APPENDIX I
Coastal Zone Management Consistency Determination

BOBBY JINDAL
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL RESTORATION AND MANAGEMENT

February 13, 2009

Elizabeth Wiggins
Chief, Environmental Planning and Compliance Branch
Corps of Engineers- New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: **C20080527,** Coastal Zone Consistency
New Orleans District, Corps of Engineers
Direct Federal Action
Inner Harbor Navigation Canal Lock Replacement Project, New Orleans, **Orleans Parish, Louisiana**

Dear Ms.Wiggins:

The above referenced project has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP provided the Corps adheres to the stipulation stated by Louisiana Department of Wildlife and Fisheries in their comment letter of November 17, 2008, that once marsh creation areas have dewatered and vegetated, all containment features be breached or degraded if necessary to restore tidal connectivity. If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225)342-7939 or 1-800-267-4019.

Sincerely yours,

Jim Rives
Administrator

JR/JH/bgm

Richard Boe, COE-NOD
Ismail Mehri, OCPR
David Butler, LDWF
Richard Hartman, NMFS
Wynecta Fisher, Orleans Parish
Tim Killeen, CMD FC

CONSISTENCY DETERMINATION

LOUISIANA COASTAL ZONE MANAGEMENT PROGRAM

Inner Harbor Navigation Canal Lock Replacement Project
Orleans Parish, Louisiana

INTRODUCTION

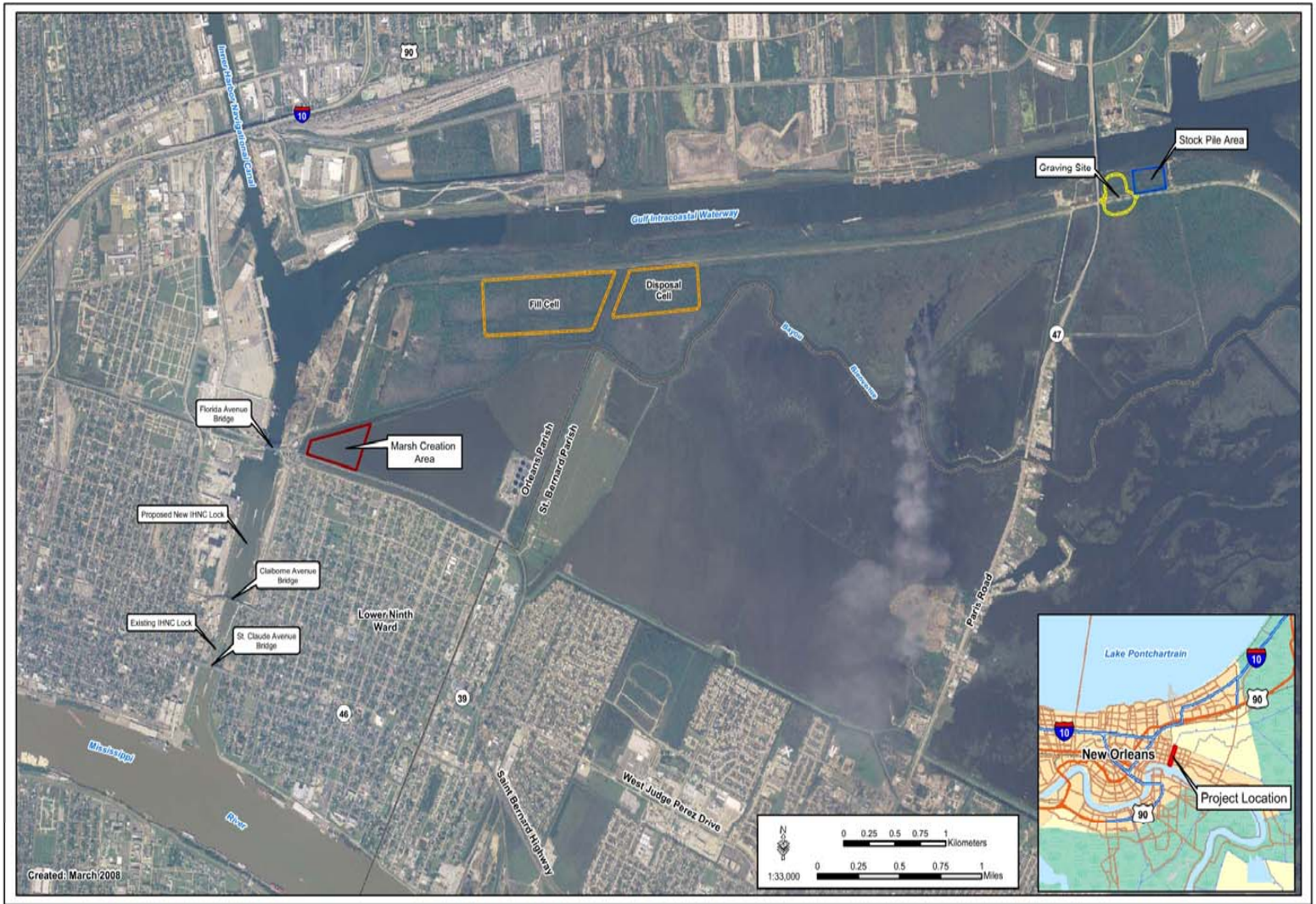
Section 307 of the Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et. seq. requires that "each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs." In accordance with Section 307, a Consistency Determination has been prepared for the proposed Inner Harbor Navigation Canal Lock Replacement Project, located in Orleans Parish, Louisiana. Coastal Use Guidelines were written in order to implement the policies and goals of the Louisiana Coastal Resources Program, and serve as a set of performance standards for evaluating projects. Compliance with the Louisiana Coastal Resources Program, and therefore, Section 307, requires compliance with applicable Coastal Use Guidelines.

PROJECT DESCRIPTION

The main component of the tentatively selected plan is a new 1200-foot long by 110-foot wide by 36-foot deep lock connecting the Mississippi River with Gulf Intracoastal Waterway (GIWW) via the Inner Harbor Navigation Canal (IHNC). The new lock would be constructed in the IHNC, north of the existing lock, between the Claiborne Avenue and Florida Avenue Bridges (Figure 1).

The construction schedule for lock replacement is complex and most tasks must be accomplished in very ridged chronological order to maintain existing flood control systems, utilities, and navigation and also to minimize socioeconomic impacts on local residents and commuters. The following narrative description is written in the approximate chronological order in which construction events would take place.

Figure 1. The Project Area and Feature Locations for the Inner Harbor Navigation Canal, New Orleans, Louisiana Project.



Project Location Map

Graving Site

A temporary construction site (graving site) would be prepared for off-site construction of lock modules. The graving site is located along the south bank of the MRGO/GIWW, immediately east of the Paris Road (Louisiana Highway 47 or I-310) bridge (Figure 1). To prepare the graving site for lock module construction, all of the vegetation on the site would be removed, the flood protection levee relocated, and a small drainage canal rerouted. The site would then be excavated in the wet to a depth of -31 feet with 1:5 (vertical:height) side slopes and some excavated material used to reinforce the flood protection levee along the Gulf Intracoastal Waterway (GIWW). It is estimated that a total of 664,000 cy of material would be excavated. Of that total, 112,000 cy of material would be used to reinforce the berm and relocated levee and the remaining 552,000 cy stockpiled east of the graving site within a temporary containment facility. However, if it is determined the material excavated is not suitable for levee construction, then suitable borrow material would be used for the relocated levee and all of the excess material would be stockpiled east of the graving site. The western end of the excavated area would be no closer than 110 feet from the base of the Paris Road Bridge piers. The graving site would be dewatered and dewatering maintained for 4 to 5 years during the construction of the lock modules. Electricity would be brought to the site along the Paris Road right-of-way for module construction activities and pumping. Pumps for dewatering activities would discharge into the GIWW. A 30-foot wide separating berm, which would provide separation for lock module construction efforts, would be constructed and then removed, and reconstructed four additional times, between each of the lock modules as they are completed and floated out of the GIWW. Following the construction of the lock modules, the stockpiled excavated material and any material imported for the realigned levee construction would be used to fill the graving site and return the graving site to the preconstruction elevation. The flood protection levee would be reconstructed to its current alignment and authorized elevation. If it is determined that the volume of material in the stockpile area is not adequate to restore the graving site to the preconstruction elevation, borrow material would be imported to reach this elevation.

Lock Site

A bypass channel would be constructed east of the new lock site north of Claiborne Avenue (Figure 1). The bypass channel would be constructed by hydraulically dredging approximately 876,000 cy of material to provide for 2-way barge traffic and 1-way ship traffic during lock construction. Three protection cells would be constructed at the south end of the bypass channel concurrent with channel dredging, and a timber guide wall installed before opening the channel. Tug assistance vessels would be stationed at each end of the bypass channel and be available 24 hours daily to assist tows through the channel.

Following the completion of the bypass channel, the footprint of the lock would be hydraulically dredged to a depth of -54 feet for the gatebay modules and -52 feet for the chamber modules. A total of approximately 1.1 million cy of material would be hydraulically dredged within the lock footprint. Sheetpile would then be driven along the perimeter of the lock footprint to create a containment wall. A 3-foot thick stone base would be placed at the bottom of the lock footprint. A hopper box lowered to the bottom would be used to place the stone base. Eight 78-foot diameter protection cells would be constructed at both ends of the excavated area. Steel lock pipe

piles, 120 feet long and 48 inches in diameter, would be driven within the footprint of the lock. A vibratory hammer would be used to drive piles above the water surface and a hydro-hammer used below the water surface.

As each lock module is floated to the lock site from the graving site, two of the protection cells located on the north end of the lock site would be removed to allow for the lock module passage. Following the placement of a lock module, the two protection cells would be rebuilt. This removal and replacement of protection cells would occur for each lock module. A batch plant for concrete production would be constructed on top of a platform placed on three of the protection cells.

The south lock module would need to be constructed and transported to the lock site first. Prior to the transport of each module, the graving site around that module would be flooded by removing the independent closure system. The closure materials would be stockpiled while the module floated out, the closure rebuilt and the site dewatered again for the next module. Tug boats would pull the lock module from the graving site to the lock site. It is anticipated that transport of a module would take 1 day, and the GIWW would be closed to marine traffic during the towing. The module would then be attached to temporary mooring dolphins and then moved into place and attached directly to another already installed lock module.

Using sand ballast, the lock module would be positioned horizontally and vertically in its correct position. Grouting of lock module sections, placement of mechanical components, and underbase infilling would then be completed. The lock module's structural load would then be transferred from jacks (which were holding the lock module in place while the concrete was setting) to the piles. Flooding and then dewatering of the lock module (and adjacent lock modules) would be done to test mechanical equipment and grouted seals.

These same steps would be completed for each of the lock modules until the new lock is completed. Mechanical and electrical components would be installed after all of the lock modules are in place. The lock would be tested, the channel protection cells removed from both ends of the lock, protection riprap placed at both ends of the lock, and the lock opened to traffic. Once the new lock is fully operational, the bypass channel would be closed and new guidewalls put into place. At this time the water depth in the new lock would still be controlled by the old lock. The bypass channel would be filled with a combination of sand and stockpiled dredged material to an elevation of +5 feet.

Levees and floodwalls would be raised and tied into the Mississippi River flood protection system as described in the 1997 EIS. A channel would be constructed around the old lock and the old lock demolished as described in the 1997 EIS. The new lock would then be fully functional.

Disposal Areas

Nearly 2.2 million cy of material would be dredged from the 10 Dredge Material Management Units (DMMUs) (Figure 2) in the IHNC during construction. The dredged material disposal plan consists of two open-water disposal areas have been proposed for dredged material excavated as part of the lock replacement project. An area of deep water in the Mississippi River adjacent to the IHNC would serve as a primary disposal site. A secondary disposal site is located northeast of the IHNC in a triangular area of subsided marsh bounded by Bayou Bienvenue, an Orleans Parish sewerage treatment plant, and the 9th Ward back protection levee (Figure 1). Dredged material would be discharged unconfined into the Mississippi River disposal site and is expected to disperse. Material would be placed semi-confined into the secondary disposal site to create a sub-aerial platform at typical marsh elevations. It is anticipated that wetland plants would colonize this platform, and that the disposal site would transform into a functioning marsh. This newly created marsh would offset or mitigate for unavoidable losses of other wetland areas associated with the lock replacement project, and is therefore referred to as the "mitigation site". Chemical and physical analyses were conducted on sediment and water samples representative of each disposal area to characterize the sites and for comparison to sample materials collected from the DMMUs.

In addition, an upland confined disposal facility (CDF) will be constructed to accommodate dredged material that has either been determined to be unsuitable for discharge into open-water or that would be temporarily stockpiled and later utilized as backfill around the lock construction site (Figures 1). The CDF is located in an area bounded by the north bank of Bayou Bienvenue and the Chalmette Loop hurricane protection levee on the south bank of the Gulf Intracoastal Waterway (GIWW), near the intersection of the IHNC and GIWW. Discharges of effluent and runoff from the CDF would be routed to the GIWW.

Dredged material volumes for the different disposal sites is presented in Table 1. Results from aquatic and benthic toxicity tests, and water column mixing zone analyses were evaluated to determine the suitability of DMMUs for discharge into the four disposal areas. That proposed alternative is summarized below.

* DMMU 3NN, 3N, 4NN, 7F, 7N (area underlying channel sediments), 8NN, 9NN (area south of the existing lock), 10NN, 10F, and 10N would be placed in the Mississippi River;

* DMMUs 3F, 4/5N, 7N (area underlying east bank fill), and 9NN (area north of the existing lock) would be placed at the mitigation site for wetland creation;

* DMMUs 1NN, 2NN, 5NN, and 7NN would be placed in the CDF; and

* DMMUs 6NN, 6F, and 6N would be temporarily stockpiled in the CDF and later used as backfill at the construction site.

Figure2: DMMU Locations

Plan view of the IHNC Lock Replacement Project and distribution of major DMMUs. Sediment sampling sites appear as black dots within each DMMU. Note that proposed sampling stations in DMMU 11 were below project depth, and samples were therefore not collected as part of this sediment evaluation. Native subsurface soil DMMUs underlay non-native sediments within the IHNC and non-native fill DMMUs on the channel banks

Table 1: Dredged material volumes for the different disposal sites.

In-Situ Volumes by Location and Material Type (yd^3)						Volume to Selected Placements Proposed Plan (yd^3)				Approximate Year Dredged	
		Suitability (No Benthic Toxicity)		Total Volume	Volume by Section	Float in Place					
						Open Water	Wetland	CDF		Float-in-Place	Required Fill Volumes (yd^3)
DMMU/Location	Material Type[1]	FW[2]	SW[3]	FIP	FIP			Disposal	Fill Storage		
D1-05-1 thru 6	NN	USm[4]	USm	48,100	48100	0	0	48100	0	7	
D2-05-1 thru 6	NN	USm	USm	88,700	88700	0	0	88700	0	7	106762n
D3-05-1 thru 3	F	S[5]	S		62850		62850	0	0	2-3	
D3-05-4 thru 6	NN	S	US		349900		0	0	0	2-3	
D3-05-1N thru 6N	N	S	US	412,750	a	349900	0	0	0	2-3	
D4-05-1 thru 8	NN	S	US	152,800	152,800	152800	0	0	0	2-3	
D5-05-1 thru 8	NN	US	US	143,400	78,500	0	0	78500	0	2-3	
D4/5-05-1N-16N	N	S	S	b	64900h	0	64900	0	0	2-3	None
D6-05-1 & 2	NN	S	S							1	
D6-05-3 thru 6	F	S	S							1	
D6-05-1N thru 6N	N	S	S	463,100	463,100	0	0	0	463100	1	
D7-05-1 thru 4	NN	US	S	413,000	101500	0	0	101500	0	1	
D7-05-5 thru 9	F	S	S		228000	228000	0	0	0	1	

D7-05-1N-4N	N				c						
D7-05-5N-9N	N	S	S		83500		83500			1	
D8-05-1 thru 4	NN	S	US	132,000	132,000	132000	0	0	0	7	
D9-05-1&3	NN	S	US			150000	0	0	0	11	
D9-05-2&4	NN	S	S	192,200	192,200	0	42200	0	0	7	
D10-05-1	F	S	S		18300					7	
D10-05-2	F	d	d		e					7	
D10-05-3&4	S	S	S		113100					7	
D10-05-1N	N	d	d		f					7	
D10-05-2N	N	d	d		e					7	
D10-05-3N&4N	N	S	S	131,400	g	131,400	0	0	0	7	246825j
D11-05-1&2	NN	d	d	38,782	38782i	0	0	0	0	11	
Totals				**2,216,232**	**2,216,232**	**1144100**	**253450**	**316800**	**463100**	**Total**	**353587**
										Capping Allowance	**50000**
						Grand Total			**2,177,450**	**Grand Total**	**403587**

1 Native/Non-native/Fill/Sediment, 2 Freshwater, 3 Saltwater, 4 Unsuitable, 5 Suitable, a Included with 1-3 and 4-6 volumes above, b 4/5 is a vertical designation, volume included with 4 and 5, c Native below project depth (at -36ft), d Unknown assumed S, e Site 2 not sampled, f Included with 1 above, g Included with 3&4 above, h DMMU 5 native volumes only, DMMU 4 volumes were estimated as NN to full project depth, i Not scheduled for dredging, j Letter report assumes 70K of material being dredged plus remainder from previously stockpiled goes to fill. However water management at the lock fill site would be a problem if dredging hydraulically due to the small size of the site and limited hydraulic retention time, m Not tested, assumed unsuitable, n Letter report specifies backfill of West Side of New lock after U/S and D/S approach - assumed here to correspond to main north channel.

GUIDELINES

1. Guidelines Applicable to All Uses

Guideline 1.1: The guidelines must be read in their entirety. Any proposed use may be subject to the requirements of more than one guideline or section of guidelines and all applicable guidelines must be complied with.

Response: Acknowledged.

Guideline 1.2: Conformance with applicable water and air quality laws, standards, and regulations, and with those other laws, standards and regulations which have been incorporated into the coastal resources program shall be deemed in conformance with the program except to the extent that these guidelines would impose additional requirements.

Response: Acknowledged.

Guideline 1.3: The guidelines include both general provisions applicable to all uses and specific provisions applicable only to certain types of uses. The general guidelines apply in all situations. The specific guidelines apply only to situations they address. Specific and general guidelines should be interpreted to be consistent with each other. In the event there is an inconsistency, the specific should prevail.

Response: Acknowledged.

Guideline 1.4: These guidelines are not intended to nor shall they be interpreted so as to result in an involuntary acquisition or taking of property.

Response: Acknowledged.

Guideline 1.5: No use or activity shall be carried out or conducted in such a manner as to constitute a violation of the terms of a grant or donation of any lands or waterbottoms to the State or any subdivision thereof. Revocations of such grants and donations shall be avoided.

Response: The tentatively selected plan would not cause violations or revocations of such grants or donations.

Guideline 1.6: Information regarding the following general factors shall be utilized by the permitting authority in evaluating whether the proposed use is in compliance with the guidelines.

a) type, nature, and location of use.

b) elevation, soil, and water conditions and flood and storm hazard characteristics of site.

c) techniques and materials used in construction, operation, and maintenance of use.

d) existing drainage patterns and water regimes of surrounding area including flow, circulation, quality, quantity, and salinity; and impacts on them.

e) availability of feasible alternative sites or methods for implementing the use.

f) designation of the area for certain uses as part of a local program.

g) economic need for use and extent of impacts of use on economy of locality.

h) extent of resulting public and private benefits.

i) extent of coastal water dependency of the use.

j) existence of necessary infrastructure to support the use and public costs resulting from the use.

k) extent of impacts on existing and traditional uses of the area and on future uses for which the area is suited.

l) proximity to and extent of impacts on important natural features such as beaches, barrier islands, tidal passes, wildlife and aquatic habitats, and forest lands.

m) the extent to which regional, state, and national interests are served including the national interest in resources and the siting of facilities in the coastal zones as identified in the coastal resources program.

n) proximity to, and extent of impacts on, special areas, particular areas, or other areas of particular concern of the state program or local programs.

o) likelihood of, and extent of impacts of, resulting secondary impacts and cumulative impacts.

p) proximity to and extent of impacts on public lands or works, or historic, recreational or cultural resources.

q) extent of impacts on navigation, fishing, public access, and recreational opportunities.

r) extent of compatibility with natural and cultural setting.

s) extent of long-term benefits or adverse impacts.

Response: Acknowledged

Guideline 1.7: It is the policy of the coastal resources program to avoid the following adverse impacts. To this end, all users and activities shall be planned, sited, designed, and constructed, operated, and maintained to avoid to the maximum extent practicable significant:

a) reductions in the natural supply of sediment and nutrients to the coastal system by alterations of freshwater flow.

Response: The proposed new lock would increase the amount of Mississippi River water and suspended sediments entering the IHNC and subsequently, the GIWW, and Lake Pontchartrain due to more frequent lockages and larger volumes of water during each lockage. The effect of this increased freshwater discharge is expected to be minimal because of rapid dilution in receiving water bodies.

b) adverse economic impacts on the locality of the use and affected governmental bodies.

Response: Nearly all of the property required for project construction was owned by the Port of New Orleans. Some local businesses in the vicinity of St. Claude Avenue would likely experience reduced sales during periods of bridge closure because of difficulties associated with access to the businesses. However, the lost sales would be displaced to other businesses. Construction of the proposed project would generate substantial employment, income, and tax revenues. The project's socioeconomic mitigation package contains a commitment to require contractors to employ local residents. Long-term economic benefits to the region and nation are anticipated as a result of project implementation. Improved navigation and vehicular traffic flow would result upon project completion.

c) detrimental discharges of inorganic nutrient compounds into coastal waters.

Response: No detrimental discharges of such compounds are expected.

d) alterations in the natural concentration of oxygen in coastal waters.

Response: Oxygen concentrations in the waters at the IHNC dredging site, the graving site, and the mitigation site would have a tendency to be reduced during dredging operations. The IHNC dredging site is considered to be poor habitat for aquatic organisms and no adverse impacts to the aquatic ecosystem would occur. Any negative impacts would be limited to the IHNC between the GIWW and the Mississippi River. Due to the high volume and dilution rates of the Mississippi River, no measurable decrease in dissolved oxygen concentrations are expected in the Mississippi River from the discharge of dredged material. There would be a decrease in dissolved oxygen concentrations at the graving site and the mitigation site from the turbidity caused by the discharge of dredged material. However, impacts would be temporary. Normal oxygen concentrations would return once dredging operations were completed.

e) destruction or adverse alterations of streams, wetland, tidal passes, inshore waters and waterbottoms, beaches, dunes, barrier islands, and other natural biologically valuable areas or protective coastal features.

Response: No adverse effects to the Mississippi River are expected. No tidal passes, beaches, dunes, barrier islands, or protective coastal features would be affected. About 247 acres of bottomland shrub wetlands at the graving site and CDF facilities along the spoil bank of the GIWW would be cleared for project construction. At the end of project use age the area would be returned to its former elevation and allowed to return to bottomland shrub habitat.

f) adverse disruption of existing social patterns.

Response: Adverse social impacts would occur primarily from the rerouting of vehicular traffic, increased noise levels, and other construction-related items. The potential for adverse impacts to the social patterns of the IHNC area have been minimized by elimination of more intrusive alternatives and the commitment to implement a comprehensive Socioeconomic Mitigation Plan.

g) alterations of the natural temperature regime of coastal waters.

Response: Project construction and operation would not cause a measurable change in the natural temperature regime of coastal waters.

h) detrimental changes in existing salinity regimes.

Response: No measurable change in existing salinity regimes would occur. Larger volumes of water discharged through the new lock would slightly increase the amount of fresh water entering tidal waterways. The high volume of flow in the IHNC between Lake Pontchartrain and the GIWW would prevent any measurable change from occurring.

i) detrimental changes in littoral and sediment transport processes.

Response: This plan would not affect littoral or sediment transport processes.

j) adverse effects of cumulative impacts.

Response: The proposed project would rearrange the developed corridor adjacent to the IHNC near the Mississippi River. Since the IHNC corridor is already totally developed, there is minimal potential to add to the cumulative impact of development in this area.

k) detrimental discharges of suspended solids into coastal waters, including turbidity resulting from dredging.

Response: This plan would cause a minor, temporary increase in the sediment load of the Mississippi River. The bulk of the material would rapidly settle to the bottom of the river and become part of the river's bedload. Increased turbidity would be detectable for only a short distance downstream.

There would also be increased turbidity from discharge of dredged material at the CDF and the mitigation site. Turbid flow would extend to adjacent water bodies, including the GIWW, Bayou Bienvenue, and the shallow open water around the mitigation site. No long-term, detrimental effects are expected.

l) reductions or blockage of water flow or natural circulation patterns within or into an estuarine system or wetland forest.

Response: Circulation patterns would not be altered at the IHNC. The CDF and graving sites would radically alter the character of the bottomland shrub habitat currently existing there. The wetland areas would be converted into construction sites. Associated material stockpile and staging areas would also impact this wetland. The wetlands are located within a designated spoil disposal area. At the end of project construction the areas would be returned to their former elevations and allowed to return to bottomland shrub habitat.

The mitigation site would be confined with low-level earthen dikes to prevent the loss of dredged material and to minimize turbidity levels in nearby tidal waters. The mitigation site would be reconnected to tidal waters after the dredged material becomes consolidated and vegetated. Therefore, no long-term reduction or blockage of tidal flow would occur.

m) discharges of pathogens or toxic substances into coastal waters.

Response: No pathogens would be discharged. Bottom sediments in the IHNC and soils on the canal banks have been found to contain a variety of toxic substances. The most contaminated material would be placed in the CDF. The uncontaminated soil of the IHNC, would be used to restore wetlands as mitigation for impacts resulting from the temporal loss of habitat at the CDF and graving sites. No toxic substances would be deposited directly into coastal waters.

n) adverse alteration or destruction of archaeological, historical, or other cultural resources.

Response: This alternative would require demolition of the Inner Harbor Navigation Canal Lock and the St. Claude Avenue Bridge. These properties have been determined eligible for the National Register of Historic Places. The loss of these structures has been mitigated by recordation to Historic American Engineering Record standards prior to demolition. All consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation has been completed.

There would be no impact to any historic or prehistoric archeological properties elsewhere in the project area. No structures in either the Bywater or Holy Cross Historic Districts would be moved or destroyed.

o) fostering of detrimental secondary impacts in undisturbed or biologically highly productive wetland areas.

Response: No detrimental secondary impacts are expected in undisturbed or biologically highly productive wetlands. The CDF, graving site and mitigation site are considered neither undisturbed, nor biologically highly productive.

p) adverse alteration or destruction of unique or valuable habitats, critical habitat for endangered species, important wildlife or fishery breeding or nursery areas, designated wildlife management or sanctuary areas, or forest lands.

Response: No critical habitat for endangered species, nor any wildlife management or sanctuary areas would be affected by the proposed project. The graving site, mitigation site, and CDF disposal site have been heavily impacted by human activities and are not particularly valuable or unique.

q) adverse alteration or destruction of public parks, shoreline access points, public works, designated recreation areas, scenic rivers, or other areas of public use and concern.

Response: No such areas would be adversely impacted.

r) adverse disruptions of coastal wildlife and fishery migratory patterns.

Response: No adverse disruptions of wildlife and fisheries migratory patterns would occur. There could be some displacement of wildlife and fisheries organisms away from dredging and disposal sites due to turbidity and physical disturbance by construction equipment. The dredging and disposal sites do not provide migratory pathways for coastal wildlife and fisheries resources. These sites are already heavily impacted and not significant habitats.

s) land loss, erosion, and subsidence.

Response: No land loss, erosion, or subsidence would result from the proposed project. Mitigation for the temporal loss of habitat on the CDF and graving site would directly restore between 40 and 100 acres of brackish marsh. The net effect would be a gain in vegetated land.

t) increases in the potential for flood, hurricane, or other storm damage, or increases in the likelihood that damage will occur from such hazards.

Response: The proposed project would not increase flooding potential. Adequate flood protection would be provided throughout the construction period. Realigned levees and floodwalls would be built to applicable design standards for hurricane and Mississippi River flood protection.

u) reductions in the long-term biological productivity of the coastal ecosystem.

Response: Mitigation for impacts of the CDF and graving site would compensate for most of the loss of biological productivity.

Guideline 1.8: In those in which the modifier "maximum extent practicable" is used, the proposed use is in compliance with the guideline if the standard modified by the term is complied with. If the modified standard is not complied with, the use will be in compliance with the guideline if the permitting authority finds, after a systematic consideration of all pertinent information regarding the use, the site, and the impacts of the use as set forth in Guideline 1.6, and a balancing of their relative significance, that the benefits resulting from the proposed use would clearly outweigh the

adverse impacts resulting from noncompliance with the modified standard and there are no feasible and practical alternative locations, methods, and practices for the use that are in compliance with the modified standard and:

a) significant public benefits will result from the use, or;

b) the use would serve important regional, state, or national interests, including the national interest in resources and the sitting of facilities in the coastal zone identified in the coastal resources program, or;

c) the use is coastal water dependent.

The systematic consideration process shall also result in a determination of those conditions necessary for the use to be in compliance with the guideline. Those conditions shall assure that the use is carried out utilizing those locations, methods, and practices which maximize conformance to the modified standard; are technically, economically, environmentally, socially, and legally feasible and practical and minimize or offset those adverse impacts listed in guideline 1.7 and in the guideline at issue.

Response: Acknowledged.

Guideline 1.9: Uses shall, to the maximum extent practicable, be designed and carried out to permit multiple concurrent uses which are appropriate for the location and to avoid unnecessary conflicts with other uses of the vicinity.

Response: The purpose and use of the proposed project would be for improved navigation. The area immediately adjacent to the IHNC is heavily industrialized. Other uses of the proposed lock and channels would be inappropriate. After construction, the project site and the area around the existing lock would be landscaped and recreational pursuits would be encouraged to the maximum extent practicable.

Guideline 1.10: These guidelines are not intended to be, nor shall they be, interpreted to allow expansion of governmental authority beyond that established by La. R.S. 49:213.1 through 213.21, as amended; nor shall these guidelines be interpreted so as to require permits for specific uses legally commenced or established prior to the effective date of the coastal use permit program nor to normal maintenance or repair of such uses.

Response: Acknowledged.

2. Guidelines for Levees

Guideline 2.1: The leveeing of unmodified or biologically productive wetlands shall be avoided to the maximum extent practicable.

Response: The low-level earthen dikes or levees to be constructed in the mitigation area would be placed in shallow water for the purpose of containing dredged material. These dikes would be breached after the dredged material consolidates and the area becomes vegetated. Confinement levees would be upgraded or constructed as necessary in the CDF and graving site disposal area to confine the dredged material. At the conclusion of construction these areas would be returned to their existing elevations and allowed to revegetate.

Guideline 2.2: Levees shall be planned and sited to avoid segmentation of wetland areas and systems to the maximum extent practicable.

Response: No wetland areas or system would be segmented.

Guideline 2.3: Levees constructed for the purpose of developing or otherwise changing the use of a wetland area shall be avoided to the maximum extent practicable.

Response: No levees would encourage or cause development or change the use of wetlands.

Guideline 2.4: Hurricane and flood protection levees shall be located at the wetland/non-wetland interface or landward to the maximum extent practicable.

Response: The hurricane protection levee would be realigned landward to form the graving construction site along the GIWW. All other realigned levees and floodwalls would be located in the heavily industrialized IHNC corridor, either on non-wet sites or within the IHNC.

Guideline 2.5: Impoundment levees shall only be constructed in wetland areas as part of approved water or marsh management projects or to prevent release of pollutants.

Response: The levees to be constructed at the mitigation site and the CDF disposal site would be for the sole purpose of retaining dredged material until it becomes consolidated. Levees around the mitigation area would be breached in several locations after consolidation of dredged material.

Guideline 2.6: Hurricane or flood protection levee systems shall be designed, built, and thereafter operated and maintained utilizing best practical techniques to minimize disruptions of existing hydrologic patterns, and the interchange of water, beneficial nutrients and aquatic organisms between enclosed wetlands and those outside the levee system.

Response: Existing hydrologic patterns would not be altered. The levees and floodwalls in the IHNC vicinity that would be realigned would be built in a developed corridor and therefore would not affect hydrologic patterns or wetlands.

3. Guidelines for Linear Facilities

Guideline 3.1: Linear use alignments shall be planned to avoid adverse impacts on areas of high biological productivity or irreplaceable resource areas.

The graving site levee is a realignment of the existing levee. The wetland to be impacted at the graving site will be restored at the conclusion of the project.

Guideline 3.2: Linear facilities involving the use of dredging or filling shall be avoided in wetland and estuarine areas to the maximum extent practicable.

Response: The CDF and graving site would affect wetlands. However, at the conclusion of the project these areas would be returned to their former elevations and allowed to revegetate back to bottomland shrub habitat. The temporary loss of wetland function during project construction would be mitigated through wetland development with suitable dredged material.

Guideline 3.3: Linear facilities involving dredging shall be of the minimum size and length.

The hurricane protection levee to be realigned at the graving site would be built to design standards.

Guideline 3.4: To the maximum extent practicable, pipelines shall be installed through the "push ditch" method and the ditch backfilled.

Response: Not applicable.

Guideline 3.5: Existing corridors, right-of-way, canals, and streams shall be utilized to the maximum extent practicable for linear facilities.

Response: The levee must be realigned landward at the graving site to provide enough space for construction of lock modules.

Guideline 3.6: Linear facilities and alignments shall be, to the maximum extent practicable, designed and constructed to permit multiple uses consistent with the nature of the facility.

Response: The realigned levee at the graving site would be appropriate to provide enough space for construction of lock modules.

Guideline 3.7: Linear facilities involving dredging shall not traverse or adversely affect any barrier island.

Response: No barrier islands would be affected.

Guideline 3.8: Linear facilities involving dredging shall not traverse beaches, tidal passes, protective reefs or other natural gulf shoreline unless no other alternative exists. If a beach, tidal pass, reef or other natural gulf shoreline must be traversed for a non-navigation canal, they shall

be restored at least to their natural condition immediately upon completion of construction. Tidal passes shall not be permanently widened or deepened except when necessary to conduct the use. The best available restoration techniques which improve the traversed area's ability to serve as a shoreline shall be used.

Response: No such areas would be affected.

Guideline 3.9: Linear facilities shall be planned, designed, located, and built using the best practical techniques to minimize disruption of natural hydrologic and sediment transport patterns, sheet flow, and water quality, and to minimize adverse impacts on wetlands.

Response: No disruption of natural hydrologic and sediment transport patterns, sheet flow, or water quality would occur from the proposed project. Adverse impacts on wetlands are minimized to the maximum extent practicable.

Guideline 3.10: Linear facilities shall be planned, designed, and built using the best practical techniques to prevent bank slumping and erosion, saltwater intrusion, and to minimize the potential for inland movement of storm-generated surges. Consideration shall be given to the use of locks in navigation canals and channels which connect more saline areas with fresher areas.

Response: The proposed project would have no effect on bank slumping, saltwater intrusion, or storm surge. The graving site levee would be designed according to the same design standards as typical hurricane protection levees in the New Orleans area.

4. Guidelines for Dredged Spoil Deposition

Guideline 4.1: Spoil shall be deposited utilizing the best practical techniques to avoid disruption of water movement, flow, circulation, and quality.

Response: Water flow in the Mississippi River would not be affected by the disposal of dredged material. Tidal currents would be blocked from the mitigation site so that dredged material is not transported out of the site. The dikes would be breached following consolidation and colonization of dredged material, thereby reestablishing tidal flows. Deposition of material in the CDF disposal site would not affect water flow.

Guideline 4.2: Spoil shall be used beneficially to the maximum extent practicable to improve productivity or create new habitat, reduce or compensate for environmental damage done by dredging activities, or prevent environmental damage. Otherwise, existing spoil disposal areas or upland disposal shall be utilized to the maximum extent practicable rather than creating new disposal areas.

Response: Much of the material dredged for project construction has been determined too contaminated for wetland restoration or aquatic disposal. That is the reason for deposition in the CDF disposal site. The uncontaminated soil would be used for to compensate for impacts of the CDF and graving site, and would mitigate for most of those adverse impacts. Dredging in the IHNC would not cause environmental damage since the entire IHNC corridor is developed. The portion of the IHNC to be dredged is slack water and poor aquatic habitat. The material to be disposed in the Mississippi River has been determined to be unsuitable for wetland development but is suitable for freshwater disposal.

Guideline 4.3: Spoil shall not be disposed of in a manner which could result in the impounding or draining of wetlands or the creation of development sites unless spoil deposition is part of an approved levee or land surface alteration project.

Response: No dredged material would be deposited in a manner which would impound or drain tidal wetlands or encourage development of wetlands.

Guideline 4.4: Spoil shall not be disposed of on marsh, known oyster or clam reefs, or in areas of submerged vegetation to the maximum extent practicable.

Response: No spoil would be deposited in such areas.

Guideline 4.5: Spoil shall not be disposed of in such a manner as to create a hindrance to navigation or fishing, or hinder timber growth.

Response: No hindrance to navigation, fishing, and timber growth would occur.

Guideline 4.6: Spoil disposal areas shall be designed and constructed and maintained using the best practicable techniques to retain the spoil at the site, reduce turbidity, and reduce shoreline erosion when appropriate.

Response: This guideline is not applicable to the Mississippi River disposal site. All other dredged material would be deposited within confined areas to retain material at the discharge sites.

Guideline 4.7: The alienation of state-owned property shall not result from spoil deposition activities without the consent of the Department of Natural Resources.

Response: No state-owned properties would be alienated by deposition of dredged material.

5. Guidelines for Shoreline Modification

Not applicable.

6. Guidelines for Surface Alterations

Guideline 6.1: Industrial, commercial, urban, residential, and recreational uses are necessary to provide adequate economic growth and development. To this end, such uses will be encouraged in those areas of the coastal zone that are suitable for development. Those uses shall be consistent with the other guidelines and shall, to the maximum extent practicable, take place only:

a) on lands five feet or more above sea level or within fast lands; or

b) on lands which have foundation conditions sufficiently stable to support the use, and where flood and storm hazards are minimal or where protection from these hazards can be reasonably well achieved, and where the public safety would not be unreasonably endangered; and

1) the land is already in high intensity of development use, or
2) there is adequate supporting infrastructure, or
3) the vicinity has a tradition of use for similar habitation or development.

Response: The project site is within a highly industrialized corridor along the IHNC. Most of the land is more than five feet above sea level and the soil conditions are suitable for development.

Guideline 6.2: Public and private works projects such as levees, drainage improvements, roads, airports, ports, and public utilities are necessary to protect and support needed development and shall be encouraged. Such projects shall, to the maximum extent practicable, take place only when:

a) they protect or serve those areas suitable for development pursuant to Guideline 6.1; and
b) they are consistent with other guidelines; and
c) they are consistent with all relevant adopted state, local, and regional plans.

Response: The project would protect and support existing development and is within an industrial area.

Guideline 6.3: Blank (Deleted).

Guideline 6.4: To the maximum extent practicable, wetland areas shall not be drained or filled. Any approved drain or fill project shall be designed and constructed using best practical techniques to minimize present and future property damage and adverse environmental impacts.

Response: The CDF and graving site would affect wetlands. However, at the conclusion of the project these areas would be returned to their former elevations and allowed to revegetate back to bottomland shrub habitat.

Guideline 6.5: Coastal water-dependent uses shall be given special consideration in permitting because of their reduced choice of alternatives.

Response: The IHNC lock replacement is definitely water-dependent.

Guideline 6.6: Areas modified by surface alteration activities shall, to the maximum extent practicable, be revegetated, refilled, cleaned, and restored to their pre-development condition upon termination of the use.

Response: After construction, the lock area would be landscaped. The mitigation site would be allowed to vegetate naturally. The CDF and graving site would affect wetlands. However, at the conclusion of the project these areas would be returned to their former elevations and allowed to revegetate back to bottomland shrub habitat.

Guideline 6.7: Site clearing shall, to the maximum extent practicable, be limited to those areas immediately required for physical development.

Response: The footprint of the CDF and graving site and associated material stockpile and staging areas have been minimized. Because of the developed nature of the lock replacement site, only lands necessary for project construction would be included within the project right-of-way.

Guideline 6.8: Surface alterations shall, to the maximum extent practicable, be located away from critical wildlife areas and vegetation areas. Alterations in wildlife preserves and management areas shall be conducted in strict accord with the requirements of the wildlife management body.

Response: No critical wildlife or vegetation areas would be impacted by the proposed project. No alterations of wildlife preserves or management areas would occur.

Guideline 6.9: Surface alterations which have high adverse impacts on natural functions shall not occur, to the maximum extent practicable, on barrier islands and beaches, isolated cheniers, isolated natural ridges or levees, or in wildlife and aquatic species breeding or spawning areas, or in important migratory routes.

Response: None of these areas would be affected.

Guideline 6.10: The creation of low dissolved oxygen conditions in the water or traps for heavy metals shall be avoided to the maximum extent practicable.

Response: Low dissolved oxygen conditions may occur during dredging operations. However, low oxygen occasionally occurs at the IHNC and mitigation site under ambient conditions. No heavy metal traps would occur. Contaminants would be contained within existing CDF disposal areas.

Guideline 6.11: Surface mining and shell dredging shall be carried out utilizing the best practical techniques to minimize adverse environmental impacts.

Response: Not applicable.

Guideline 6.12: The creation of underwater obstructions which adversely affect fishing or navigation shall be avoided to the maximum extent practicable.

Response: No underwater obstructions would be created.

Guideline 6.13: Surface alteration sites and facilities shall be designed, constructed, and operated using the best practical techniques to prevent the release of pollutants or toxic substances into the environment and minimize other adverse impacts.

Response: Contaminated soil and sediment would be deposited in a CDF disposal area. The contaminants would therefore be contained. No pollutants or toxic substances would be released during normal operations of the new lock.

Guideline 6.14: To the maximum extent practicable, only material that is free of contaminants and compatible with the environmental setting shall be used as fill.

Response: The material to be used for mitigation is alluvial material which is suitable for wetland development. Contaminated material would be deposited in the CDF disposal site. However, at the conclusion of the project these areas would be returned to their former elevations and allowed to revegetate back to bottomland shrub habitat.

7. Guidelines for Hydrologic and Sediment Transport Modifications

Not applicable.

8. Guidelines for the Disposal of Wastes

Not applicable.

9. Guidelines for Uses That Result in the Alteration of Waters Draining into Coastal Waters

Not applicable.

10. Guidelines for Oil, Gas, and Other Mineral Activities

Not applicable.

CONSISTENCY DETERMINATION

Based on this evaluation, the New Orleans District, U.S. Army Corps of Engineers, has determined that implementation of the Tentatively Selected Plan (lock replacement, North of Claiborne Avenue), would be consistent, to the maximum extent practicable, with the State of Louisiana's approved Coastal Resources Program.

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