
Appendix 1

CWA Section 404 Compliance Forms – Section 404(b)(1) Guideline Short Form and Coastal Zone Consistency

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EVALUATION OF SECTION 404(b)(1) GUIDELINES (SHORT FORM)

PROPOSED PROJECT: HOUSTON SHIP CHANNEL PROJECT DEFICIENCY REPORT, CHAMBERS COUNTY, TEXAS

	Yes	No*
1. Review of Compliance (230.10(a)-(d))		
A review of the proposed project indicates that:		
a. The placement represents the least environmentally damaging practicable alternative and, if in a special aquatic site, the activity associated with the placement must have direct access or proximity to, or be located in the aquatic ecosystem, to fulfill its basic purpose (if no, see section 2 and information gathered for EA alternative).	X	
b. The activity does not appear to:		
1) Violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act;	X	
2) Jeopardize the existence of Federally listed endangered or threatened species or their habitat; and	X	
3) Violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies).	X	
c. The activity will not cause or contribute to significant degradation of waters of the U.S. including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic, an economic values (if no, see values, Section 2)	X	
d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see Section 5)	X	

	Not Applicable	Not Significant	Significant*
2. Technical Evaluation Factors (Subparts C-F) (where a 'Significant' category is checked, add explanation below.)			
a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C)			
1) Substrate impacts		X	
2) Suspended particulates/turbidity impacts		X	
3) Water column impacts		X	
4) Alteration of current patterns and water circulation		X	
5) Alteration of normal water fluctuation/hydroperiod		X	
6) Alteration of salinity gradients		X	
b. Biological Characteristics of the Aquatic Ecosystem (Subpart D)			
1) Effect on threatened/endangered species and their habitat		X	
2) Effect on the aquatic food web		X	

3) Effect on other wildlife (mammals, birds, reptiles and amphibians)		X	
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	Not Applicable	Not Significant	Significant*
2. Technical Evaluation Factors (Subparts C-F) (where a 'Significant' category is checked, add explanation below.)			
c. Special Aquatic Sites (Subpart E)			
1) Sanctuaries and refuges	X		
2) Wetlands	X		
3) Mud flats	X		
4) Vegetated shallows	X		
5) Coral reefs	X		
6) Riffle and pool complexes	X		
d. Human Use Characteristics (Subpart F)			
1) Effects on municipal and private water supplies	X		
2) Recreational and Commercial fisheries impacts		X	
3) Effects on water-related recreation		X	
4) Aesthetic impacts		X	
5) Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves		X	

	Yes
3. Evaluation of Dredged or Fill Material (Subpart G)	
a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material (check only those appropriate)	
1) Physical characteristics	X
2) Hydrography in relation to known or anticipated sources of contaminants	X
3) Results from previous testing of the material or similar material in the vicinity of the project	X
4) Known, significant sources of persistent pesticides from land runoff or percolation	X
5) Spill records for petroleum products or designated (Section 311 of Clean Water Act) hazardous substances	X
6) Other public records of significant introduction of contaminants from industries, municipalities or other sources	X
7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	X
8) The material to be placed in the water consists of sand and rock. The material is considered to be exempt from contaminant testing.	NA

List appropriate references: Draft EA Sections, 3.1.4, 3.1.5, 3.3.7, 4.1.4, 4.1.5, 4.3.7

	Yes	No
b. An evaluation of the appropriate information in 3a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or that levels of contaminants are substantively similar at extraction and placement sites and not likely to degrade the placement sites, or the material meets the testing exclusion criteria.	X	

The evaluation is documented Section 4.1.5 of the EA, and the referenced Lines of Evidence (LOE)/Weight of Evidence (WOE) analysis conducted by USACE ERDC, provided as Attachment 6 of the EA

	Yes
4. Placement Site Delineation (230.11(f))	
a. The following factors as appropriate, have been considered in evaluating the placement site:	
1) Depth of water at placement site	X
2) Current velocity, direction, and variability at placement site	X
3) Degree of turbulence	X
4) Water column stratification	X
5) Discharge vessel speed and direction	X
6) Rate of discharge	X
7) Fill material characteristics (constituents, amount, and type of material, settling velocities)	X
8) Number of discharges per unit of time	X
9) Other factors affecting rates and patterns of mixing (specify)	X

List appropriate references:

- 1) New work placement will be to the interior of the existing PA 14 dike with an existing elevation of approximately +25 ft MLT, or the Mid Bay PA dike as a contingency, with an existing elevation of approximately +20 ft MLT, well above water, to raise dikes. Maintenance material would be placed in existing PAs or BU marsh cells with current fill elevations ranging from +4 to 21 ft MLT. Surrounding water depth is 8 to 10 feet at approximately 0 ft MLT.
- 2) PA cells are enclosed by dikes which reduce current velocity and variability to negligible amounts and fill elevations are already considerably above MLT. BU cell interiors would have low velocity tidal influx and efflux to encourage intertidal exchange.
- 3) No turbulence for new work material placed atop existing dike to raise it. For maintenance placement, degree of turbulence is low, due to placement in existing confined upland PA cells, and diked marsh cells.
- 4) PA and BU cells proposed for new work and maintenance material placement are existing areas above the Bay's water column and would not result in stratifying the Bay water column into anoxic or hyper/hypo-saline conditions. PA 14 will be used for new work material (with Mid Bay PA as a contingency), and Atkinson Island PAs (e.g. PA 14, 15, 14/15 connection) and Marsh Cells (M5/M6, M7/8/9 and others), and Mid Bay PA, will be used for maintenance material.
- 5) Hydraulic dredge vessel and placement pipeline are stationary at location being dredged, and corresponding location receiving placement
- 6) Discharge will not occur directly into Bay water column, but into an existing upland confined PA for new work material, and into existing PA and BU marsh cells for maintenance material, which have controlled effluent discharge for dewatering or tidal exchange.
- 7) Material composition is 88% clays, 6% sands and 4% silt. Settling velocities are not an issue as new work material is being placed out of water and maintenance materials are being placed in cells with containment/controlled discharge, and are the same in composition as material routinely placed in these cells.

8) Since material is not being placed in the open Bay, frequency of discharge and hydrodynamic environment for dissipation or dispersal of discharged material to control excessive turbidity, anoxia, benthic effects etc. will not be issues for receiving waters.

9) For reasons discussed in 8) transport and current forces affecting rate of mixing are not issues.

	Yes	No
b. An evaluation of the appropriate factors in 4a above indicates that the placement site and/or size of mixing zone are acceptable.	X	
	Yes	No
5. Actions to Minimize Adverse Effects (Subpart H)		
All appropriate and practicable steps have been taken, through application of recommendations of 230.70-230.77 to ensure minimal adverse effects of the proposed discharge.	X	

List actions taken:

Specifically, the actions listed in 230.70(c) Selecting a disposal site that has been used previously for dredged material discharge and (d) Selecting a disposal site at which the substrate is composed of material similar to that being discharged.

	Yes	No*
6. Factual Determination (230.11)		
A review of appropriate information as identified in items 2-5 above indicates that there is minimal potential for short- or long-term environmental effects of the proposed discharge as related to:		
a. Physical substrate at the placement site (review Sections 2a. 3, 4, and 5 above)	X	
b. Water circulation, fluctuation and salinity (review Sections 2a. 3, 4, and 5)	X	
c. Suspended particulates/turbidity (review Sections 2a. 3, 4, and 5)	X	
d. Contaminant availability (review Sections 2a. 3, and 4)	X	
e. Aquatic ecosystem structure and function (review Sections 2b and c, 3, and 5)	X	
f. Placement site (review Sections 2, 4, and 5)	X	
g. Cumulative impacts on the aquatic ecosystem	X	
h. Secondary impacts on the aquatic ecosystem	X	

7. Evaluation Responsibility
a. This evaluation was prepared by: Carl A. Sepulveda, P.E. Position: Environmental consultant for Port of Houston Authority preparing NEPA document for the USACE Galveston District

8. Findings	Yes
a. The proposed placement site for discharge of or fill material complies with the Section 404(b)(1) Guidelines.	X
b. The proposed placement site for discharge of dredged or fill material complies with the Section 404(b)(1) Guidelines with the inclusion of the following conditions:	X

List of conditions:

- 1) **Dredge action impacts oysters for which mitigation is required. Mitigation for oyster reef is described in Section 4.4 Mitigation and Appendix 7 in the Draft EA.**

c. The proposed placement site for discharge of dredged or fill material does not comply with the Section 404(b)(1) Guidelines for the following reason(s):	N/A
1) There is a less damaging practicable alternative	
2) The proposed discharge will result in significant degradation of the aquatic ecosystem	
3) The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem	

Date _____	<p>MCGREGOR.CHARLES.HERALDO.JR.1181318194 <small>Digitally signed by MCGREGOR.CHARLES.HERALDO.JR.1181318194 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=MCGREGOR.CHARLES.HERALDO.JR.1181318194 Date: 2015.09.10 16:02:07 -05'00'</small></p> <hr/> <p>DOUGLAS C. SIMS CHIEF, NEPA AND CULTURAL RESOURCES SECTION</p>
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NOTES:

- * A negative, significant, or unknown response indicates that the permit application may not be in compliance with the Section 404(b)(1) Guidelines.

Negative responses to three or more of the compliance criteria at the preliminary stage indicate that the proposed projects may not be evaluated using this “short form” procedure. Care should be used in assessing pertinent portions of the technical information of items 2a-e before completing the final review of compliance.

Negative response to one of the compliance criteria at the final stage indicates that the proposed project does not comply with the Guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the “short form” evaluation process is inappropriate.

**COASTAL ZONE CONSISTENCY
COMPLIANCE WITH GOALS AND POLICIES - SECTION 501.25(a)-(f)
DREDGING AND DREDGED MATERIAL DISPOSAL AND PLACEMENT**

**HOUSTON SHIP CHANNEL PROJECT
DEFICIENCY REPORT,
HOUSTON-GALVESTON NAVIGATION
CHANNELS, TEXAS**

**(Flare at the Intersection of the Houston Ship Channel
and Bayport Ship Channel)**

Section 501.25 Dredging and Dredged Material Disposal and Placement

(a) Dredging and the disposal and placement of dredged material shall avoid and other-wise minimize adverse effects to coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches to the greatest extent practicable. The policies of this subsection are supplemental to any further restrictions or requirements relating to the beach access and use rights of the public. In implementing this subsection, cumulative and secondary adverse effects of dredging and the disposal and placement of dredged material and the unique characteristics of affected sites shall be considered.

Compliance: The Proposed Project will require dredging the area directly adjacent to the current Houston Ship Channel (HSC) and existing HSC Flare to implement corrective actions to address navigation safety issues associated with the existing channel. This will impact oyster reef, a Critical Area, that has accreted directly adjacent to the current channel. A practicable alternative with fewer adverse effects is not available, as the existing channel has to be widened directly adjacent to in order to address the channel deficiencies. The oyster reef will be mitigated through restoration of reef impacted by Hurricane Ike at San Leon Reef. Cumulative and secondary adverse effects of dredging and the disposal and placement of dredged material have been considered and documented in Chapters 4 and 5 of the Environmental Assessment (EA) prepared for the Proposed Project. Material will be placed in existing PAs, with new work material placed in PA 14 and MidBay as a contingency should PA 14 be unavailable, and maintenance material placed in Atkinson Island PAs (e.g. PA 14, 15, 14/15 connection) and Marsh Cells (M5/M6, M7/8/9 and others), and MidBay PA . All other critical areas, shore areas, and Gulf beaches are avoided.

(1) Dredging and dredged material disposal and placement shall not cause or contribute, after consideration of dilution and dispersions, to violation of any applicable surface water quality standards established under subsection (f) of this section.

Compliance: There are no contaminants in the proposed dredged material that will cause adverse effects based on analysis and evaluation of water and sediment quality data presented in Sections 3.1.5 and 4.1.5 of the EA for this project. An evaluation of the

suitability of dredged material pursuant to Subpart G of the Clean Water Act (CWA) Section 404(b)(1) Guidelines is discussed in Section 4.1.5.2 of the EA. No water quality standards will be violated by this project.

(2) Except as otherwise provided in subparagraph (D) of this paragraph, adverse effects on critical areas from dredging and dredged material disposal or placement shall be avoided and otherwise minimized, and appropriate and practicable compensatory mitigation shall be required, in accordance with subsection (h) of this section.

Compliance: Material will be hydraulically dredged from the areas directly adjacent to the HSC and HSC Flare, and pumped by pipeline to Placement Area (PA) 14, an existing confined PA on the southern end of Atkinson Island. Other than reef that will be mitigated, discussed in response the item (a) above, all critical areas will be avoided. The mitigation plan for oyster reef is provided as Attachment 7 of the EA, and is being coordinated with Texas Parks and Wildlife Department (TPWD) and other resource agencies.

(3) Except as provided in subparagraph (D) of this paragraph, dredging and the disposal and placement of dredged material shall not be authorized if:

(A) there is a practicable alternative that would have fewer adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches, so long as that alternative does not have other significant adverse effects;

Compliance: As explained in the response to item (a) above, a practicable alternative with fewer adverse effects is not available, as the existing channel has to be widened directly adjacent to in order to address the channel deficiencies. Other alternatives evaluated involve dredging directly adjacent to the existing channel, and therefore impact the channel-adjacent oyster reef. Smaller alternatives do not provide sufficient correction to the navigation safety deficiencies of the existing channel according to vessel simulations, and larger ones that do, impact more reef. The selected alternative provides sufficient correction to the navigation safety deficiencies on an interim basis, while minimizing impacts to oyster reef.

(B) all appropriate and practicable steps have not been taken to minimize adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches; or

Compliance: All practicable steps, including upland placement to the extent practicable, utilization of existing PAs, and minimum channel footprint to meet the project needs have been taken to minimize adverse effects on these resources.

(C) significant degradation of critical areas under subsection (h)(1)(G)(v) of this section would result.

Compliance: The 29.9 acres of oyster reef that would be impacted by the proposed project comprise approximately 0.5 percent of the total historically mapped reef (Powell et al. 1994) in Upper Galveston Bay north of Redfish Island, and 0.1 percent of all Galveston Bay reef. The reef acreage will be mitigated by 30.1 acres of reef restoration at San Leon. Significant degradation of oyster reef will not occur.

(4) A dredging or dredged material disposal or placement project that would be prohibited solely by application of subparagraph (C) of this paragraph may be allowed if it is determined to be of overriding importance to the public and national interest in light of economic impacts on navigation and maintenance of commercially navigable waterways.

Compliance: Dredging and placement is not precluded by paragraph (C), as noted above.

(b) Adverse effects from dredging and dredged material disposal and placement shall be minimized as required in subsection (a) of this section. Adverse effects can be minimized by employing the techniques in this subsection where appropriate and practicable.

Compliance: Adverse effects of dredging and dredged material placement as described in this EA have been minimized as described in the Compliance response to item (a) above.

(1) Adverse effects from dredging and dredged material disposal and placement can be minimized by controlling the location and dimensions of the activity. Some of the ways to accomplish this include:

(A) locating and confining discharges to minimize smothering of organisms;

(B) locating and designing projects to avoid adverse disruption of water inundation patterns, water circulation, erosion and accretion processes, and other hydrodynamic processes;

(C) using existing or natural channels and basins instead of dredging new channels or basins, and discharging materials in areas that have been previously disturbed or used for disposal or placement of dredged material;

(D) limiting the dimensions of channels, basins, and disposal and placement sites to the minimum reasonably required to serve the project purpose, including allowing for reasonable overdredging of channels and basins, and taking into account the need for capacity to accommodate future expansion without causing additional adverse effects;

(E) discharging materials at sites where the substrate is composed of material similar to that being discharged;

(F) locating and designing discharges to minimize the extent of any plume and otherwise control dispersion of material; and

(G) avoiding the impoundment or drainage of critical areas.

Compliance: With regard to the suggested methods to minimize adverse effect in item (1) and its sub-items, dredge discharge is to a confined PA that would (A) avoid smothering organisms, would not disrupt bay inundation patterns, and (B) water circulation, erosion and accretion processes, and other hydrodynamic processes. Use of

the existing confined PA 14 also is consistent with items (C), (E), and (F) since it is a previously used PA with previously dredged materials from the same vicinity of the channel proposed for corrective action, that controls material discharge and dispersion. The material will be used for future PA dike raising and a standard channel overdredge tolerance is being employed, for consistency with item (D). No impoundment or drainage of critical areas will occur.

(2) Dredging and disposal and placement of material to be dredged shall comply with applicable standards for sediment toxicity. Adverse effects from constituents contained in materials discharged can be minimized by treatment of or limitations on the material itself. Some ways to accomplish this include:

- (A) disposal or placement of dredged material in a manner that maintains physicochemical conditions at discharge sites and limits or reduces the potency and availability of pollutants;*
- (B) limiting the solid, liquid, and gaseous components of material discharged;*
- (C) adding treatment substances to the discharged material; and*
- (D) adding chemical flocculants to enhance the deposition of suspended particulates in confined disposal areas,*

Compliance: Dredged materials in the project area have been extensively tested and evaluated against available marine sediment screening thresholds. Sections 3.1.5 and 4.1.5 of the EA for this project discuss the results, which have not indicated a sediment quality concern. An evaluation of the suitability of dredged material pursuant to Subpart G of the Clean Water Act (CWA) Section 404(b)(1) Guidelines is discussed in Section 4.1.5.2 of the EA. That section summarizes an evaluation by the US Army Engineer Research and Development Center (ERDC) following a lines-of-evidence and weight-of-evidence approach to evaluating proposed dredge material placement. The evaluation concluded there is no reason to believe adverse effects will result from the proposed dredging and placement, and that further testing is not required.

(3) Adverse effects from dredging and dredged material disposal or placement can be minimized through control of the materials discharged. Some ways of accomplishing this include:

- (A) use of containment levees and sediment basins designed, constructed, and maintained to resist breaches, erosion, slumping, or leaching;*
- (B) use of lined containment areas to reduce leaching where leaching of chemical constituents from the material is expected to be a problem;*
- (C) capping in-place contaminated material or, selectively discharging the most contaminated material first and then capping it with the remaining material;*
- (D) properly containing discharged material and maintaining discharge sites to prevent point and nonpoint pollution; and*
- (E) timing the discharge to minimize adverse effects from unusually high water flows, wind, wave, and tidal actions.*

Compliance: See response to preceding item. Adverse effects are not expected. Dredged material will be placed in an existing confined PA 14 with properly maintained dikes, that is currently used for maintenance material placement for the existing Federal project.

(4) Adverse effects from dredging and dredged material disposal or placement can be minimized by controlling the manner in which material is dispersed. Some ways of accomplishing this include:

- (A) where environmentally desirable, distributing the material in a thin layer;*
- (B) orienting material to minimize undesirable obstruction of the water current or circulation patterns;*
- (C) using silt screens or other appropriate methods to confine suspended particulates or turbidity to a small area where settling or removal can occur;*
- (D) using currents and circulation patterns to mix, disperse, dilute, or otherwise control the discharge;*
- (E) minimizing turbidity by using a diffuser system or releasing material near the bottom;*
- (F) selecting sites or managing discharges to confine and minimize the release of suspended particulates and turbidity and maintain light penetration for organisms; and*
- (G) setting limits on the amount of material to be discharged per unit of time or volume of receiving waters.*

Compliance: Dredged material will be placed in the existing confined PA 14 with properly maintained dikes, that implements techniques or avoids concerns in items (A), (B), (D), (E) and (F). Regarding item (G), effluent from PA 14 is controlled to minimize the introduction of Total Suspended Solids (TSS) into the receiving water to comply with applicable water quality standards. Material will be dredged hydraulically which involves use of a hydraulic suction cutterhead that minimizes dispersion at the dredge site. Silt screens would not be needed, nor would they be practical for the proposed project site conditions due to size, water depths, vessel traffic etc.

(5) Adverse effects from dredging and dredged material disposal or placement operations can be minimized by adopting technology to the needs of each site. Some ways of accomplishing this include:

- (A) using appropriate equipment, machinery, and operating techniques for access to sites and transport of material, including those designed to reduce damage to critical areas;*
- (B) having personnel on site adequately trained in avoidance and minimization techniques and requirements; and*
- (C) designing temporary and permanent access roads and channel spanning structures using culverts, open channels, and diversions that will pass both low and high water flows, accommodate fluctuating water levels, and maintain circulation and faunal movement.*

Compliance: All dredging will be accomplished by a hydraulic pipeline dredge from the water. Dredged material will be placed via pipeline to PA 14, an existing confined upland PA with properly maintained dikes that is currently used for maintenance material placement for the existing Federal project. PA 14 is currently accessed by water, and pipeline placement is achieved, without damaging critical areas during routine maintenance, and will be similarly accessed during placement for the proposed project.

(6) Adverse effects on plant and animal populations from dredging and dredged material disposal or placement can be minimized by:

(A) avoiding changes in water current and circulation patterns that would interfere with the movement of animals;

(B) selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species that have a competitive edge ecologically over indigenous plants or animals;

(C) avoiding sites having unique habitat or other values including habitat of endangered species;

(D) using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics;

(E) using techniques that have been demonstrated to be effective in circumstances similar to those under consideration whenever possible and, when proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiating their use on a small scale to allow corrective action if unanticipated adverse effects occur;

(F) timing dredging and dredged material disposal or placement activities to avoid spawning or migration seasons and other biologically critical time periods; and

(G) avoiding the destruction of remnant natural sites within areas already affected by development.

Compliance: Adverse effects on plant and animal populations from dredging and dredged material disposal or placement are discussed in Section 4.2.2 through 4.2.6 of the EA for this project. Regarding item (A), effects, including those to pelagic and benthic marine organisms during construction and maintenance will be minor and temporary. Changes to water current and circulation patterns that would interfere with the movement of animals will be temporary, minor and very localized to the vicinity of the dredge vessel and cutterhead and cease with dredging. These effects are discussed under Section 4.2.22 of the EA for this project. Regarding item (B), use of the existing PA 14 will not result in creating habitat conducive to the development of undesirable predators or species that have a competitive edge ecologically over indigenous plants or animals. Regarding item (C), coordination with the U.S. Fish and Wildlife Service (USFWS) under the Fish and Wildlife Coordination Act, and the USFWS and the National Marine Fisheries Service, under the requirements of the

Endangered Species Act, is being implemented. No impacts to endangered species or their critical habitats are anticipated.

Regarding items (D) and (E), the proposed work will be conducted with standard hydraulic dredging and placement techniques that will involve placement to a confined disposal facility (PA 14) and does not involve habitat creation. Mitigation of oyster reef will be achieved through proven cultch placement restoration measures that have been implemented successfully on previous USACE projects, including restoration of 172 acres of reef for the Houston and Galveston Navigation Channels (HGNC) project. Regarding items (F) and (G), localized effects of hydraulic dredging with placement into confined disposal facilities will not substantially interfere with fish or oyster spawning and migration, and no remnant natural sites are involved in this project area.

(7) Adverse effects on human use potential from dredging and dredged material disposal or placement can be minimized by:

(A) selecting sites and following procedures to prevent or minimize any potential damage to the aesthetically pleasing features of the site, particularly with respect to water quality;

(B) selecting sites which are not valuable as natural aquatic areas;

(C) timing dredging and dredged material disposal or placement activities to avoid the seasons or periods when human recreational activity associated with the site is most important; and

(D) selecting sites that will not increase incompatible human activity or require frequent dredge or fill maintenance activity in remote fish and wildlife areas.

Compliance: No new PAs are proposed. All construction and maintenance material will be discharged directly into PA 14, which is an existing confined PA used for maintenance dredging of the existing Federal project. The human use factors in items (A) through (D) will not be affected.

(8) Adverse effects from new channels and basins can be minimized by locating them at sites:

(A) that ensure adequate flushing and avoid stagnant pockets; or

(B) that will create the fewest practicable adverse effects on CNRAs from additional infrastructure such as roads, bridges, causeways, piers, docks, wharves, transmission line crossings, and ancillary channels reasonably likely to be constructed as a result of the project; or

(C) with the least practicable risk that increased vessel traffic could result in navigation hazards, spills, or other forms of contamination which could adversely affect CNRAs;

(D) provided that, for any dredging of new channels or basins subject to the requirements of §501.15 of this title (relating to Policy for Major Actions), data and information on minimization of secondary adverse effects need not be produced or evaluated

to comply with this subparagraph if such data and information is produced and evaluated in compliance with §501.15(b)(1) of this title (relating to Policy for Major Actions).

Compliance: The Proposed Project involves widening submerged navigation channel features in an open water environment and inherently will not involve the flushing and stagnation concerns in item (A), will not involve any of the land or shore-side structures or ancillary channel concerns in item (B), is being implemented specifically to reduce navigation risks that address concerns in item (C), and will not involve dredging new channels or basins as concerns item (D).

(c) Disposal or placement of dredged material in existing contained dredge disposal sites identified and actively used as described in an environmental assessment or environmental impact statement issued prior to the effective date of this chapter shall be presumed to comply with the requirements of paragraph (a) of this subsection unless modified in design, size, use, or function.

Compliance: PA 14, which will receive dredged material from the project will not be modified in design, horizontal extent, use, or function. The only size dimension being change is the usable vertical capacity, as new work material will be used to raise dikes, to increase placement capacity without impacting new horizontal footprint area. As such, the environmental impact evaluation performed for planning and constructing this PA will not be affected in terms of new aquatic ecological resources being impacted. Therefore, the proposed use complies with the requirements of paragraph (a) of this subsection.

(d) Dredged material from dredging projects in commercially navigable waterways is a potentially reusable resource and must be used beneficially in accordance with this policy.

(1) If the costs of the beneficial use of dredged material are reasonably comparable to the costs of disposal in a non-beneficial manner, the material shall be used beneficially.

(2) If the costs of the beneficial use of dredged material are significantly greater than the costs of disposal in a non-beneficial manner, the material shall be used beneficially unless it is demonstrated that the costs of using the material beneficially are not reasonably proportionate to the costs of the project and benefits that will result. Factors that shall be considered in determining whether the costs of the beneficial use are not reasonably proportionate to the benefits include, but are not limited to:

(A) environmental benefits, recreational benefits, flood or storm protection benefits, erosion prevention benefits, and economic development benefits;

(B) the proximity of the beneficial use site to the dredge site; and

(C) the quantity and quality of the dredged material and its suitability for beneficial use.

(3) Examples of the beneficial use of dredged material include, but are not limited to:

- (A) *projects designed to reduce or minimize erosion or provide shoreline protection;*
- (B) *projects designed to create or enhance public beaches or recreational areas;*
- (C) *projects designed to benefit the sediment budget or littoral system;*
- (D) *projects designed to improve or maintain terrestrial or aquatic wildlife habitat*
- (E) *projects designed to create new terrestrial or aquatic wildlife habitat, including the construction of marshlands, coastal wetlands, or other critical areas;*
- (F) *projects designed and demonstrated to benefit benthic communities or aquatic vegetation;*
- (G) *projects designed to create wildlife management areas, parks, airports, or other public facilities;*
- (H) *projects designed to cap landfills or other waste disposal areas;*
- (I) *projects designed to fill private property or upgrade agricultural land, if cost-effective public beneficial uses are not available; and*
- (J) *projects designed to remediate past adverse impacts on the coastal zone.*

Compliance: New work material will be used to raise PA dikes that will extend the life of the PA to avoid having to build new PAs sooner. The use of material beneficially for dike construction is consistent with Beneficial Use Category 6, Construction/Industrial Development, in Appendix A of the joint EPA/USACE beneficial use (BU) manual, *Identifying, Planning, and Financing Beneficial Use Projects Using Dredged Material: Beneficial Use Planning Manual*, which lists levee and dike construction. This use would be consistent with item (G), using the material for a public facility, which PA 14 is a public facility built to maintain a Federal channel.

(e) If dredged material cannot be used beneficially as provided in paragraph (4) (B) of this subsection, to avoid and otherwise minimize adverse effects as required in paragraph (1) of this subsection, preference will be given to the greatest extent practicable to disposal in:

- (1) contained upland sites;*
- (2) other contained sites; and*
- (3) open water areas of relatively low productivity or low biological value.*

Compliance: PA 14 is fully confined and meets the requirements above.

(f) For new sites, dredged materials shall not be disposed of or placed directly on the boundaries of submerged lands or at such location so as to slump or migrate across the boundaries of submerged lands in the absence of an agreement between the affected public owner and the adjoining private owner or owners that defines the location of the boundary or boundaries affected by the deposition of the dredged material.

Compliance: All construction and maintenance material will be discharged directly into the PA 14, which is an existing confined, upland PA used for maintenance dredging of the existing Federal project. No new sites are being proposed.