Inner Harbor Navigation Canal Lock Replacement
General Reevaluation Report
and Supplemental Environmental Impact Statement

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Mississippi Valley Division – New Orleans District
St. Bernard Parish Government Complex (Council Chambers)
8201 West Judge Perez Drive
Chalmette, LA 70043
February 23, 2017
IHNC Lock Replacement GRR and SEIS

- Facility constructed by the Port of New Orleans (opened in 1923)
- 640 feet long by 75 feet wide by 31.5 feet deep* navigation lock
- 1944 - the federal government leases the lock and a 2.1-mile reach of the Inner Harbor Navigation Canal and assumes operation and maintenance
- 1986 – federal government purchases the lock and 2.1 mile reach in fee

*North American Vertical Datum 1988 (NAVD88)
IHNC Lock Replacement GRR and SEIS Authorizations

- 1956 – Congress authorized replacement of the existing lock when economically justified

- 1986 – Modified 1956 authority identifying potential location of replacement lock in the area of the existing site or at Violet, LA
Comments and input from a February 4, 2015 scoping meeting were considered in development of the integrated GRR/SEIS.

Plans from prior reports, studies, etc., were reviewed and included as part of the integrated GRR/SEIS.

From the scoping meeting input and review of prior or existing information, an initial array of alternatives was developed. See Table 3-1 of the draft report.
From the initial array, a focused array was developed:

Plan 1: No-action alternative - maintain existing lock

Plan 2: 900 feet long by 75 feet wide by -22 feet North American Vertical Datum, 1988 (NAVD88)

Plan 3: 900 feet long by 110 feet wide by -22 feet NAVD88

Plan 4: 1,200 feet long by 75 feet wide by -22 feet NAVD88

Plan 5: 1,200 feet long by 110 feet wide by -22 feet NAVD88

Plan 6: 1,200 feet long by 110 feet wide by -36 feet NAVD88 (as described in the 2009 SEIS and Record of Decision)

*new lock in Plans 2-6 is located between the Claiborne and Florida Avenue Bridges.
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Final Array

Plan 1: No-action alternative - maintain existing lock

Plan 2: 900 feet long by 75 feet wide by -22 feet NAVD88

Plan 3: 900 feet long by 110 feet wide by -22 feet NAVD88

Plan 4: 1,200 feet long by 75 feet wide by -22 feet NAVD88

Plan 5: 1,200 feet long by 110 feet wide by -22 feet NAVD88
Plan 1: Existing Lock, 640 feet long by 75 feet wide

(35’ x 200’ barge)

(54’ x 300’ barge)
IHNC Lock Replacement GRR and SEIS
IHNC Lock Replacement GRR and SEIS
Plan Comparison

Plan 1: Existing Lock, 640 feet long by 75 feet wide

Plan 2: 900 feet long by 75 feet wide

Plan 3: 900 feet long by 110 feet wide
IHNC Lock Replacement GRR and SEIS
Plan Comparison

Plan 1: Existing Lock, 640 feet long by 75 feet wide

Plan 4: 1,200 feet long by 75 feet wide
IHNC Lock Replacement GRR and SEIS
Plan Comparison

Plan 1: Existing Lock, 640 feet long by 75 feet wide

Plan 5: 1,200 feet long by 110 feet wide

Third tow would not fit
IHNC Lock Replacement GRR and SEIS

Project Benefits

<table>
<thead>
<tr>
<th></th>
<th>Plan 2: 900’ x 75’</th>
<th>Plan 3: 900’ x 110’</th>
<th>Plan 4: 1,200’ x 75’</th>
<th>Plan 5: 1,200’ x 110’</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Cost of Construction</td>
<td>$936,900,000</td>
<td>$951,300,000</td>
<td>$972,100,000</td>
<td>$1,001,700,000</td>
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<tr>
<td>Net Annual Excess Benefits</td>
<td>$169,800,000</td>
<td>$172,400,000</td>
<td>$170,200,000</td>
<td>$170,300,000</td>
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<tr>
<td>B/C Ratio</td>
<td>4.78</td>
<td>4.78</td>
<td>4.65</td>
<td>4.55</td>
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Tentatively Selected Plan:

Plan 3: 900 feet long by 110 feet wide by -22 feet NAVD88
Plan 3 generates the greatest net excess benefits
IHNC Lock Replacement GRR and SEIS

Project Funding

- Funding is 100% federal
- Study and construction funding is split 50 percent general treasury and 50 percent Inland Waterways Trust Fund (IWTF) monies
- Operation and Maintenance is 100% federal
IHNC Lock Replacement GRR and SEIS
Determination of -22.0 feet NAVD88 Sill Depth

Adequate Clearance for Design Vessel: Per EM 1110-2-1604, a sill depth that is 1.5 to 2 times the vessel draft allows for a safe entrance into and exit from the Lock. The design draft for a fully loaded liquid tank barge is 11 feet.

Constructability: The existing IHNC channel is approximately EL. -32.0 at the site of the new lock. By setting the sill of the new structure at EL. -22.0, minimal excavation or backfill will be required for construction of the new lock.
IHNC Lock Replacement GRR and SEIS
Sediment Quality

Contaminants of concern found in sediment and soil sampling:

• Metals
• Organotins
• Semi-volatiles
• Volatiles
• Petroleum Hydrocarbons
• Pesticides
• Herbicides
IHNC Lock Replacement GRR and SEIS
Community Impact Mitigation Plan

WRDA 1996 – Section 844 of 1986 was amended directing implementation of a “Community Impact Mitigation Plan”:

SEC. 326. MISSISSIPPI RIVER-GULF OUTLET, LOUISIANA. Section 844 of the Water Resources Development Act of 1986 (100 Stat. 4177) is amended by adding at the end the following: “(c) COMMUNITY IMPACT MITIGATION PLAN.—Using funds made available under subsection (a), the Secretary shall implement a comprehensive community impact mitigation plan, as described in the evaluation report of the New Orleans District Engineer dated August 1995, that, to the maximum extent practicable, provides for mitigation or compensation, or both, for the direct and indirect social and cultural impacts that the project described in subsection (a) will have on the affected areas referred to in subsection (b).”.
IHNC Lock Replacement GRR and SEIS Community Impact Mitigation Plan

• Re-visit/re-evaluate the Community Impact Mitigation Plan to determine what elements remain implementable post Katrina impacts and post MRGO de-authorization; in relation to existing conditions

• Identify new measures, if any, to mitigate the impacts to the communities as they currently exist

• Public input is encouraged

• There has to be a relation between the communities surrounding the project site that are affected by construction of and operation and maintenance of the lock
IHNC Lock Replacement GRR and SEIS
Community Impact Mitigation Plan

- A sample of current items in the plan that could remain, but is not limited to:
  - Soundproofing residential structures
  - Synchronized traffic signals
  - Community based job training
  - Incident management plan
  - Cultural Resources
  - Landscaping
  - Business assistance program
IHNC Lock Replacement GRR and SEIS
Four Neighborhoods in Vicinity of IHNC Lock

- St. Claude
- Lower Ninth Ward
- Bywater
- Holy Cross
- Inner Harbor Navigation Canal and Lock
- Mississippi River
IHNC Lock Replacement GRR and SEIS
Transportation Mitigation Program

WRDA 2007, Sec. 5083. Inner Harbor Navigation Canal Lock project, Louisiana

(2) develop and maintain a transportation mitigation program relating to that project in coordination with—

(A) St. Bernard Parish;
(B) Orleans Parish;
(C) the Old Arabi Neighborhood Association; and
(D) other interested parties
IHNC Lock Replacement GRR and SEIS
Tentative Construction Sequencing

Subject to Change:

1) Cofferdam section parallel to new lock and bypass channel constructed;

2) Area between cofferdam & westbank of IHNC dredged. Dredged material hauled away or disposed in Mississippi River;

3) Bypass channel between cofferdam & eastbank of IHNC dredged. Dredged material disposed in Mississippi River;

4) Cofferdam around new lock construction area completed & area de-watered;

5) Construction of floodwalls & temporary St. Claude bridge will be concurrent with new lock construction;

6) Upon completion of new lock & backfill, a portion of the cofferdam will be removed. The new lock will be placed into operation.
IHNC Lock Replacement GRR and SEIS
Tentative Construction Sequencing, cont’d

Subject to Change:

7) Once new lock is operational, a portion of the cofferdam will be relocated & the remainder of T-Walls & backfill of the temporary bypass would be completed;

8) The bypass channel parallel to the existing lock will be completed once the temporary St. Claude bridge is operational;

9) Existing lock is demolished;

10) Existing St. Claude bridge is demolished;

11) New St. Claude bridge is constructed & begins operation. Temporary bridge is dismantled;

12) Lock replacement project is complete. Normal operations begin.
IHNC Lock Replacement GRR and SEIS
Tentative Construction Sequencing
IHNC Lock Replacement GRR and SEIS
Completed Project

US Army Corps of Engineers
Team New Orleans

IHNC Lock Replacement

Overall Project View.
IHNC Lock Replacement GRR and SEIS
Operation of bypass channel adjacent to new lock site

Temporary bypass channel and cofferdam.
IHNC Lock Replacement GRR and SEIS
New lock site de-watered

IHNC Lock Replacement Construction Sequence

Temporary bypass channel with cofferdam de-watered and excavated.
IHNC Lock Replacement GRR and SEIS
New lock constructed
IHNC Lock Replacement GRR and SEIS
New lock completed and in operation

IHNC Lock Barge Capacity

New 900 feet long by 110 feet wide IHNC Lock, with a sill elevation of -22.0 feet NAVD88.
IHNC Lock Replacement GRR and SEIS
Existing lock
IHNC Lock Replacement GRR and SEIS
Existing lock demolished with new St. Claude Bridge

IHNC Lock Replacement Construction Sequence

Existing IHNC Lock removed with New St. Claude Avenue bridge.
IHNC Lock Replacement GRR and SEIS
Take Aways

- Dredged material unsuitable for open water disposal would be placed in a solid waste landfill
- Potential temporary relocation of some residents
- Construction not necessarily throughout the entire site at one single time
- Larger lock, but no widening of the existing IHNC footprint
- St. Claude Bridge will be replaced
- Existing flood risk reduction will remain
- Community Impact Mitigation Plan re-formulation will continue beyond the end of the public comment period on the draft GRR/SEIS
<table>
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<tr>
<th>Milestone</th>
<th>Dates</th>
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<tr>
<td>Initiate GRR</td>
<td>January 1, 2015 (Actual, (A))</td>
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<tr>
<td>Alternatives Milestone</td>
<td>March 31, 2015 (A)</td>
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<tr>
<td>TSP Milestone</td>
<td>October 11, 2016 (A)</td>
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<td>Draft Report Submittal to EPA</td>
<td>December 30, 2016 (A)</td>
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<td>Public Review</td>
<td>January 6, 2017 (A) – March 14, 2017</td>
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<tr>
<td>Agency Decision Milestone</td>
<td>April 3, 2017</td>
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<tr>
<td>Civil Works Review Board</td>
<td>March 8, 2018</td>
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<tr>
<td>Final SEIS NOA in Federal Register</td>
<td>March 23, 2018</td>
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<td>Chief’s Report</td>
<td>June 22, 2018</td>
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</table>
IHNC Lock Replacement GRR and SEIS
Comments may be submitted to:

Mr. Mark Lahare
U.S. Army Corps of Engineers
CEMVN-PDC-CEC, Rm 140
7400 Leake Avenue
New Orleans, LA 70118
Phone:  (504) 862-1344
Fax:  (504) 862-1375
E-mail:  Mark.H.Lahare@usace.army.mil
IHNC Lock Replacement GRR and SEIS
Next Public Meeting

March 7, 2017

Andrew P. Sanchez
and Copelin-Byrd Multi-Purpose Center
1616 Caffin Avenue
New Orleans, LA 70117

6 to 6:30 p.m.: Open House
6:30 p.m.: Presentation and public comments