The Permitting Journey: Deepening and Widening a Federal Navigation Channel

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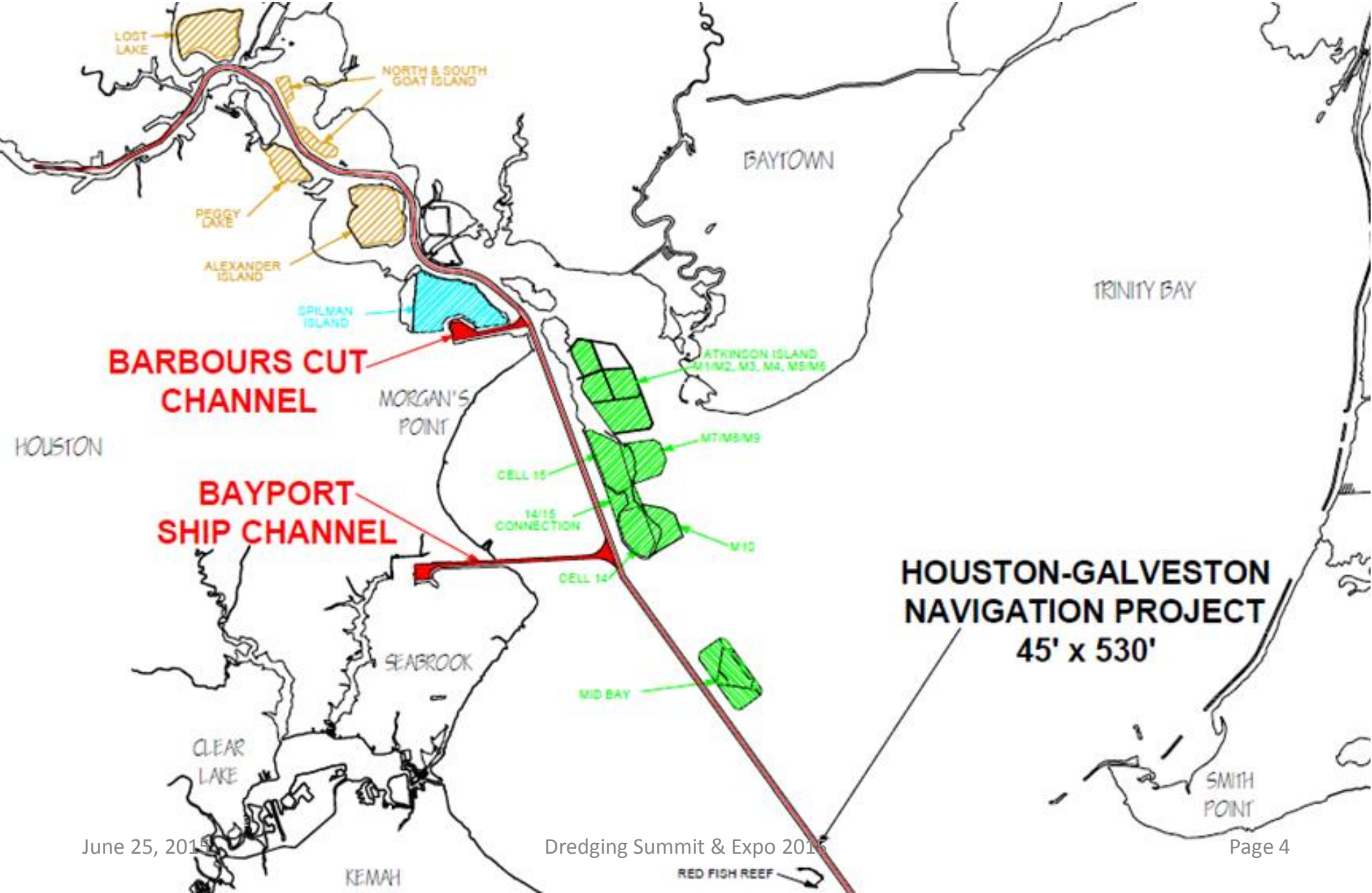
Agenda

- Introduction
  - Project Overview
- Policy
  - Overview
  - 33 U.S.C. Section 408
  - WRDA 1986 Section 204(f)
  - CWA Section 404/Section 10 RHA 1899/MPRSA Section 103
- PHA's Path
- Lessons Learned
- Conclusion

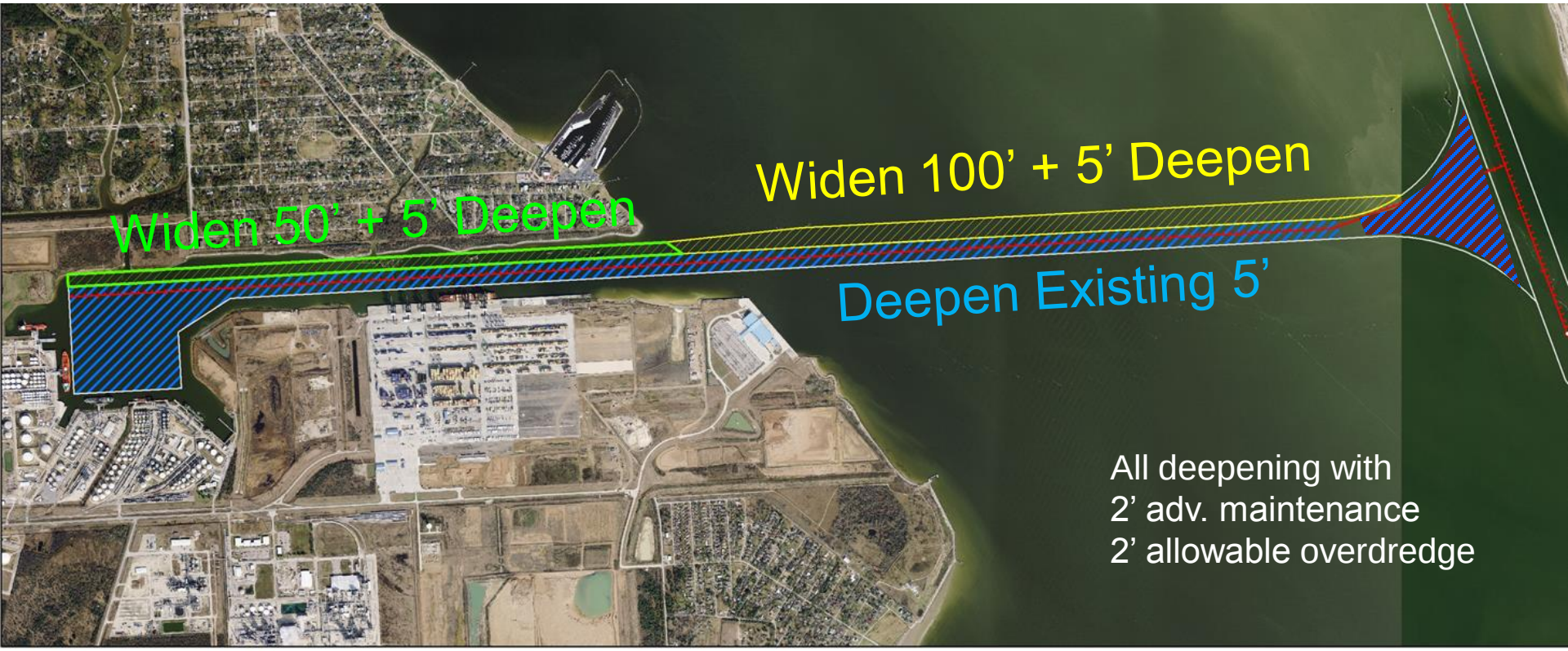
Introduction

- **Why Are Channels Needing Modification and Federal Approval**
  - Industry trend towards larger, more efficient vessels
  - Panama Canal expansion
  - Outdated: time to play catch up
  - Most deep draft navigation channels built or maintained by USACE
- **Project Overview**
  - BSC and BCC are the 2 major container ports for Houston & Tx triangle cities
  - BSC and BCC completed to their modern depths in mid-1970's
  - Container ships could hold just over 2,000 TEU then
  - Today, vessel fleets growing to >10K TEU

Introduction – Project Overview



Bayport Ship Channel Improvements

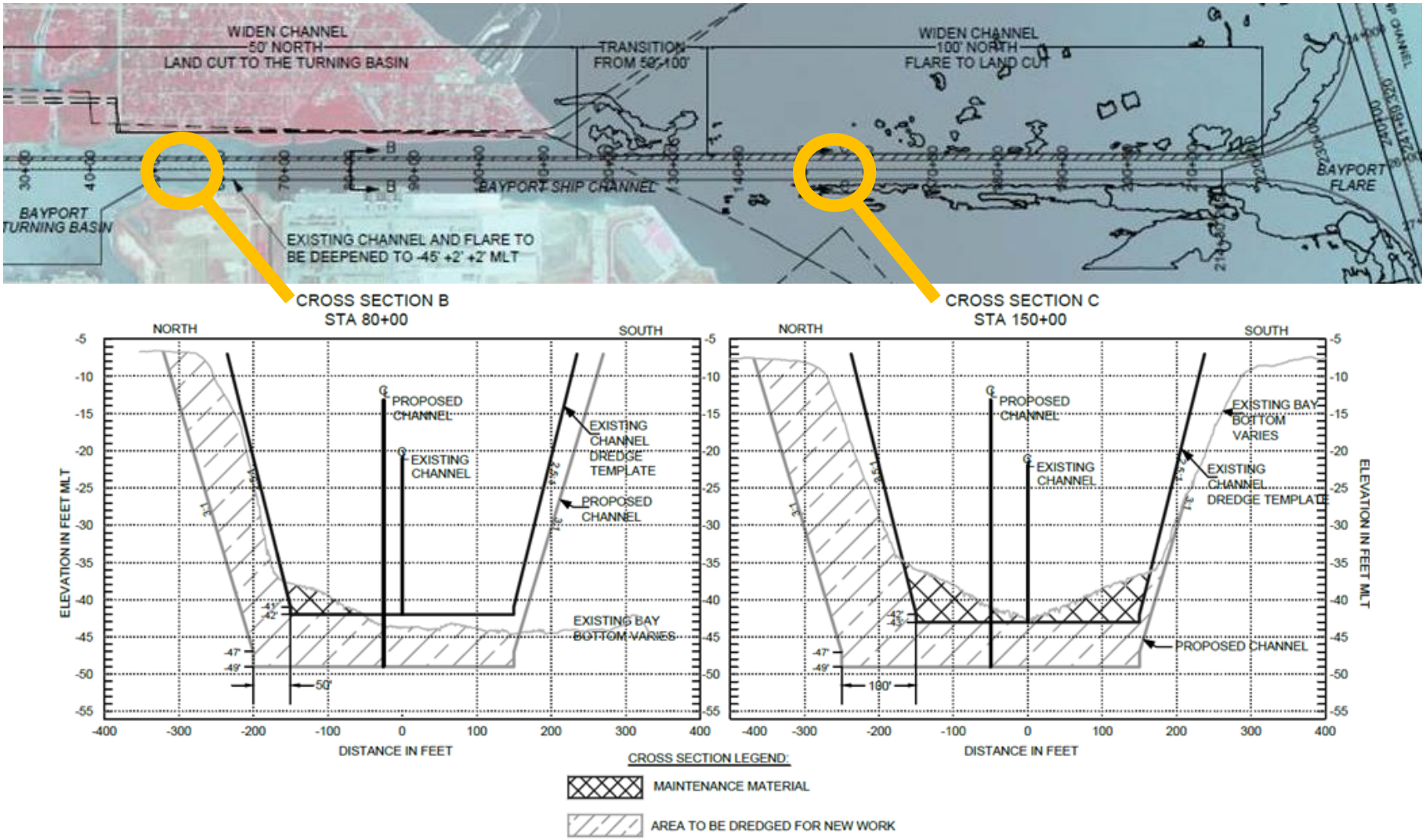


Legend
- ORIGINAL CHANNEL TOE LIMITS
- CHANNEL CENTERLINE
- 45 FEET DEEPENING & 100 FEET WIDENING*
- 45 FEET DEEPENING & 50 FEET WIDENING*
- 45 FEET DEEPENING

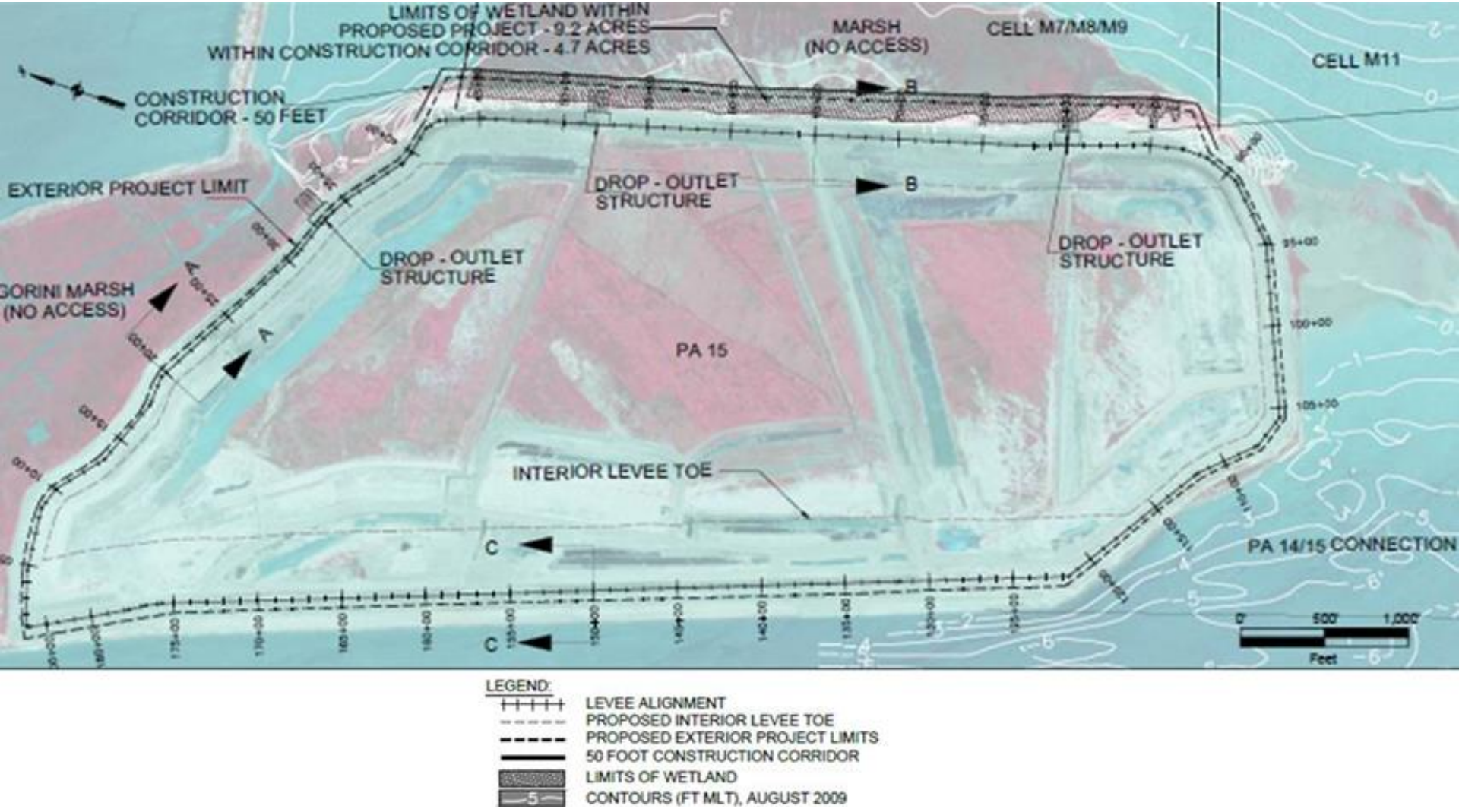
*Top of Bank Limits Shown for Widening

N W E S
0 1,500 Feet

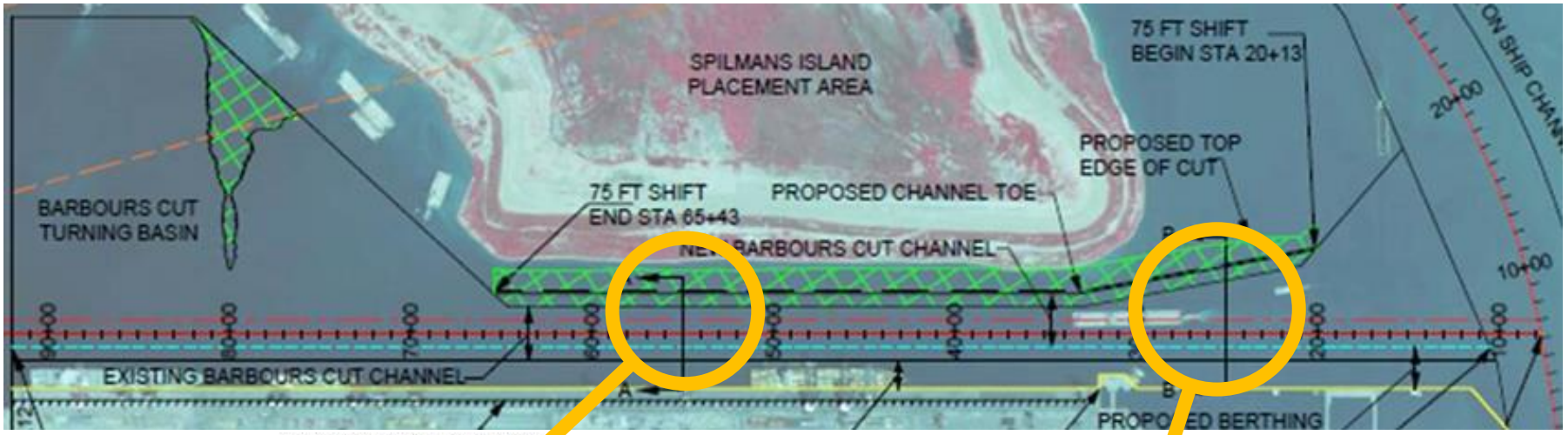
BSC Cross Sections

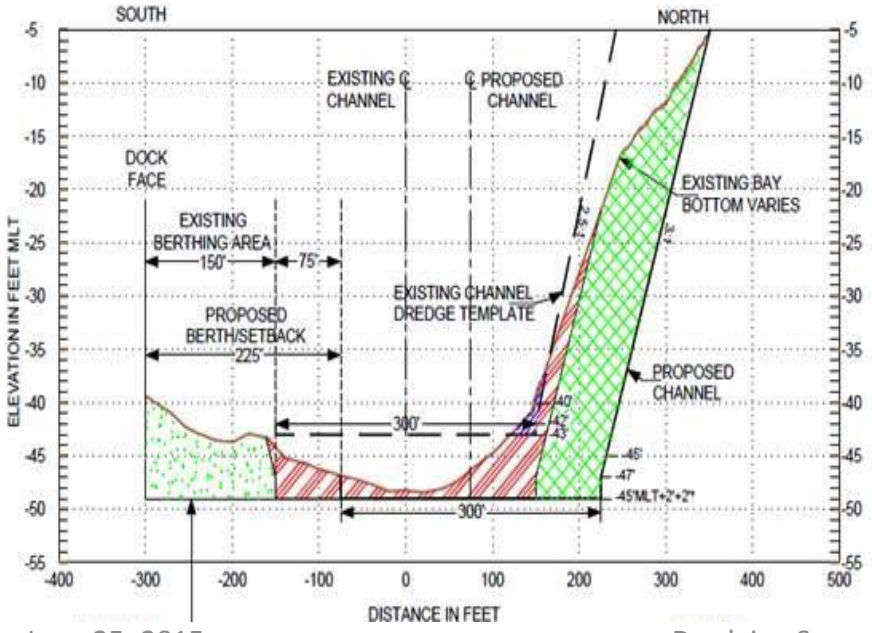


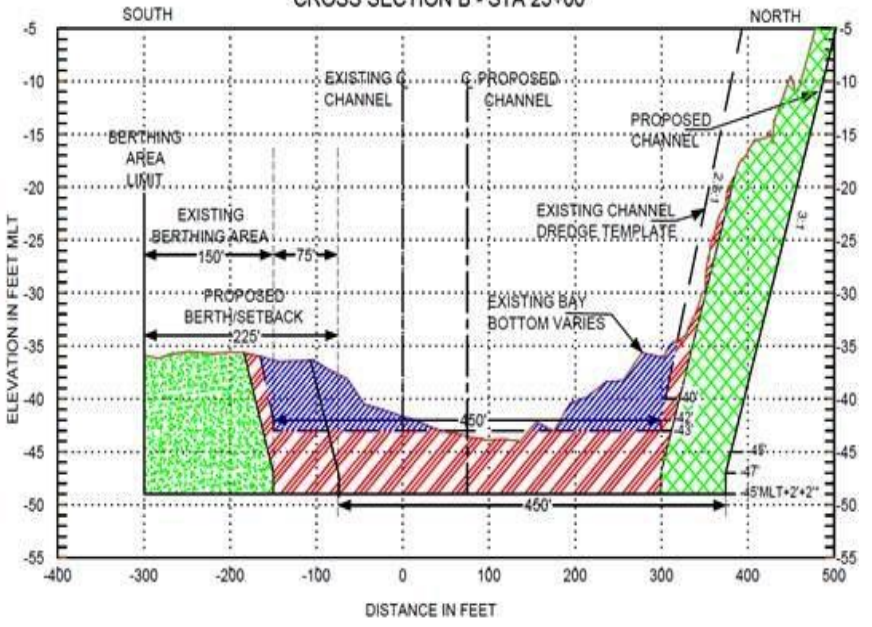
BSC Improvements Project, Placement



BSC Improvements Project, Placement

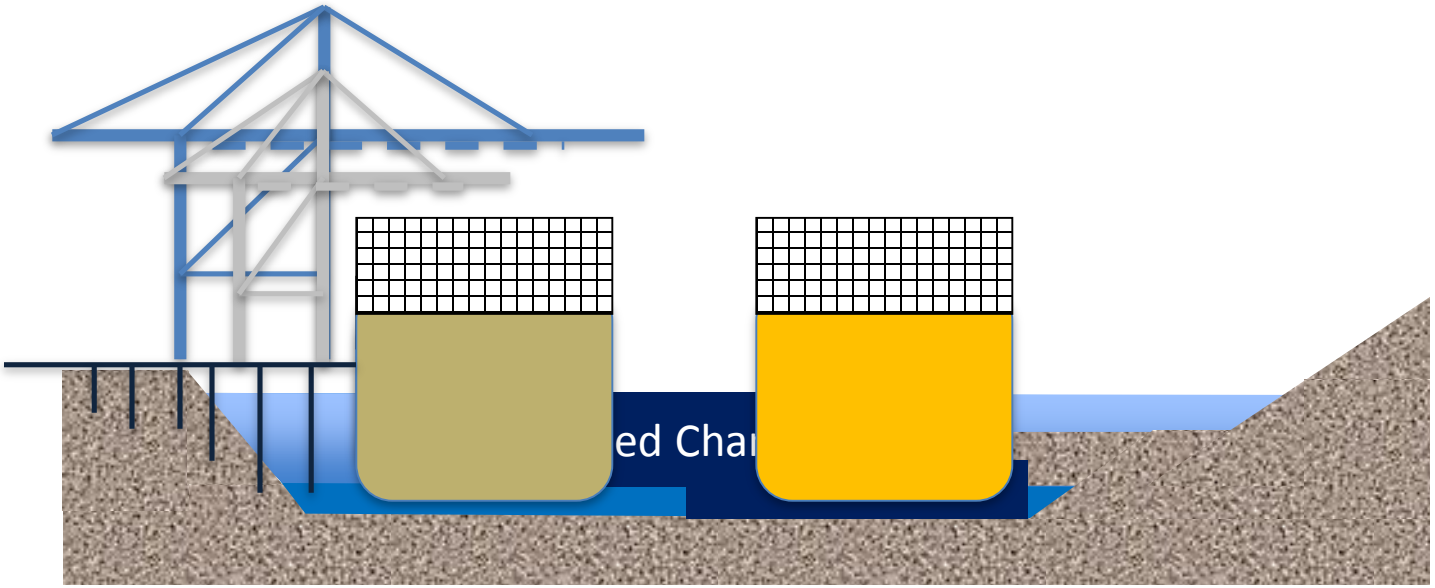




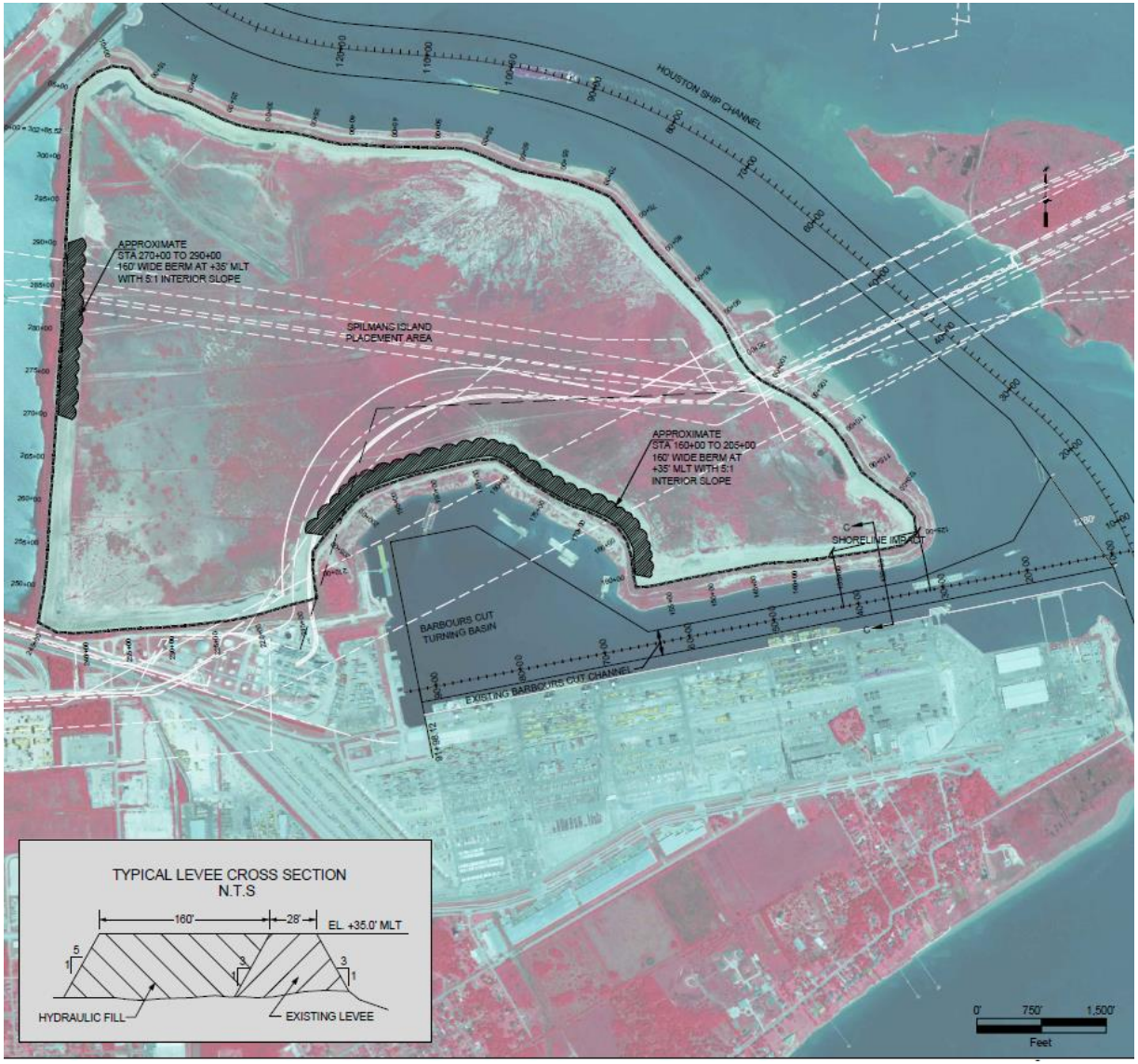


Barbours Cut Channel Improvements Project

- New cranes extend approximately 75’ further (22 containers wide)
- Crane reach interference requires shifting of the federal channel
- Both federal channel and berths will be deepened 5 feet (-45’)



BCC Improvements Project, Placement



Policy – Overview

Evolution of Federal Project Modification Approval

- Initial Section 10 RHA 1899 – more navigation focused
- Other risk reduction Federal civil works grew (flood control, dams etc.)
- 1985 amendment to 33 U.S.C. addressed these other purposes
- Subsequently, 1st few USACE regulation iterations more flood control or dam focused, leaves ambiguity for other purposes
- Latest regulation seeks to address ambiguity in approval process

Policy – Section 408

Section 408 of 33 U.S.C. reads

It shall not be lawful for any person or persons to take possession of or make use of for any purpose, or **build upon, alter**, deface, destroy, move, injure, obstruct by fastening vessels thereto or otherwise, **or in any manner whatever impair the usefulness** of any sea wall, bulkhead, jetty, **dike, levee, wharf, pier**, **or other work built by the United States**, or any piece of plant, floating or otherwise, used in the construction of such work under the control of the United States, **in whole or in part**, **for the preservation and improvement of any of its navigable waters or to prevent floods**, or as boundary marks, tide gauges, surveying stations, buoys, or other established marks, nor remove for ballast or other purposes any stone or other material composing such works: **Provided, That the Secretary of the Army may, on the recommendation of the Chief of Engineers, grant permission for** the temporary occupation or **use of any of the aforementioned public works when** in his judgment such occupation or **use will not be injurious to the public interest**: **Provided further**, That **the Secretary may, on the recommendation of the Chief of Engineers, grant permission for the alteration** or permanent occupation or use of any **of the aforementioned public works when in the judgment of the Secretary such occupation or use will not be injurious to the public interest and will not impair the usefulness of such work**.

Previous USACE Regulations on Fed Proj Mod

- Modification of Federal project by Feds
  - ER 1165-2-119, Modifications to Completed Projects
- Construction or study of Federal project by Non-Feds partnering with Feds under Fed study framework
  - ER 1165-2-120
  - ER 1165-2-122
- Did not addressed modification of Fed project by NonFeds alone →Policy Gap

Policy – Section 408 (continued)

USACE Policy Letters Seek to Address Gap

– ***2006 CECW-PB, Policy and Procedural Guidance for the Approval of Modification and Alteration of Corps of Engineer Projects***

- **Clarified 33 U.S.C. 408 required approval of mods to existing USACE projects**
  - **whether Federally or locally maintained**
  - **by local interests for actions that go beyond that required for normal O&M**
- **Approval delegated to Chief of Engineers**
- **1st Section 408 approval procedures**
  - **general and brief**
  - **became basis for subsequent policy**
  - **included public interest determination and residual risk**
  - **little detail given was relevant to flood control purpose**

Policy – Section 408 (continued)

USACE Policy Letters Seek to Address Gap (continued)

– ***2008 CECW-PB, Clarification Guidance on the Policy and Procedural Guidance for the Approval of Modifications and Alterations of Corps of Engineers Projects***

- **Clarify required engineering studies, review report processing, appropriate funding mechanisms**
- **Allowed minor mods to only need District Engineer approval, but only flood control-related examples and definitions of "minor" given**
- **Added requirement for risk analysis, and reiterated residual risk requirement, but only in flood control or geotech risk context**
- **Clarified approval requiring Chief's OK subject to ATR and Type II IEPR Safety Assurance Review (SAR)**
- **Introduced "vertical teaming" to work through issues in progress through vertical chain of command**
- **Added detail to what submittal package should contain, who prepares or requests what**

***Policy in effect at time of BSC and BCC Sect 408 Process**

Policy – Section 408 (continued)

Newest USACE Guidance born from recent experiences

- EC 1165-2-216, *Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408*, July 2014
  - Superseded 2006 and 2008 guidance memos
- Appendices address specific procedures for most Civil Works purposes
  - Navigation Channels, Harbors, Locks, Jetties, Bridges, and Features
  - Flood (levee, walls, channels), dams/reservoirs (including nav dams), hydropower
- H&H analysis includes consideration of impacts to navigation
- More navigation-related policy including
  - Two project categories dictating review and documentation requirement
    - Cat 1 – Those seeking 204(f) AOM
    - Cat 2 – All others, will have project specific setbacks to expedite approval (i.e. if you're not within x feet vertical, horizontal etc. of this channel → fast review)
  - Stakeholder review

***Contains some of the rulings BSC & BCC project went through**

Policy – WRDA 1986 Section 204(f)

Section 204(f) bottom line

- O&M dredging of Fed nav channel modified by non-Federal interests is responsibility of NFS, unless it is assumed by the Federal government through the WRDA Section 204(f) process
- Fed could assume maintenance if it was
  - economically justified
  - environmentally acceptable
  - constructed in accordance with applicable permits and appropriate engineering and design standards, and
  - not found to no longer be economically justified or environmentally acceptable

Policy – WRDA 1986 Section 204(f) (continued)

USACE Regulations and Guidance

– ER 1165-2-124, Construction of Harbor and Inland Harbor Projects by Non-Federal Interests

- Sec. of Army responsible for O&M of NFS-constructed project provided that <u>before construction</u> proposed work determined to be:
  - economically justified and environmentally acceptable
  - completed IAW applicable permits and acceptable design standards

❖ This is 2nd of two "204(e)" items, since amended to 204(f)

- Secretary of the Army approval
- Economic justification – more project benefit than cost
- Environmental acceptability
- Technical acceptability – "appropriate" engr. and design standards
- USACE construction inspection and certification allowed
- O&M Cost sharing
  - 100% Fed up to 45', 50% share beyond that
  - LERRDs, disposal sites 100% NFS
  - no recreational channel cost share

Paragraph 5.e. authority and basic requirement under Section 204(f)

Paragraph 9 approval and analysis requirements

Policy – WRDA 1986 Section 204(f) (continued)

USACE Regulations and Guidance (continued)

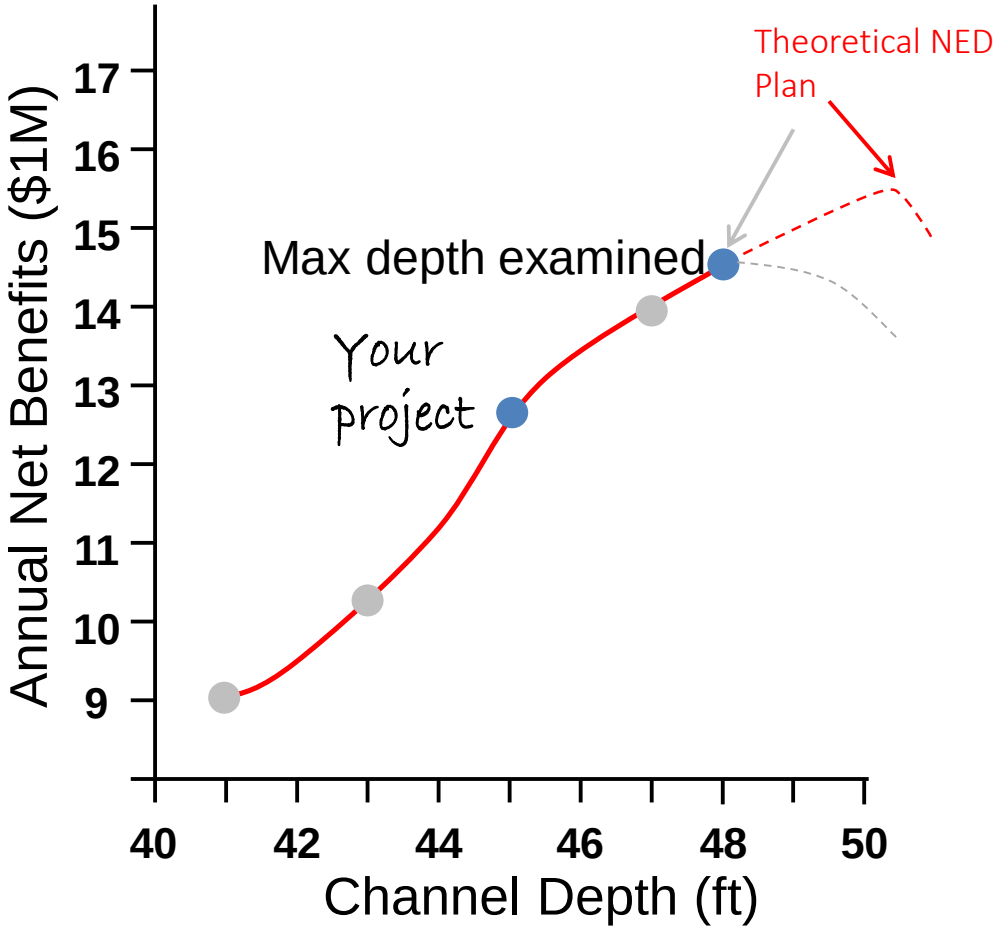
- IWR 10-R-4, National Economic Development Manual for Deep Draft Navigation
  - The *de facto* guidance on how navigation economics analyzed
  - Same procedures used in Fed feasibility studies
  - USACE usually retains performing this analysis in-house
  - Goal – assess net benefit of project and to find Nat'l Econ. Development Plan

Points on Economic Analysis

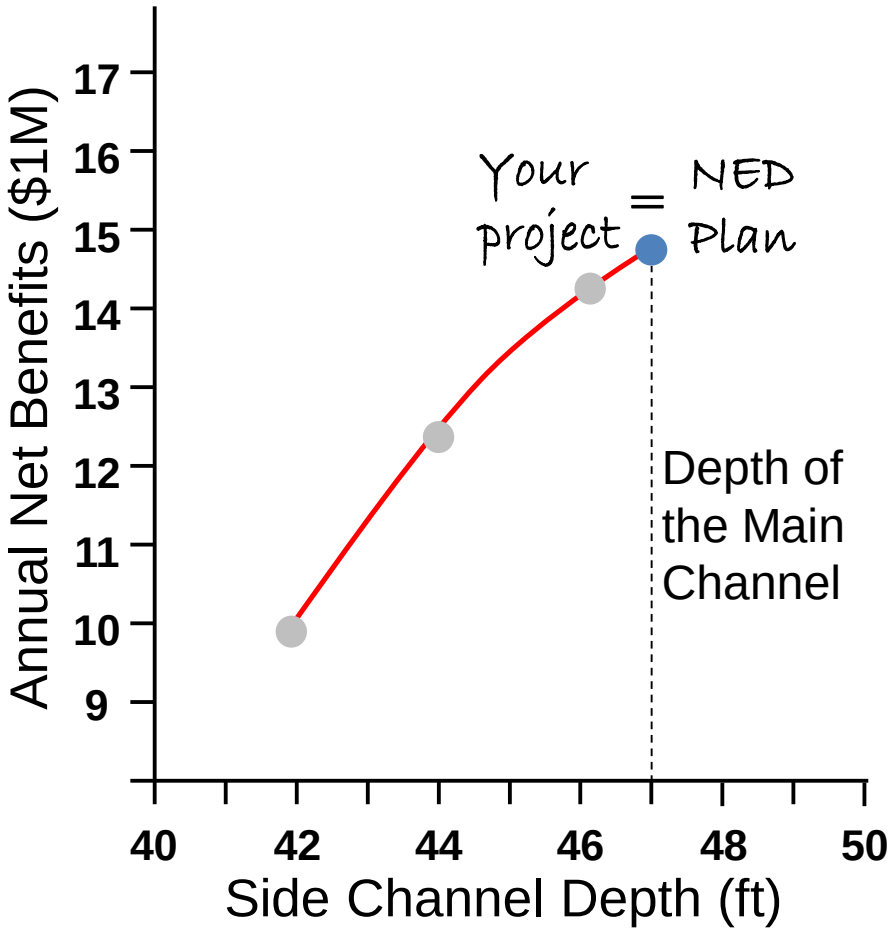
- NED Plan sets the amount of O&M Fed assumes
  - NED Plan usually gives greatest net benefit*
  - May or may not be same scale (e.g. depth, width) as proposed project
- Proposed project must still show good net benefits
- Analysis can be truncated – see examples on next slide

Truncated Analysis Examples

Case: Stop Analysis At Some Max Depth



Case: Side Channel



Policy – WRDA 1986 Section 204(f) (continued)

Points on Adequate Design

- USACE engineering and design standards used where possible/applicable
- Plans will be reviewed by USACE district
- Engineer manuals, regulations, circulars, technical letters, construction bulletins. A few key ones:
  - EM 1110-3-1613 Hydraulic Design of Deep Draft Navigation Projects
  - EM 1110-2-1003 Hydrographic Surveying
  - EM 1110-2-5025 Dredging and Dredged Material Disposal
  - EM 1110-2-5027 Confined Disposal of Dredged Material
  - EM 1110-2-1202 Environmental Engineering for Deep Draft Navigation Projects

Point on No Full Civil Works Study

- ER 1165-2-124 doesn't require full Civil Works feasibility study
- ER 1165-2-124 also says that normally, environmental concerns will be addressed through permitting process

Policy – CWA Section 404 et al.

Section 404 of CWA

- Waters of the US (WOUS) including Wetlands
  - Your navigation channel will be WOUS
  - Wetlands – possibly along the waterway fringe or shallows, placement area
  - Special aquatic sites

Section 10 of the RHA of 1899

- From same statute that gave us Sect 408
- Preserve navigation provided by all nav. waters (not just Fed channel)
- Your navigation channel and possibly berths will be Section 10 waters

Section 103 of the MPRSA of 1972

- Offshore Placement = “ocean dumping”
- EPA Region involved
- This one kicks in more involved dredged material testing

Policy – CWA Section 404 et al. (continued)

Section 401 of CWA

- State gets to certify that permitted action will meet State WQ standards
- Placement into water or even into CDF (effluent is regulated)
  - Effluent ("return water") may have limitations as condition of certification
  - TCEQ in Texas certifies

Other Associated Processes

- Coastal Zone Management Act (State Coastal Mgmt Program)
  - May have overlapping regulation of same aquatic resources
  - May defer or be incorporated with other State Process
- Sediment testing
  - Should follow Sect. 404(b)(1) Guidelines for testing (40 CFR 230 Subpart G)
    - Upland Testing Manual – CDFs at island, nearshore, or upland locations
    - Inland Testing Manual – open water disposal nearshore, estuarine, riverine (WOUS)
    - Ocean Testing Manual – aka "Green Book" for offshore ocean disposal
  - In reality, grey areas of specific contaminants to test & how much is enough

Policy – CWA Section 404 et al. (continued)

Other Associated Processes (continued)

- Sediment testing (continued)
  - Some USACE districts already have drafted guidelines, some haven't
  - Guidelines may be developed more from Ops for users of USACE placement
  - Some have more flexibility for new work testing
  - May cover chemicals, but not "reason to believe" procedure or existing data sufficiency
  - Bottom line – some grey area bound to generate issues
- New Work Material Testing Issues
  - Expensive, especially when deep cores being required
  - If maintenance and top layer clean, should help establish cleanliness of subsurface layers, right?
  - Establish geology of your full new work profile – may help your case hopefully
    - Geology – how the native layers got there and what they consist of
    - Sedimentology – how modern top soft layer got deposited and impacted
  - Representativeness of previous sampling

Port of Houston's Path - Constraints

Time

- Current and growing traffic demand and vessel fleet change
  - Fleet getting larger: 9,000 TEU already visiting Bayport and Barbours
  - Houston metro & Texas areas among Nation's fastest growing, still
  - TEU demand continues growing with it
- Reliance on Bayport Terminal to accommodate bulk future growth
- Barbours Cut Cranes Delivery
- Co-execution of both projects

Policy

- Multiple Decision Documents
- Each generates need for some form of NEPA documentation
- Each managed by different organizations, chains of command at start
  - Section 204(f) – Planning Section of District Planning and Env. Branch
  - Section 408 – Section 408 coordinator normally in District Operations Div.
  - Section 404 – District Regulatory Division

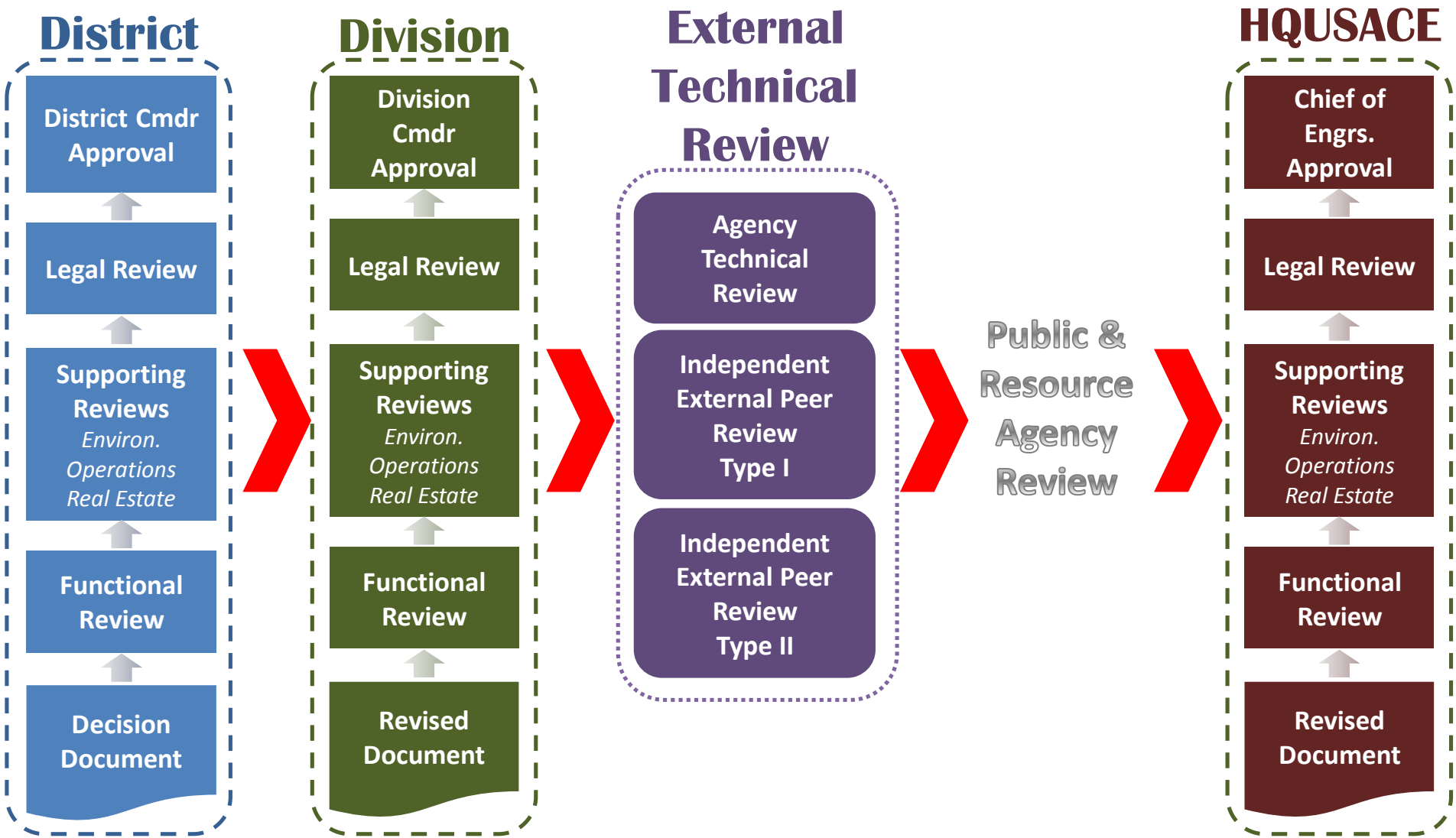
Port of Houston's Path - Constraints

Policy (continued)

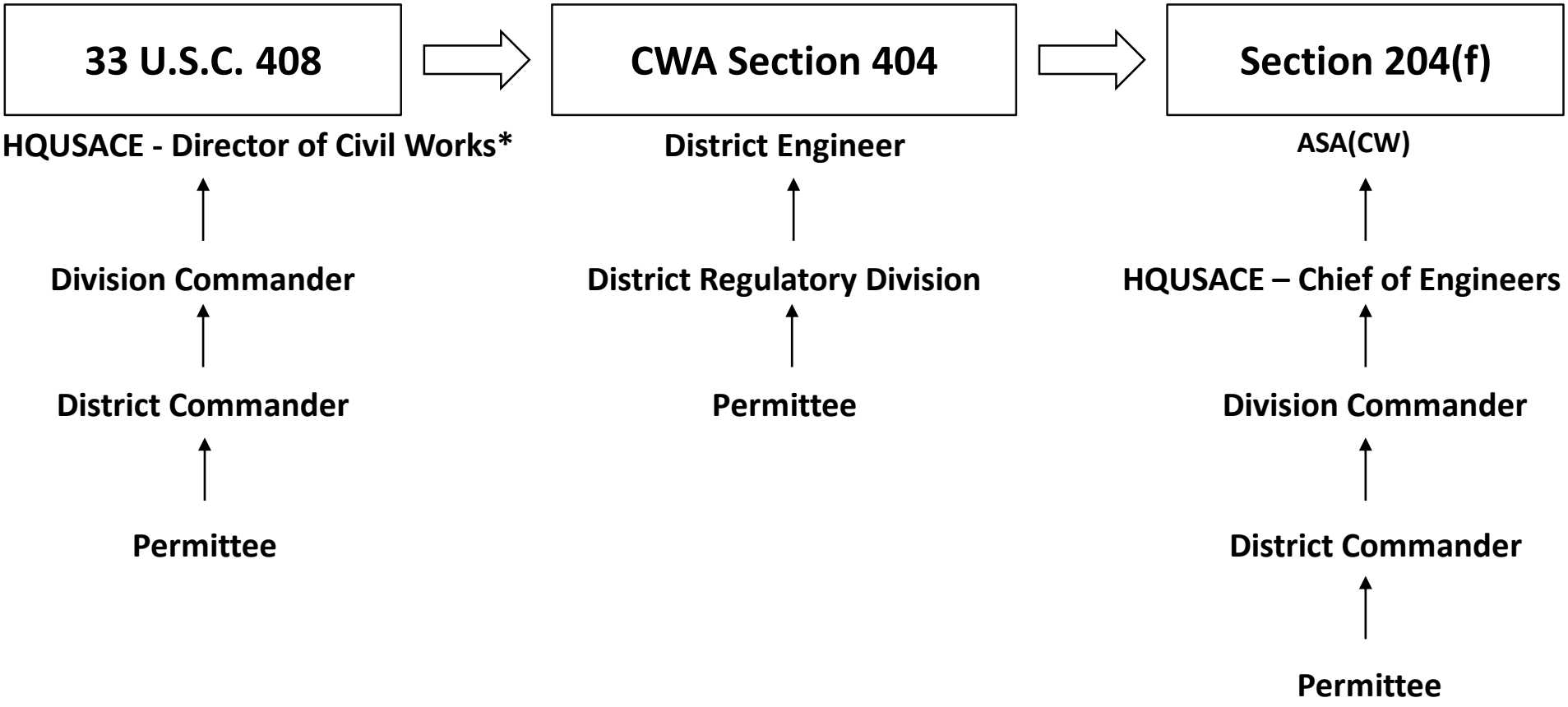
- Different levels and types of review along the way (see next slide)
- Vertical team review routes 204(f) and 408 up the chain
- Section 204(f) requires approval all the way to the ASA(CW)
- Ideally, unimpeded parallel review and consolidation of similar documents
- Limitations to parallel review and document consolidation
  - Section 404 independence
    - Decision ends with District Engineer*
    - EC 1165-2-216
      - no Sect. 404 permit decision documentation forwarded to Division or HQUSACE commanders approving Sect. 408 report
      - approval or denial under Sect. 408 has nothing to do with Regulatory Program
    - Results in EA (Statement of Findings) separate from 408 or 204 EAs
  - EC 1165-2-216 Approval Sequence
    - Section 408 approval must happen before Section 404 decision rendered
    - Section 204(f) not submitted to ASA(CW) until Sect. 204 and Sect. 404 approved

*Other than rare instances of permittee-contested decisions reviewed by Division Engr.

Generic Review Cycle for a Decision Document



Resulting Sequence of Approval for Federal Channel Modification



*Exemption possible

Port of Houston's Path – Constraints (continued)

Approach to Constraints

– Minimize sequential review

- Though approvals have to occur sequentially, reviews don't
- Reviews for approvals that focus on different purposes, should be able to progress concurrently for the most part
- Discuss with USACE which reviews can occur concurrently

– Minimize separate documentation

*Galveston Bay Estuary Program

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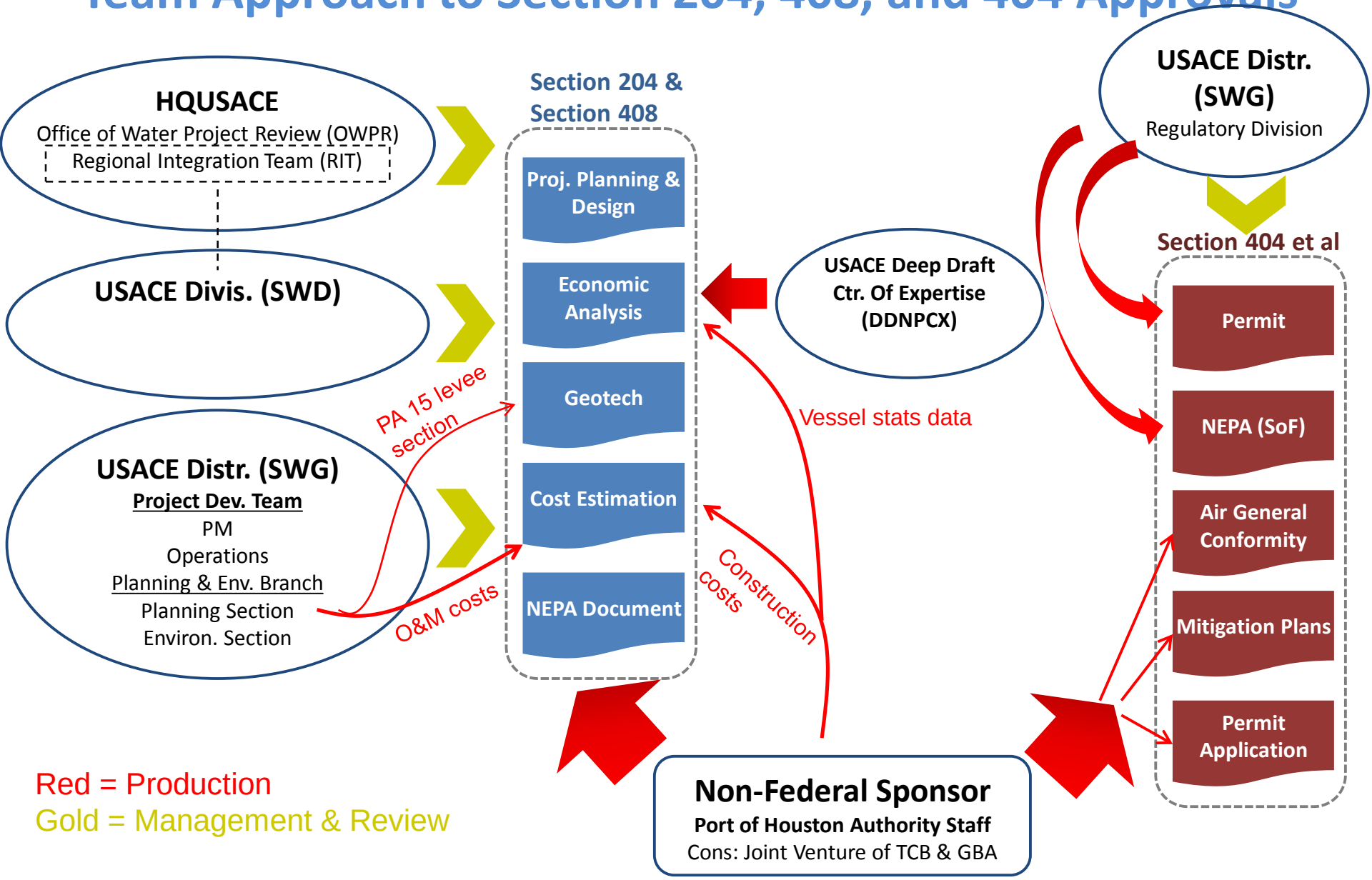
Port of Houston's Path – Steps and Timeline

Planning Charette and Team

- Planning Charette
  - Necessary to discuss and agree ways that approvals, their documentation, and review could be conducted to meet PHA's desired timeframe
  - Three-day planning charrette conducted January 2013
  - Used USACE's new SMART planning approach
    - SMART = Specific, Measurable, Attainable, Risk-Informed, and Timely
    - New default way of Civil Works planning to meet WRDA 3X3X3 requirements
  - Set ways to speed up process and discussed following:
    - Scope, basic planning study parameters (204(f)), schedule constraints
    - Intended approval timeline, general review strategy, VT issue resolution
    - Policy gray areas, who does what (USACE or NFS), exemptions to seek
    - Communication – chain of command, issue resolution project Web portal
- Team (next slide for details)
  - Joint USACE HQ, Division, and District staff and PHA and consultant staff
  - Frequent meetings, VT issue resolution to minimize later official reviews

Team Approach to Section 204, 408, and 404 Approvals



Port of Houston's Path – Steps and Timeline

Requests and Exclusion

- Exemptions to risk analysis and review explored
  - To further expedite the approval process
  - These were more related to flood risks
- Type I Independent External Peer Review (IEPR)
  - Done by outside org. such as Nat'l Academy of Sciences
  - Several project risk triggers including life threat, cost, controversy
  - BSC project exceeded $45M cost trigger, but very limited waiver allowed
- Type II IEPR
  - Also done by outside organizations
  - Where potential hazards pose significant threat to human life
  - For implementation (i.e. design and construction) documents
- PHA provided info to request exclusions to make case that
  - project lacked complexity and novelty of design
  - no life safety factors associated with project not performing as intended
  - Other factors

Port of Houston's Path – Document Development & Analyses

Overview

- As much document consolidation as possible sought
  - Limited by Sect 404 independence and 408 policy decisions
  - Document sharing – Engineering and NEPA
  - Consistency and info sharing

Details….

Section 408

- Focus: *won't be injurious to public interest nor impair usefulness of such work*
  - Put simply, how would the proposed projects affect navigation that was provided by the existing 40-foot deep channels
  - Design and performance data of the proposed alterations related to
    - Navigation
    - Use of the PAs used to maintain those channels
  - Public interest determination: shared/references to 404's PI determination
- Report Content

Details…

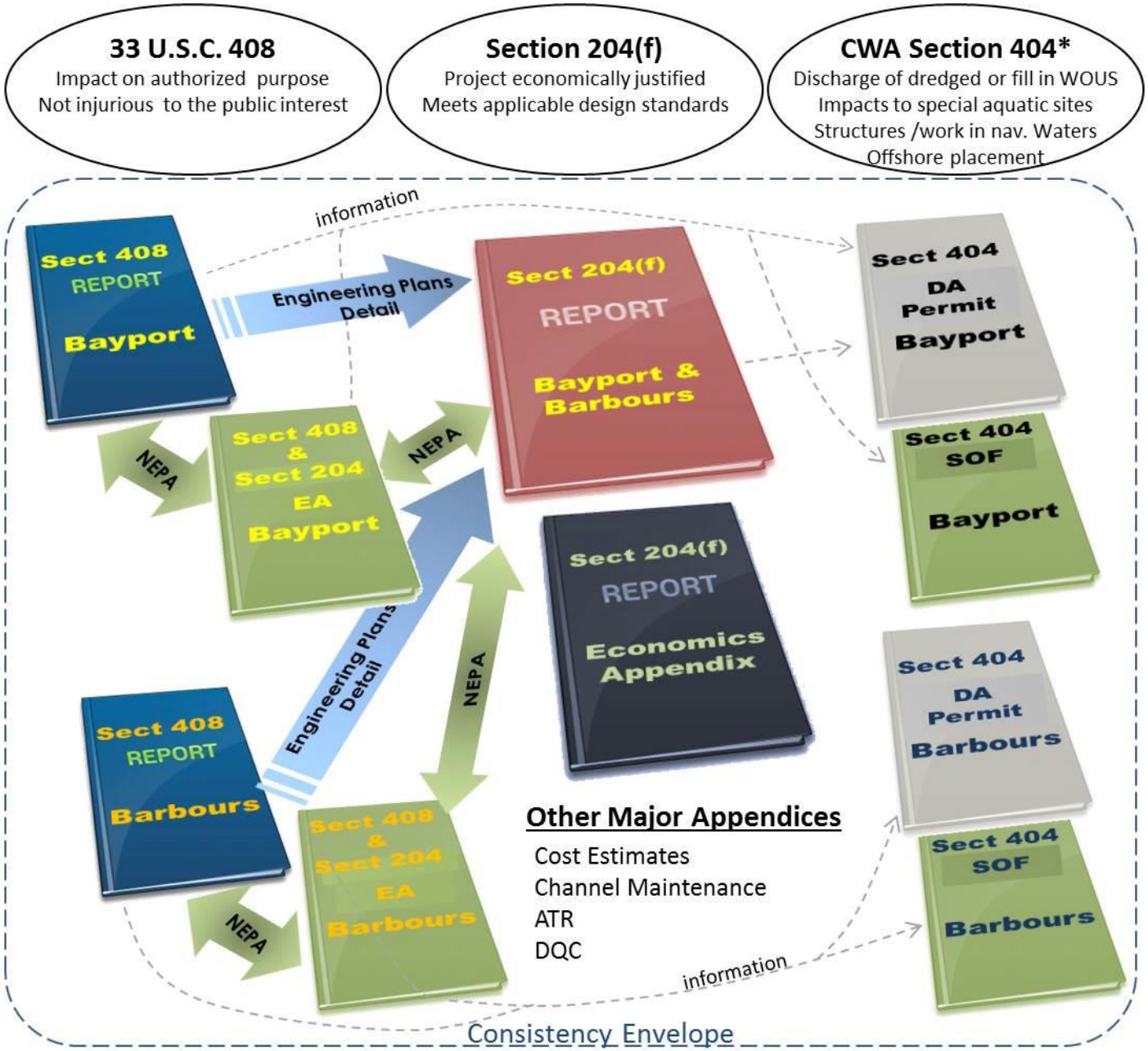
Report Scheme

Blue = 408

Pink = 204(f)

Green = NEPA

Grey = 404



Section 408 Report Content

- Approval Request – Letter from the NFS officially requesting approval
- Main Report – Alteration requested, existing project authorities, public interest determination, exclusions, residual risk, engineering/technical analysis of proposed alteration, environmental compliance summary
- Environmental Assessment – shared with the 204(f) purpose
- Project Design Plates – Design drawings, schematics, cross sections etc. showing proposed channel modifications and dredged material placement
- IEPR Exclusion Request and Approval
- Geotechnical Analysis – Quantifying types and amount of material proposed to dredge, stability of any proposed alterations to existing USACE-managed dredged material PAs
- Agency Coordination Listed in 2008 Section 408 Guidance Memo
- Ship Simulation Report or Vessel Pilot Coordination – Simulations that demonstrate that navigability of design vessel in proposed improved channel is adequate and that existing vessel navigability is not impacted. For the BSC, the MITAGS simulation report was used, and for the BCC, a vessel pilot letter attesting to adequacy of the proposed modification was used.
- DQC and ATR documentation
- Real Estate Appendix – Listing the real property interest required for the alteration, and if any are under Federal ownership or management
- Legal Certification – USACE District legal reviews

Port of Houston's Path – Document Development & Analyses (continued)

Section 204(f)

- **Focus:** economically justified for AOM and meets applicable design standards
  - Requires analyses and info related to
    - navigation economic analysis
    - channel O&M
    - abbreviated elements of USACE feasibility study process
- **Outcomes and Details**
  - Both projects were economically justified, providing robust net benefits
  - O&M costs estimated
    - Using USACE's Cost Engineering Dredge Estimating Program (CEDEP)
    - Based on shoaling calculated or accepted by District, with NFS input
  - Shoaling rate analysis should be robust estimate
    - based on reliable historical maintenance records
    - discuss significant differences between NFS and USACE
- **Report Content** *Details…*

Section 204(f) Report Content

- **Main Report – Project description and authorities, purpose and need, study area description (including current navigation situation), plan alternatives formulation, summary of economics, analysis of environmental and engineering acceptability, construction, O&M and real estate.**
- **Section 408 reports appendix – contains the BSC and BCC 408 reports & their engineering detail**
- **Economics Appendix – report of analysis by DDNPCX of BSC and BCC**
- **Cost Estimate – O&M costs calculated by District staff and Cost Engineering MCX certification**
- **ATR and DQC documentation**
- **Approval letters – Showing District, District Legal Counsel, and Division signature**
- **O&M Analysis – analysis of shoaling and estimated maintenance dredge quantities, and plan for maintenance material placement performed by District Operations staff.**

Port of Houston's Path – Document Development & Analyses (continued)

Section 404

- **Focus:** regulation of discharges into WOUS and special aquatic sites
- Data and info related to WOUS, wetlands, oyster reef
  - Acres involved/impacted
  - Compensatory Mitigation Plan IAW 40 CFR Subpart J
  - Project description info including
    - new work and maintenance dredge quantities and makeup (silt vs clay etc.)
    - Project limits (by channel stations)
    - reason for discharge, and description of avoidance, minimization etc.
- Data and info related to Section 10 waters and navigability issues
  - Identify Section 10 Waters
  - Details of project that could impact or involve navigability
    - Federal channel limits, berth lines
    - ship-to-shore or other dock structure mods that could encroach Fed channel

Port of Houston's Path – Document Development & Analyses (continued)

Section 404 (continued)

- Section 401 Water Quality Certification Questionnaire
- General Conformity (GC) for Air Quality (NAAQS)
  - Project is in Houston-Galveston-Brazoria Non-Attainment Area for ozone
  - NAA + Federal permit approval triggers GC compliance
  - Need to assess if formal GC Determination required
    - If *de minimis* tons per year exceeded → Formal GCD
    - Required project air emissions estimate
      - Construction only, not operations
      - Recognized marine (dredge), non-road (earthwork), and commuting models
    - BSC project exceeded *de minimis* → Formal GCD
  - Formal GCD
    - Coord. with State to determine if emissions conforms to State Implement. Plan
    - 30-day public review
    - BSC emissions were minor enough to conform → Final GCD → proceed
  - NFS conducted estimate and coordination

Port of Houston's Path – Document Development & Analyses (continued)

Technical and VT Review

- Approval process shortened by planning reviews to
  - Be conducted concurrently where possible
    - Section 204 and 408 ATR largely done concurrently
    - Section 204 Distr. Quality Control (DQC) combined with ATR
  - Use staff familiar with decision document to do part of technical review
    - District staff involved in in-progress reviews for Section 408 ATR
    - Since PHA largely produced documents, independence of review maintained
- Sect. 204(f) ATR
  - Done by combination of District staff and DDNPCX staff
  - DDNPCX staff different from that performing economic analysis
  - Supporting cost estimates reviewed and certified by USACE Cost MCX
- VT reviews expedited since in-progress VT coordination allowed this
- Legal reviews typically performed sequentially last at District & Division

Port of Houston's Path – Document Development & Analyses (continued)

Public Review

- Different statutory or USACE regulation drivers for each process
- Section 404 Public Notice (PN) and Review (33 CFR 325)
  - Every individual permit requires PN and min. 30-day public & agency review
  - Re-notice can be triggered by change in project or mitigation
  - BSC
    - Initial PN – 2,000+ comments, extensive 60-day databased response
    - Renotice – change in placement and invocation of tidal marsh impact
  - BCC
    - Initial PN – tens of comments, 30-day response
    - Renotice – change in portrayal of proposed channel modification dimensions

Port of Houston's Path – Document Development & Analyses (continued)

Public Review (continued)

- Section 408: New Guidance in EC 1165-2-216
  - For 408 report itself, no explicit requirement
    - Only public notice seeking input for requests having less than significant effect on human or natural environment (presumably others taken care of through NEPA)
    - 408 approval alone (w/o 204(f)) would not be defined as decision document under now-rescinded EC 1165-2-214 Civil Works Review Policy
  - For 408 EAs
    - Generally not circulated for review (consistent with NEPA)
    - Division Cmdr's discretion for EA associated with current feasibility study or other uncommon circumstances
    - NEPA requirement to public notice Draft FONSI and availability of EA still applies
- Section 204(f)
  - For 204(f) report, requirements in rescinded EC 1165-2-214 did not apply
  - For EAs, ER 200-2-2 USACE NEPA regulation requirements for
    - EAs for feasibility, CAP, or special or "certain" planning reports doesn't apply (?)
    - NEPA requirement to public notice FONSI and availability of EA still applies

Lesson Learned

Parallel Review, Parallel Review, Parallel Review

- **Couldn't meet timeline without doing this as much as possible**
- **Really lobby for and discuss thoroughly with USACE**

Planning Charette Needed Up Front

- **Sets path, helps avoid rework and fits and starts of production & review**
- **Couldn't meet timeline without it**

Communication

- **It has to be constant under a compressed time schedule**
- **Up front dialogue/coordination with resource agencies smoothes path**

Purpose and Need

- **"Get it right" up front**
- **Make everybody (All USACE camps & NFS) agree to it and stick to it**

Lesson Learned (continued)

Terminology

- **Environmental Impact language and forbidden words**
  - **Certain phrasing or words may be "taboo" for different reviewers**
    - **Even if CEQ guidance (or other relevant guidance) or you use them**
    - **Even if you see them in other USACE NEPA documents recent and old**
  - **Caused a lot of rework since terminology sprinkled throughout**
  - **Define these up front at the charette**
- **"Start of Construction": one example of impactful grey area**
  - **Affects AOM reimbursement**
  - **Not defined for our effort, took a long time to get answer**
  - **Not when shovel hits dirt**
  - **Now defined in EC 1165-2-216 as award of 1st construction contract**

– **Point is, don't take seemingly simple words or phrases for granted**

Lesson Learned (continued)

Expected Level of Consistency

- How exact does language have to be between reports
  - Key words the same or exact same phrasing
  - Where does context change end and personal preference begin?
  - Have frank discussion among District and VT members
  - Key targets
    - Purpose and need
    - New work and maintenance placement plan
    - Key impact issues or phrasing such as operational air impacts
- How exact do numbers have to be the same between reports
  - To what significant digits?
  - Approximation/rounding OK in summary sections?
  - Key targets
    - New work and maintenance quantities
    - Acres of impacts (oysters and wetlands for us)
    - Project and existing channel lengths
- Get this worked out up front during charette if possible

Lesson Learned (continued)

Have system for managing review and comment versions

- **New comments conflicting with earlier comments**
- **Sheer number demands tracking to determine which supersedes which**

Have agreed upon document finalization procedures

- **Review deadlines have to be honored, door must stay closed**
- **Get it in writing and get top-level commitments**

Strongly Advocate for Policy Grey Area Answers

- **Early in process: decisions can affect report, analyses, construction etc.**
- **Policy may change or be made during process**
  - **Ex. "Definition of Start of Construction"**
  - **Ex. Whether EAs had to go under public review**
  - **Ex. Section 408 Minor vs Major Project for review exemption**
  - **Ex. Sediment testing**

Lesson Learned

Exemptions and exclusions – seek, ID all of them

- Would have severely busted our schedule if we had to do IEPRs
- Get yourself lower levels of approvals if you can
- Avoid any Civil Works feasibility study bleed-over

Know the regulations intimately, it will help you

- Ex. Doing EA instead of EIS
- Ex. Initial reprieve on Sediment
- Ex. Exemptions – justifying them
- Ex. Avoiding Civil Works feasibility study analyses

NEPA allows a Mitigated FONSI under an EA

- CEQ Jan 14, 2011 Guidance Memo
- Explore this option if possible, it can keep things under an EA

Lesson Learned – Final Global Ones

Go for the seemingly impossible schedule

- Even if you don't get there, you'll go much faster than you otherwise would have
- Push on through, don't be afraid to advocate for yourself

On a tight deadline, you may be forced into work you wouldn't have otherwise done

- Ex. PA 15 stability berm vs stockpiling for future raising
- You may have to bite the bullet for progress

More up front design helps avoid last minute surprises, and additional costs

- Ex. PA 15 insufficient factor of safety for existing berm stability
- Doing it up front gives you time to develop more solutions

Conclusion

Section 408, 204(f) an 404 approval processes can be done simultaneously for channel improvements

But not without a lot of

- **Up front planning and decision-making**
- **USACE and NFS team coordination and communication**
- **Optimizing document production and review efficiencies**
- **Knowing the regulations thoroughly**
- **Tenacity**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