm Mu
- ___ Depletec
- ___ Thick Da
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- _X_ Depleted Matrix (F3)
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**

Depleted Matrix is the wrong hydric soil indicator for a loamy/clayey soil with a color of 3/1.

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ (F19) **(LRR P, T)**
- ___ n Soils (F20)
- ___ (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- Other (Explain in Remarks)

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET WITH CORRECT SOIL DATA

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

Soil percentages add up to 100 percent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ (outside MLRA 138, 152A in FL, 154)
- ___ Barrier Islands Low Chroma Matrix (TS7)

A loamy/clayey soil with a color of 10YR 3/1 and more than 2% redox meets the Redox Dark Surface (F6) hydric soil indicator.

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET WITH INCORRECT SOIL DATA

SOIL

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	99	10YR 5/6	10	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR, P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1)
- X Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8)

- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**

x (TS7)

[3]Indicators of hydrophytic vegetation and

Sandy Gleyed Matrix is the wrong hydric soil indicator for a sandy soil with a color of 4/1.

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET WITH CORRECT SOIL DATA

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-20	10YR 4/1	90	10YR 5/6	10	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) (LRR O, P, T)
- ___ Umbric Surface (F13) (LRR P, T, U)
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

A sandy soil with a 10YR 4/1 and more than 2% redox meets the Sandy Redox (S5) hydric soil indicator.

WETLAND IDENTIFICATION & DELINEATION

SAMPLE DATA SHEET WITH INCORRECT SOIL DATA

SOIL Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	90	10YR 5/6	10	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Coast Prairie Redox (A16)

To meet the Sandy Gleyed Matrix hydric soil indicator, the color must match the colors on the gley pages and have a hue of N, 10Y, 5GY, 10GY, 5G, 10G, 5BG, 10BG, 5B, 10B, or 5PB with a value of 4 or more. Soils with dark gley colors (values less than 4) do not meet the definition of a gleyed matrix and this indicator would not apply.

___ Sandy Mucky Mineral (S1) **(LRR O, S)**
_X_ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8)
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and

WETLAND IDENTIFICATION & DELINEATION

WETLAND IDENTIFICATION & DELINEATION

Regional Supplement

Hydrology – Common Issues on Data Sheets

Field Observations (surface water, water table, saturation) not recorded

FAC-Neutral Test not checked

Geomorphic Position not checked

Saturation not associated with a water table

Episaturated conditions not properly documented

relatively impermeable layer not identified in soil section
Shallow Aquitard not checked

Local Relief not consistent with Geomorphic Position

WETLAND IDENTIFICATION & DELINEATION

Regional Supplement

Hydrology – Common misidentified indicators

- Sediment Deposits
- Water-Stained Leaves
- Oxidized Rhizospheres
- Surface Soil Cracks
- Drainage Patterns
- Moss Trim Lines

WETLAND IDENTIFICATION & DELINEATION

DATA SHEETS – Required Information

Sampling Date/Point #

Investigator (Person not Company)

Landform/Local Relief

LAT/LONG (prefer decimal degree) & Datum

Climatic/Hydrologic Conditions Typical? & Support Data (DAREM)

Normal Conditions present?

Project/City/County/State/Soil Map Unit Name/NWI

WETLAND IDENTIFICATION & DELINEATION

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: SWG-2018-00815; Proposed Well City/County: Jefferson County Sampling Date: 2/26/2019

Applicant/Owner: Houston Energy, LP State: TX Sampling Point: 2

Investigator(s) John Davidson, Brad Dawe, Lee Hardy Section, Township, Range

Landform (hillside, terrace, etc.) flat Local relief (concave, convex, non none Slope (%): 0-1

Subregion (LRR or MLRA): LRR T, MLRA 151 Lat: 29.749411 Long: -93.926393 Datum: NAD 83

Soil Map Unit Name: Sabine-Baines complex, 0 to 2 percent slopes, frequently flooded, tidal NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation____, Soil ____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil ____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features,

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
The WETS score for the previous 3 months was 15 on a scale of 6 to 18 with a score of 15 to 18 being wetter than normal.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T,U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The sample point had an algal mat, was in a geomorphic position and met the FAC-Neutral test. Sufficient wetland hydrology indicators were present.

WETLAND IDENTIFICATION & DELINEATION

1987 Manual - Data Form 3

Atypical Situations

Used only when a determination has already been made that positive indicators of hydrophytic vegetation, hydric soils and/or wetland hydrology could not be found due to effects of recent human activities or natural events

WETLAND IDENTIFICATION & DELINEATION

DATA FORM
ATYPICAL SITUATIONS

Project Number:_____ Project: Name:_____
Applicant Name:_____ Location:_____
Plot Number:_____ Date:_____

A. Vegetation

1. Type of Alteration:
2. Effect on Vegetation:
3. Previous Vegetation:
   (Attach Documentation)
4. Hydrophytic Vegetation? Yes _____ No _____

B. Hydrology

1. Type of Alteration:
2. Effect on Hydrology:
3. Previous Hydrology:
   (Attach Documentation)
4. Wetland Hydrology? Yes _____ No _____

C. Soils

1. Type of Alteration:
2. Effect on Soils:
3. Previous Soils:
   (Attach Documentation)
4. Hydric Soils? Yes _____ No _____

Characterized by:

WETLAND IDENTIFICATION & DELINEATION

DATA FORM
ATYPICAL SITUATIONS

Applicant Name: XXXX XXXXXXXXXX Date: _1/11/2019__

Project Name: SWG-2018-XXXXX Location: DP02
29.XXXXXX° -94.XXXXXX° XXXX XXX XXXXXXX Drive, Galveston, Galveston County, Texas

A. VEGETATION:

1. Type of Alteration: Discharge of 19 inches of fill material.

2. Effect on the Vegetation: Vegetation was covered with fill material.

3. Previous Vegetation: seashore dropseed (*Sporobolus virginicus*, FACW) and turtleweed (*Batis maritima*, OBL).

DATA POINT: Vegetation was buried in fill; however, the fill appeared recent because the vegetation was still green.

4. Hydrophytic Vegetation? YES__X_ NO_____

B. HYDROLOGY:

1. Type of Alteration: Discharge of 19 inches of fill material.

2. Effect on the Hydrology: Fill material changed the elevation by 19 inches.

3. Previous Hydrology: Geomorphic position and FAC-Neutral Test

DATA POINT: Geomorphic position and FAC-Neutral Test.

4. Wetland Hydrology? YES_X_ NO_____

WETLAND IDENTIFICATION & DELINEATION

C. SOILS:

1. Type of Alteration: Discharge of 19 inches of fill material.

2. Effect on the Soils: None.

3. Previous Soils: Galveston-Nass, occasionally ponded complex, 0 to 4 percent slopes, occasionally flooded. The Galveston-Nass map unit is listed as a 70% non-hydric and 30% hydric soil on the USDA Web Soil Survey for this county. Soil exhibited hydric soil indicators consistent with the Depleted Below Dark Surface, Depleted Matrix, and Redox Dark Surface indicators as described in the *Regional Supplement to the Corps of Engineers Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0).

DATA POINT:

Depth Inches	Depth Inches	Munsell Matrix Color	Mottle Color	Mottle Abundance	Texture
0-19		7.5YR 6/6			Sand (Fill)
19-23	0-5	7.5YR 2.5/1 95%	7.5YR 5/8	2%	Clay (Original)
23-26	5-8	7.5YR 2.5/1 95%	7.5YR 5/8	5%	Clay
26-30	8-12	7.5YR 4/1 80%	7.5YR 5/8	20%	Clay

4. Hydric Soils? YES__X___ NO___

WETLAND IDENTIFICATION & DELINEATION

Wetland/Non-Wetland Mosaics

Where wetland and non-wetland components are too closely associated to be easily delineated or mapped separately

Often have complex microtopography with repeated small changes in elevation occurring over short distances

Examples include gilgai microtopography on clay soils, ridge-and-swale topography in floodplains, areas where wind-thrown trees have created mound and pit topography, and complex spatial arrangements of deposition and scour in some floodplains

WETLAND IDENTIFICATION & DELINEATION

Wetland/Non-Wetland Mosaics – Procedure

Delineate mosaic area boundary

Establish parallel transects across mosaic area

Use separate data forms to sample swale and trough or ridge and hummock

Identify every wetland boundary in every trough or swale encountered along each transect, recording distances between each

WETLAND IDENTIFICATION & DELINEATION

Wetland/Non-Wetland Mosaics – Procedure cont'd

Determine percent wetland by the following formula:

$$\%\ wetland = \frac{total\ wetland\ distance\ along\ all\ transects}{total\ length\ of\ all\ transects} x100$$

Alternative approach is point-intercept at fixed intervals along transects determining percent wetland by the following formula:

$$\%\ wetland = \frac{number\ of\ wetland\ points\ along\ all\ transects}{total\ number\ of\ points\ sampled\ along\ all\ transects} x100$$

WETLAND IDENTIFICATION & DELINEATION

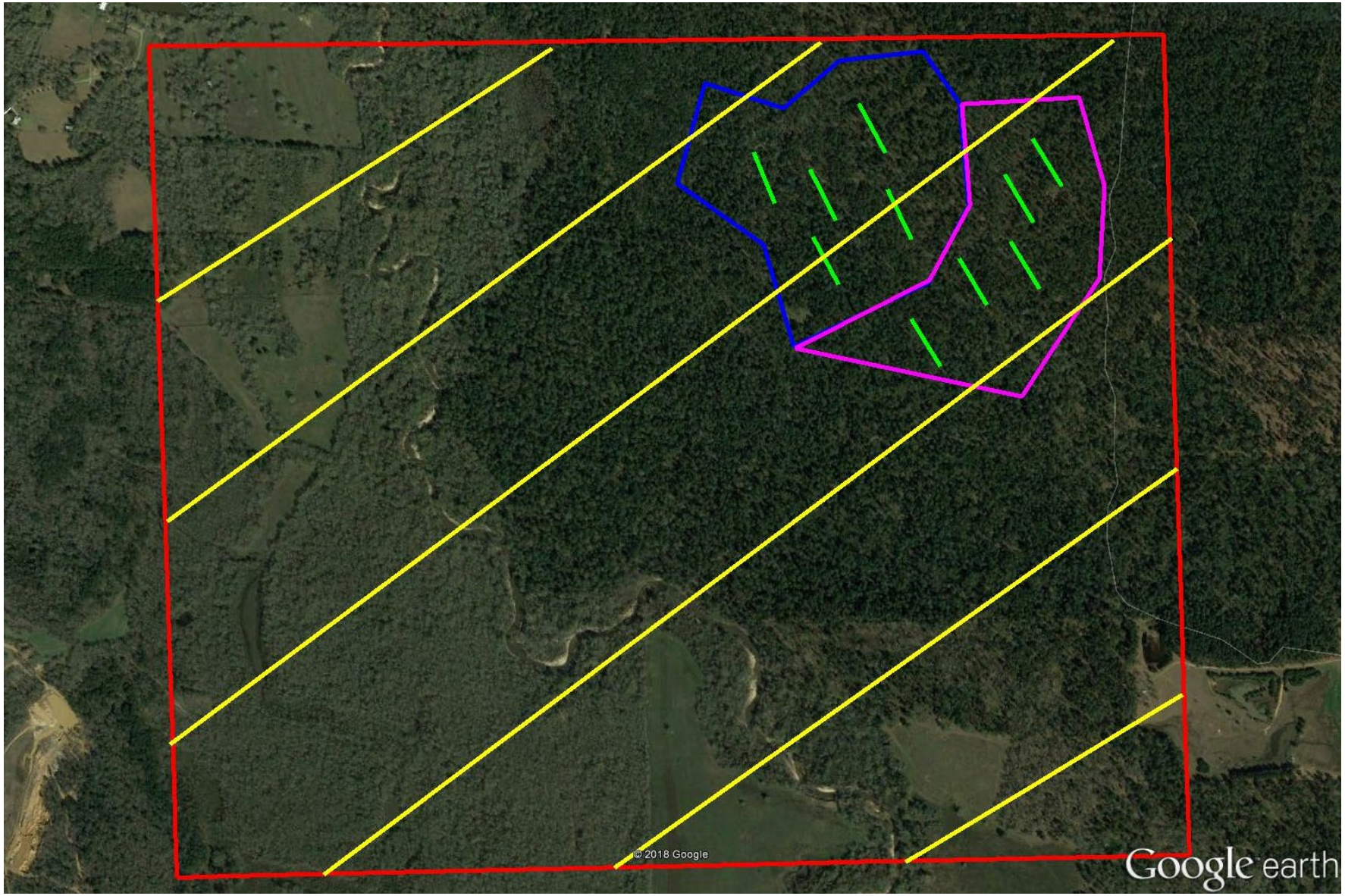
Wetland/Non-Wetland Mosaics – Procedure cont'd

Must have mosaic area(s) and mosaic transects identified on delineation map and raw data for each transect

Some mosaic areas should be separated based on percent wetland present (70% vs. 40%)

Generally delineate wetlands or uplands greater than 0.1 acre within the mosaic area separately

WETLAND IDENTIFICATION & DELINEATION



TIPS TO PREVENT CHALLENGES IN THE PERMITTING PROCESS

Andria Davis
North Unit Leader, Evaluation Branch

Kristy Farmer
Project Manager, Policy Analysis Branch

Regulatory Division
Date: 30 May 2019

U.S.ARMY

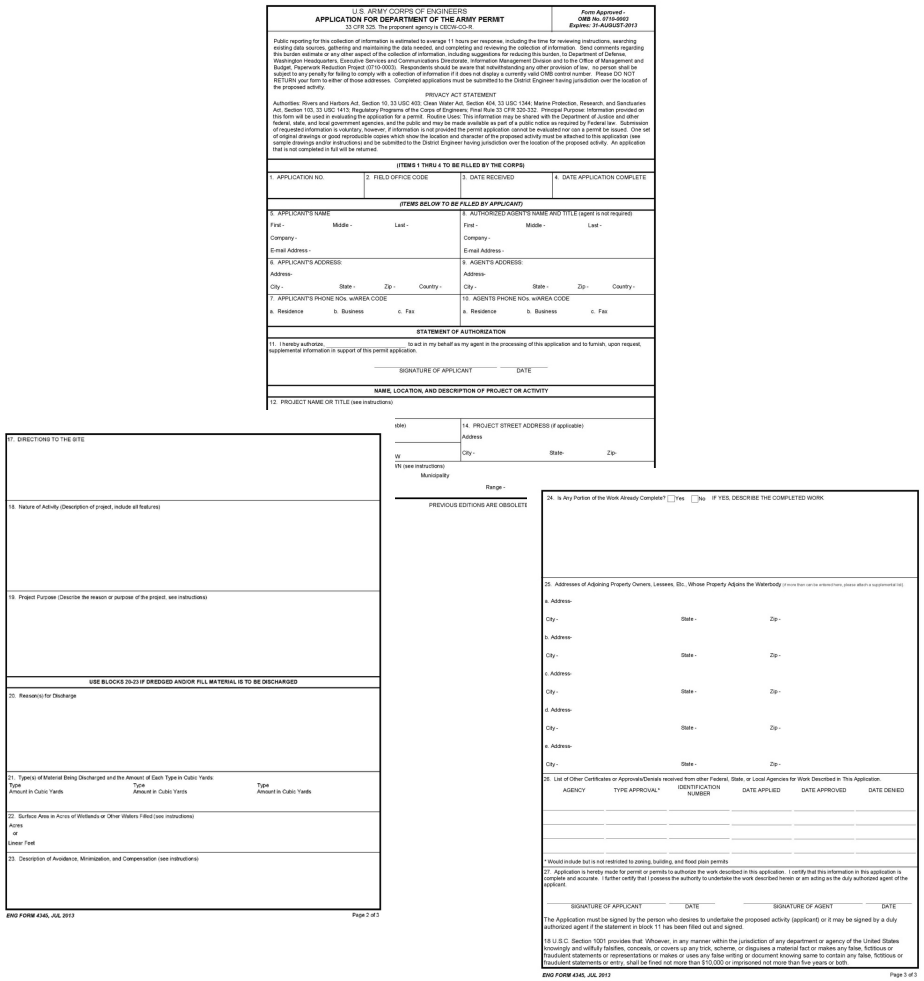
US Army Corps of Engineers®

SELECTED TOPICS FOR DISCUSSION

- Complete Application Form
- Plans
- Project Discrepancies
- WQC, CZM, AND EFH
- Purpose and Need
- Siting Criteria
- Alternative Analysis
- Delineations and Surveys
- Coordination

COMPLETE APPLICATION

- ✓ **Signatures;**
- ✓ Adjacent land owners;
- ✓ Names of companies;
- ✓ **Completed form with attachments**
- ✓ Different ENG 4345 form – fillable;
- ✓ **Complete view of fillable information;**
- ✓ Permit History of completed work and proposed work;
- ✓ ATF;
- ✓ Old permit numbers;
- ✓ Permit transfer/name changes; and
- ✓ N/A – Description on why it's not applicable.



U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
33 CFR 325. The proponent agency is CECW-CO-R

Form Approved -
OMB No. 0710-0003
Expires: 31-AUGUST-2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers, Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME
First - Middle - Last -
Company -
E-mail Address -

8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Middle - Last -
Company -
E-mail Address -

6. APPLICANT'S ADDRESS:
Address-
City - State - Zip - Country -

9. AGENT'S ADDRESS:
Address-
City - State - Zip - Country -

7. APPLICANT'S PHONE NOs. w/AREA CODE
a. Residence b. Business c. Fax

10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

14. PROJECT STREET ADDRESS (if applicable)
Address
City - State- Zip-

tion (see instructions)
Municipality

Range -

PREVIOUS EDITIONS ARE OBSOLETE

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:
Type Amount in Cubic Yards | Type Amount in Cubic Yards | Type Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)
Acres
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

ENG FORM 4345, JUL 2013 Page 2 of 3

24. Is Any Portion of the Work Already Complete? ☐Yes ☐No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list)
a. Address-
City - State - Zip -
b. Address-
City - State - Zip -
c. Address-
City - State - Zip -
d. Address-
City - State - Zip -
e. Address-
City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT DATE SIGNATURE OF AGENT DATE

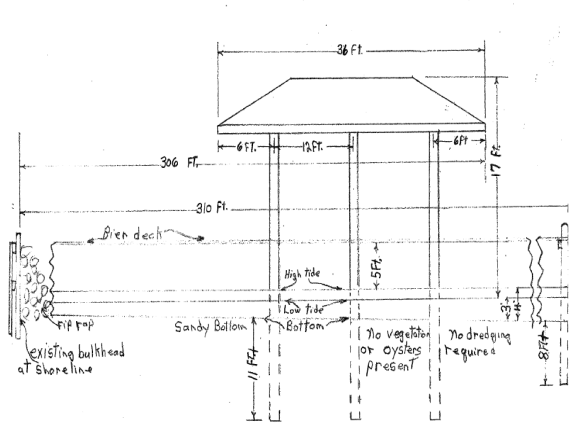
The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

ENG FORM 4345, JUL 2013 Page 3 of 3

PROJECT PLANS

- ✓Must be able to **locate the project area** with what is provided - change scale on maps;
- ✓Plans identifying the **aquatic resource habitat type;**



Clearly identify the following:

- ✓**Temporary and Permanent** impacts;
- ✓**Activities? Jurisdictional? Regulated?;**
- ✓**Construction egress and ingress** are on plans (maybe they are using uplands and existing access roads);
- ✓**Dimensions** - Acres/linear feet; and
- ✓OHWM or MLLW/MHHW - NAV/RE - Add our regulated jurisdiction line AND NAV/RE lines for federal channels.

Engineering plans - acceptable on a case by case basis - if legible; and
Color of lines - too many pastels and light colors, such as yellow.

PROJECT PLANS (DRAWINGS)

- ✓ Include all **jurisdictional work**, adjacent structures, access roads, staging areas, and Dredge Material Placement Areas (**DMPAs**);
- ✓ **Consistency** across drawings and written descriptions;
- ✓ **Impacts** to streams in **length by width** and included in mitigation plan and PCN;
- ✓ Show **Regulatory Division's jurisdiction** on plans;
- ✓ Good **vicinity map(s)**, including one depicting DMPAs;

Formatting:

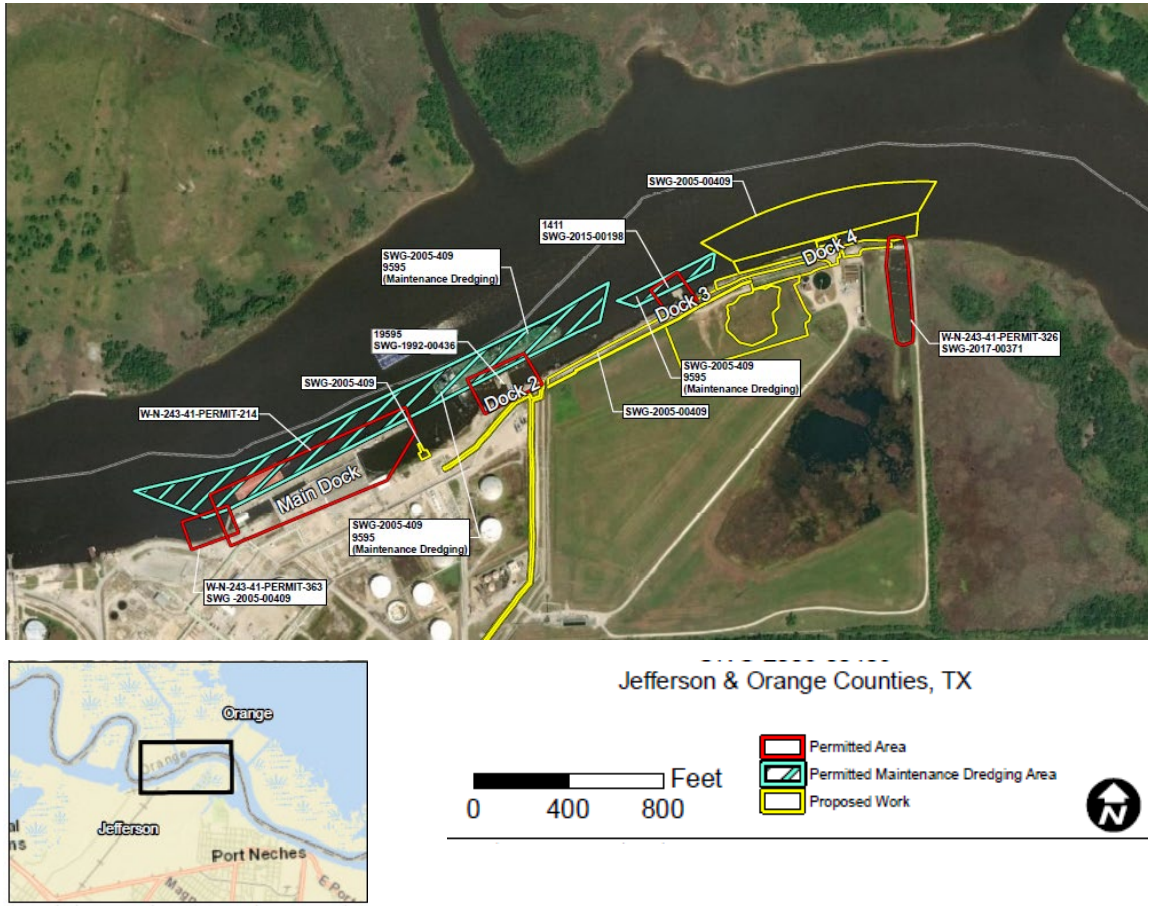
- ✓ **Print a paper copy in 8.5" by 11"**; color is ok if legible;
- ✓ Utilize **hatching** and dark primary and secondary colors depending on background;
- ✓ Topo **background**;
- ✓ Scale or stated **dimensions**;
- ✓ Complete **Legend**; and
- ✓ Referenced on an **aerial** instead of white background.

VICINITY MAPS

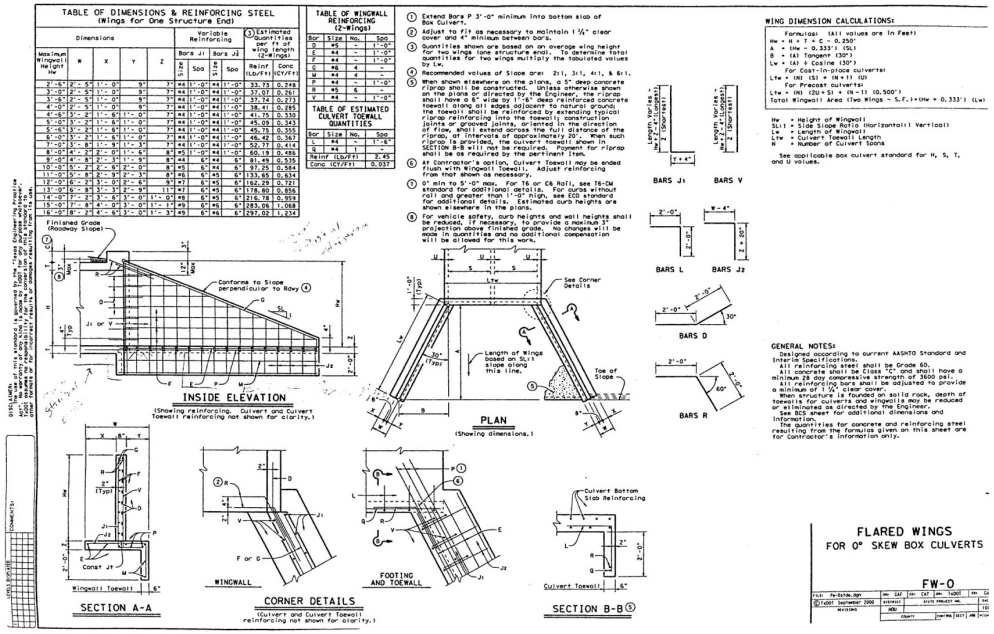
Insufficient

- Show location in relation to some known point;
- Lat/Lon or UTM coordinates are extremely helpful; and
- Old plans and maps - updated for permit amendments.

Good



TOO MUCH INFORMATION



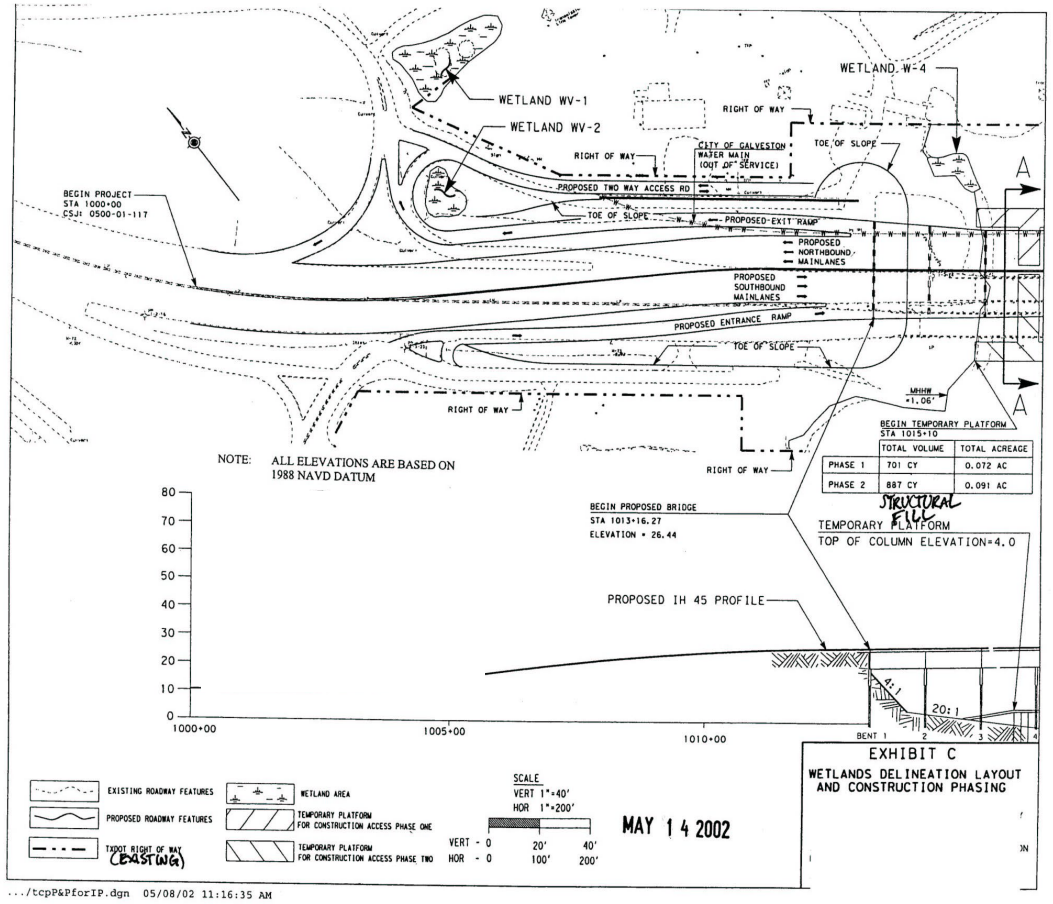
Tips for improving the Engineering Plan:

- ✓ Limit information to <u>only</u> what is necessary for permit evaluation purposes;
- ✓ Remove unnecessary information;
- ✓ Increase font size;
- ✓ Separate the pertinent information on its own sheet of plans;
- ✓ Increase resolution – no less than 70%; and
- ✓ Change scale of drawings.

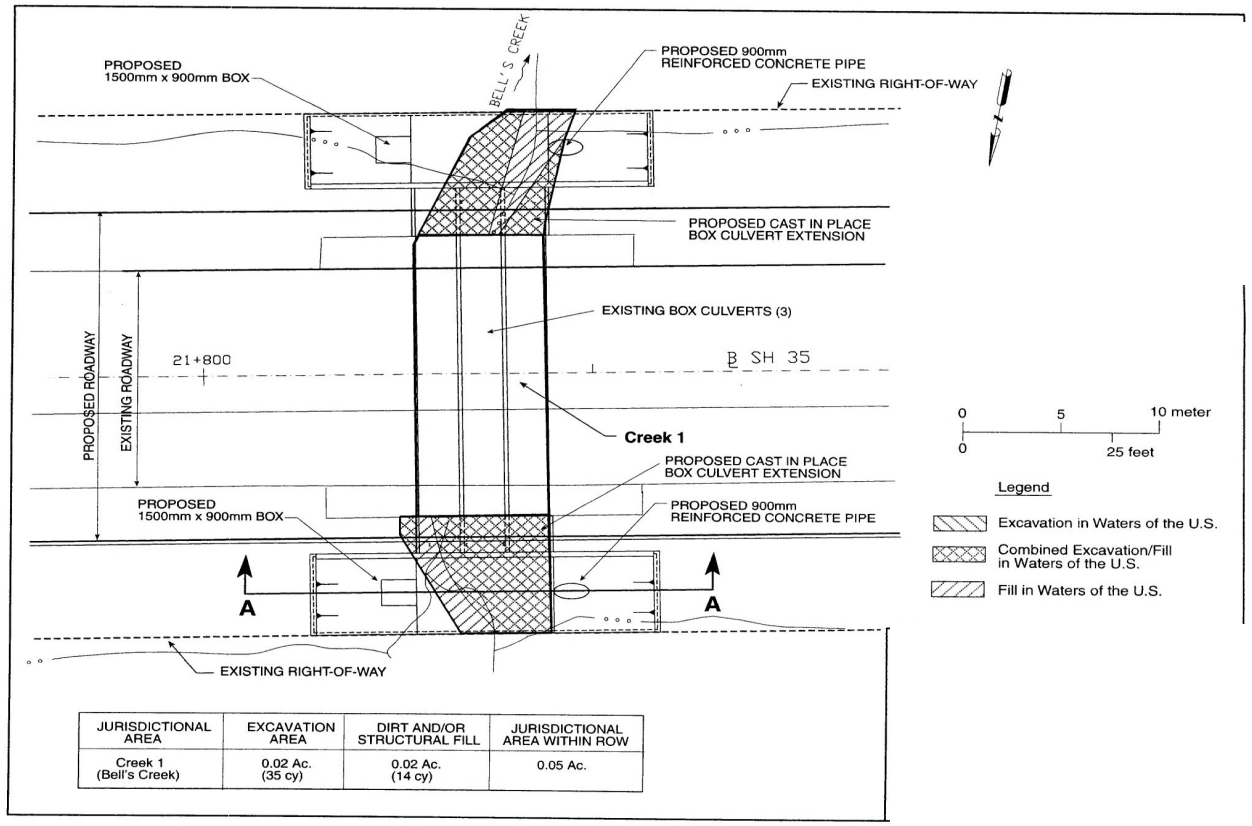
ENGINEERING PLANS REDUCED TO FIT ON AN 8.5” BY 11” IN 26 % RESOLUTION

TEXT ILLEGIBLE

Too Much Information

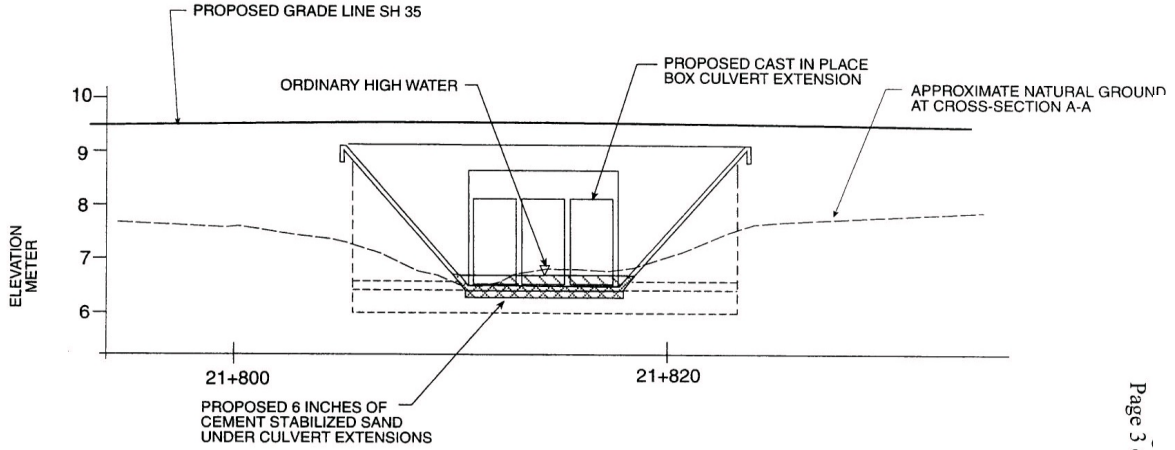


EXAMPLE PLAN VIEW DRAWING



JURISDICTIONAL AREA	EXCAVATION AREA	DIRT AND/OR STRUCTURAL FILL	JURISDICTIONAL AREA WITHIN ROW
Creek 1 (Bell's Creek)	0.02 Ac. (35 cy)	0.02 Ac. (14 cy)	0.05 Ac.

EXAMPLE CROSS-SECTION DRAWING



SECTION A-A

Legend

- Excavation in Waters of the U.S.
- Combined Excavation/Fill in Waters of the U.S.
- Fill in Waters of the U.S.

0 5 10 15 20 meter
0 25 50 60 feet

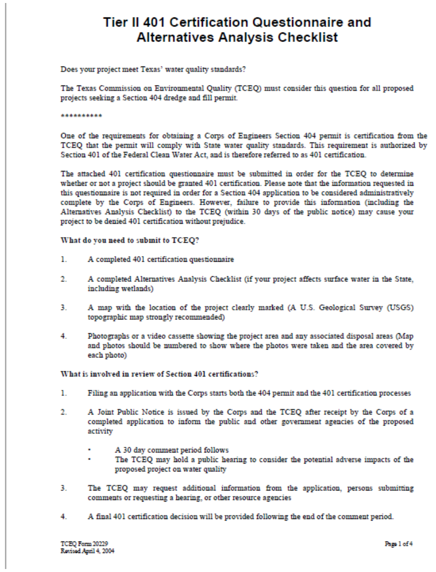
Page 3 of 26

PROJECT DISCREPANCIES

- Information for **the project description;**
- Impacts;
- Numbers;
- Single and complete project;
- Current site conditions:
  - ❑ Has work started?
  - ❑ Was it permitted?
- **QA/QC the application**

WQC AND CZM AND EFH

- EFH statements;
- Required Forms are missing or not filled out properly;
- Descriptions in the forms need to match application;
- Project description dictates agency;
- Requires us to coordinate again with correct info. & increases time; and
- Delays in providing forms to the Corps causes delays in finishing these processes prior to rendering a decision.



Tier II 401 Certification Questionnaire and Alternatives Analysis Checklist

Does your project meet Texas' water quality standards?

The Texas Commission on Environmental Quality (TCEQ) must consider this question for all proposed projects seeking a Section 404 dredge and fill permit.

****

One of the requirements for obtaining a Corps of Engineers Section 404 permit is certification from the TCEQ that the permit will comply with State water quality standards. This requirement is authorized by Section 401 of the Federal Clean Water Act, and is therefore referred to as 401 certification.

The attached 401 certification questionnaire must be submitted in order for the TCEQ to determine whether or not a project should be granted 401 certification. Please note that the information requested in this questionnaire is not required in order for a Section 404 application to be considered administratively complete by the Corps of Engineers. However, failure to provide this information (including the Alternatives Analysis Checklist) to the TCEQ (within 30 days of the public notice) may cause your project to be denied 401 certification without prejudice.

What do you need to submit to TCEQ?

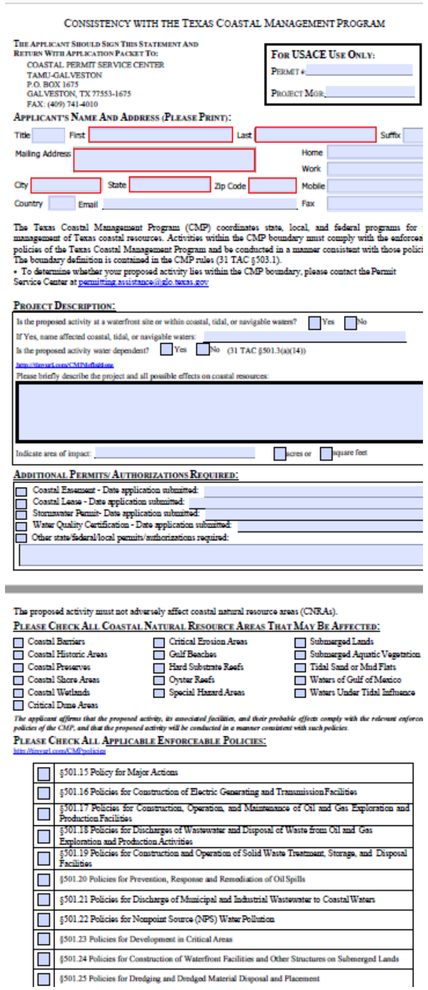
1. A completed 401 certification questionnaire
2. A completed Alternatives Analysis Checklist (if your project affects surface water in the State, including wetlands)
3. A map with the location of the project clearly marked (A U.S. Geological Survey (USGS) topographic map strongly recommended)
4. Photographs or a video cassette showing the project area and any associated disposal areas (Map and photos should be numbered to show where the photos were taken and the area covered by each photo)

What is involved in review of Section 401 certifications?

1. Filing an application with the Corps starts both the 404 permit and the 401 certification processes
2. A Joint Public Notice is issued by the Corps and the TCEQ after receipt by the Corps of a completed application to inform the public and other government agencies of the proposed activity
   - A 30 day comment period follows
   - The TCEQ may hold a public hearing to consider the potential adverse impacts of the proposed project on water quality
3. The TCEQ may request additional information from the application, persons submitting comments or requesting a hearing, or other resource agencies
4. A final 401 certification decision will be provided following the end of the comment period.

TCEQ Form 20229
Revised April 4, 2004

Page 1 of 4



Consistency with the Texas Coastal Management Program

The Applicant Should Sign This Statement And Return With Application Packet To:
COASTAL PERMIT SERVICE CENTER
TAMU-GALVESTON
P.O. BOX 1675
GALVESTON, TX 77553-1675
FAX: (409) 741-4010

For USACE Use Only:
Permit #:
Project Mgr:

Applicant's Name And Address (Please Print):

Title | First | Last | Suffix
Mailing Address | Home | Work
City | State | Zip Code | Mobile
Country | Email | Fax

The Texas Coastal Management Program (CMP) coordinates state, local, and federal programs for management of Texas coastal resources. Activities within the CMP boundary must comply with the enforcea policies of the Texas Coastal Management Program and be conducted in a manner consistent with those polici The boundary definition is contained in the CMP rules (31 TAC §503.1).

- To determine whether your proposed activity lies within the CMP boundary, please contact the Permit Service Center at permitting.assistance@glo.texas.gov

Project Description:

Is the proposed activity at a waterfront site or within coastal, tidal, or navigable waters? ☐ Yes ☐ No
If Yes, name affected coastal, tidal, or navigable waters:
Is the proposed activity water dependent? ☐ Yes ☐ No (31 TAC §501.3(a)(14))
Please briefly describe the project and all possible effects on coastal resources:
Indicate area of impact: ☐ acres or ☐ square feet

Additional Permits/ Authorizations Required:

- ☐ Coastal Easement - Date application submitted:
- ☐ Coastal Lease - Date application submitted:
- ☐ Stormwater Permit- Date application submitted:
- ☐ Water Quality Certification - Date application submitted:
- ☐ Other state/federal/local permits/authorizations required:

The proposed activity must not adversely affect coastal natural resource areas (CNRAs).

Please Check All Coastal Natural Resource Areas That May Be Affected:

☐ Coastal Barriers	☐ Critical Erosion Areas	☐ Submerged Lands
☐ Coastal Historic Areas	☐ Gulf Beaches	☐ Submerged Aquatic Vegetation
☐ Coastal Preserves	☐ Hard Substrate Reefs	☐ Tidal Sand or Mud Flats
☐ Coastal Shore Areas	☐ Oyster Reefs	☐ Waters of Gulf of Mexico
☐ Coastal Wetlands	☐ Special Hazard Areas	☐ Waters Under Tidal Influence
☐ Critical Dune Areas		

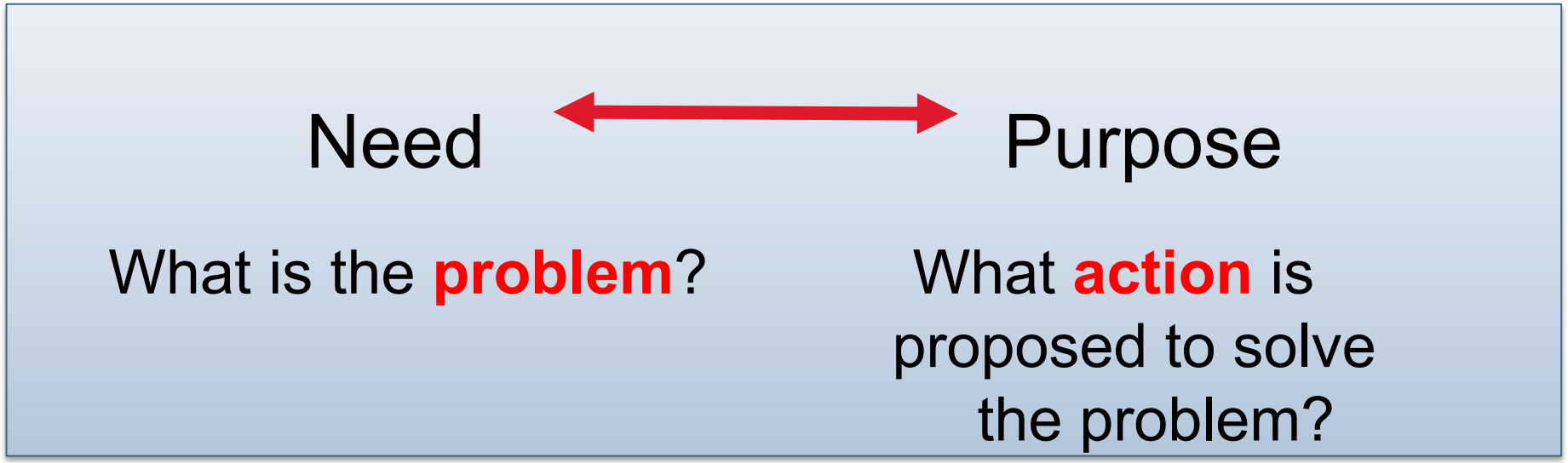
The applicant affirms that the proposed activity, its associated facilities, and their probable effects comply with the relevant enforce policies of the CMP, and that the proposed activity will be conducted in a manner consistent with such policies.

Please Check All Applicable Enforceable Policies:

☐	§501.15 Policy for Major Actions
☐	§501.16 Policies for Construction of Electric Generating and Transmission Facilities
☐	§501.17 Policies for Construction, Operation, and Maintenance of Oil and Gas Exploration and Production Facilities
☐	§501.18 Policies for Discharges of Wastewater and Disposal of Waste from Oil and Gas Exploration and Production Activities
☐	§501.19 Policies for Construction and Operation of Solid Waste Treatment, Storage, and Disposal Facilities
☐	§501.20 Policies for Prevention, Response and Remediation of Oil Spills
☐	§501.21 Policies for Discharge of Municipal and Industrial Wastewater to Coastal Waters
☐	§501.22 Policies for Nonpoint Source (NPS) Water Pollution
☐	§501.23 Policies for Development in Critical Areas
☐	§501.24 Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands
☐	§501.25 Policies for Dredging and Dredged Material Disposal and Placement

https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Permits/Permit-Application/

PURPOSE AND NEED



- **Purpose and Need drives the evaluation of the proposed project**
- Important to get right from the beginning, otherwise it could result in reworking an entire analysis and remaining documentation

SITING CRITERIA AND ALTERNATIVES ANALYSIS

Siting Criteria drives your alternatives analysis

- ✓ Is the Siting Criteria Clear & Concise
- ✓ Is the Siting Criteria too broad, too narrow, or just right?…Can you tell by just reading the Siting Criteria what general area your alternatives are going to be focused on?
- ✓ The Siting Criteria is not based on ownership, skewed or reversed engineered
- ✓ Are the alternatives detailed enough to compare
- ✓ Practicable alternatives are <u>always</u> available unless clearly demonstrated otherwise (404 (b)1 Guidelines)

Siting Criteria: 1…, 2…, 3…, 4…, & 5…

No Action Alternative: Describe

Off-site alternatives:

Off-site alternative 1: Describe

Off-site alternative 2 : Describe

On-site alternatives:

On-site alternative 1: Describe (applicants preferred)

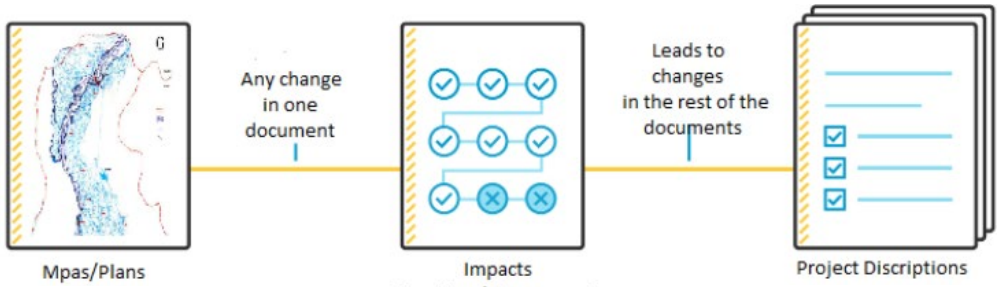
On-site alternative 2 : Describe

Evaluate practicability for each Alternative:

Carry forward practicable alternatives to identify LEDPA: Describe

DELINEATIONS AND SURVEYS

- Does the delineation reflect all of the aquatic resources within the entire project area?
  - Wetlands
  - Mudflats
  - Vegetated Shallows
  - Coral Reefs, including Oysters
  - Riffle and pool complexes
  - Other aquatic features
- Categorize the type of aquatic resource
- Other required surveys (ex: archaeological)
- Per appropriate Manuals/Supplements or SOW
- QA/QC



Maps/Plans

Project Description

NOTE : Any Corrections/Changes requires any related information in the application to also be changed

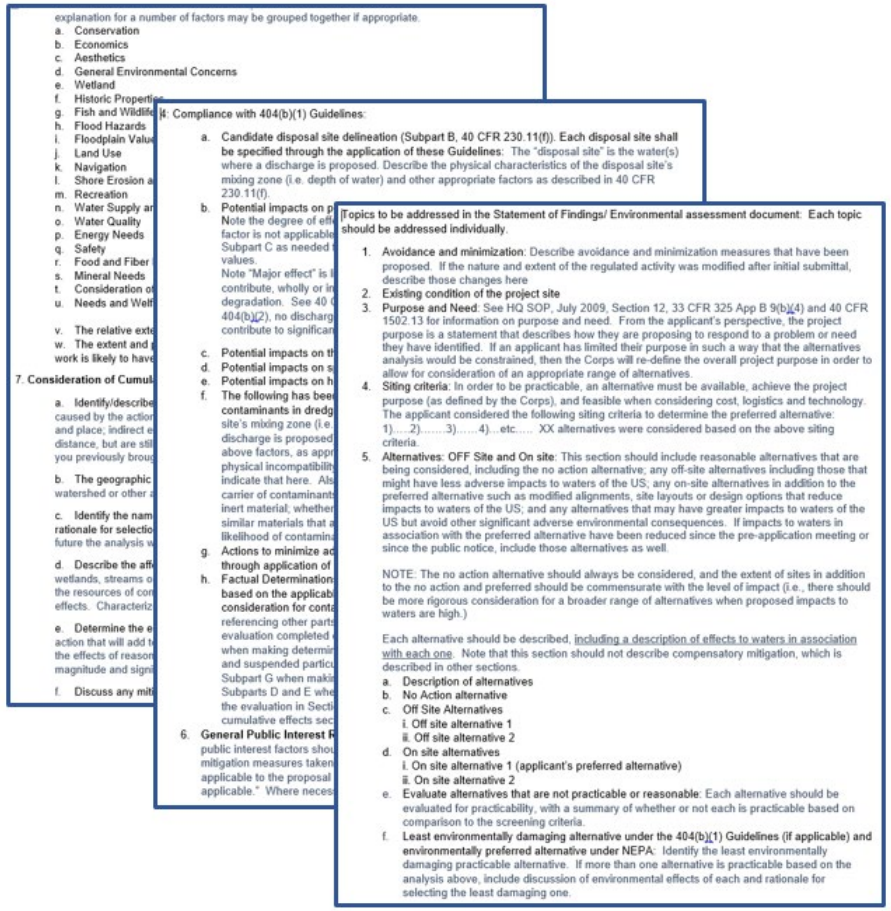
STANDARD INDIVIDUAL PERMITS
FEDERALLY COMPLETE TO COMPLETE FOR DECISION

Complete for Public Notice
Per 33CFR325

- ENG Form 4545
- Description of proposed activity
- Plans and location
- Purpose and need
- Scheduling
- Adjacent property owners names and addresses
- Other authorizations
- Name and address of applicant

Applicants Response To Public Notice and Corps Comments bridges part of the gap

Topics to Discuss in Decision Document



explanation for a number of factors may be grouped together if appropriate.
a. Conservation
b. Economics
c. Aesthetics
d. General Environmental Concerns
e. Wetland
f. Historic Properties
g. Fish and Wildlife
h. Flood Hazards
i. Floodplain Value
j. Land Use
k. Navigation
l. Shore Erosion a
m. Recreation
n. Water Supply ar
o. Water Quality
p. Energy Needs
q. Safety
r. Food and Fiber
s. Mineral Needs
t. Consideration o
u. Needs and Welf
v. The relative exte
w. The extent and p
work is likely to have
7. Consideration of Cumul
a. Identify/describe caused by the action and place; indirect e distance, but are stil you previously brou
b. The geographic watershed or other a
c. Identify the nam rationale for selectio future the analysis w
d. Describe the affe wetlands, streams o the resources of cor effects. Characteriz
e. Determine the e action that will add t the effects of reason magnitude and signi
f. Discuss any miti

4: Compliance with 404(b)(1) Guidelines:
a. Candidate disposal site delineation (Subpart B, 40 CFR 230.11(f)). Each disposal site shall be specified through the application of these Guidelines: The "disposal site" is the water(s) where a discharge is proposed. Describe the physical characteristics of the disposal site's mixing zone (i.e. depth of water) and other appropriate factors as described in 40 CFR 230.11(f).
b. Potential impacts on p
Note the degree of effe
factor is not applicable
Subpart C as needed t
values.
Note "Major effect" is i
contribute, wholly or in
degradation. See 40 C
404(b)(2), no discharg
contribute to significan
c. Potential impacts on th
d. Potential impacts on s
e. Potential impacts on h
f. The following has bee
contaminants in dredg
site's mixing zone (i.e
discharge is proposed
above factors, as appr
physical incompatibilit
indicate that here. Als
carrier of contaminants
inert material; whether
similar materials that a
likelihood of contamina
g. Actions to minimize ad
through application of
h. Factual Determination
based on the applicab
consideration for conta
referencing other parts
evaluation completed
when making determi
and suspended particu
Subpart G when maki
Subparts D and E whe
the evaluation in Secti
cumulative effects sec
6. General Public Interest R
public interest factors shou
mitigation measures taken
applicable to the proposal
applicable." Where neces

Topics to be addressed in the Statement of Findings/ Environmental assessment document: Each topic should be addressed individually.

1. Avoidance and minimization: Describe avoidance and minimization measures that have been proposed. If the nature and extent of the regulated activity was modified after initial submittal, describe those changes here
2. Existing condition of the project site
3. Purpose and Need: See HQ SOP, July 2009, Section 12, 33 CFR 325 App B 9(b)(4) and 40 CFR 1502.13 for information on purpose and need. From the applicant's perspective, the project purpose is a statement that describes how they are proposing to respond to a problem or need they have identified. If an applicant has limited their purpose in such a way that the alternatives analysis would be constrained, then the Corps will re-define the overall project purpose in order to allow for consideration of an appropriate range of alternatives.
4. Siting criteria: In order to be practicable, an alternative must be available, achieve the project purpose (as defined by the Corps), and feasible when considering cost, logistics and technology. The applicant considered the following siting criteria to determine the preferred alternative: 1).....2).....3).....4)...etc..... XX alternatives were considered based on the above siting criteria.
5. Alternatives: OFF Site and On site: This section should include reasonable alternatives that are being considered, including the no action alternative; any off-site alternatives including those that might have less adverse impacts to waters of the US; any on-site alternatives in addition to the preferred alternative such as modified alignments, site layouts or design options that reduce impacts to waters of the US; and any alternatives that may have greater impacts to waters of the US but avoid other significant adverse environmental consequences. If impacts to waters in association with the preferred alternative have been reduced since the pre-application meeting or since the public notice, include those alternatives as well.

NOTE: The no action alternative should always be considered, and the extent of sites in addition to the no action and preferred should be commensurate with the level of impact (i.e., there should be more rigorous consideration for a broader range of alternatives when proposed impacts to waters are high.)

Each alternative should be described, including a description of effects to waters in association with each one. Note that this section should not describe compensatory mitigation, which is described in other sections.
a. Description of alternatives
b. No Action alternative
c. Off Site Alternatives
i. Off site alternative 1
ii. Off site alternative 2
d. On site alternatives
i. On site alternative 1 (applicant's preferred alternative)
ii. On site alternative 2
e. Evaluate alternatives that are not practicable or reasonable: Each alternative should be evaluated for practicability, with a summary of whether or not each is practicable based on comparison to the screening criteria.
f. Least environmentally damaging alternative under the 404(b)(1) Guidelines (if applicable) and environmentally preferred alternative under NEPA: Identify the least environmentally damaging practicable alternative. If more than one alternative is practicable based on the analysis above, include discussion of environmental effects of each and rationale for selecting the least damaging one.

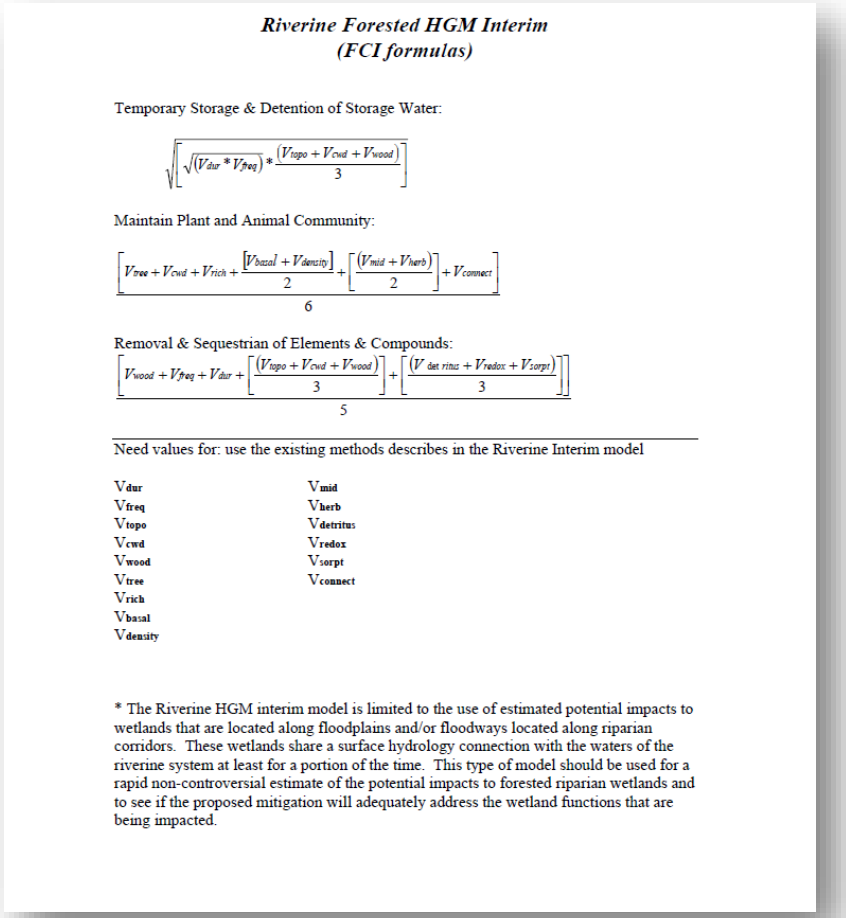
EXTERNAL COORDINATION/PUBLIC NOTICE

15 Days from Federally Complete to publish PN

- Is the information sufficient for the Public and agencies to make substantial comments?
- Does the application address avoidance and minimization, siting criteria, alternatives analysis, single and complete project?
- Plans are fully developed, not conceptual.
- Applicant's response addresses all substantive comments

FUNCTIONAL ASSESSMENTS

- ✓ Applying **correct functional assessment** for specific **habitat type**
- ✓ Goal: to accurately **assess baseline conditions and loss of function post-project**
- ✓ **Complete** functional assessment with **supporting documentation** to substantiate **values**



Riverine Forested HGM Interim
(FCI formulas)

Temporary Storage & Detention of Storage Water:

$$\sqrt{\left[\sqrt{(V_{dur} * V_{freq})} * \frac{(V_{topo} + V_{cwd} + V_{wood})}{3}\right]}$$

Maintain Plant and Animal Community:

$$\frac{\left[V_{tree} + V_{cwd} + V_{rich} + \frac{[V_{basal} + V_{density}]}{2} + \left[\frac{(V_{mid} + V_{herb})}{2}\right] + V_{connect}\right]}{6}$$

Removal & Sequestrian of Elements & Compounds:

$$\frac{\left[V_{wood} + V_{freq} + V_{dur} + \left[\frac{(V_{topo} + V_{cwd} + V_{wood})}{3}\right] + \left[\frac{(V_{det\ ritus} + V_{redox} + V_{sorpt})}{3}\right]\right]}{5}$$

Need values for: use the existing methods describes in the Riverine Interim model

Vdur	**Vmid**
Vfreq	**Vherb**
Vtopo	**Vdetritus**
Vcwd	**Vredox**
Vwood	**Vsorpt**
Vtree	**Vconnect**
Vrich	
Vbasal	
Vdensity	

* The Riverine HGM interim model is limited to the use of estimated potential impacts to wetlands that are located along floodplains and/or floodways located along riparian corridors. These wetlands share a surface hydrology connection with the waters of the riverine system at least for a portion of the time. This type of model should be used for a rapid non-controversial estimate of the potential impacts to forested riparian wetlands and to see if the proposed mitigation will adequately address the wetland functions that are being impacted.

HGM REPORT TEXT

FILE NAME AND NUMBER

Introduction. Include a general description of the project area.

Existing conditions. Other topics to be addressed as appropriate may include physiography, geology, soils, climate, watershed characteristics, fluvial geomorphology, vegetation, and hydrologic regimes.

Methods. Desktop analysis should be described to substantiate the numbers on the dataforms.

Results. Include discussion on how each index value was assigned (Vwood, Vdur, etc.) and pre- and post-impact (as appropriate). The Results section should also include a table summarizing the WAA wetland acreage, FCI and FCU. Two tables may need to be included, one for pre-impact scores, and one for post-impact, as appropriate. Calculations must be shown, including the formula(s) used.

Conclusion.

References-all resources should be sited and dated.

HGM TOOL REPORT FIGURES

- **MAPS:**
  - Vicinity Map; Site Location Map; Flood map; Topo map; Soils map; and
  - Wetland location map (typically from delineation report) showing areas of impacts and areas that will not be impacted;
  - Project drawings depicting wetland impacts;
  - Map showing location of WAAs and sampling locations within the WAA;
  - Wetland delineation map and WAA representative wetland points - (1 datasheet per WAA);

- **USACE iHGM worksheets** with comments for pre- and post- impacts (as appropriate).
- Site **photos**.
- ALL **Exhibits** should have basic metadata noted in the **legend** – i.e., aerial date, Quad Name, FEMA year and panel #, etc.

STREAM TOOL REPORT TEXT

FILE NAME AND NUMBER

Introduction. Include a general description of the project area.
-Existing conditions.

Methods. All methodologies should be discussed, including a description of how buffers were calculated (GIS data or field measurements), information used for desk review (specific citations), how buffers were calculated, sampling methodologies used (shocking or seining, etc.), how the aquatic life use score was rated and other information as appropriate.

Results. Include a clear narrative and chart with amount of mitigation required. There must be a justification of why scores were changed for the theoretical scores based on the project description. Calculations must be shown, including the formula used.

Conclusion.

References- all resources should be cited and dated.
ALL Exhibits should have basic metadata noted in the legend – i.e.,: aerial date, Quad Name, FEMA year and panel #, etc.

STREAM TOOL REPORT FIGURES

MAPS:

- Vicinity Map;
- Site Location Map;
- Stream location map (typically from delineation report) showing areas of impacts and areas that will not be impacted;
- Project drawings depicting stream impacts; and
- Map depicting sampling transect locations.

Stream Impact Assessment Forms:

- Photos should be included on datasheets. More than one photo is needed: include photos (1) up-bank; (2) down-bank; (3) upstream; and (4) downstream.
- Screenshot or photo of TCEQ aquatic life score (if applicable).

CUMULATIVE EFFECTS ASSESSMENT

- ✓ Must be provided or the Corps will have to do the research above and beyond what the applicant/agent has not provided;
- ✓ Must include direct/indirect/secondary and cumulative impacts;
- ✓ Are past, present, and reasonably foreseeable identified?
- ✓ Not limited to impacts to aquatic sites; and
- ✓ 404 (b)(1) Guidelines and NEPA requirements.

COMPENSATORY MITIGATION PLAN

- Must follow **hierarchy in final mitigation rule** as stated before;
- Assessment methods:

HGM

- Have same habitat type to compare losses
- Corps cannot assess functional loss w/o it

Stream tool

- Transects in accordance with SOP
- Lack of supporting information

Wetland delineation manual and supplement

- Must follow appropriate guidelines
- Lack of supporting documentation

In summary, most time delays are due to:

- **Not following guidelines/SOPs**
- **Missing information**
- **Not provided for review in a timely manner to review on PCN time clocks**

Adaptive management

✓ Identify the potential risk of failure and what measures the applicant takes to address this;

✓ Comes from performance metrics and data from growing seasons, i.e., reports;

Include statements:

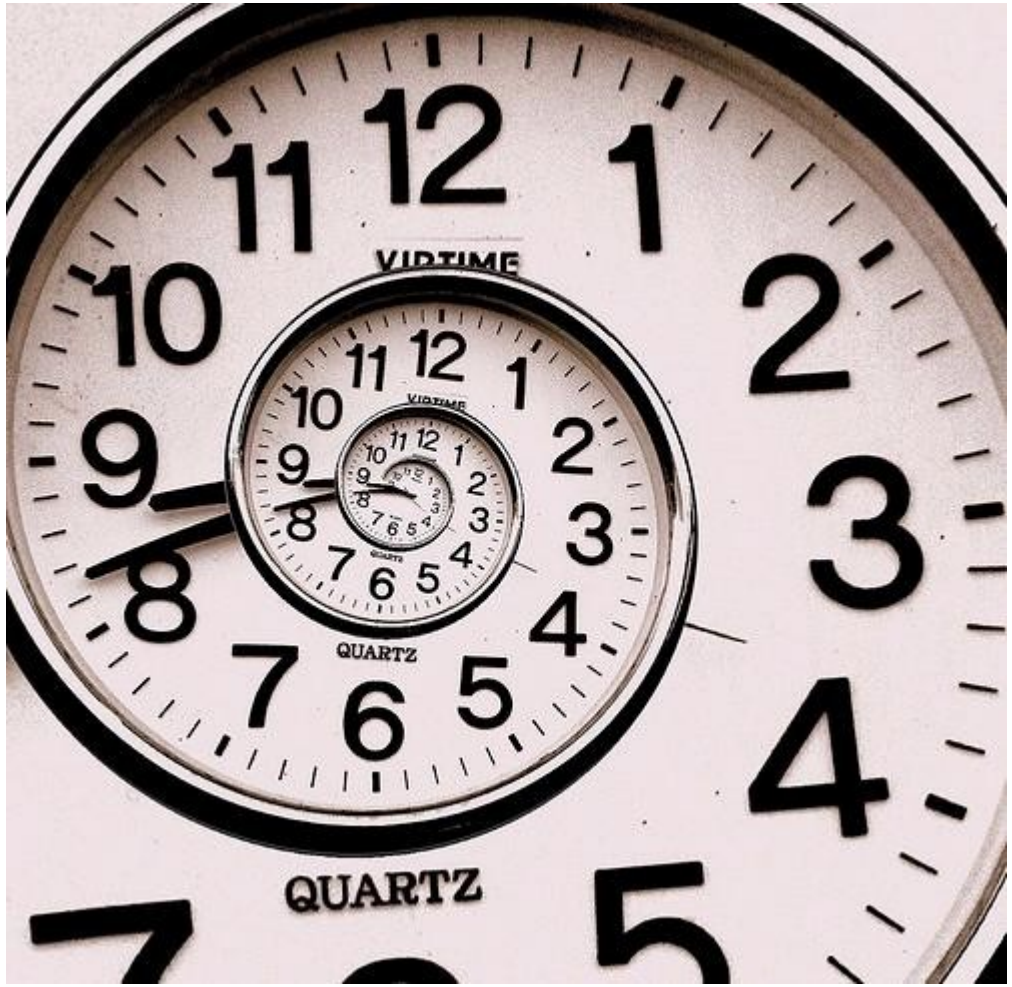
✓ Extend timelines for achieving performance; and

✓ Approved and implemented up front in PRM plans.

WHY DOES THE PERMIT PROCESS TAKE SO LONG?

*Primary cause of **delay** for applications is:*
incomplete,
inaccurate, or
contradictory information.
Written descriptions and/or tables provided must match what is reflected on the project plans (drawings)

*Requests for **additional information** cause the project manager to take away from **review time** and write an **additional information letter**; **complete applications** get worked on and produce a decision!*



TIPS FOR STREAMLINING THE PERMITTING PROCESS

SUMMARY:

- ✓ Avoid, Minimize, THEN Compensate;
- ✓ Ensure that avoidance and minimization of the aquatic environment is integrated into the planning process;
- ✓ Protection of the aquatic and environmental resources is the mission of the Corps Regulatory program and other natural resource agencies;
- ✓ Make sure your submittals would be clear to an uninformed third-party (don't make assumptions);
- ✓ Use straightforward, clearly-reproducible drawings with complete legends;
- ✓ Check application materials for accuracy;
  - ✓ Consistency among sections of the application packet; and
  - ✓ Consistency in project drawings and calculations.

RESOURCES YOU CAN USE

Corps – Galveston District
Permits, NWP, Streams, Wetlands
https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Streams/
https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Wetlands/
https://www.swg.usace.army.mil/Business-With-Us/Regulatory/Permits/

Electronic Pre-application Permit Screening
- Corps will provide comments regarding the information provided usually in the form of an additional information request
- Can submit copies of your application through the electronic pre-application process
- Response from Corps will only be a determination if your application is complete
- Clock for NWP PCN will NOT be initiated
- NO pre-application jurisdictional verifications will be accepted electronically
- Application and attached documents must not exceed 5 MB.
- Documents must have sufficient resolution to show project details

Galveston District JEM Process
- Held 2nd Wednesday of each month from 9:30 am to 4 pm
- Participation is requested by Applicants
- Forum to meet with State and Federal Resource Agencies to discuss planned/proposed projects (pre- or post-application)
- Topics include proposed impacts, pros/cons of proposed designs, suggestions to minimize environmental impact of projects, alternative project sites, potential compensation options (if required)

REGULATORY TOPICS INFORMATIONAL VIDEOS

- Mitigation
- Regulatory 101
- Cumulative Impacts
- Cultural Resources
- Public Interest Review Factors
- Regulatory Process
- Alternative Analysis
- Section 404(b)(1) guidelines
- Wetland Delineation

- Corps HQ Civil Works Regulatory Program and Permits

- Regulatory Program Links

- Click on Video Library

https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/

ELECTRONIC (CD-ROM) SUBMISSION

•Submission of NWP applications can be provided in an electronic format on a CD-ROM for linear projects requiring a DA permit under NWP 12 and/or 14.

•Submission via electronic format does not constitute federal completeness for Nationwide Permit pre-construction notification timeframes

•Instructions:
http://www.swg.usace.army.mil/BusinessWithUs/Regulatory/Permits/NationwideGeneralPermits.aspx

Linear projects: KMZ/shapefiles and upload forms – send by e-mail and do not put on CD-ROMS – these are not transferrable to our administrative record at this time

APPEALS AND ENFORCEMENT

Kevin Mannie
Regulatory Specialist, Compliance Branch

Regulatory Division
Date: 30 May 2019

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APPEALS

APPEALABLE ACTIONS (Decisions made at the District Level)

- Denied permits
- Declined proffered permits
- Approved jurisdictional determinations (AJDs)

- Who is eligible to appeal? An affected party or authorized representative of an affected party. An affected party is an individual who has an identifiable and substantial interest in the property and who has: 1) received an AJD; 2) received a permit denial; or 3) declined a proffered individual permit.

- According to the appeal regulations, the affected party may file a legal action, through the Federal court system, only after the affected party has gone through the appeal process (33 CFR 331.12).

APPEALS

- A copy of the Notification of Administrative Appeal Options and Process form (NAO/NAP) is provided with each District decision.
- Affected party is responsible for completing the request for appeal (RFA). The RFA must be received by the Southwest Division within 60 calendar days of the decision letter date (see Regulatory Guidance Letter [RGL] 06-01).
- Southwest Division Commander, through the Review Officer (RO), is responsible for determining if the RFA is acceptable and notifying the Galveston District of the appeal. Acceptability determination is based on:
  - ✓ Receipt within 60 days of original decision date.
  - ✓ Complete and signed by appellant (or agent with legal authority to represent appellant).
  - ✓ Contains an acceptable reason for appeal -
    - Incorrect application of law, regulation, policy, or guidance
    - Arbitrary/capricious
    - Procedural error
    - Omission of material fact
    - Use of incorrect data

APPEALS

If the RFA is accepted

- RO conducts a detailed review:
  - Existing record only, no new information.
  - May hold an appeal meeting or conference and site visit.
    - Both the District and the appellant should participate in the appeal meeting/conference and site visit.
    - Discuss supporting data/information in the record.
    - Clarify the record and reasons for appeal.
- RO provides recommendation on merits of the appeal to Division Engineer (decision document).
- Division Engineer makes the final appeal decision.
  - The appeal has no merit - District's decision is "upheld."
  - The appeal has merit - District's decision is "remanded."

REGULATORY ENFORCEMENT 33 CFR 326

Corps of Engineers Regulatory enforcement policies (§326.2) and procedures applicable to activities performed without required Department of the Army (DA) permits (§326.3) and to activities not in compliance with the terms and conditions of issued DA permits.

Unauthorized Activities 33 CFR 326.3

Section 404 Violation Elements

1. **Discharge** of **Dredged or Fill Material**
2. Into **Waters of the United States**
3. From a **Point source**
4. By any **Person**
5. **Without authorization** or **exemption.**

Section 10 Violation Elements

1. Obstruction or alteration
2. To the navigable capacity
3. Of Navigable Waters of the United States.
   - 33 CFR 329

REGULATORY ENFORCEMENT 33 CFR 326 CONT.

Resolving Unauthorized Activities

- No further enforcement action.
- Voluntary restoration and other corrective actions.
- After-the-fact (ATF) permit application.
- Referral to EPA, which has independent authority to enforce all provisions of the Clean Water Act (CWA).
- Referral to US Attorney for civil/criminal legal action, particularly for violations that are willful, repeated, flagrant, or of substantial impact. (33 CFR 326.5).

❖ Enforcement Goals – 1) Deterrence, 2) swift resolution of environmental problems, and 3) fair and equitable treatment of the public.

❖ Effective and efficient resolution based on evaluation of available enforcement resources and commensurate with impact magnitude (approximately 6,000 alleged violations are processed in Corps district offices each year).

REGULATORY ENFORCEMENT 33 CFR 326 CONT.

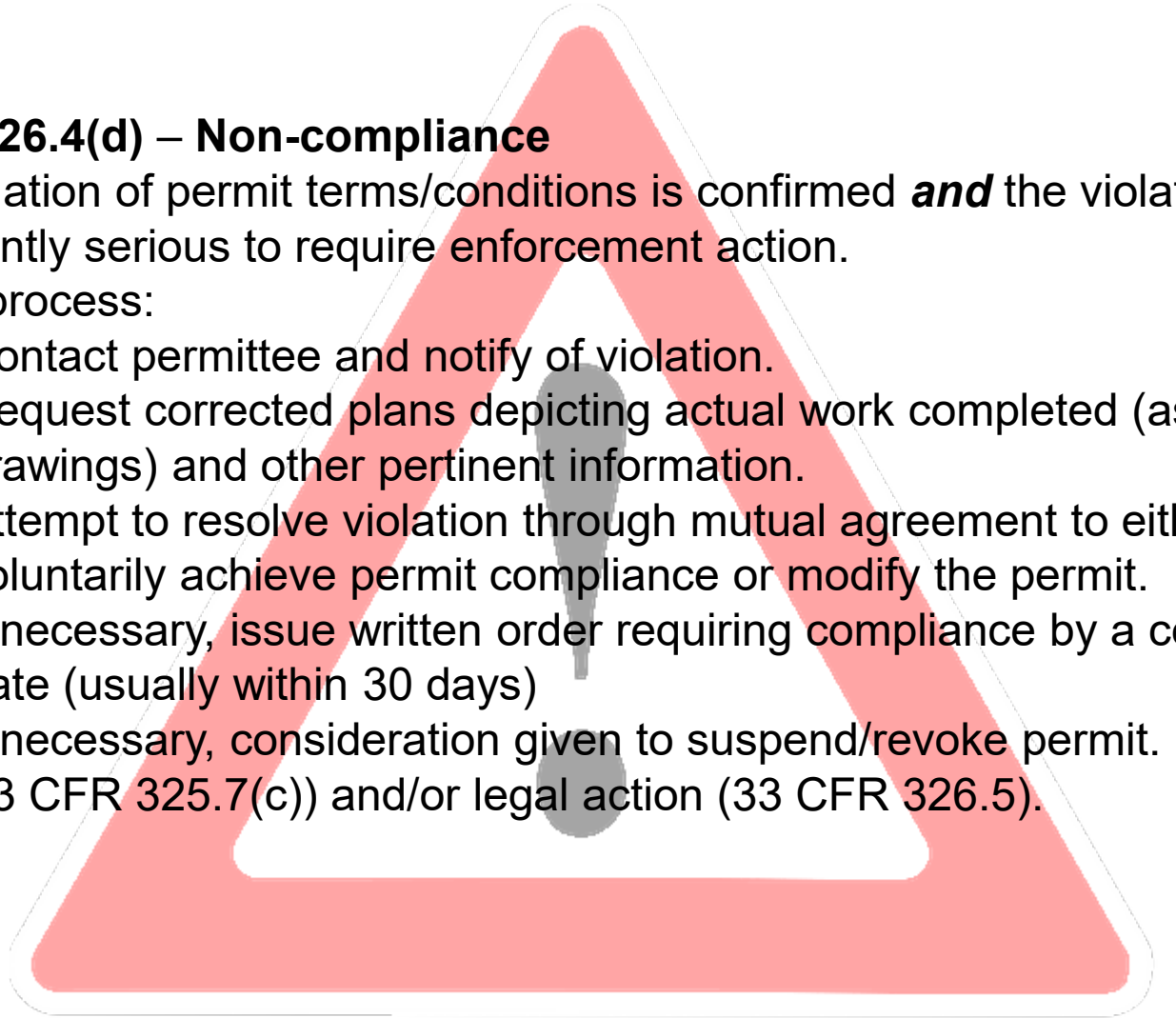
Compliance 33 CFR 326.4 – Supervision of Authorized Activities

- Corps undertakes reasonable measures to inspect permitted activities, as required, to ensure that these activities comply with specified terms and conditions. Inspections balance efficient use of available resources w/ protecting the aquatic environment and Regulatory Program integrity.
- Inspections appropriate for requests for permit time extensions and modifications.
- Encourage Corps personnel, the public, and other agencies to report suspected violations.

<u>Compliance Inspections</u>

- Following review of the administrative record, including monitoring reports and other compliance documents submitted by/for permittee, identification of potential issues of concern, and site inspection, determination is made of whether or not permitted activity (and any required compensatory mitigation) is in compliance with the terms and conditions of the permit.

REGULATORY ENFORCEMENT 33 CFR 326 CONT.

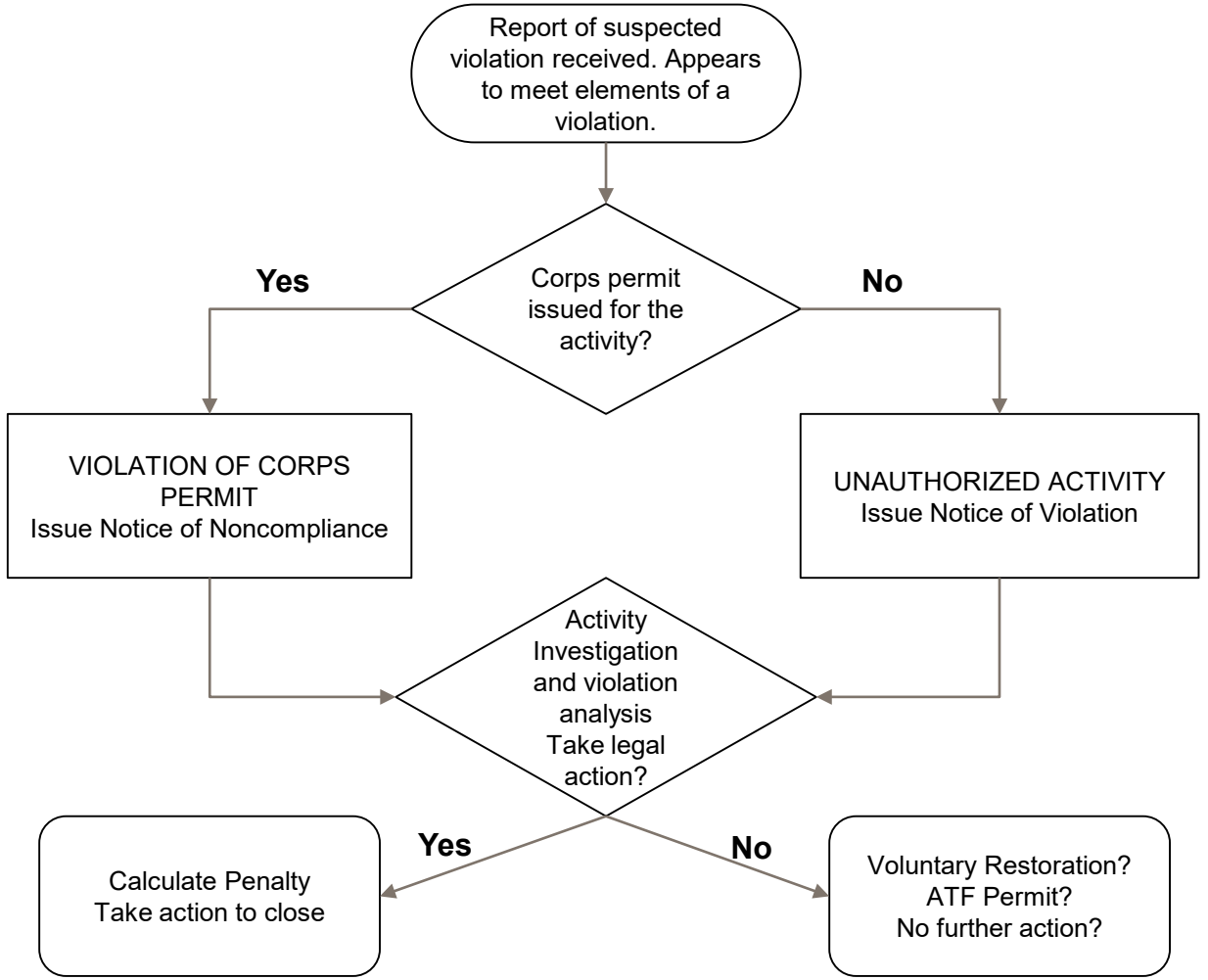


33 CFR 326.4(d) – Non-compliance

- If a violation of permit terms/conditions is confirmed ***and*** the violation is sufficiently serious to require enforcement action.
- Basic process:
  1. Contact permittee and notify of violation.
  2. Request corrected plans depicting actual work completed (as-built drawings) and other pertinent information.
  3. Attempt to resolve violation through mutual agreement to either voluntarily achieve permit compliance or modify the permit.
  4. If necessary, issue written order requiring compliance by a certain date (usually within 30 days)
  5. If necessary, consideration given to suspend/revoke permit. (33 CFR 325.7(c)) and/or legal action (33 CFR 326.5).

REGULATORY ENFORCEMENT 33 CFR 326 CONT.

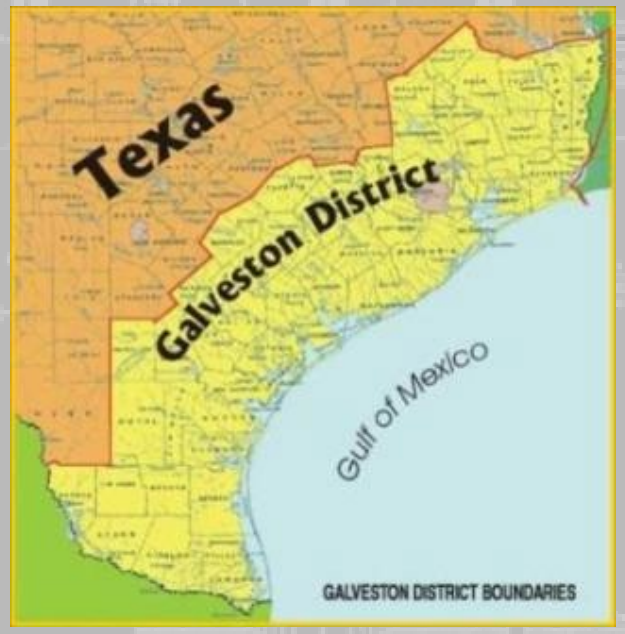
Enforcement Process



REGULATORY AND POLICY OUTLOOK FROM THE GALVESTON DISTRICT

Robert W. Heinly
Deputy Chief, Regulatory Division,
Galveston District

Date: 30 May 2019



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USACE Galveston District History

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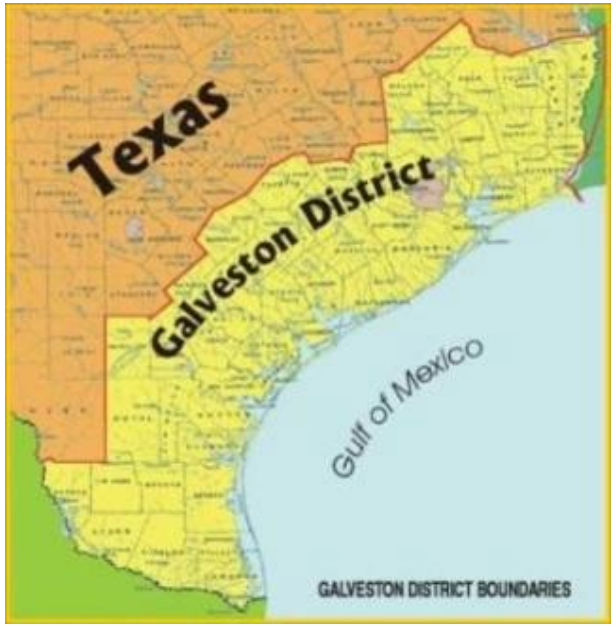


- First engineer district in Texas, established 1880
- 50,000 square mile district boundary, ~100+ miles inland
- 28 ports handling 538+ M tons of commerce annually (FY 16)
- 1,000+ miles of channels
  - 750 miles shallow draft
  - 270 miles of deep draft
- 367 miles of Gulf coastline
- 30-40 M cubic yards/yr material dredged
- 16 Congressional districts
- 48 Texas counties, 4 Louisiana parishes
- 18 Coastal counties - bays / estuaries
- 9 river basins
- Approx. 400 employees and growing

Galveston District Primary Missions

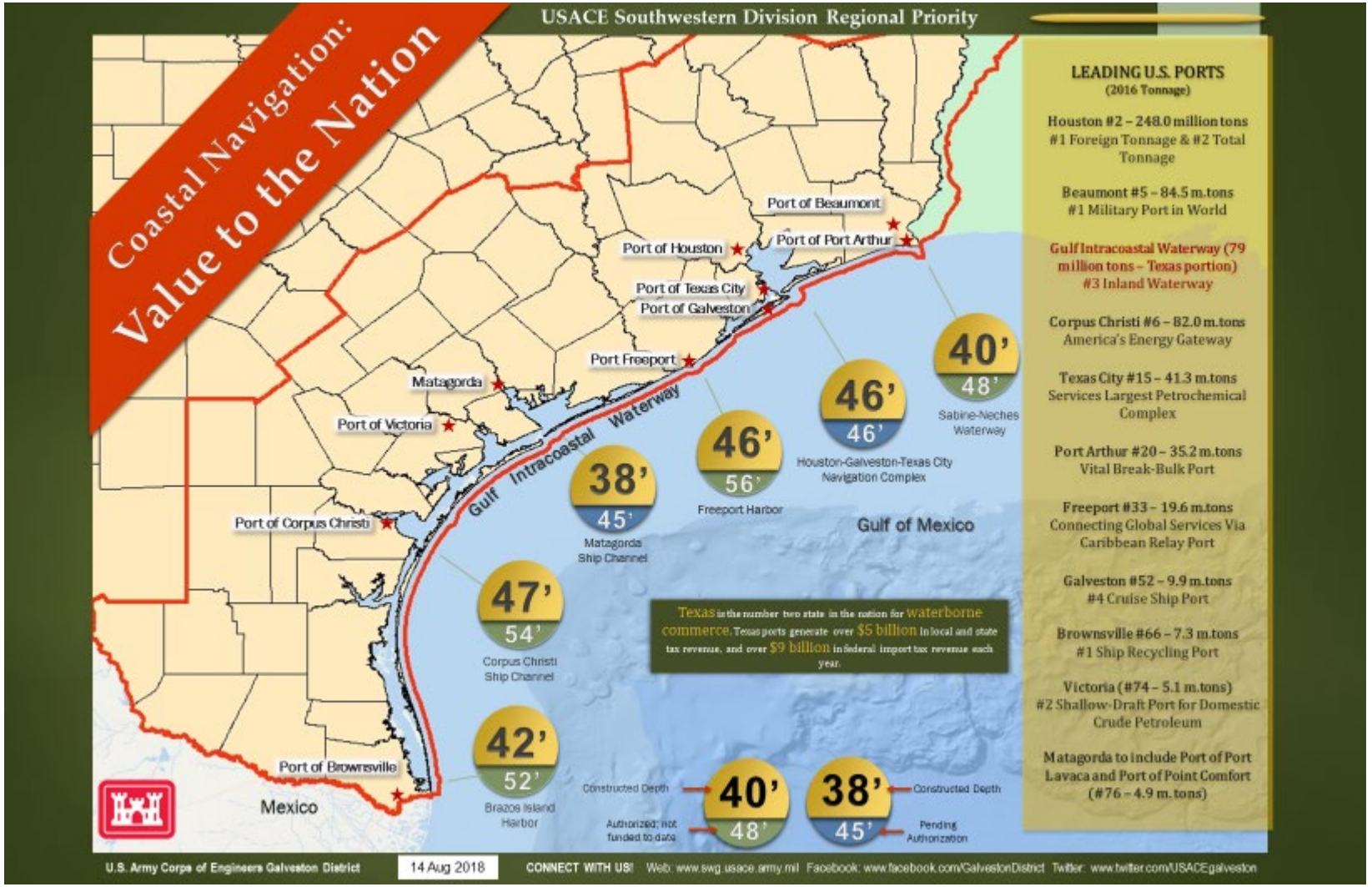
Civil Works
- Navigation
- Flood Risk Management
- Ecosystem Restoration

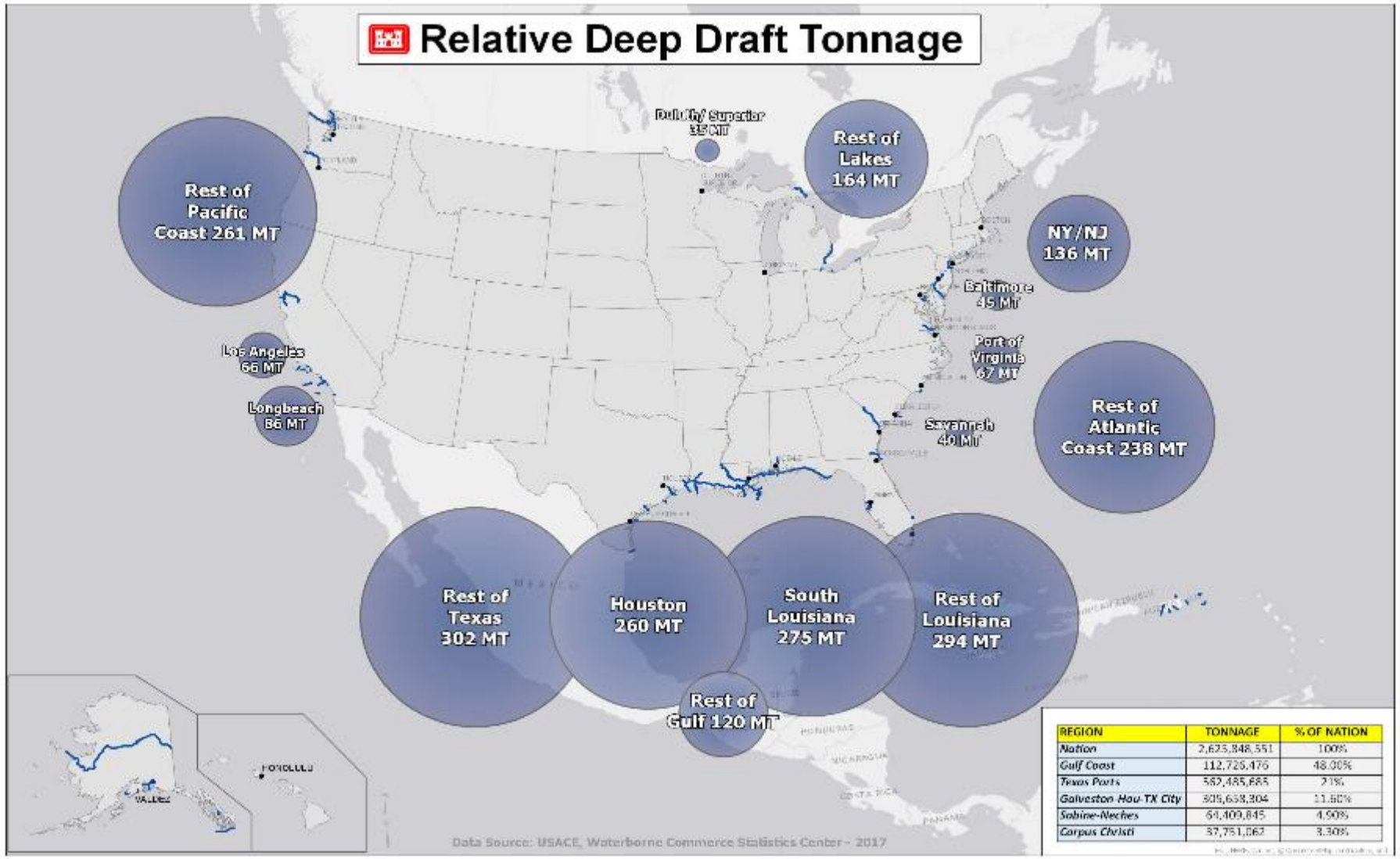
Military
- Interagency/International Support (IIS)
- Border Patrol

Regulatory
- Section 10 and Section 404 Permits
- Section 103

Disaster Response and Recovery
- FEMA Missions

Navigation Projects





REGION	TONNAGE	% OF NATION
Nation	2,635,848,551	100%
Gulf Coast	112,726,476	48.00%
Texas Ports	582,485,685	21%
Galveston-Hou-TX City	305,658,304	11.60%
Sabine-Neches	64,409,845	4.90%
Corpus Christi	87,751,062	3.30%

Data Source: USACE, Waterborne Commerce Statistics Center – 2017

Bipartisan Budget Act of 2018

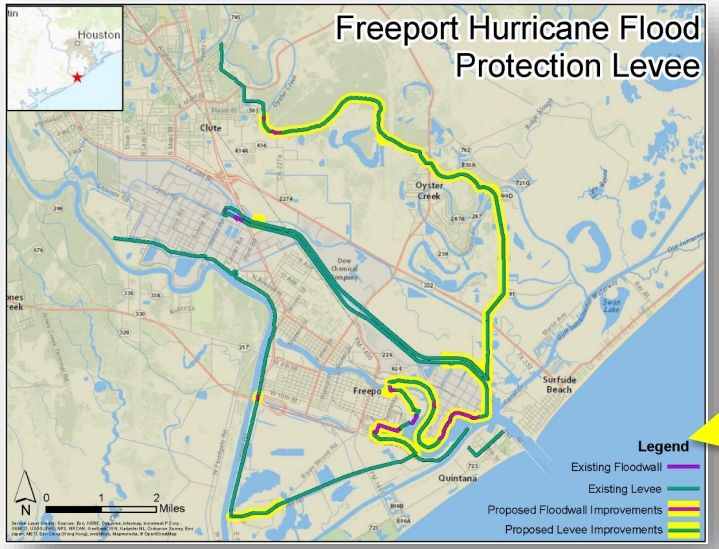
Title IV - Corps of Engineers

- **Investigations**
  - $75M (of $135M total) for States and areas impacted by Harvey, Irma, and Maria
  - Full Federal expense
  - Reduce flood and hurricane risk
- **Construction**
  - $10.425B (of $15B total) for States and areas impacted by Harvey, Irma, and Maria
  - NFS cash contribution financed over 30 years post construction completion
  - Construct flood and storm damage reduction projects authorized/Chief's Reports/studies under investigations
- **Implementation Guidance and Investment Program:** https://www.usace.army.mil/Missions/Civil-Works/Budget/

USACE – Galveston District Funded Projects

Project Name	Funding
CONSTRUCTION	
Brays Bayou, TX	$75,000,000
Buffalo Bayou and Tributaries, TX (Phase 1)	$1,454,000
Clear Creek, TX	$295,165,000
Hunting Bayou, TX	$65,000,000
Lower Colorado River Ph 1 (Wharton, TX)	$73,290,000
Sabine Pass to Galveston Bay, TX	$3,957,134,000
White Oak Bayou, TX	$45,000,000
TOTAL CONSTRUCTION	**$4,512,043,000**
GENERAL INVESTIGATION STUDIES	
Coastal Texas Protection & Restoration Study, TX	$3,804,000
Buffalo Bayou Resiliency Study, TX	$6,000,000
Houston Regional Watershed Assessment, TX	$3,000,000
Brazos River Erosion Management Study, TX	$3,000,000
TOTAL STUDIES	**$15,804,000**

Sabine Pass to Galveston Bay Project



ECONOMIC SUMMARY

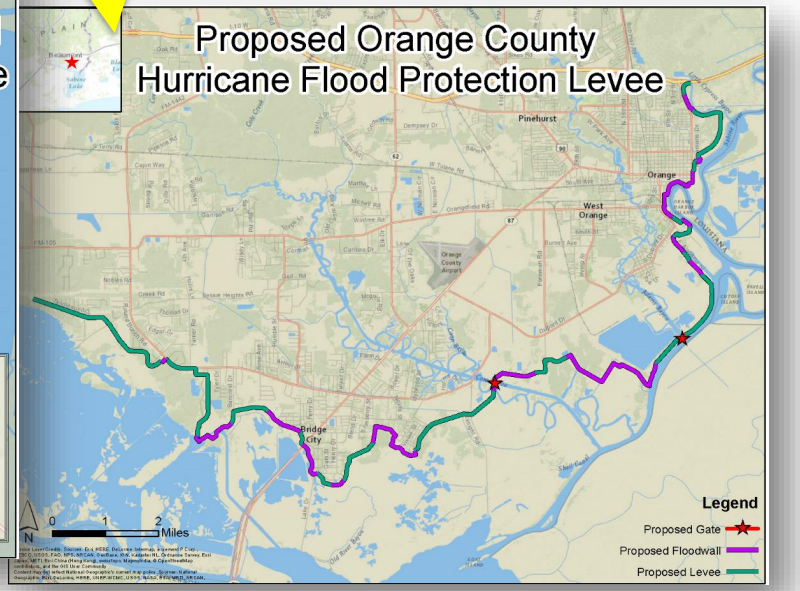
- Estimated First Cost from report: $3,248,606,000*
- NED Net Benefits: $300,043,000
- Benefit-to-Cost Ratio: 3.1 to 1 @ 2.88%
- Annual O&M: $5,467,000

* inflated to current costs of $3,957,134,000

Freeport & Vicinity:
System length: 43.3 mi
Length of levee raise: 69,375 ft
Length of new floodwall: 29,255 ft

Port Arthur & Vicinity:
System length: 29.2 mi
Length of levee raise: 29,200 ft
Length of new levee: 1,830 ft
Length of new floodwall: 30,090 ft

Orange County:
Proposed System length: 26.72 miles
Length of new levee: 15.56 miles
Length of new floodwall: 10.75 miles



Coastal Texas Protection and Restoration Project

Location: Coast of Texas

Phase: Feasibility Study

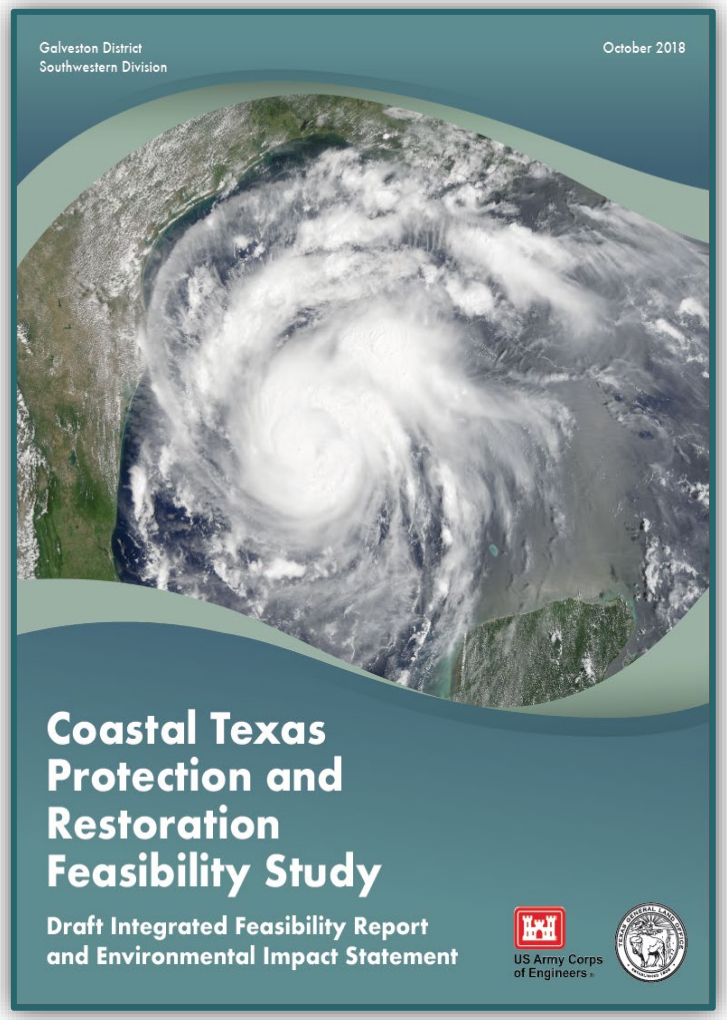
Authorized Study Cost: $19.8M

Non-Federal Sponsor: Texas General Land Office

Scope: Coastal Storm Risk Management & Ecosystem Restoration along the Texas Coast

Current Status: Draft Report released for public comment 26 October 2018

Est. Study Completion Date: April 2021



http://coastalstudy.texas.gov/

Budget and Personnel of the Regulatory Division

140

Annual budget approximately $7,000,000

Personnel of 50

Division Chief/Admin	2 positions
Policy Analysis Branch	9 positions/1 new
Evaluation Branch	17 positions
Enforcement Branch	11 positions
Corpus Christi Office	7 positions
Administrative	4 positions

Section 214 of WRDA 2000

Current 214 Agreements

Harris County Flood Control District

Harris County Engineering Department

Texas Department of Transportation

Port of Houston Authority

Section 214 of WRDA 2000, as amended (Sec. 214), Title 23 U.S.C. Section 139(j), and Title 49 U.S.C. Section 307 allow the Secretary of the Army to accept and expend funds contributed by certain entities to expedite the permit evaluation process.

Waters of the United States

Step 2 - Federal Register in early February

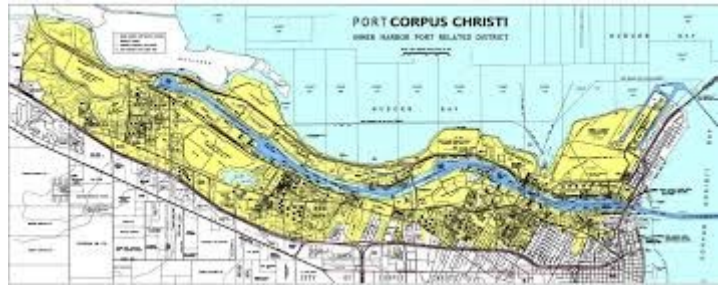
14 February: Federal Register Posting, closes April 15
26-27 February: State and Tribal meetings in Kansas City, KS
27-28 February: Public Hearing in Kansas City, KS
11-12 March: State and Tribal meetings in Atlanta, GA
26-27 March: State and Tribal meetings in Albuquerque, NM

Section 408

Section 14 of the Rivers and Harbors Act of 1899

EC 1165-2-220 Alterations of USACE Civil Works Projects

408 reviews typically cost between $3,000 and $20,000



Phase I – Due end of second quarter 2019

- Establish single point of contact for inquiries
- Develop synchronization SOP
- Link Regulatory and 408 databases

Phase 2 – Implementation of “One Door to the Corps”

- Due end of fourth quarter 2019
- Stand up processes for synchronization

Phase 3 – Assessment of synchronization measures

- Identification of remaining challenges
- USACE may pilot different organizational structures

Recent Trends in Galveston Regulatory

Impacts of Hurricane Harvey

•Increased funding for jurisdictional activities throughout the region
•Increased sensitivity and interest in actions that may have an impact on flooding potential

Nation's Energy Coast

- Increase in number of large scale energy projects along the entire coast
- Increased overlap of Civil Works and Regulatory responsibilities
- Limitations on capacity for placement of dredged material
- Increased interest in use of Section 103 of MPRSA for use of ODMDS

Additional trends

Environmental Impact Statements

- Cooperating status on several LNG's
- Several proposed deepwater ports with MARAD/USCG
- Leading two EIS's related to industrial water use and navigation

EO 13807 – One Federal Decision

- Two Year Goal
- Establishing a permitting timetable
- Development of single EIS/ROD
- Process for issue resolution

Nationwide Permit Reissuance

- Proposed for later this year

New success criteria

1.Transparent Practices and Engagements with applicants/consultants and stakeholders
- 1.1 Conduct outreach
- 1.2 Maintain ORM 2 public facing page

2. Regulatory Development Program
- 2.1 New hire training
- 2.2 Continuing development of current staff

3. Timely Permit Decision
- 3.1 GP decision in 60 days or less
- 3.2 IP decision in 120 days or less

4. Effective Compliance Program
- 4.1 Perform strategic compliance inspections
- 4.2 Strategic resolution of non-compliance, unauthorized and enforcement

My Vision

Continue to enhance consistency of decisions/ determinations

Make timely decisions

Increase transparency

Continue to search for efficiencies in coordination

Look for opportunities for enhanced outreach

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